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# EXECUTIVE SUMMARY

The ACGME's mission to improve health care and population health, is achieved together with program directors and other key stakeholders by advancing the quality of resident physicians' education and monitoring that quality through accreditation. Since 2012, the Milestones have been identified as a key component of this process, as they allow for continuous tracking of skills development and competency of resident and fellow physicians throughout their graduate medical education (GME).

The ACGME has been collecting Milestones data on all resident and fellow physicians since 2013. This report is a snapshot of Milestones ratings for the academic year July 2017-June 2018.

### **General Summary of Findings**

- 1) Across all specialties, the central tendency (i.e., mean rating) of the data show general attainment of the Milestones across years in program.
- 2) There is also variation in attainment of the Milestones across residents/fellows and programs, which needs to be investigated further.

A number of research studies of Milestones data and their impact are currently ongoing and have been published. A *Milestones Bibliography* is posted on the ACGME website to track these studies, and is updated regularly. Milestones staff members will continue to work with program directors and other key stakeholders to determine the best use of Milestones data to improve curriculum and assessment processes.

The Milestones section of the ACGME website contains many more resources to help understand the purpose and effective use of Milestone ratings. These include the *Milestones Guidebook*, *Milestones FAQs*, and the *Clinical Competency Committee Guidebook*, as well as a new *Milestones Guidebook for Residents and Fellows*. (See https://www.acgme.org/What-We-Do/Accreditation/Milestones/Overview)

### How to Use this Report

National-level data are presented within each specialty, with an indication of variance among residents/fellows within that specialty. Program directors should be able to compare their individual program's data with the national trends presented here.

### **Intended Audience**

The intended audience for this report includes program directors, leaders within specialty societies who oversee the development of national curricula, Review Committees that oversee accreditation of individual programs, and the residents and fellows within these programs. Other stakeholders who may benefit from this report include specialty boards, designated institutional officials (DIOs), policymakers, and the public.

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# BACKGROUND

The ACGME Milestones are intended to be used as a tool to better prepare physicians for a changing health care system by emphasizing a focus on the competencies of residents and fellows and ensuring they match patients' needs in a variety of critical ways.<sup>1-3</sup>

The Milestones allow for continuous monitoring and quality improvement for GME. Individual programs can focus on making improvements that align with the specific Competencies outlined by the Milestones, up to the point of graduation. This will help to ensure that graduates from these programs meet the expected standards of the profession and the goal of unsupervised practice.

### **Milestones Intended Purpose**

Tracking of Milestones data for individual residents and fellows is part of the ACGME's commitment to meet the responsibility of professional self-regulation,<sup>4-6</sup> and the expectations for quality and safety from its primary stakeholder, the public. While the Milestones data allow for tracking of educational achievement at the individual level, the primary goal of the ACGME continues to be accreditation of institutions and residency and fellowship programs. The collection of individual residents' and fellows' Milestones data will only be used in aggregate form by the ACGME to address this goal. The ACGME will continue to collaborate with the American Board of Medical Specialties (ABMS), the American Osteopathic Association (AOA), and the various specialty boards toward ensuring high quality graduates and maintaining the public trust.

### Using Milestones Data to Provide Useful Feedback to Programs

The spirit of the ACGME's accreditation model implies an educational continuous quality improvement (CQI) framework. The collection, sharing, and interpretation of Milestones data allows for refinement of policies and accreditation standards for effective education and training. These data will provide the empirical basis for working with specialty groups and programs that may require guidance to meet the expectations set out in the ACGME's accreditation model and the IHI Triple Aim. In essence, the field must work together to ensure residents and fellows are ready for unsupervised practice following graduation, and the Milestones can provide detailed guidance for achieving this goal.

### **Development of the Milestones**

Individual milestones were developed based on subcompetencies within each specialty.<sup>7</sup> The process of creating these detailed developmental markers of progression involved over 916 subject matter experts from 250 institutions. The Milestones Working Groups included members of the ACGME Review Committees, representatives from the ABMS member certification boards, program directors, residents and fellows, and representatives from specialty societies. These subject matter experts were guided by Advisory Groups from the ACGME, as well as a survey of program directors on content. The Milestones were written to cover the six Core Competencies, and resulted in an average of 24 subcompetencies per specialty (range 10-43), with training periods that range from single-year fellowships to residency programs lasting seven years.

To make sense of such a large and complex dataset, program directors and specialty societies are encouraged to assist in constructing the most meaningful interpretation of these data in the context of continuously improving GME. Without the rich contextual knowledge offered by these stakeholders, the ACGME can only speculate and offer generalized interpretations based on theory or insights from other areas of application. It would be most helpful if program directors considered in detail what might explain the observed patterns in the dataset, and share this with their wider community, including other program directors, leaders in their specialty society, and the ACGME Milestones team, in order to ensure the data are interpreted properly and ultimately fulfill their potential to improve GME.

# HOW TO USE THESE FINDINGS

Two particularly important items to highlight in this Milestones Report relate to guiding changes in curriculum and the development of better assessment methods. As can be seen in the dataset, there are Competency areas where the range of Milestones attainment is wide. This variation is likely due to variation in curriculum and effective assessment. This should be viewed as welcome news, as it is an early signal the Milestones data are providing useful information to drive CQI in GME.

CONSTITUENCY OR STAKEHOLDER	PURPOSE/FUNCTION
Residents and Fellows	<ul> <li>Provide a descriptive roadmap for GME</li> <li>Increase transparency of performance requirements</li> <li>Encourage informed self- assessment and self- directed learning</li> <li>Facilitate better feedback</li> </ul>
Residency and Fellowship Programs	<ul> <li>Guide curriculum and assessment tool development</li> <li>Provide meaningful framework for the Clinical Competency Committee (CCC) (e.g., help create shared mental model)</li> <li>Provide more explicit expectations of residents and fellows</li> <li>Enhance opportunity for early identification of under- performers</li> </ul>
ACGME and the Public	<ul> <li>Public Accountability – report at an aggregated national level on competency outcomes</li> <li>Build community for evaluation and research, with focus on continuous quality improvement</li> </ul>
Certification Boards	Enable ongoing research to improve certification processes

# METHODS

Every six months, the ACGME receives over 3.2 million data points based on performance assessments of over 130,000 learners from residency and fellowship programs in over 170 specialties and subspecialties across the US. The box plots reported in the following pages summarize these data.

# OVERARCHING THEMES

Examining the dataset in terms of gradual progression of competence shows that:

- 1) Generally, across all specialties and all programs, the Milestones data show attainment of Milestones across years in program.
- 2) Not all residents/fellows reach Level 4 in all Competencies by graduation.
- 3) Each specialty shows variation in attainment of the Milestones, which needs to be investigated further.

Early research suggests the following possible reasons for this:

1) meaningful differences in actual performance;

2) differences in the complexity of the Milestones Competency language as originally written for a particular specialty;

- 3) differences in clinical exposure of some residents in some programs;
- 4) variation in scoring by raters;
- 5) differences in the quality of assessment rating forms; or,
- 6) differences in the types of assessment methods used to show attainment of the Milestones.

Of course, many other factors may be at play, and these are the subject of intensive, ongoing research. Until this research is mature, the data should only be reported in the context of interpretive statements and assumptions that are relevant to the particular stakeholder group, (i.e., DIOs, program directors, residents/fellows, the public). In communicating the results of Milestones analysis, there must be full awareness of the consequences of the analysis and communication, which implies diligence in providing context and guidance for interpretation when presenting these results.<sup>8-9</sup>

Further insights gained from numerous presentations, focus groups, and interactions with key stakeholders across the country include:

#### **GENERAL RECOMMENDATIONS**

- It is best not to use the entire Milestones Set as assessment tools for residents/fellows on short rotations or clinical experiences (e.g., six weeks or less).
- It is generally better to have a comprehensive "system" (program) of assessment rather than an ad hoc collection of disparate assessment tools.
- It appears to be most effective if residents/fellows are engaged in the collection of their performance data (i.e., self-directed assessment seeking) so they can more readily respond to areas for improvement.
- The process needs to be reasonable and easy to do.

- There needs to be further development in demonstrating exactly how to achieve certain milestones.
- There is a desire for improved assessment tools for skills related to Interpersonal and Communication Skills, Professionalism, Systems-based Practice, and Practice-based Learning and Improvement.
- In-person feedback and development of individualized learning plans is essential for Milestones effectiveness.

#### EARLY BENEFITS REPORTED

- There were many reports of more structured programmatic assessment now in GME programs, highlighting a more comprehensive approach to monitoring residents'/fellows' progression throughout their education and training.
- Many programs reported that it is now much easier to identify residents who are struggling early in the educational program, and to refocus efforts and resources to help them achieve the goals of the program.
- Many residents/fellows reported receiving more comprehensive and structured feedback.
- Milestones more easily highlight specific gaps in education.
- Both residents/fellows and faculty members are more comfortable with the narrative aspect of the Milestones vs. the "numbers."

#### EARLY CHALLENGES REPORTED

- The process can make extra work for some programs.
- The Milestones as written often do not reflect the underlying Competencies as well as they could.
- In some cases, the language regarding progression between levels creates some confusion about where exactly to make a rating on the ACGME Milestones Evaluation Form.
- In some cases, there are too many subcompetencies, which don't seem to add much to the assessment process.
- · Some Milestones Sets are either too dense or contain educational jargon.

### Straight-Lining Ratings

Straight-lining ratings are defined as a string of identical Milestones ratings for a learner across all subcompetencies within that specialty. In the original vision of the ACGME's Next Accreditation System model, it was assumed that performance across subcompetencies would likely vary due to contextual factors, curricular design, and variability among learner abilities, according to the content of each subcompetency. For example, a learner wouldn't necessarily be expected to have exactly the same Milestones ratings for Patient Care, Interpersonal and Communication Skills, and Systems-based Practice during a given six-month period. Accurate detection of true variation in ratings would theoretically be useful for tailoring specific feedback to each learner.

Certainly, it may be appropriate for an individual learner to be assigned identical Milestones ratings across all subcompetencies (e.g., straight-lining for Milestones in Level 4 can be a valid rating pattern for the senior-most residents who, at the time of graduation, have truly achieved Level 4 in all subcompetencies). However, the data show several instances in which the rate of straight-lining is higher than what might be expected, and these rates are presented in Table 3.

The rate of straight-lining was calculated as follows: if any resident's string of Milestones ratings are identical across all subcompetencies, the resident is assigned a value of "1;" otherwise, "0."

Table 3 shows the percent of residents with straight-lining ratings by year in residency. For example, there are 151 firstyear residents in June 2018 Milestones data for the allergy and immunology specialty. Of these, 17 residents' assessments show the straight-lining rating patterns. Therefore, 11.3% (17/151) of the first-year residents in the specialty were given identical Milestones ratings across all 10 subcompetencies for that specialty.

**Interpretation:** What should be determined is whether this straight-lining effect represents true lack of variation in competence, or if CCCs are simply providing similar ratings across Competencies for other reasons, such as a belief that the description of individual milestones for some subcompetencies does not fit with their local setting, or they are otherwise having difficulty obtaining valid and defensible ratings through lack of resources, or attention to educational assessment within their programs. These issues will be the subject of ongoing qualitative studies with collaborators from various specialties.

# FUTURE DIRECTIONS

In conclusion, the Milestones data show interesting patterns of variation that require further research to understand their full implications. In the meantime, caution should be exercised in how these results are interpreted and communicated to various stakeholders.

## **Milestones 2.0**

In response to the information received to date, a system-wide project has been implemented to revise the Milestones language to make it easier for program directors to understand and implement locally, as well as to examine areas in which the Milestones language can be harmonized across specialties, especially in the Competencies of Professionalism, Interpersonal and Communication Skills, Systems-based Practice, and Practice-based Learning and Improvement (dubbed "Milestones 2.0"). This revision process is underway, with a small number of specialties already having completed the task. The current completion target date for all 153 specialties is 2022.

In addition to work on Milestones 2.0, several projects have been initiated by the Milestones team, as well as collaboratively with academic colleagues, to investigate the following specific areas:

- 1) predictive validity of Milestones ratings vs. Board scores (and other clinically- relevant performance data) in various specialties
- CCC processes to examine best practices to maximize validity of the Milestones ratings reported to the ACGME

The *Milestones Bibliography* on the ACGME website is updated approximately every six months. The current iteration lists abstracts from 115 peer-reviewed published studies dating from 2012.

This work is ongoing and will continue to appear in the peer-reviewed literature to help build a stronger evidence base for the ability of this accreditation model to meet the larger vision outlined in the Introduction above. Finally, every member of the GME community should engage in research and debate regarding the potential for Milestones data to effect meaningful change in GME.

### Limitations

While the interpretations and conclusions that could be drawn from the data presented in this report are based on a single point in time (i.e., June 2018), trends for stability in the data patterns for academic year-end since June 2014 have recently been examined for the earliest reporting specialties. Most of the Milestones data show signs of stability across this period, which lends greater confidence to the potential interpretations and conclusions that can be drawn from them.

## Acknowledgments

The authors wish to thank the program directors who attended the feedback sessions at the ACGME Annual Educational Conference for their valuable insights, as well as the various stakeholder groups to whom preliminary versions of these results have been presented over the past year.

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# REFERENCES

- Batalden P, Leach D, Swing S, Dreyfus H, Dreyfus S. General competencies and accreditation in graduate medical education. An antidotetooverspecification in the education of medical specialists. *Health Affairs*. 2002; 21: 103-111.
- 2. Ericsson KA. An expert-performance perspective of research on medical expertise: the study of clinical performance. *Med Educ.* 2007; 41: 1124-30.
- 3. Hodges BD. "A Tea-Steeping or i-Doc Model for Medical Education?," Acad *Med* 85(9) Sept Suppl 2010, pp. S34-S44.
- 4. Nasca TJ, Philibert I, Brigham T, Flynn TC. The next accreditation system: rationale and benefits. *N Engl J Med.* 2012:366;1051-1056.
- 5. IOM (Institute of Medicine). 2014. *Graduate medical education that meets the nation's health needs*. Washington, DC: The National Academies Press.
- 6. Nasca TJ. Professionalism and its implications for governance and accountability of graduate medical education in the United States. *JAMA*. 2015;313(18):1801-2.
- 7. Sullivan G, Simpson D, Cooney T, Beresin E. A Milestone in the Milestones movement: the JGME Milestones supplement. *J Grad Med Educ*. March, 2013 (suppl.): 1-4.
- 8. Messick S. Validity. In: Linn RL, ed. *Educational Measurement*. 3rd Ed. New York, NY: American Council on Education and Macmillan; 1989:13–103.
- 9. Hubley AM, Zumbo BD. Validity and the consequences of test interpretation and use. *Soc Indic Res.* 2011;103:219-230.

Number of Subcon				npetend	ies		
Specialty/Subspecialty Name	Total	PC	МК	SBP	PBLI	PROF	ICS
Allergy and Immunology	10	4	1	1	2	1	1
Anesthesiology	25	10	1	2	4	5	3
- Adult cardiothoracic anesthesiology	15	2	4	3	2	3	1
- Critical care medicine	16	5	2	3	2	3	1
- Obstetric anesthesiology	15	4	2	3	2	3	1
- Pain medicine (multidisciplinary)	24	6	3	4	4	4	3
- Pediatric anesthesiology	14	3	2	3	2	3	1
Colon and Rectal Surgery	21	8	9	1	1	1	1
Dermatology	28	7	5	4	4	3	5
- Dermatopathology (multidisciplinary)	12	2	2	2	2	2	2
- Micrographic surgery and dermatologic oncology	14	4	2	2	2	2	2
Emergency Medicine	23	14	1	3	1	2	2
- Emergency medical services	14	5	1	2	2	2	2
- Medical toxicology	14	3	3	2	2	2	2
- Pediatric emergency medicine	23	11	1	2	1	5	3
- Sports medicine	14	3	3	2	2	2	2
Family Medicine	22	5	2	4	3	4	4
- Geriatric medicine	23	5	3	4	4	4	3
- Hospice and palliative medicine (multidisciplinary)	23	5	3	4	4	4	3
- Sports medicine	14	3	3	2	2	2	2
Internal Medicine	22	5	2	4	4	4	3
- Adult congenital heart disease	24	6	3	4	4	4	3
- Advanced heart failure and transplant cardiology	24	6	3	4	4	4	3
- Cardiovascular disease	24	6	3	4	4	4	3
- Clinical cardiac electrophysiology	24	6	3	4	4	4	3
- Clinical informatics (Internal medicine)	20	6	2	3	2	5	2
- Critical care medicine	24	6	3	4	4	4	3
- Endocrinology, diabetes, and metabolism	24	6	3	4	4	4	3
- Gastroenterology	24	6	3	4	4	4	3
- Geriatric medicine	23	5	3	4	4	4	3
- Hematology and medical oncology	24	6	3	4	4	4	3
- Infectious disease	22	4	3	4	4	4	3
- Interventional cardiology	24	6	3	4	4	4	3
- Nephrology	24	6	3	4	4	4	3
- Medical oncology	24	6	3	4	4	4	3
- Pulmonary disease	24	6	3	4	4	4	3
- Pulmonary disease and critical care medicine	24	6	3	4	4	4	3
- Rheumatology	24	6	3	4	4	4	3

# Table 1 – Number of Subcompetencies by Specialty

		Nu	mber of	Subcor	npetend	ies	
Specialty/Subspecialty Name	Total	РС	МК	SBP	PBLI	PROF	ICS
- Sleep medicine (multidisciplinary)	23	5	3	4	4	4	3
- Transplant hepatology	24	6	3	4	4	4	3
Medical Genetics and Genomics	20	9	2	2	2	3	2
- Medical biochemical genetics	16	3	3	3	2	3	2
- Molecular genetic pathology (multidisciplinary)	14	3	3	2	2	2	2
Neurological Surgery	24	8	8	2	2	2	2
Neurology	29	18	3	2	2	2	2
- Clinical neurophysiology	21	7	6	2	2	2	2
- Epilepsy	18	6	3	3	2	2	2
- Neurodevelopmental disabilities	30	17	4	3	2	2	2
- Neuromuscular medicine	21	9	4	2	2	2	2
- Vascular neurology	20	4	7	3	2	2	2
Child Neurology	27	15	4	2	2	2	2
Nuclear Medicine	19	5	7	2	2	1	2
Obstetrics and Gynecology	28	11	7	2	2	3	3
- Female pelvic medicine and reconstructive surgery	23	7	8	3	2	1	2
- Gynecologic oncology	20	5	7	2	2	2	2
- Maternal-fetal medicine	18	4	5	2	3	2	2
- Reproductive endocrinology and infertility	15	3	3	2	3	2	2
Ophthalmology	24	8	2	3	3	4	4
Orthopaedic Surgery	41	16	16	3	2	2	2
- Adult reconstructive orthopaedics	23	7	7	3	2	2	2
- Foot and ankle orthopaedics	24	8	8	3	1	2	2
- Hand surgery	18	7	7	1	1	1	1
- Musculoskeletal oncology	19	5	5	3	2	2	2
- Orthopaedic sports medicine	14	3	3	2	2	2	2
- Orthopaedic surgery of the spine	15	4	4	1	2	2	2
- Orthopaedic trauma	18	5	5	2	2	2	2
- Pediatric orthopaedics	21	6	6	3	2	2	2
Osteopathic Neuromusculoskeletal Medicine	15	4	2	2	2	3	2
Otolaryngology	17	8	4	2	1	1	1
- Neurotology	13	3	2	2	2	2	2
- Pediatric otolaryngology	13	3	2	2	2	2	2
Pathology-Anatomic and Clinical	27	7	3	7	2	6	2
- Blood banking/transfusion medicine	16	3	2	3	3	3	2
- Cytopathology	18	2	2	5	2	4	3
- Forensic pathology	18	2	3	4	2	5	2
- Hematopathology	19	3	4	4	3	3	2
- Neuropathology	19	6	2	3	3	3	2
- Pediatric pathology	17	4	3	3	2	3	2
- Selective pathology (Surgical)	15	1	2	3	4	3	2

# Table 1 – Number of Subcompetencies by Specialty

		Number of Subcompetencies							
Specialty/Subspecialty Name	Total	PC	МК	SBP	PBLI	PROF	ICS		
- Selective pathology (Focused Anatomic)	15	1	2	3	4	3	2		
Pediatrics	21	5	1	3	4	6	2		
- Adolescent medicine	21	4	1	5	4	4	3		
- Child abuse pediatrics	21	4	1	5	4	4	3		
- Developmental-behavioral pediatrics	21	4	1	5	4	4	3		
- Neonatal-perinatal medicine	21	4	1	5	4	4	3		
- Pediatric cardiology	21	4	1	5	4	4	3		
- Pediatric critical care medicine	21	4	1	5	4	4	3		
- Pediatric emergency medicine	23	11	1	2	1	5	3		
- Pediatric endocrinology	21	4	1	5	4	4	3		
- Pediatric gastroenterology	21	4	1	5	4	4	3		
- Pediatric hematology/oncology	21	4	1	5	4	4	3		
- Pediatric infectious diseases	21	4	1	5	4	4	3		
- Pediatric nephrology	21	4	1	5	4	4	3		
- Pediatric pulmonology	21	4	1	5	4	4	3		
- Pediatric rheumatology	21	4	1	5	4	4	3		
- Pediatric sports medicine	14	3	3	2	2	2	2		
- Pediatric transplant hepatology	21	4	1	5	4	4	3		
Physical Medicine and Rehabilitation	19	7	1	3	3	3	2		
- Brain injury medicine	16	5	2	3	2	2	2		
- Spinal cord injury medicine	15	4	2	2	3	2	2		
- Pediatric rehabilitation	16	5	2	2	3	2	2		
- Sports medicine	14	3	3	2	2	2	2		
Plastic Surgery	36	14	14	3	2	2	1		
Plastic Surgery – Integrated	36	14	14	3	2	2	1		
- Hand surgery	18	7	7	1	1	1	1		
Preventive Medicine – Aerospace Medicine	27	15	4	3	1	2	2		
Preventive Medicine - Occupational Medicine	26	14	4	3	1	2	2		
Preventive Medicine – Public Health and General Preventive Medicine	23	12	3	3	1	2	2		
Psychiatry	22	5	6	4	3	2	2		
- Child and adolescent psychiatry	21	5	6	4	2	2	2		
- Forensic psychiatry	13	2	2	3	2	2	2		
- Geriatric psychiatry	16	3	3	4	2	2	2		
- Consultation-liaison psychiatry	15	2	3	4	2	2	2		
Radiation Oncology	22	11	2	3	2	2	2		
Radiology – Diagnostic	12	2	2	2	3	1	2		
- Abdominal radiology	13	3	2	2	2	2	2		
- Musculoskeletal radiology	14	3	3	2	2	2	2		
- Neuroradiology	14	3	3	1	3	2	2		
- Pediatric radiology	14	3	3	2	2	1	3		
- Vascular and interventional radiology	14	3	3	2	2	2	2		

# Table 1 – Number of Subcompetencies by Specialty

		Nu	mber of	Subcor	npetenc	cies	
Specialty/Subspecialty Name	Total	PC	мк	SBP	PBLI	PROF	ICS
Interventional Radiology - Integrated	20	6	5	2	2	2	3
Surgery	16	3	2	2	3	3	3
- Complex general surgical oncology	23	10	1	2	4	4	2
- Pediatric surgery	22	9	2	3	2	4	2
- Surgical critical care	30	10	9	2	3	4	2
- Vascular surgery	31	8	12	3	3	3	2
Vascular Surgery – Integrated	31	8	12	3	3	3	2
Thoracic Surgery	26	8	10	3	2	2	1
- Congenital cardiac surgery	9	2	3	1	1	1	1
Thoracic Surgery – Integrated	26	8	10	3	2	2	1
Urology	34	8	4	4	7	6	5
- Female pelvic medicine and reconstructive surgery	23	7	8	3	2	1	2
- Pediatric urology	22	7	2	3	3	3	4
Transitional Year	23	7	2	3	3	4	4
Internal Medicine/Pediatrics (Internal Medicine)	22	5	2	4	4	4	3
Internal Medicine/Pediatrics (Pediatrics)	21	5	1	3	4	6	2

### Note:

PC - Patient Care	PBLI - Practice-based Learning and Improvement
MK - Medical Knowledge	<b>PROF</b> - Professionalism
SBP - Systems-based Practice	ICS - Interpersonal and Communication Skills

# Table 2 – Number of Residents by Year in Program

	Number of Residents – June 2018							
Specialty/Subspecialty Name	Total	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Allergy and Immunology	300	151	149					
Anesthesiology	6376	1221	1773	1704	1678			
- Adult cardiothoracic anesthesiology	212	212						
- Critical care medicine	189	189						
- Obstetric anesthesiology	43	43						
- Pain medicine (multidisciplinary)	369	369						
- Pediatric anesthesiology	224	224						
Colon and Rectal Surgery	97	97						
Dermatology	1449	485	479	485				
- Dermatopathology (multidisciplinary)	72	72						
- Micrographic surgery and dermatologic oncology	85	85						
Emergency Medicine (3-Year Programs)	4951	1757	1627	1567				
Emergency Medicine (4-Year Programs)	2,436	642	616	609	569			
- Emergency medical services	49	49						
- Medical toxicology	64	38	26					
- Pediatric emergency medicine	122	56	40	26				
- Sports medicine	16	16						
Family Medicine	11893	4196	3943	3754				
- Geriatric medicine	43	43						
- Hospice and palliative medicine (multidisciplinary)	341	341						
- Sports medicine	230	230						
Internal Medicine	27695	10973	8565	8157				
- Adult congenital heart disease	15	6	9					
- Advanced heart failure and transplant cardiology	103	103						
- Cardiovascular disease	2922	1006	974	942				
- Clinical cardiac electrophysiology	189	154	35					
- Clinical informatics (Internal medicine)	35	19	16					
- Critical care medicine	236	158	78					
- Endocrinology, diabetes, and metabolism	647	351	296					
- Gastroenterology	1664	586	558	520				
- Geriatric medicine	282	282						
- Hematology and medical oncology	1751	608	596	547				
- Infectious disease	726	411	315					
- Interventional cardiology	322	322						
- Nephrology	838	442	396					
- Medical oncology	34	17	17					
- Pulmonary disease	73	40	33					
- Pulmonary disease and critical care medicine	1820	664	599	557				

	Number of Residents – June 2018							
Specialty/Subspecialty Name	Total	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
- Rheumatology	482	252	230					
- Sleep medicine (multidisciplinary)	172	172						
- Transplant hepatology	48	48					1	
Medical Genetics and Genomics	63	35	28					
- Medical biochemical genetics	13	13						
- Molecular genetic pathology (multidisciplinary)	58	58						
Neurological Surgery	1415	223	222	221	205	198	199	147
Neurology	2762	483	823	763	693			
- Clinical neurophysiology	176	176						
- Epilepsy	107	107						
- Neurodevelopmental disabilities	28	5	7	7	9		1	
- Neuromuscular medicine	58	58					Ì	
- Vascular neurology	118	118						
Child Neurology	376	136	119	121				
Nuclear Medicine	74	33	19	22				
Obstetrics and Gynecology	5493	1410	1380	1353	1350			
- Female pelvic medicine and reconstructive surgery	142	49	45	48				
- Gynecologic oncology	189	66	62	61				
- Maternal-fetal medicine	325	113	108	104				
- Reproductive endocrinology and infertility	159	57	54	48			Ì	
Ophthalmology	1477	493	481	503				
Orthopaedic Surgery	3951	811	806	794	765	775		
- Adult reconstructive orthopaedic surgery	40	40						
- Foot and ankle orthopaedic surgery	15	15						
- Hand surgery	152	152						
- Musculoskeletal oncology	17	17						
- Orthopaedic sports medicine	208	208						
- Orthopaedic surgery of the spine	32	32						
- Orthopaedic trauma	18	18						
- Pediatric orthopaedic surgery	39	39						
Osteopathic Neuromusculoskeletal Medicine	23	11	12					
Otolaryngology	1606	331	327	319	315	314		
- Neurotology	29	17	12					
- Pediatric otolaryngology	35	35						
Pathology – Anatomic and Clinical	2345	634	611	595	505			
- Blood banking/transfusion medicine	50	50						
- Cytopathology	141	141						
- Forensic pathology	43	43						
- Hematopathology	133	133						
- Neuropathology	48	32	16					
- Pediatric pathology	20	20						1

		Ν	lumber o	of Reside	ents – Ju	ne 2018	3	
Specialty/Subspecialty Name	Total	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
- Selective pathology (Surgical)	87	87						
- Selective pathology (Focused Anatomic)	79	79						
Pediatrics	9194	3174	3112	2908				
- Adolescent medicine	89	33	33	23				
- Child abuse pediatrics	36	14	10	12				
- Developmental-behavioral pediatrics	108	42	32	34				
- Neonatal-perinatal medicine	763	262	257	244				
- Pediatric cardiology	438	155	145	138				
- Pediatric critical care medicine	520	195	170	155				
- Pediatric emergency medicine	393	145	138	110				
- Pediatric endocrinology	244	84	85	75				
- Pediatric gastroenterology	303	110	99	94				
- Pediatric hematology/oncology	503	173	164	166				
- Pediatric infectious diseases	173	69	60	44				
- Pediatric nephrology	103	38	34	31				
- Pediatric pulmonology	158	58	59	41				
- Pediatric rheumatology	88	36	28	24				
- Pediatric sports medicine	26	26						
- Pediatric transplant hepatology	13	13						
Physical Medicine and Rehabilitation	1351	120	439	411	381			
- Brain injury medicine	13	13						
- Spinal cord injury medicine	21	21						
- Pediatric rehabilitation	27	15	12					
- Sports medicine	28	28						
Plastic Surgery	268	78	87	103				
Plastic Surgery-Integrated	834	160	153	154	141	121	105	
- Hand surgery	23	23						
Preventive Medicine – Aerospace Medicine	34	19	15					
Preventive Medicine – Occupational Medicine	123	65	58					
Preventive Medicine – Public Health and General Preventive Medicine	182	100	82					
Psychiatry	5950	1682	1629	1538	1101			
- Child and adolescent psychiatry	886	491	395					
- Forensic psychiatry	81	81						
- Geriatric psychiatry	53	53						
- Consultation-liaison psychiatry	88	88						
Radiation Oncology	770	196	193	195	186			
Radiology – Diagnostic	4769	1217	1188	1199	1165			
- Abdominal radiology	45	45						

		N	lumber c	of Reside	ents – Ju	ne 2018	3	
Specialty/Subspecialty Name	Total	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
- Musculoskeletal radiology	32	32						
- Neuroradiology	280	280						
- Pediatric radiology	55	55						
- Vascular and interventional radiology	294	294						
Interventional Radiology - Integrated	62	22	13	10	15	2		
Surgery	8499	2808	1656	1413	1327	1295		
- Complex general surgical oncology	107	54	53					
- Pediatric surgery	81	44	37					
- Surgical critical care	262	262						
- Vascular surgery	247	124	123					
Vascular Surgery-Integrated	272	61	59	60	53	39		
Thoracic Surgery (2-Year Programs)	137	71	66					
Thoracic Surgery (3-Year Programs)	91	28	31	32				
- Congenital cardiac surgery	12	12						
Thoracic surgery – Integrated	183	36	37	35	27	27	21	
Urology	1288	333	324	320	311			
- Female pelvic medicine and reconstructive surgery	35	14	12	9				
- Pediatric urology	24	24						
Transitional Year	1335	1335						
Internal Medicine/Pediatrics	1495	378	384	368	365			

## Table 3 – Rate of Straight-Lining (June 2018 data)

Specialty/Subspecialty Name (total number of residents)	Number of Subcompetencies	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Allergy and Immunology (300)	10	11.3%	14.8%					
Anesthesiology (6376)	25	33.7%	23.0%	21.1%	28.2%			
- Adult cardiothoracic anesthesiology (212)	15	34.9%						
- Critical care medicine (189)	16	15.9%						
- Obstetric anesthesiology (43)	15	14.0%						
- Pain medicine (multidisciplinary) (369)	24	18.4%						
- Pediatric anesthesiology (224)	14	15.3%						
Colon and Rectal Surgery (97)	21	9.3%						
Dermatology (1449)	28	9.5%	11.3%	13.2%				
- Dermatopathology (multidisciplinary) (72)	12	26.4%						
- Micrographic surgery and dermatologic oncology (85)	14	27.4%						
Emergency Medicine (3-year programs) (4951)	23	7.4%	3.6%	11.6%				
Emergency Medicine (3-year programs) (2436)	23	7.3%	5.8%	6.2%	15.6%			
- Emergency medical services (49)	14	0%						
- Medical toxicology (64)	14	7.9%	19.2%					
- Pediatric emergency medicine (122)	23	8.9%	12.5%	0%				
- Sports medicine (16)	14	12.5%						
Family Medicine (11893)	22	5.3%	4.5%	6.6%				
- Geriatric medicine (43)	23	9.3%						
- Hospice and palliative medicine (multidisciplinary) (341)	23	13.5%						
- Sports medicine (230)	14	8.3%						
Internal Medicine (27695)	22	10.6%	11.3%	25.6%				
- Adult congenital heart disease (15)	24	0.0%	0.0%					
- Advanced heart failure and transplant cardiology (103)	24	25.2%						
- Cardiovascular disease (2922)	24	14.0%	16.2%	27.4%				
- Clinical cardiac electrophysiology (189)	24	11.7%	28.6%					
- Clinical Informatics (Internal Medicine) (35)	20	0.0%	0.0%					
- Critical care medicine (236)	24	9.5%	23.1%					
- Endocrinology, diabetes, and metabolism (647)	24	5.4%	14.9%					
- Gastroenterology (1664)	24	13.0%	14.5%	28.5%				
- Geriatric medicine (282)	23	10.3%						
- Hematology and medical oncology (1751)	24	7.6%	9.1%	20.5%				
- Infectious disease (726)	22	8.5%	22.2%					
- Interventional cardiology (322)	24	38.4%						
- Nephrology (838)	24	6.8%	20.2%					
- Medical oncology (34)	24	17.6%	17.6%					
- Pulmonary disease (73)	24	7.5%	9.1%					
- Pulmonary disease and critical care medicine (1820)	24	9.5%	14.0%	25.0%				

Specialty/Subspecialty Name (total number of residents)	Number of Subcompetencies	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
- Rheumatology (482)	24	5.6%	13.0%					
- Sleep medicine (multidisciplinary) (172)	23	23.8%						
- Transplant hepatology (48)	24	14.6%						
Medical Genetics and Genomics (63)	20	2.9%	7.1%					
- Medical biochemical genetics (13)	16	0.0%						
- Molecular genetic pathology (multidisciplinary) (58)	14	8.6%						
Neurological Surgery (1415)	24	5.4%	3.6%	2.3%	2.9%	5.6%	5.5%	9.5%
Neurology (2762)	29	4.1%	1.5%	3.1%	7.9%			
- Clinical neurophysiology (176)	21	1.7%						
- Epilepsy (107)	18	20.6%						
- Neurodevelopmental disabilities (28)	30	20.0%	14.3%	28.6%	33.3%			
- Neuromuscular medicine (58)	21	5.2%						
- Vascular neurology (118)	20	15.3%						
Child Neurology (376)	27	2.9%	0.0%	5.8%				
Nuclear Medicine (74)	19	9.1%	26.3%	13.6%				
Obstetrics and Gynecology (5493)	28	2.8%	2.0%	2.4%	11.1%			
- Female pelvic med and reconstructive surgery (142)	23	4.1%	0.0%	2.1%				
- Gynecologic oncology (189)	20	0.0%	0.0%	1.6%				
- Maternal-fetal medicine (325)	18	0.9%	0.9%	6.7%				
- Reproductive endocrinology and infertility (159)	15	1.8%	1.9%	8.3%				
Ophthalmology (1477)	24	8.3%	6.0%	15.9%				
Orthopaedic Surgery (3951)	41	6.3%	6.1%	7.1%	10.6%	13.3%		
- Adult reconstructive orthopaedics (40)	23	12.5%						
- Foot and ankle orthopaedics (15)	24	13.3%						
- Hand surgery (152)	18	15.1%						
- Musculoskeletal oncology (17)	19	17.6%						
- Orthopaedic sports medicine (208)	14	35.3%						
- Orthopaedic surgery of the spine (32)	15	15.6%						
- Orthopaedic trauma (18)	18	33.3%						
- Pediatric orthopaedics (39)	21	0.0%						
Osteopathic Neuromusculoskeletal Medicine (23)	15	0.0%	0.0%					
Otolaryngology (1606)	17	13.3%	5.2%	6.6%	5.4%	9.2%		
- Neurotology (29)	13	11.8%	33.3%					
- Pediatric otolaryngology (35)	13	25.7%						
Pathology – Anatomic and Clinical (2345)	27	4.3%	2.8%	3.5%	8.1%			
- Blood banking/transfusion medicine (50)	16	10.0%						
- Cytopathology (141)	18	5.7%						
- Forensic pathology (43)	18	2.3%						
- Hematopathology (133)	19	4.5%						
- Neuropathology (48)	19	0.0%	12.5%					

Specialty/Subspecialty Name (total number of residents)	Number of Subcompetencies	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
- Pediatric pathology (20)	17	5.0%						
- Selective pathology (Surgical) (87)	15	4.6%						
- Selective pathology (Focused Anatomic) (79)	15	7.6%						
Pediatrics (9194)	21	4.4%	3.8%	6.3%				
- Adolescent medicine (89)	21	0.0%	0.0%	8.7%				
- Child abuse pediatrics (36)	21	14.3%	0.0%	8.3%				
- Developmental-behavioral pediatrics (108)	21	0.0%	0.0%	5.9%				
- Neonatal-perinatal medicine (763)	21	6.1%	4.7%	5.3%				
- Pediatric cardiology (438)	21	5.8%	5.5%	17.4%				
- Pediatric critical care medicine (520)	21	1.0%	2.4%	3.9%				
- Pediatric emergency medicine (393)	23	1.4%	6.5%	3.6%				
- Pediatric endocrinology (244)	21	1.2%	3.5%	4.0%				
- Pediatric gastroenterology (303)	21	8.2%	7.1%	13.8%				
- Pediatric hematology/oncology (503)	21	5.2%	9.1%	9.0%				
- Pediatric infectious diseases (173)	21	0.0%	1.7%	4.5%				
- Pediatric nephrology (103)	21	2.6%	0.0%	16.1%				
- Pediatric pulmonology (158)	21	6.9%	5.1%	17.1%				
- Pediatric rheumatology (88)	21	0.0%	3.6%	8.3%				
- Pediatric sports medicine (26)	14	11.5%						
- Pediatric transplant hepatology (13)	21	0.0%						
Physical Medicine and Rehabilitation (1351)	19	10.8%	3.9%	6.8%	18.9%			
- Brain injury medicine (13)	16	0.0%						
- Spinal cord injury medicine (21)	15	9.5%						
- Pediatric rehabilitation (27)	16	0.0%	8.3%					
- Sports medicine (28)	14	17.9%						
Plastic Surgery (268)	36	7.7%	6.9%	13.6%				
Plastic Surgery-Integrated (834)	36	10.0%	8.5%	9.7%	7.1%	8.3%	15.2%	
- Hand surgery (23)	18	34.8%						
Preventive Medicine – Aerospace Medicine (34)	27	0.0%	0.0%					
Preventive Medicine – Occupational Medicine (123)	26	1.5%	0.0%					
Preventive Medicine – Public Health and General Preventive Medicine (182)	23	0.0%	0.0%					
Psychiatry (5950)	22	9.0%	6.1%	7.2%	10.4%			
- Child and adolescent psychiatry (886)	21	2.4%	5.1%					
- Forensic psychiatry (81)	13	9.9%						
- Geriatric psychiatry (53)	16	17.0%						
- Consultation-liaison psychiatry (88)	15	5.7%						
Radiation Oncology (770)	22	7.7%	11.9%	10.8%	27.4%			
Radiology – Diagnostic (4769)	12	23.2%	19.2%	18.8%	33.0%			
- Abdominal radiology (45)	13	15.6%						
- Musculoskeletal radiology (32)	14	17.2%						

Specialty/Subspecialty Name (total number of residents)	Number of Subcompetencies	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
- Neuroradiology (280)	14	21.1%						
- Pediatric radiology (55)	14	3.6%						
- Vascular and interventional radiology (294)	14	19.7%						
Interventional Radiology – Integrated (62)	20	18.2%	0.0%	0.0%	6.7%	0.0%		
Surgery (8499)	16	23.3%	15.9%	14.2%	16.8%	38.9%		
- Complex general surgical oncology (107)	23	11.1%	17.0%					
- Pediatric surgery (81)	22	0.0%	2.7%					
- Surgical critical care (262)	30	17.6%						
- Vascular surgery (247)	31	0.8%	5.7%					
Vascular Surgery – Integrated (272)	31	3.3%	1.7%	1.7%	3.8%	10.3%		
Thoracic Surgery (2-year programs) (137)	26	11.5%	10.3%	20.7%				
Thoracic Surgery (3-year programs) (91)	26	1.4%	3.0%					
- Congenital cardiac surgery (12)	9	33.3%						
Thoracic Surgery – Integrated (183)	26	8.3%	10.8%	5.7%	7.4%	7.4%	23.8%	
Urology (1288)	34	9.3%	8.0%	10.6%	17.4%			
- Female pelvic medicine and reconstructive surgery (35)	23	7.1%	8.3%	22.2%				
- Pediatric urology (24)	22	12.5%						
Transitional Year (1335)	23	15.4%						

#### FIGURE 1: KEY TO BOX PLOTS

Box plots provide a rigorous and robust way to display complex data, such as for the Milestones. The components of the box plots used for the Milestones are shown below. In this example, the data represent attainment of the Patient Care Subcompetency #10 (PC10).



As seen in this diagram, the **median** Milestone level for each resident year is represented by the horizontal line, bounded by the **25th and 75th rank** of Milestone ratings, also known as the **interquartile range (IQR)**. The **mean** rating is represented by the diamond, but should be interpreted with caution given the Milestones are ordinal, not interval data. **Min** represents the lowest level and Max the highest level (the "**whiskers**"), excluding **outliers** (represented by the open circles). Overall there is a general upward trajectory in this Subcompetency from Year 1 (median level 2) to Year 4 (median level 4).

Most Milestone sets include five levels of development with transition zones between each level (designated as half increments, such as Level 2.5). In this example, the box plot for Resident Year 1 (highlighted by the red box) shows that the median is Level 2, and the IQR extends from Level 1.5 (25th percentile rank) to Level 2.5 (75th percentile rank).

With regards to Milestone levels, the levels can be sorted from least to greatest, and then graphed as shown in this box plot. In the example above, the highest 50 percent of the group were at or above Milestone Level 2; they are represented by everything above the **median** line. Fifty percent of the Year 1 residents fall between Level 1.5 and Level 2.5 (IQR). Those in the top 25 percent of Milestone judgments in the Year 1 group are shown by the top "whisker" (here labeled as **Max**) and the **outlier** open circles. The outliers represent those who were judged to be substantially higher (in this case we see two outlier circles) or were judged to be much lower than normal (in this example there are no low outliers). The number of people represented by the circles will vary by the sample size.

Box plots provide information on more than just the four split groups. They also show which way the Milestone data can "sway". For example, if more residents are judged much higher than just a few residents being judged much lower, the median is going to be higher, or the top whisker could be longer than the bottom one. Box plots provide a better overview of the Milestones data's distribution than simple means and standard deviations.

The box plots must be interpreted in the context of the Milestones descriptions for each Subcompetency within each discipline. Provided below are links to each specialty's Milestones Sets to help guide review of the data.

#### Allergy and Immunology:

http://www.acgme.org/Specialties/Milestones/pfcatid/5/Allergy%20and%20Immunology

Anesthesiology:

http://www.acgme.org/Specialties/Milestones/pfcatid/6/Anesthesiology

#### **Colon and Rectal Surgery:**

http://www.acgme.org/Specialties/Milestones/pfcatid/4/Colon%20and%20Rectal%20Surgery

#### **Dermatology:**

http://www.acgme.org/Specialties/Milestones/pfcatid/3/Dermatology

#### **Emergency Medicine:**

http://www.acgme.org/Specialties/Milestones/pfcatid/7/Emergency%20Medicine

#### **Family Medicine:**

http://www.acgme.org/Specialties/Milestones/pfcatid/8/Family%20Medicine

#### **Internal Medicine:**

http://www.acgme.org/Specialties/Milestones/pfcatid/2/Internal%20Medicine

#### **Medical Genetics and Genomics:**

http://www.acgme.org/Specialties/Milestones/pfcatid/9/Medical%20Genetics%20and%20Genomics

#### Neurological Surgery:

http://www.acgme.org/Specialties/Milestones/pfcatid/10/Neurological%20Surgery

#### Neurology:

http://www.acgme.org/Specialties/Milestones/pfcatid/37/Neurology

#### **Nuclear Medicine:**

http://www.acgme.org/Specialties/Milestones/pfcatid/11/Nuclear%20Medicine

#### **Obstetrics and Gynecology:**

http://www.acgme.org/Specialties/Milestones/pfcatid/12/Obstetrics%20and%20Gynecology

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**Ophthalmology:** http://www.acgme.org/Specialties/Milestones/pfcatid/13/Ophthalmology

#### Orthopaedic Surgery: http://www.acgme.org/Specialties/Milestones/pfcatid/14/Orthopaedic%20Surgery

#### Otolaryngology:

http://www.acgme.org/Specialties/Milestones/pfcatid/15/Otolaryngology

#### Pathology:

http://www.acgme.org/Specialties/Milestones/pfcatid/18/Pathology

#### **Pediatrics:**

http://www.acgme.org/Specialties/Milestones/pfcatid/16/Pediatrics

### Physical Medicine and Rehabilitation:

http://www.acgme.org/Specialties/Milestones/pfcatid/17/Physical%20Medicine%20and%20Rehabilitation

#### Plastic Surgery:

http://www.acgme.org/Specialties/Milestones/pfcatid/19/Plastic%20Surgery

#### **Preventive Medicine:**

http://www.acgme.org/Specialties/Milestones/pfcatid/20/Preventive%20Medicine

#### **Psychiatry:**

http://www.acgme.org/Specialties/Milestones/pfcatid/21/Psychiatry

#### **Radiation Oncology:**

http://www.acgme.org/Specialties/Milestones/pfcatid/22/Radiation%20Oncology

#### Radiology – Diagnostic:

http://www.acgme.org/Specialties/Milestones/pfcatid/23/Radiology

#### Surgery:

http://www.acgme.org/Specialties/Milestones/pfcatid/24/Surgery

#### **Thoracic Surgery:**

http://www.acgme.org/Specialties/Milestones/pfcatid/25/Thoracic%20Surgery

#### **Transitional Year:**

http://www.acgme.org/Specialties/Milestones/pfcatid/36/Transitional%20Year

#### **Urology:**

http://www.acgme.org/Specialties/Milestones/pfcatid/26/Urology

#### Specialty: Allergy and immunology

Resident Year	1	2	Total Residents
# of Residents	151	149	300

1. Patient Care - Medical Interview and Physical Examination: Conducts comprehensive and detailed medical  $\ldots$ 



# 3. Patient Care - Management Plan: Designs appropriate management plans for allergic and immunologic disorders $\ldots$





Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 Level 2 Level 1 1 2 Resident Year

2. Patient Care - Diagnostic Tests and Procedures: Selects, performs, and interprets diagnostic tests or procedures appropriately.







6. Systems-Based Practice - Utilizes/accesses outside resources. Demonstrates awareness of and accommodation ...



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#### Specialty: Allergy and immunology

7. Practice-Based Learning and Improvement - Research and Scholarly Activity: Actively participates in ...



9. Professionalism - Exhibits ethical and responsible behavior, including respect, compassion, honesty,  $\ldots$ 



8. Practice-Based Learning and Improvement - Self-evaluates performance. Incorporates feedback. Identifies ...



10. Interpersonal and Communication Skills - Provides team-based care and develops productive relationships  $\ldots$ 



Note: Please reference milestone narrative for full text.

#### Specialty: Anesthesiology

Post Graduate Year	1	2	3	4	Total Residents
# of Residents	1,221	1,773	1,704	1,678	6,376

1. Patient Care - Patient Care 1: Pre-anesthetic Patient Evaluation, Assessment, and Preparation



#### 3. Patient Care - Patient Care 3: Peri-procedural pain management



5. Patient Care - Patient Care 5: Crisis Management



Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Patient Care 2: Anesthetic Plan and Conduct





6. Patient Care - Patient Care 6: Triage and management of the criticallyill patient in a nonoperative setting



#### Specialty: Anesthesiology

7. Patient Care - Patient Care 7: Acute, chronic, and cancer-related pain consultation and management



9. Patient Care - Patient Care 9: Technical skills: Use and Interpretation of Monitoring and Equipment



11. Medical Knowledge - Medical Knowledge 1: Knowledge of biomedical, clinical, epidemiological, and social-behavioral ...



8. Patient Care - Patient Care 8: Technical skills: Airway management



10. Patient Care - Patient Care 10: Technical skills: Regional anesthesia







Note: Please reference milestone narrative for full text.

#### Specialty: Anesthesiology

13. Systems-Based Practice - Systems-Based Practice 2: Patient Safety and Quality Improvement



15. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 2: Analysis of practice ...



17. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 4: Education of patient, ...



Note: Please reference milestone narrative for full text.





16. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 3: Self-directed learning



18. Professionalism - Professionalism 1: Responsibility to patients, families, and society



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#### Specialty: Anesthesiology

19. Professionalism - Professionalism 2: Honesty, integrity, and ethical behavior  $% \left( {{\left[ {{{\rm{T}}_{\rm{T}}} \right]}} \right)$ 



21. Professionalism - Professionalism 4: Receiving and giving feedback



23. Interpersonal and Communication Skills - Interpersonal Communication Skills 1: Communication with patients and families



Note: Please reference milestone narrative for full text.

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20. Professionalism - Professionalism 3: Commitment to institution, department, and colleagues



22. Professionalism - Professionalism 5: Responsibility to maintain personal emotional, physical, and mental health



24. Interpersonal and Communication Skills - Interpersonal Communication Skills 2: Communication with other professionals



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#### Specialty: Anesthesiology

25. Interpersonal and Communication Skills - Interpersonal Communication Skills 3: Team and leadership skills



Note: Please reference milestone narrative for full text.
#### Specialty: Adult cardiothoracic anesthesiology

Resident Year	1	Total Residents
# of Residents	212	212

# 1. Patient Care - Patient Care - Peri-procedural Assessment and Management



# 3. Medical Knowledge - Medical Knowledge — Extracorporeal Circulation and Circulatory Assist Device Principles



# 5. Medical Knowledge - Medical Knowledge — Cardiovascular/Thoracic Pathophysiology and Pharmacology





#### 2. Patient Care - Patient Care - Technical/Procedural Skills









#### Specialty: Adult cardiothoracic anesthesiology





# 9. Systems-Based Practice - Systems-Based Practice - Understanding of Health Care Economics: Cost Awareness $\ldots$



11. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement — Education of Team Members and Other  $\ldots$ 



8. Systems-Based Practice - Systems-Based Practice - Incorporation of Patient Safety and Quality Improvement into Clinical  $\ldots$ 



10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement — Self-directed Learning ...



12. Professionalism - Professionalism - Commitment to Institution, Department, and Colleagues



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#### Specialty: Adult cardiothoracic anesthesiology

13. Professionalism - Professionalism - Receiving and Giving Feedback



15. Interpersonal and Communication Skills - Interpersonal and Communications Skills — Communication with Patients and Families



# 14. Professionalism - Professionalism — Responsibility to Maintain Personal, Emotional, Physical, and Mental Health



#### Specialty: Critical care medicine (Anesthesiology)

Resident Year	1	Total Residents
# of Residents	189	189

#### 1. Patient Care - Patient Care: Patient Assessment and Development of a Care Plan



# 3. Patient Care - Patient Care: Procedural Skills/Technical



#### 5. Patient Care - Patient Care: Palliative Medicine/End-of-Life Care



Note: Please reference milestone narrative for full text.



### 2. Patient Care - Patient Care: Crisis Management



4. Patient Care - Patient Care: Management of Respiratory Failure



#### 6. Medical Knowledge - Medical Knowledge: Pharmacology



#### Specialty: Critical care medicine (Anesthesiology)

7. Medical Knowledge - Medical Knowledge: Medical Knowledge of Critical Care Medicine



9. Systems-Based Practice - Systems-Based Practice: Incorporation of Patient Safety and Quality Improvement into Clinical Practice



11. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement: Self-directed Learning and Scholarly ...



Note: Please reference milestone narrative for full text.



10. Systems-Based Practice - Systems-Based Practice: Understanding of Health Care Economics - Cost Awareness ...



12. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement: Education of Team ...



# 8. Systems-Based Practice - Systems-Based Practice: Interprofessional and Transitions of Care

#### Specialty: Critical care medicine (Anesthesiology)

13. Professionalism - Professionalism: Commitment to Institution, Department, and Colleagues



15. Professionalism - Professionalism: Responsibility to Maintain Personal Emotional, Physical, and Mental Health





16. Interpersonal and Communication Skills - Interpersonal and Communications Skills: Communication with Patients and Families



14. Professionalism - Professionalism: Receiving and Giving Feedback

#### Specialty: Obstetric anesthesiology

Resident Year	1	Total Residents
# of Residents	43	43

#### 1. Patient Care - Patient Care: Technical Skills



# 3. Patient Care - Patient Care: Crisis Management and Management of Complications



#### 5. Medical Knowledge - Medical Knowledge: Obstetric Anesthesiology



Note: Please reference milestone narrative for full text.

i Resident Year

Level 5

Level 4

Level 3

Level 2

Level











#### Specialty: Obstetric anesthesiology

7. Systems-Based Practice - Systems-Based Practice: Interprofessional and Transitions of Care



9. Systems-Based Practice - Systems-Based Practice: Understanding of Health Care Economics: Cost-awareness  $\ldots$ 



11. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement: Education of Team  $\ldots$ 



8. Systems-Based Practice - Systems-Based Practice: Incorporation of Patient Safety and Quality Improvement into Clinical Practice



10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement: Self-directed Learning and Scholarly ...



12. Professionalism - Professionalism: Commitment to Institution, Department, and Colleagues



#### Specialty: Obstetric anesthesiology

13. Professionalism - Professionalism: Receiving and Giving of Feedback



15. Interpersonal and Communication Skills - Interpersonal and Communications Skills: Communication with Patients and Families



# 14. Professionalism - Professionalism: Responsibility to Maintain Personal, Emotional, Physical, and Mental Health



#### Specialty: Pain medicine (multidisciplinary)

Resident Year	1	Total Residents
# of Residents	369	369

1. Patient Care - Patient Care - Gathers and Synthesizes Essential and Accurate Information to Define Each ...



#### 3. Patient Care - Patient Care - Gathers and Synthesizes Essential and Accurate Information to Define Each ...





Note: Please reference milestone narrative for full text.



2. Patient Care - Patient Care - Gathers and Synthesizes Essential and Accurate Information to Define Each ...



4. Patient Care - Patient Care - In Collaboration with the Patient, Develops and Achieves a Comprehensive ...







#### Specialty: Pain medicine (multidisciplinary)

7. Medical Knowledge - Medical Knowledge - Possesses Clinical Knowledge • Anatomy, physiology, and pharmacology ...



# 9. Medical Knowledge - Medical Knowledge - Participates in Scholarship (Foundation, Investigation, Analysis, and Dissemination)



11. Systems-Based Practice - Systems-Based Practice - Recognizes System-based Error and Advocates for System Improvement



Note: Please reference milestone narrative for full text.













#### Specialty: Pain medicine (multidisciplinary)

13. Systems-Based Practice - Systems-Based Practice - Transitions Patients Effectively Within and Across Health Delivery Systems



15. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Learns and Improves via Performance ...



17. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Learns and Improves at the Point of ...



Note: Please reference milestone narrative for full text.



16. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Learns and Improves via Feedback



18. Professionalism - Professionalism - Has Professional and Respectful Interactions with Patients, Caregivers, and Members  $\ldots$ 



14. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Monitors Practice with a Goal for Improvement

#### Specialty: Pain medicine (multidisciplinary)

19. Professionalism - Professionalism - Accepts Responsibility and Follows through on Tasks



# 21. Professionalism - Professionalism - Exhibits Integrity and Ethical Behavior in Professional Conduct



23. Interpersonal and Communication Skills - Interpersonal and Communication Skills - Communicates Effectively ...



20. Professionalism - Professionalism - Responds to each Patient's Unique Characteristics and Needs



22. Interpersonal and Communication Skills - Interpersonal and Communication Skills - Communicates Effectively ...



24. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Appropriately Utilizes and Completion ...



#### Specialty: Pediatric anesthesiology

Resident Year	1	Total Residents*
# of Residents	224	224

\*Note: There are 2 residents with an incomplete milestone evaluation that are excluded from the box plots below.

#### 1. Patient Care - Patient Care: Pre-Anesthetic Patient Evaluation, Assessment, and Preparation





2. Patient Care - Patient Care: Technical Skills

#### 3. Patient Care - Patient Care: Perioperative Planning and Management



#### 5. Medical Knowledge - Medical Knowledge: Knowledge of Clinical and Behavioral Sciences related to Pediatric Anesthesiology



Note: Please reference milestone narrative for full text.

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4. Medical Knowledge - Medical Knowledge: Knowledge of Biomedical, Epidemiologic, and Developmental Sciences ...







#### Specialty: Pediatric anesthesiology

7. Systems-Based Practice - Systems-Based Practice: Incorporation of Patient Safety and Quality Improvement into Clinical Practice



9. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement: Self-directed Learning and Scholarly ...



11. Professionalism - Professionalism: Commitment to Institution, Department, and Colleagues



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - Systems-Based Practice: Understanding of Health Care Economics: Cost Awareness ...



10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement: Education of Team ...







#### Specialty: Pediatric anesthesiology

13. Professionalism - Professionalism: Responsibility to Maintain Personal Emotional, Physical, and Mental Health





14. Interpersonal and Communication Skills - Interpersonal and Communications Skills: Communication with Patients and Families

#### Specialty: Colon and rectal surgery

Resident Year	1	Total Residents
# of Residents	97	97

#### 1. Patient Care - Benign Perianal and Anal Disease Processes





#### 2. Patient Care - Colonic Neoplasia (polyps, colon cancer, polyposis)

#### 3. Patient Care - Crohn's Disease



#### 4. Patient Care - Large Bowel Obstruction







Note: Please reference milestone narrative for full text.

#### 6. Patient Care - Rectal Prolapse



#### Specialty: Colon and rectal surgery

7. Patient Care - Rectovaginal (RV) Fistula



#### 9. Medical Knowledge - Benign Perianal and Anal Disease Processes





#### 10. Medical Knowledge - Colonic Neoplasia

8. Patient Care - Pelvic Floor Disorders



#### 12. Medical Knowledge - Large Bowel Obstruction







#### Specialty: Colon and rectal surgery

#### 13. Medical Knowledge - Rectal Cancer



#### 14. Medical Knowledge - Rectal Prolapse



#### 15. Medical Knowledge - Rectovaginal Fistula



#### 16. Medical Knowledge - Pelvic Floor Disorders



18. Systems-Based Practice - • Utilizes/accesses outside resources • Demonstrates awareness of and accommodation ...



17. Medical Knowledge - Anatomy and Physiology



#### Specialty: Colon and rectal surgery

19. Practice-Based Learning and Improvement - • Self-evaluates performance • Incorporates feedback • Identifies ...



21. Interpersonal and Communication Skills - • Provides team-based care and develops productive relationships ...



20. Professionalism - • Exhibits ethical and responsible behavior, including respect, compassion, honesty, ...



#### Specialty: Dermatology

Resident Year	1	2	3	Total Residents
# of Residents	485	479	485	1,449

1. Patient Care - PC1. History, Examination, and Presentation



3. Patient Care - PC3. Dermatopathology Application



5. Patient Care - PC5. Pediatric Treatment



Note: Please reference milestone narrative for full text.



2. Patient Care - PC2. Diagnostic Tests

# 4. Patient Care - PC4. Medical Treatment



#### 6. Patient Care - PC6. Surgical Treatment



#### Specialty: Dermatology

7. Patient Care - PC7. Diagnosis, Management Decisions and Patient Education



#### 9. Medical Knowledge - MK2. Pediatric Dermatology



#### 11. Medical Knowledge - MK4. Dermatopathology



Note: Please reference milestone narrative for full text.



#### 10. Medical Knowledge - MK3. Dermatologic Surgery







### 8. Medical Knowledge - MK1. Medical Dermatology

#### Specialty: Dermatology

13. Systems-Based Practice - SBP1. Adapts easily and works effectively in various health care delivery settings and systems



15. Systems-Based Practice - SBP3. Improves health care delivery by identifying system errors and implementing ...



17. Practice-Based Learning and Improvement - PBLI1. Appraise and assimilate scientific evidence



Note: Please reference milestone narrative for full text.



16. Systems-Based Practice - SBP4. Practices cost-conscious care (for patients and populations)



18. Practice-Based Learning and Improvement - PBLI2. Continuously improve through self-assessment of competence



# 14. Systems-Based Practice - SBP2. Works effectively within an interprofessional team

#### Specialty: Dermatology

19. Practice-Based Learning and Improvement - PBLI3. Integrate quality improvement concepts and activities in practice



#### 21. Professionalism - PROF1. Practices medicine ethically







Note: Please reference milestone narrative for full text.











20. Practice-Based Learning and Improvement - PBLI4. Teach others

#### Specialty: Dermatology

25. Interpersonal and Communication Skills - ICS2. Having Difficult Conversations



27. Interpersonal and Communication Skills - ICS4. Communication and Consultation with Other Physicians



26. Interpersonal and Communication Skills - ICS3. Team Member Respect and Care Coordination



28. Interpersonal and Communication Skills - ICS5. Medical Documentation



#### Specialty: Dermatopathology (multidisciplinary)

Resident Year	1	Total Residents
# of Residents	72	72

#### 1. Patient Care - Dermatopathologic Diagnosis - PC1



#### 3. Medical Knowledge - Histopathologic Patterns - MK1



#### 5. Systems-Based Practice - Health Care teams - SBP1



Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Ancillary Testing - PC2

#### 4. Medical Knowledge - Immunohistochemistry – MK2



#### 6. Systems-Based Practice - Patient Safety - SBP2



#### Specialty: Dermatopathology (multidisciplinary)

7. Practice-Based Learning and Improvement - Evidence-based Practice



#### 9. Professionalism - Accountability, Honesty, and Integrity - PROF1



11. Interpersonal and Communication Skills - Personnel Management and Conflict Management — ICS1



8. Practice-Based Learning and Improvement - Process Improvement and Patient Safety — PBLI2



10. Professionalism - Giving and Receiving Feedback — PROF2



12. Interpersonal and Communication Skills - Diagnostic Reporting - ICS2  $\,$ 



#### Specialty: Micrographic surgery and dermatologic oncology

Resident Year	1	Total Residents*
# of Residents	85	85

\*Note: There are 1 residents with an incomplete milestone evaluation that are excluded from the box plots below.

#### 1. Patient Care - Patient Care 1 - Mohs Surgery

#### 2. Patient Care - Patient Care 2 - Reconstruction





#### 3. Patient Care - Patient Care 3 - Mohs Histopathology



# 5. Medical Knowledge - Medical Knowledge 1 - Mastery of Dermatologic Surgical Curriculum



4. Patient Care - Patient Care 4 - Diagnosis and Management







#### Specialty: Micrographic surgery and dermatologic oncology

7. Systems-Based Practice - Systems-Based Practice 1 – Practices Cost-Conscious Care (for Patients and Populations)



# 9. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 1 - Appraises and $\ldots$



11. Professionalism - Professionalism 1 - Giving and Receiving Feedback



8. Systems-Based Practice - Systems-Based Practice 2 — Works Effectively within an Interprofessional Team



10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 2 — Integrates Quality ...



12. Professionalism - Professionalism 2 - Accountability, Honesty, and Integrity



#### Specialty: Micrographic surgery and dermatologic oncology

13. Interpersonal and Communication Skills - Interpersonal Communication and Skills 1 — Personnel and Conflict Management





# 14. Interpersonal and Communication Skills - Interpersonal and Communication Skills 2 — Communicates with $\ldots$

#### Specialty: Emergency medicine

Resident Year	1	2	3	Total Residents
# of Residents	1,757	1,627	1,567	4,951

1. Patient Care - 1. Emergency Stabilization (PC1) Prioritizes critical initial stabilization action and  $\ldots$ 



3. Patient Care - 3. Diagnostic Studies (PC3) Applies the results of diagnostic testing based on the probability ...



5. Patient Care - 5. Pharmacotherapy (PC5) Selects and prescribes, appropriate pharmaceutical agents based  $\ldots$ 















#### Specialty: Emergency medicine

7. Patient Care - 7. Disposition (PC7) Establishes and implements a comprehensive disposition plan that ...



9. Patient Care - 9. General Approach to Procedures (PC9) Performs the indicated procedure on all appropriate ...



11. Patient Care - 11. Anesthesia and Acute Pain Management (PC11) Provides safe acute pain management, ...



Note: Please reference milestone narrative for full text.

8. Patient Care - 8. Multi-tasking (Task-switching) (PC8) Employs task switching in an efficient and timely ...



10. Patient Care - 10. Airway Management (PC10) Performs airway management on all appropriate patients (including those who ...



12. Patient Care - 12. Other Diagnostic and Therapeutic Procedures: Goal-directed Focused Ultrasound (Diagnostic/Procedural) ...



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#### Specialty: Emergency medicine

13. Patient Care - 13. Other Diagnostic and Therapeutic Procedures: Wound Management (PC13) Assesses and ...



15. Medical Knowledge - 15. Medical Knowledge (MK) Demonstrates appropriate medical knowledge in the care ...



17. Systems-Based Practice - 17. Systems-based Management (SBP2) Participates in strategies to improve healthcare ...



Note: Please reference milestone narrative for full text.





16. Systems-Based Practice - 16. Patient Safety (SBP1) Participates in performance improvement to optimize patient safety.



18. Systems-Based Practice - 18. Technology (SBP3) Uses technology to accomplish and document safe healthcare delivery.



#### Specialty: Emergency medicine

19. Practice-Based Learning and Improvement - 19. Practice-based Performance Improvement (PBLI) Participates in performance ...



21. Professionalism - 21. Accountability (PROF2) Demonstrates accountability to patients, society, profession and self.



23. Interpersonal and Communication Skills - 23. Team Management (ICS2) Leads patient-centered care teams, ...



Note: Please reference milestone narrative for full text.





22. Interpersonal and Communication Skills - 22. Patient Centered Communication (ICS1) Demonstrates interpersonal ...



#### Specialty: Emergency medicine

Resident Year	1	2	3	4	Total Residents
# of Residents	642	616	609	569	2,436

1. Patient Care - 1. Emergency Stabilization (PC1) Prioritizes critical initial stabilization action and ...



3. Patient Care - 3. Diagnostic Studies (PC3) Applies the results of diagnostic testing based on the probability ...



5. Patient Care - 5. Pharmacotherapy (PC5) Selects and prescribes, appropriate pharmaceutical agents based ...



Note: Please reference milestone narrative for full text.













#### Specialty: Emergency medicine

7. Patient Care - 7. Disposition (PC7) Establishes and implements a comprehensive disposition plan that ...



9. Patient Care - 9. General Approach to Procedures (PC9) Performs the indicated procedure on all appropriate ...



11. Patient Care - 11. Anesthesia and Acute Pain Management (PC11) Provides safe acute pain management, ...



Note: Please reference milestone narrative for full text.





10. Patient Care - 10. Airway Management (PC10) Performs airway management on all appropriate patients (including those who ...



12. Patient Care - 12. Other Diagnostic and Therapeutic Procedures: Goal-directed Focused Ultrasound (Diagnostic/Procedural) ...



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#### Specialty: Emergency medicine

13. Patient Care - 13. Other Diagnostic and Therapeutic Procedures: Wound Management (PC13) Assesses and ...



15. Medical Knowledge - 15. Medical Knowledge (MK) Demonstrates appropriate medical knowledge in the care ...



17. Systems-Based Practice - 17. Systems-based Management (SBP2) Participates in strategies to improve healthcare ...



Note: Please reference milestone narrative for full text.





16. Systems-Based Practice - 16. Patient Safety (SBP1) Participates in performance improvement to optimize patient safety.



18. Systems-Based Practice - 18. Technology (SBP3) Uses technology to accomplish and document safe healthcare delivery.



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### Specialty: Emergency medicine

19. Practice-Based Learning and Improvement - 19. Practice-based Performance Improvement (PBLI) Participates in performance ...



21. Professionalism - 21. Accountability (PROF2) Demonstrates accountability to patients, society, profession and self.



23. Interpersonal and Communication Skills - 23. Team Management (ICS2) Leads patient-centered care teams, ...



Note: Please reference milestone narrative for full text.





22. Interpersonal and Communication Skills - 22. Patient Centered Communication (ICS1) Demonstrates interpersonal ...



#### Specialty: Emergency medical services

Resident Year	1	Total Residents
# of Residents	49	49

#### 1. Patient Care - Procedures Performed in the Pre-hospital Environment



3. Patient Care - Recognition and Treatment of Pre-hospital Conditions - Patient Care







Note: Please reference milestone narrative for full text.



2. Patient Care - Pre-hospital Recognition and Stabilization of Time/Life-Critical Conditions - Patient Care





#### 6. Medical Knowledge - Medical Oversight - Medical Knowledge



### Specialty: Emergency medical services

7. Systems-Based Practice - EMS Personnel (Supervision and Training)





# 9. Practice-Based Learning and Improvement - Quality Management - Practice-Based Learning and Improvement



#### 11. Professionalism - Ethics and Professional Behavior - Professionalism





10. Practice-Based Learning and Improvement - Research - Practice-Based Learning and Improvement



#### 12. Professionalism - Accountability - Professionalism



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - System Management - Systems-Based Practice

### Specialty: Emergency medical services

13. Interpersonal and Communication Skills - Team Communications and Management – Interpersonal and Communication Skills





14. Interpersonal and Communication Skills - Patient-centered Communications – Interpersonal and Communication Skills

### Specialty: Medical toxicology (Emergency medicine)

Resident Year	1	2	Total Residents
# of Residents	38	26	64

#### 1. Patient Care - PC1: Exposure Assessment: History and Physical



3. Patient Care - PC3: Management Plan and Treatment



#### 5. Medical Knowledge - MK2: Epidemiology and Population Exposure



Note: Please reference milestone narrative for full text.



2. Patient Care - PC2: Clinical Reasoning: Ordering and Interpretation of Studies and Differential Diagnosis

4. Medical Knowledge - MK1: Acute and Chronic Exposure



6. Medical Knowledge - MK3: Laboratory and Clinical Testing



### Specialty: Medical toxicology (Emergency medicine)

7. Systems-Based Practice - SBP1: Patient Safety



# 9. Practice-Based Learning and Improvement - PBLI1: Self-Directed Learning in Medical Toxicology





11. Professionalism - PROF1: Professional Values



8. Systems-Based Practice - SBP2: Clinical Application of Information

10. Practice-Based Learning and Improvement - PBLI2: Quality Improvement Project



12. Professionalism - PROF2: Accountability to patients, society, profession, and self



### Specialty: Medical toxicology (Emergency medicine)

13. Interpersonal and Communication Skills - ICS1: Patients Families and Public





14. Interpersonal and Communication Skills - ICS2: Communication with Health Care Professionals

### Specialty: Pediatric emergency medicine (Emergency medicine)

Resident Year	1	2	3	Total Residents
# of Residents	56	40	26	122

1. Patient Care - Gather essential and accurate information about the patient: Abstracts current findings  $\ldots$ 



3. Patient Care - Provide transfer of care that ensures seamless transitions —  $\mbox{PC3}$ 







Note: Please reference milestone narrative for full text.









6. Patient Care - Diagnostic Studies: Applies the results of diagnostic testing based on the probability  $\ldots$ 



#### Specialty: Pediatric emergency medicine (Emergency medicine)

7. Patient Care - Observation and Reassessment: Re-evaluates patients undergoing emergency department (ED) ...



9. Patient Care - General Approach to Procedures: Performs the indicated procedure on all appropriate patients  $\ldots$ 



11. Patient Care - Provide appropriate supervision (milestones for the supervisor) — PC11  $\,$ 





10. Patient Care - Anesthesia and Acute Pain Management: Provides safe acute pain management, anesthesia, ...



Note: 1 of 122 residents have a status of "Not Yet Assessable" and are not included in the analysis.





8. Patient Care - Disposition: Establishes and implements a comprehensive disposition plan that uses appropriate ...

#### Specialty: Pediatric emergency medicine (Emergency medicine)

13. Systems-Based Practice - Advocate for quality patient care and optimal patient care systems  $-\ SBP1$ 



15. Practice-Based Learning and Improvement - Use information technology to optimize learning and care delivery — PBLI1



17. Professionalism - The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



14. Systems-Based Practice - Participate in identifying system errors and implementing potential systems solutions - SBP2



16. Professionalism - Self-awareness of one's own knowledge, skill, and emotional limitations that leads  $\ldots$ 



18. Professionalism - Practice flexibility and maturity in adjusting to change with the capacity to alter behavior - PROF3



### Specialty: Pediatric emergency medicine (Emergency medicine)

19. Professionalism - Provide leadership skills that enhance team functioning, the learning environment, ...



21. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public, ...



23. Interpersonal and Communication Skills - Act in a consultative role to other physicians and health professionals - ICS3



Note: Please reference milestone narrative for full text.





22. Interpersonal and Communication Skills - Demonstrate the insight and understanding into emotion and  $\dots$ 



#### Specialty: Sports medicine (Emergency medicine)

Resident Year	1	Total Residents
# of Residents	16	16

1. Patient Care - History and Physical Examination: Medical and Musculoskeletal — Patient Care 1  $\,$ 



# 3. Patient Care - Team Coverage and Athletic Care: Coverage of Sporting Events, Pre-participation Physical $\ldots$







2. Patient Care - Medical Management: Differential Diagnosis, Diagnostic Testing, Interpretation of Data ...



4. Medical Knowledge - Science of Sports Medicine, including Anatomy, Physiology, Cellular Biology, Epidemiology, ...



6. Medical Knowledge - Musculoskeletal Issues in Sports Medicine - Medical Knowledge 3  $\,$ 



### Specialty: Sports medicine (Emergency medicine)

7. Systems-Based Practice - Working with Interprofessional Teams (consultants, certified athletic trainers  $\ldots$ 



# 9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement $\ldots$



# 11. Professionalism - Compassion, Integrity, Accountability, and Respect for Self and Others — Professionalism 1



8. Systems-Based Practice - Systems Thinking — Systems-Based Practice 2



10. Practice-Based Learning and Improvement - Locate, Appraise, and Assimilate Evidence from Scientific ...



12. Professionalism - Knowledge about and Adherence to the Ethical Principles Relevant to the Practice of Sports Medicine  $-\ldots$ 



### Specialty: Sports medicine (Emergency medicine)

13. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...







### Specialty: Family medicine

Resident Year	1	2	3	Total Residents*
# of Residents	4,196	3,943	3,754	11,893

\*Note: There are 20 residents with an incomplete milestone evaluation that are excluded from the box plots below.







2. Patient Care - PC-2 Cares for patients with chronic conditions

3. Patient Care - PC-3 Partners with the patient, family, and community to improve health through disease  $\dots$ 







Note: Please reference milestone narrative for full text.

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4. Patient Care - PC-4 Partners with the patient to address issues of ongoing signs, symptoms, or health ...



6. Medical Knowledge - MK-1 Demonstrates medical knowledge of sufficient breadth and depth to practice family medicine



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### Specialty: Family medicine

7. Medical Knowledge - MK-2 Applies critical thinking skills in patient care



9. Systems-Based Practice - SBP-2 Emphasizes patient safety



11. Systems-Based Practice - SBP-4 Coordinates team-based care





10. Systems-Based Practice - SBP-3 Advocates for individual and community health



12. Practice-Based Learning and Improvement - PBLI-1 Locates, appraises, and assimilates evidence from scientific ...



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - SBP-1 Provides cost-conscious medical care

### Specialty: Family medicine

13. Practice-Based Learning and Improvement - PBLI-2 Demonstrates self-directed learning



15. Professionalism - PROF-1 Completes a process of professionalization



















#### Specialty: Family medicine

19. Interpersonal and Communication Skills - ICS-1 Develops meaningful, therapeutic relationships with patients and families



21. Interpersonal and Communication Skills - ICS-3 Develops relationships and effectively communicates with ...



20. Interpersonal and Communication Skills - ICS-2 Communicates effectively with patients, families, and the public



22. Interpersonal and Communication Skills - ICS-4 Utilizes technology to optimize communication



### Specialty: Geriatric medicine (Family medicine)

Resident Year	1	Total Residents
# of Residents	43	43

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s).  $\ldots$ 



#### 



#### 5. Patient Care - Requests and provides consultative care. (PC5)



Note: Please reference milestone narrative for full text.

Aspirational Ready for Unsupervised Practice O O O O O O O O O Critical Deficiencies I Resident Year

2. Patient Care - Develops and achieves comprehensive management

plan for each patient. (PC2)

# 4. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: 1 of 43 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Medical Knowledge - Possesses Clinical knowledge (MK1)



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#### Specialty: Geriatric medicine (Family medicine)

7. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)  $\,$ 



# 9. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, $\ldots$



11. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\ldots$ 



8. Medical Knowledge - Scholarship. (MK3)







12. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



### Specialty: Geriatric medicine (Family medicine)

13. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



15. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



17. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Aspirational 0 Ready for Unsupervised 0 Practice 0 Critical 0 Critical 0 Insure 1 Practice 1 P





 Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



Note: Please reference milestone narrative for full text.

## 14. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)

### Specialty: Geriatric medicine (Family medicine)

19. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)  $% \left( \left( PROF3\right) \right) \right) =0.0175$ 



# 21. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



23. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.



22. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



# 20. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)

### Specialty: Hospice and palliative medicine (multidisciplinary)

Resident Year	1	<b>Total Residents</b>
# of Residents	341	341

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s).  $\ldots$ 





#### 5. Patient Care - Requests and provides consultative care. (PC5)



Note: Please reference milestone narrative for full text.



# 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





Note: 8 of 341 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Medical Knowledge - Possesses Clinical knowledge (MK1)



### Specialty: Hospice and palliative medicine (multidisciplinary)

7. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)  $\,$ 



# 9. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, $\ldots$



11. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\ldots$ 







12. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: Please reference milestone narrative for full text.

### 8. Medical Knowledge - Scholarship. (MK3)

### Specialty: Hospice and palliative medicine (multidisciplinary)

13. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



15. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



17. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Note: Please reference milestone narrative for full text.



Note: 3 of 341 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### 16. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



18. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



14. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)

### Specialty: Hospice and palliative medicine (multidisciplinary)

19. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)  $% \left( \left( PROF3\right) \right) \right) =0.0175$ 



# 21. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



23. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.



22. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



# 20. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)

### Specialty: Sports medicine (Family medicine)

Resident Year	1	Total Residents
# of Residents	230	230

1. Patient Care - History and Physical Examination: Medical and Musculoskeletal — Patient Care 1



# 3. Patient Care - Team Coverage and Athletic Care: Coverage of Sporting Events, Pre-participation Physical $\ldots$







Note: Please reference milestone narrative for full text.



# 2. Patient Care - Medical Management: Differential Diagnosis, Diagnostic Testing, Interpretation of Data ...





6. Medical Knowledge - Musculoskeletal Issues in Sports Medicine — Medical Knowledge 3  $\,$ 



### Specialty: Sports medicine (Family medicine)

7. Systems-Based Practice - Working with Interprofessional Teams (consultants, certified athletic trainers ...



9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement  $\ldots$ 







Note: Please reference milestone narrative for full text.



10. Practice-Based Learning and Improvement - Locate, Appraise, and Assimilate Evidence from Scientific ...



12. Professionalism - Knowledge about and Adherence to the Ethical Principles Relevant to the Practice of Sports Medicine  $-\ldots$ 



8. Systems-Based Practice - Systems Thinking — Systems-Based Practice 2

### Specialty: Sports medicine (Family medicine)

13. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...







#### Specialty: Internal medicine

Resident Year	1	2	3	Total Residents*
# of Residents	10,973	8,565	8,157	27,695

\*Note: There are 1 residents with an incomplete milestone evaluation that are excluded from the box plots below.





Note: 10 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.



Note: 62 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### 5. Patient Care - Requests and provides consultative care (PC5)



Note: 520 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

Note: Please reference milestone narrative for full text.

2. Patient Care - Develops and achieves comprehensive management plan for each patient (PC2)





4. Patient Care - Skill in performing procedures (PC4)



Note: 986 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### 6. Medical Knowledge - Clinical knowledge (MK1)



Note: 19 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### Specialty: Internal medicine

7. Medical Knowledge - Knowledge of diagnostic testing and procedures (MK2)  $\,$ 



Note: 44 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

9. Systems-Based Practice - Recognizes system error and advocates for system improvement (SBP2)



Note: 487 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

11. Systems-Based Practice - Transitions patients effectively within and across health delivery systems (SBP4)







Note: 79 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

10. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for, and ...





12. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement (PBLI1)



Note: 154 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### Specialty: Internal medicine

13. Practice-Based Learning and Improvement - Learns and improves via performance audit (PBLI2)



Note: 1,222 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves at the point of care (PBLI4)



Note: 58 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

17. Professionalism - Accepts responsibility and follows through on tasks (PROF2)







Note: 73 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

16. Professionalism - Has professional and respectful interactions with patients, caregivers and members ...



Note: 15 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

18. Professionalism - Responds to each patient's unique characteristics and needs (PROF3)



Note: 97 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### Specialty: Internal medicine

19. Professionalism - Exhibits integrity and ethical behavior in professional conduct (PROF4)



Note: 32 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

21. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g. peers, ...



Note: 50 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.





Note: 28 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

22. Interpersonal and Communication Skills - Appropriate utilization and completion of health records (ICS3)



Note: 56 of 27,694 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### Specialty: Adult congenital heart disease

Resident Year	1	2	Total Residents
# of Residents	6	9	15

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



# 3. Patient Care - Manages patients with progressive responsibility and independence. (PC3) $\,$



# 5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



# 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





Note: 2 of 15 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



Note: 1 of 15 residents have a status of "Not Yet Assessable" and are r included in the analysis.

#### Specialty: Adult congenital heart disease

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





## 10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



Note: 1 of 15 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 1 of 15 residents have a status of "Not Yet Assessable" and are not included in the analysis.

Note: Please reference milestone narrative for full text.

8. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)
#### Specialty: Adult congenital heart disease

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 2 of 15 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



#### Specialty: Adult congenital heart disease

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 





20. Professionalism - Responds to each patient's unique characteristics

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



#### Specialty: Advanced heart failure and transplant cardiology

Resident Year	1	Total Residents
# of Residents	103	103

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s).  $\ldots$ 



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



5. Patient Care - Demonstrates skill in performing and interpreting noninvasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





6. Patient Care - Requests and provides consultative care. (PC5)



#### Specialty: Advanced heart failure and transplant cardiology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



Aspirational

(MK2)



8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



#### Specialty: Advanced heart failure and transplant cardiology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



#### 15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



#### Specialty: Advanced heart failure and transplant cardiology



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...



Aspirational
Ready for
Unsupervised
Practice
Critical
Deficiencies
i
Resident Year

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)  $% \left( \left( \left( {{{\rm{PROF3}}} \right)^{2}} \right)^{2} \right)$ 

#### Specialty: Cardiovascular disease

Resident Year	1	2	3	Total Residents*
# of Residents	1,006	974	942	2,922

\*Note: There are 5 residents with an incomplete milestone evaluation that are excluded from the box plots below.





not included in the analysis.



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### 5. Patient Care - Demonstrates skill in performing and interpreting noninvasive procedures and/or testing. (PC4b)



Note: 5 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

Note: Please reference milestone narrative for full text.

2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)









Note: 9 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



Note: 5 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Cardiovascular disease

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

9. Medical Knowledge - Scholarship. (MK3)



Note: 35 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)







Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



Note: 2 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



note: 2 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Cardiovascular disease

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 3 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



are not included in the analysis.

17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)







Note: 5 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



Note: 2 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Cardiovascular disease

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)



Note: 9 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: 1 of 2,917 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Clinical cardiac electrophysiology

Resident Year	1	2	Total Residents
# of Residents	154	35	189

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



## 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





6. Patient Care - Requests and provides consultative care. (PC5)



Note: 1 of 189 residents have a status of "Not Yet Assessable" and are not included in the analysis.

(MK2)

#### Specialty: Clinical cardiac electrophysiology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...







not included in the analysis.

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#### Specialty: Clinical cardiac electrophysiology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 2 of 189 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



#### Specialty: Clinical cardiac electrophysiology

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)



22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



#### Specialty: Clinical informatics (Internal medicine)

Resident Year	1	2	Total Residents
# of Residents	19	16	35

#### 1. Patient Care - Patient Care 1: Technology Assessment



3. Patient Care - Patient Care 3: Impact of Clinical Informatics on Patient Care







Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Patient Care 2: Clinical Decision Support Systems

4. Patient Care - Patient Care 4: Project Management



#### 6. Patient Care - Patient Care 6: Assessing User Needs



#### Specialty: Clinical informatics (Internal medicine)

7. Medical Knowledge - Medical Knowledge 1: Clinical Informatics Fundamentals and Programming



9. Systems-Based Practice - Systems-Based Practice 1: Patient Safety and Unintended Consequences



11. Systems-Based Practice - Systems-Based Practice 3: Workflow and Data Warehouse/Repository



Management
Level 5
Level 4
Level 2
Level 1
1
2
Resident Year









8. Medical Knowledge - Medical Knowledge 2: Leadership and Change Management

#### Specialty: Clinical informatics (Internal medicine)

13. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 2: Scholarly Activity ...



15. Professionalism - Professionalism 2: Professionalism — Demonstrates responsibility and follow-through on tasks



17. Professionalism - Professionalism 4: Professionalism - Demonstrates responsiveness and sensitivity to ...



Note: Please reference milestone narrative for full text.





16. Professionalism - Professionalism 3: Professionalism — Gives and receives feedback



18. Professionalism - Professionalism 5: Professionalism — Understands and practices information security and privacy



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#### Specialty: Clinical informatics (Internal medicine)

19. Interpersonal and Communication Skills - Interpersonal and Communication Skills 1: Effective Communications ...





20. Interpersonal and Communication Skills - Interpersonal and Communication Skills 2: Communication with Patients and Families

#### Specialty: Critical care medicine (Internal medicine)

Resident Year	1	2	Total Residents
# of Residents	158	78	236

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.

Aspirational Ready for Unsupervised Practice Critical Deficiencies 1 2 Resident Year





6. Patient Care - Requests and provides consultative care. (PC5)



2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)

#### Specialty: Critical care medicine (Internal medicine)

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...







note: 4 of 236 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Critical care medicine (Internal medicine)

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



Ready for Unsupervised

Aspirational



Note: 1 of 236 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)

0

#### Specialty: Critical care medicine (Internal medicine)

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\ldots$ 





Resident Year

2





1



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



#### Specialty: Endocrinology, diabetes, and metabolism

Resident Year	1	2	Total Residents
# of Residents	351	296	647

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



## 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





Note: 51 of 647 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



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#### Specialty: Endocrinology, diabetes, and metabolism

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



 Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)



10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



Note: 3 of 647 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Endocrinology, diabetes, and metabolism

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



#### Specialty: Endocrinology, diabetes, and metabolism

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)



22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



#### Specialty: Gastroenterology

Resident Year	1	2	3	Total Residents
# of Residents	586	558	520	1,664

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...







Note: Please reference milestone narrative for full text.





4. Patient Care - Demonstrates skill in performing and interpreting invasive procedures. (PC4a)



Note: 7 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



Note: 2 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Gastroenterology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



Note: 56 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)







Note: 2 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



Note: 2 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



Note: 2 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Gastroenterology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 5 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



Note: 14 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



Note: 2 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



Note: 2 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



not included in the analysis.

#### Specialty: Gastroenterology



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...







Note: 1 of 1,664 residents have a status of "Not Yet Assessable" and are not included in the analysis.

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



#### Specialty: Geriatric medicine (Internal medicine)

Resident Year	1	Total Residents
# of Residents	282	282

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s).  $\ldots$ 



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



#### 5. Patient Care - Requests and provides consultative care. (PC5)



Note: Please reference milestone narrative for full text.



## 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





#### 6. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### Specialty: Geriatric medicine (Internal medicine)

7. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)  $\,$ 



# 9. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, $\ldots$



11. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\ldots$ 



### 8. Medical Knowledge - Scholarship. (MK3)







12. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



#### Specialty: Geriatric medicine (Internal medicine)



15. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



17. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Note: Please reference milestone narrative for full text.



Note: 3 of 282 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



 Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



## 14. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)

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#### Specialty: Geriatric medicine (Internal medicine)

19. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)  $% \left( \left( PROF3\right) \right) \right) =0.0175$ 



## 21. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



23. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.



22. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



## 20. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)

#### Specialty: Hematology and medical oncology

Resident Year	1	2	3	Total Residents
# of Residents	608	596	547	1,751

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...





Note: 24 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

# 5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



Note: 1 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

4. Patient Care - Demonstrates skill in performing and interpreting invasive procedures. (PC4a)



Note: 71 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



Note: 31 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Hematology and medical oncology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



Note: 133 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



8. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)



Note: 22 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



Note: 42 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



are not included in the analysis.
#### Specialty: Hematology and medical oncology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 5 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.



are not included in the analysis.

17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)  $% \left( 1-\frac{1}{2}\right) =0$ 







Note: 54 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



Note: 36 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members  $\ldots$ 



are not included in the analysis.

#### Specialty: Hematology and medical oncology

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



Note: 21 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



Note: 28 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...



Aspirational Ready for Unsupervised Practice

20. Professionalism - Responds to each patient's unique characteristics

2 Resident Year 3

Note: 2 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

Critical Deficiencies

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



Note: 18 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: 6 of 1,751 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Infectious disease

Resident Year	1	2	Total Residents
# of Residents	411	315	726

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



5. Medical Knowledge - Possesses Clinical knowledge (MK1)



Note: Please reference milestone narrative for full text.



2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)

4. Patient Care - Requests and provides consultative care. (PC5)



6. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)  $\,$ 



#### Specialty: Infectious disease

7. Medical Knowledge - Scholarship. (MK3)



Note: 17 of 726 residents have a status of "Not Yet Assessable" and are not included in the analysis.

9. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



11. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



8. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



10. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\ldots$ 



Note: 2 of 726 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



Note: 3 of 726 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Infectious disease

13. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



Note: 15 of 726 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)  $% \left( 1-\frac{1}{2}\right) =0$ 



17. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



Note: Please reference milestone narrative for full text.



Note: 1 of 726 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...







14. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)

#### Specialty: Infectious disease

19. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



Note: 1 of 726 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...



20. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



22. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



### Specialty: Interventional cardiology

Resident Year	1	Total Residents*
# of Residents	322	322

\*Note: There are 2 residents with an incomplete milestone evaluation that are excluded from the box plots below.





#### 



#### 5. Patient Care - Demonstrates skill in performing and interpreting noninvasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text. 151 • MILESTONES NATIONAL REPORT 2018

# 4. Patient Care - Demonstrates skill in performing and interpreting invasive procedures. (PC4a)



### 6. Patient Care - Requests and provides consultative care. (PC5)



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2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)

### Specialty: Interventional cardiology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



8. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)



10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



#### Specialty: Interventional cardiology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



## 15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



### Specialty: Interventional cardiology

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...



Aspirational Ready for Unsupervised Practice



Resident Year

Critical Deficiencies



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)

#### Specialty: Nephrology

Resident Year	1	2	Total Residents*
# of Residents	442	396	838

\*Note: There are 2 residents with an incomplete milestone evaluation that are excluded from the box plots below.





note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

# 5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)





2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 25 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



Note: 4 of 836 residents have a status of "Not Yet Assessable" and are

#### Specialty: Nephrology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



not included in the analysis.

#### 9. Medical Knowledge - Scholarship. (MK3)



not included in the analysis.

11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





Resident Year

2

Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

C

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



not included in the analysis.

Note: Please reference milestone narrative for full text.

8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

#### Specialty: Nephrology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



not included in the analysis.

17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)







Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Nephrology



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



not included in the analysis.

23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...







Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



Note: 1 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: 2 of 836 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Medical oncology

Resident Year	1	2	Total Residents
# of Residents	17	17	34

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



# 3. Patient Care - Manages patients with progressive responsibility and independence. (PC3) $\,$



5. Patient Care - Demonstrates skill in performing and interpreting noninvasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





6. Patient Care - Requests and provides consultative care. (PC5)



### Specialty: Medical oncology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



8. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)
Aspirational
Ready for



10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\ldots$ 



### Specialty: Medical oncology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members  $\ldots$ 



### Specialty: Medical oncology

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 





22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.

20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)

#### Specialty: Pulmonary disease

Resident Year	1	2	Total Residents
# of Residents	40	33	73

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s).  $\dots$ 





5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)  $\,$ 



Note: Please reference milestone narrative for full text.



# 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





6. Patient Care - Requests and provides consultative care. (PC5)



#### Specialty: Pulmonary disease

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



# 11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



Note: Please reference milestone narrative for full text.



10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...







8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

#### Specialty: Pulmonary disease

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



Note: Please reference milestone narrative for full text.







18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)

#### Specialty: Pulmonary disease

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 



Aspirational Ready for Unsupervised Practice Critical Deficiencies

2

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)

Resident Year

1



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.

20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)

### Specialty: Pulmonary disease and critical care medicine

Resident Year	1	2	3	Total Residents
# of Residents	664	599	557	1,820

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



#### 



Note: 2 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

# 5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



# 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)

Note: 1 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

4. Patient Care - Demonstrates skill in performing and interpreting invasive procedures. (PC4a)



Note: 14 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



Note: 3 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pulmonary disease and critical care medicine

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



are not included in the analysis.

<sup>11.</sup> Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

Note: 2 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



Note: 3 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and ...



are not included in the analysis.

#### Specialty: Pulmonary disease and critical care medicine

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



Note: 6 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



Note: 45 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



Note: 2 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



Note: 4 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Note: 3 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pulmonary disease and critical care medicine



Note: 1 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



Note: 2 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

23. Interpresonal and Communication Skills - Communicates effectively in interprofessional teams (e.g.,  $\dots$ 





20. Professionalism - Responds to each patient's unique characteristics

22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



Note: 2 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: 3 of 1,820 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Rheumatology

Resident Year	1	2	Total Residents
# of Residents	252	230	482

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...





5. Patient Care - Demonstrates skill in performing and interpreting non-invasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.



2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





Note: 4 of 482 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Patient Care - Requests and provides consultative care. (PC5)



#### Specialty: Rheumatology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



#### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





Resident Year

2

8. Medical Knowledge - Knowledge of diagnostic testing and procedures.

10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...

i







Note: 4 of 482 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Rheumatology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



Note: 1 of 482 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



 Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



### Specialty: Rheumatology



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)  $\,$ 



23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...



Note: Please reference milestone narrative for full text.



22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)

### Specialty: Sleep medicine (multidisciplinary)

Resident Year	1	Total Residents
# of Residents	172	172

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s). ...



# 3. Patient Care - Manages patients with progressive responsibility and independence. (PC3) $\,$



### 5. Patient Care - Requests and provides consultative care. (PC5)



Note: Please reference milestone narrative for full text.



# 2. Patient Care - Develops and achieves comprehensive management plan for each patient. (PC2)





#### 6. Medical Knowledge - Possesses Clinical knowledge (MK1)



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### Specialty: Sleep medicine (multidisciplinary)

7. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)  $\,$ 



## 9. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



11. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\ldots$ 



8. Medical Knowledge - Scholarship. (MK3)



Note: 1 of 172 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)



12. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



### Specialty: Sleep medicine (multidisciplinary)

13. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



#### 15. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



17. Professionalism - Has professional and respectful interactions with patients, caregivers, and members ...



Note: Please reference milestone narrative for full text.







18. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



#### 14. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)

### Specialty: Sleep medicine (multidisciplinary)

19. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)  $% \left( \left( PROF3\right) \right) \right) =0.0175$ 



# 21. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



23. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.



22. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...



# 20. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)

#### Specialty: Transplant hepatology

Resident Year	1	Total Residents
# of Residents	48	48

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s).  $\ldots$ 



3. Patient Care - Manages patients with progressive responsibility and independence. (PC3)  $\,$ 



5. Patient Care - Demonstrates skill in performing and interpreting noninvasive procedures and/or testing. (PC4b)



Note: Please reference milestone narrative for full text.

Aspirational
Ready for
Unsupervised
Practice
Critical
Deficiencies
i
Resident Year

2. Patient Care - Develops and achieves comprehensive management

plan for each patient. (PC2)

# 4. Patient Care - Demonstrates skill in performing and interpreting invasive procedures. (PC4a)



6. Patient Care - Requests and provides consultative care. (PC5)



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### Specialty: Transplant hepatology

7. Medical Knowledge - Possesses Clinical knowledge (MK1)



### 9. Medical Knowledge - Scholarship. (MK3)



11. Systems-Based Practice - Recognizes system error and advocates for system improvement. (SBP2)





10. Systems-Based Practice - Works effectively within an interprofessional team (e.g., with peers, consultants, ...



12. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for and  $\dots$ 



8. Medical Knowledge - Knowledge of diagnostic testing and procedures. (MK2)
#### Specialty: Transplant hepatology

13. Systems-Based Practice - Transitions patients effectively within and across health delivery systems. (SBP4)



## 15. Practice-Based Learning and Improvement - Learns and improves via performance audit. (PBLI2)



17. Practice-Based Learning and Improvement - Learns and improves at the point of care. (PBLI4)



14. Practice-Based Learning and Improvement - Monitors practice with a goal for improvement. (PBLI1)



16. Practice-Based Learning and Improvement - Learns and improves via feedback. (PBLI3)



18. Professionalism - Has professional and respectful interactions with patients, caregivers, and members  $\ldots$ 

Aspirational	•
Ready for Unsupervised Practice	
Critical	
Deficiencies	
	Resident Year

#### Specialty: Transplant hepatology

19. Professionalism - Accepts responsibility and follows through on tasks. (PROF2)



21. Professionalism - Exhibits integrity and ethical behavior in professional conduct. (PROF4)



23. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g., ...





22. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers. (ICS1)



24. Interpersonal and Communication Skills - Appropriate utilization and completion of health records. (ICS3)



Note: Please reference milestone narrative for full text.

#### 20. Professionalism - Responds to each patient's unique characteristics and needs. (PROF3)

### Specialty: Medical genetics and genomics

Resident Year	1	2	Total Residents
# of Residents	35	28	63

1. Patient Care - Obtain and interpret medical, social, and family histories, as well as physical exam ...



3. Patient Care - Incorporate whole genome or exome tests into patient management—Patient Care



included in the analysis.

5. Patient Care - Evaluates infants with abnormal newborn screens in a cost-effective and sensitive manner  $\ldots$ 



Note: Please reference milestone narrative for full text.

2. Patient Care - Incorporate genetic tests into patient management-Patient Care







6. Patient Care - Develop proficiency in cancer genetics-Patient Care



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#### Specialty: Medical genetics and genomics

7. Patient Care - Evaluate and manage patients with single malformations, multiple congenital anomalies, ...



9. Patient Care - Provide longitudinal management and reproductive counseling in pregnancies with known  $\ldots$ 



11. Medical Knowledge - Assess and participate in a clinical or translational research study or clinical ...







Note: 9 of 63 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Medical Knowledge - Apply knowledge of anatomy, development, pathophysiology, natural history, clinical ...







### Specialty: Medical genetics and genomics

13. Systems-Based Practice - Use technology to accomplish safe health care delivery—Systems-Based Practice



15. Practice-Based Learning and Improvement - Implement a quality improvement project—Practice-Based Learning and Improvement



17. Professionalism - Adhere to the ethical principles relevant to the practice of medicine—Professionalism



Note: Please reference milestone narrative for full text.

14. Practice-Based Learning and Improvement - Self-Directed Learning-Practice-Based Learning and Improvement ...



16. Professionalism - Is sensitive and responsive to diverse patient populations with respect to gender,  $\dots$ 



18. Professionalism - Demonstrate personal responsibility to maintain emotional, physical, and mental health  $\ldots$ 



### Specialty: Medical genetics and genomics

19. Interpersonal and Communication Skills - Relationship building, teamwork, and conflict management—Interpersonal ...



20. Interpersonal and Communication Skills - Information gathering and sharing-Interpersonal and Communication Skills



### Specialty: Medical biochemical genetics

Resident Year	1	Total Residents
# of Residents	13	13

#### 1. Patient Care - Initial or Acute Management - Patient Care 1



### 3. Patient Care - Newborn Screening (NBS) - Patient Care 3







#### Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Chronic Management - Patient Care 2





#### 6. Medical Knowledge - Diagnostic Testing - Medical Knowledge 3



### Specialty: Medical biochemical genetics





## 9. Systems-Based Practice - Transitions of Care - Systems-Based Practice 3



## 11. Practice-Based Learning and Improvement - Process Improvement and Patient Safety — Practice-Based Learning $\dots$



8. Systems-Based Practice - Newborn Screening Systems — Systems-Based Practice 2



10. Practice-Based Learning and Improvement - Self-Directed Learning — Practice-Based Learning and Improvement 1







### Specialty: Medical biochemical genetics

### 13. Professionalism - Cultural Competency - Professionalism 2



15. Interpersonal and Communication Skills - Communicates with Patients and Families — Interpersonal and  $\ldots$ 





16. Interpersonal and Communication Skills - Communication and Conflict Management within the Health Care  $\ldots$ 



14. Professionalism - Accountability and Integrity - Professionalism 3

### Specialty: Molecular genetic pathology (multidisciplinary)

Resident Year	1	<b>Total Residents</b>
# of Residents	58	58

### 1. Patient Care - Patient Care 1 - Assay Design and Validation



## Level 5 0 Level 4 Level 3 0 Level 2 Level Resident Year

#### 3. Patient Care - Patient Care 3 - Interpretation



#### 5. Medical Knowledge - Medical Knowledge 2 - Genomic Testing



Note: Please reference milestone narrative for full text.

## 4. Medical Knowledge - Medical Knowledge 1 - Molecular Testing



6. Medical Knowledge - Medical Knowledge 3 - Patient-centered Interpretation



### 2. Patient Care - Patient Care 2 - Quality Assurance

### Specialty: Molecular genetic pathology (multidisciplinary)

7. Systems-Based Practice - Systems-Based Practice 1 - Regulatory



#### 9. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 1 - Evidence-based Utilization



11. Professionalism - Professionalism 1 - Giving and Receiving Feedback







10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement 2 - Process Improvement and Patient Safety



12. Professionalism - Professionalism 2 - Accountability, Honesty, and Integrity



### Specialty: Molecular genetic pathology (multidisciplinary)

13. Interpersonal and Communication Skills - Interpersonal and Communication Skills 1 - Communicates with  $\ldots$ 



14. Interpersonal and Communication Skills - Interpersonal Communication and Skills 2 - Personnel Management and Conflict Resolution



### Specialty: Neurological surgery

Resident Year	1	2	3	4	5	6	7	Total Residents
# of Residents	223	222	221	205	198	199	147	1,415





not included in the analysis.

### 3. Patient Care - Critical Care



Note: 22 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: Please reference milestone narrative for full text.

2. Medical Knowledge - Brain Tumor



Note: 48 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.

4. Medical Knowledge - Critical Care



Note: 16 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Medical Knowledge - Surgical Treatment of Epilepsy and Movement Disorders



Note: 120 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### Specialty: Neurological surgery

7. Patient Care - Pain and Peripheral Nerves



note: 123 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.









#### 8. Medical Knowledge - Pain and Peripheral Nerves



Note: 113 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Medical Knowledge - Pediatric Neurological Surgery



Note: 208 of 1,415 residents have a status of "Not Yet Hotated" and ar not included in the analysis.





Note: 54 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### Specialty: Neurological surgery

### 13. Medical Knowledge - Spinal Neurosurgery; Trauma, Tumor, Infection



not included in the analysis.

#### 15. Medical Knowledge - Vascular Neurosurgery





17. Systems-Based Practice - Economics

Note: Please reference milestone narrative for full text.

### Level 5 0 0

14. Patient Care - Vascular Neurosurgery



Note: 82 of 1,415 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### 16. Patient Care - Traumatic Brain Injury



not included in the analysis.

#### 18. Systems-Based Practice - Safety and Systems



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### Specialty: Neurological surgery

19. Practice-Based Learning and Improvement - Lifelong Learning



### 20. Practice-Based Learning and Improvement - Research



#### 21. Professionalism - Compassion



#### 23. Interpersonal and Communication Skills - Relational



Note: Please reference milestone narrative for full text.

22. Professionalism - Accountability



#### 24. Interpersonal and Communication Skills - Technology



#### Specialty: Neurology

1. Patient Care - History-Patient Care

Post Graduate Year	1	2	3	4	Total Residents
# of Residents	483	823	763	693	2,762



## 3. Patient Care - Management/Treatment-Patient Care



Note: 159 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: Please reference milestone narrative for full text.





Note: 158 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 4. Patient Care - Movement Disorders-Patient Care



Note: 412 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Patient Care - Cerebrovascular Disorders-Patient Care



Note: 250 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### Specialty: Neurology

7. Patient Care - Cognitive/Behavioral Disorders-Patient Care



#### 9. Patient Care - Epilepsy-Patient Care



11. Patient Care - Neurologic Manifestations of Systemic Disease – Patient Care



#### 8. Patient Care - Demyelinating Disorders-Patient Care



Note: 372 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 10. Patient Care - Headache Syndromes-Patient Care



Note: 305 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.





note: 1,033 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### Specialty: Neurology





#### 15. Patient Care - Neuroimaging-Patient Care



17. Patient Care - Nerve Conduction Studies (NCS)/Electromyography (EMG)—Patient Care







Level 1 1 2 3 4 Post Graduate Year

Note: 773 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Patient Care - Electroencephalogram (EEG)-Patient Care

Level 2



Note: 602 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 18. Patient Care - Lumbar Puncture-Patient Care



#### Specialty: Neurology





#### 21. Medical Knowledge - Diagnostic Investigation-Medical Knowledge



23. Systems-Based Practice - Work in interprofessional teams to enhance patient safety—Systems-Based Practice



Note: Please reference milestone narrative for full text.



Note: 138 of 2,762 residents have a status of "Not Yet Rotated" and are not included in the analysis.

22. Systems-Based Practice - Systems thinking, including cost and risk effective practice—Systems-Based Practice



24. Practice-Based Learning and Improvement - Self-directed learning-Practice-Based Learning and Improvement ...



#### 20. Medical Knowledge - Formulation-Medical Knowledge

### Specialty: Neurology

25. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



26. Professionalism - Compassion, integrity, accountability, and respect for self and others — Professionalism



27. Professionalism - Knowledge about, respect for, and adherence to the ethical principles relevant to  $\ldots$ 



29. Interpersonal and Communication Skills - Information sharing,



28. Interpersonal and Communication Skills - Relationship development,



### Specialty: Clinical neurophysiology

Resident Year	1	Total Residents
# of Residents	176	176

### 1. Patient Care - History - Patient Care



### 3. Patient Care - Electroencephalogram (EEG) - Patient Care



#### 5. Patient Care - EMG - Patient Care



Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 Level 2 Level 1 i Resident Year

#### 2. Patient Care - Neurological Exam - Patient Care





Note: 35 of 176 residents have a status of "Not Applicable" and are not included in the analysis.

6. Patient Care - Evoked Potential (EP)/Intraoperative Monitoring (IOM) — Patient Care



Note: 34 of 176 residents have a status of "Not Applicable" and are not included in the analysis.

### Specialty: Clinical neurophysiology

#### 7. Patient Care - Sleep Disorders - Patient Care











Note: Please reference milestone narrative for full text.







12. Medical Knowledge - Sleep Disorders - Medical Knowledge



### 8. Medical Knowledge - Localization - Medical Knowledge

### Specialty: Clinical neurophysiology

#### 13. Medical Knowledge - EP/IOM - Medical Knowledge



15. Systems-Based Practice - Work in interprofessional teams to enhance patient safety - Systems-Based Practice



17. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



Note: Please reference milestone narrative for full text.

Level 2 Level 1 Level 1 Level 2 Level 1 Resident Year









### 14. Systems-Based Practice - Systems thinking, including cost- and riskeffective practice — Systems-Based Practice

### Specialty: Clinical neurophysiology

19. Professionalism - Knowledge about, respect for, and adherence to the ethical principles relevant to  $\ldots$ 



21. Interpersonal and Communication Skills - Information sharing, gathering, and technology — Interpersonal ...



20. Interpersonal and Communication Skills - Relationship development, teamwork, and managing conflict — ...



### Specialty: Epilepsy

Resident Year	1	Total Residents
# of Residents	107	107

### 1. Patient Care - History - Patient Care



#### 3. Patient Care - Medical Management - Patient Care







Note: Please reference milestone narrative for full text.

### 2. Patient Care - Neurological Examination - Patient Care



### 4. Patient Care - Surgical Management - Patient Care



6. Patient Care - Cognitive, Behavioral, and Psychiatric Disorders Associated with Seizure Disorders - Patient Care



### Specialty: Epilepsy

#### 7. Medical Knowledge - Epilepsy Localization - Medical Knowledge



9. Medical Knowledge - Seizure and Epilepsy Classification - Medical Knowledge



11. Systems-Based Practice - Systems Thinking, Including Cost- and Risk-Effective Practice - Systems-Based Practice



8. Medical Knowledge - Diagnostic Investigation - Medical Knowledge Level 5 Level 4 Level 3 0 o Level 2 Level 1 Resident Year

10. Systems-Based Practice - Work in Interprofessional Teams to Enhance Patient Safety - Systems-Based Practice



12. Systems-Based Practice - Advocacy, Continuum of Care, and Community Resources - Systems-Based Practice



#### Specialty: Epilepsy

13. Practice-Based Learning and Improvement - Self-directed learning - Practice-Based Learning and Improvement  $\ldots$ 



15. Professionalism - Compassion, Integrity, Accountability, and Respect for Self and Others — Professionalism



17. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...



Note: Please reference milestone narrative for full text.





16. Professionalism - Knowledge about, Respect for, and Adherence to the Ethical Principles Relevant to ...



18. Interpersonal and Communication Skills - Information Sharing, Gathering, and Technology — Interpersonal ...



### Specialty: Neurodevelopmental disabilities

1. Patient Care - History - Patient Care

Resident Year	1	2	3	4	Total Residents
# of Residents	5	7	7	9	28



#### 2. Patient Care - Neurological Exam - Patient Care



3. Patient Care - Neurodevelopmental Exam - Patient Care





Note: Please reference milestone narrative for full text.



4. Patient Care - Management/Treatment - Patient Care



6. Patient Care - Neurometabolic and Neurogenetic Disorders - Patient Care



### Specialty: Neurodevelopmental disabilities

### 7. Patient Care -



### 9. Patient Care - Cerebrovascular Disorders - Patient Care







Note: Please reference milestone narrative for full text.



### 8. Patient Care - Neuromuscular Disorders - Patient Care

10. Patient Care - Cognitive, Behavioral, and Psychiatric Disorders — Patient Care



#### 12. Patient Care - Epilepsy - Patient Care



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### Specialty: Neurodevelopmental disabilities

13. Patient Care - Headache Syndromes - Patient Care



# Level 5 Level 4 Level 2 Level 1 1 2 3 4 Resident Year

16. Patient Care - Electroencephalogram [EEG] - Patient Care







### 15. Patient Care - Neuroimaging - Patient Care







Note: Please reference milestone narrative for full text.

### 14. Patient Care - Neuro-Oncology - Patient Care

### Specialty: Neurodevelopmental disabilities

19. Medical Knowledge - Development - Medical Knowledge



#### 21. Medical Knowledge - Diagnostic Investigation - Medical Knowledge



23. Systems-Based Practice - Systems thinking, including cost- and riskeffective practice — Systems-Based Practice



Note: Please reference milestone narrative for full text.







24. Systems-Based Practice - Work in interprofessional teams to enhance patient safety — Systems-Based Practice



### 20. Medical Knowledge - Localization - Medical Knowledge

### Specialty: Neurodevelopmental disabilities

25. Practice-Based Learning and Improvement - Self-directed Learning — Practice-Based Learning and Improvement  $\ldots$ 



27. Professionalism - Compassion, integrity, accountability, and respect for self and others — Professionalism



29. Interpersonal and Communication Skills - Relationship development, teamwork, and managing conflict —  $\dots$ 



Note: Please reference milestone narrative for full text.

26. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



28. Professionalism - Knowledge about, respect for, and adherence to the ethical principles relevant to ...



30. Interpersonal and Communication Skills - Information sharing, gathering, and technology — Interpersonal ...



### Specialty: Neuromuscular medicine (Neurology)

Resident Year	1	Total Residents
# of Residents	58	58

### 1. Patient Care - History - Patient Care



#### 3. Patient Care - Management/Treatment - Patient Care







Note: Please reference milestone narrative for full text.

#### 2. Patient Care - Neuromuscular Exam - Patient Care



4. Patient Care - Nerve Conduction Studies (NCS) - Patient Care



#### 6. Patient Care - Anterior Horn Cell Disorders - Patient Care



### Specialty: Neuromuscular medicine (Neurology)

7. Patient Care - Root, Plexus, and Peripheral Nerve Disorders — Patient Care





#### 9. Patient Care - Myopathies - Patient Care



#### 11. Medical Knowledge - Formulation - Medical Knowledge



12. Medical Knowledge - Diagnostic Investigation — Medical Knowledge



## 8. Patient Care - Neuromuscular Junction Disorders - Patient Care

10. Medical Knowledge - Localization — Medical Knowledge



### Specialty: Neuromuscular medicine (Neurology)

13. Medical Knowledge - Muscle and Nerve Pathology — Medical Knowledge



15. Systems-Based Practice - Work in Interprofessional Teams to Enhance Patient Safety and Patient Care — Systems-Based Practice



17. Practice-Based Learning and Improvement - Locate, Appraise, and Assimilate Evidence from Scientific ...



14. Systems-Based Practice - Systems Thinking, Including Cost- and Risk-effective Practice — Systems-Based Practice



16. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement ...






### Specialty: Neuromuscular medicine (Neurology)

19. Professionalism - Knowledge About, Respect for, and Adherence to the Ethical Principles Relevant to  $\ldots$ 



21. Interpersonal and Communication Skills - Information Sharing, Gathering, and Technology — Interpersonal  $\dots$ 



20. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...



### Specialty: Vascular neurology

Resident Year	1	Total Residents
# of Residents	118	118

### 1. Patient Care - History - Patient Care



# 3. Patient Care - Ischemic Stroke Reperfusion Treatment and Management — Patient Care



#### 5. Medical Knowledge - Localization - Medical Knowledge



Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Vascular Neurological Examination - Patient Care





#### 6. Medical Knowledge - Formulation - Medical Knowledge



#### Specialty: Vascular neurology

7. Medical Knowledge - Imaging in Vascular Neurology (e.g., computed tomography [CT], magnetic resonance ...



#### 9. Medical Knowledge - Ischemic Stroke - Medical Knowledge



11. Medical Knowledge - Subarachnoid Hemorrhage — Medical Knowledge



8. Medical Knowledge - Diagnostic Investigation in Vascular Neurology - Medical Knowledge



10. Medical Knowledge - Intracerebral Hemorrhage — Medical Knowledge



12. Systems-Based Practice - Cost- and risk/benefit-appropriate practice - Systems-Based Practice



#### Specialty: Vascular neurology

13. Systems-Based Practice - Work in interprofessional teams to enhance patient safety — Systems-Based Practice



15. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement  $\ldots$ 







Note: Please reference milestone narrative for full text.



16. Practice-Based Learning and Improvement - Locate, Appraise, and Assimilate Evidence from Scientific ...



18. Professionalism - Knowledge About and Adherence to the Ethical Principles Relevant to the Practice of Medicine — Professionalism



14. Systems-Based Practice - Continuum of Care — Systems-Based Practice

### Specialty: Vascular neurology

19. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...





20. Interpersonal and Communication Skills - Information Sharing, Gathering, and Technology - Interpersonal  $\ldots$ 

### Specialty: Child neurology

Resident Year	1	2	3	Total Residents
# of Residents	136	119	121	376





#### 3. Patient Care - Management/Treatment - Patient Care



5. Patient Care - Movement Disorders - Patient Care



Note: Please reference milestone narrative for full text.

Level 3

Level 4

Level 2

Level



0

2

Resident Year

3



#### 6. Patient Care - Neuromuscular Disorders - Patient Care



#### 2. Patient Care - Neurological Exam - Patient Care Level 5 0

### Specialty: Child neurology





9. Patient Care - Neuroimmunologic and White Matter Disorders - Patient Care



11. Patient Care - Headache Syndromes - Patient Care



Patient Care

10. Patient Care - Epilepsy - Patient Care



12. Patient Care - Neuro-Oncology - Patient Care



8. Patient Care - Cognitive, Behavioral, and Psychiatric Disorders - Patient Care

### Specialty: Child neurology





### 14. Patient Care - Electroencephalogram [EEG] - Patient Care



15. Patient Care - Lumbar Puncture - Patient Care



17. Medical Knowledge - Localization — Medical Knowledge







18. Medical Knowledge - Formulation — Medical Knowledge



### Specialty: Child neurology

### 19. Medical Knowledge - Diagnostic Investigation — Medical Knowledge



21. Systems-Based Practice - Work in interprofessional teams to enhance patient safety — Systems-Based Practice



23. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



Note: Please reference milestone narrative for full text.

20. Systems-Based Practice - Systems thinking, including cost- and riskeffective practice — Systems-Based Practice



22. Practice-Based Learning and Improvement - Self-directed learning — Practice-Based Learning and Improvement  $\ldots$ 







### Specialty: Child neurology

25. Professionalism - Knowledge about, respect for, and adherence to the ethical principles relevant to  $\ldots$ 



27. Interpersonal and Communication Skills - Information sharing, gathering, and technology — Interpersonal  $\dots$ 



26. Interpersonal and Communication Skills - Relationship development, teamwork, and managing conflict — ...



#### Specialty: Nuclear medicine

Resident Year	1	2	3	Total Residents
# of Residents	33	19	22	74

1. Patient Care - Diagnostic: General Nuclear Medicine, Cardiovascular, and Molecular Imaging (Patient ...



3. Patient Care - Therapy: Radioiodine for Benign Thyroid Disease-Patient Evaluation, Procedure Selection,  $\ldots$ 



5. Patient Care - Therapy: Parenteral–Patient Evaluation, Procedure Selection, Procedure Performance, and  $\ldots$ 



Note: Please reference milestone narrative for full text.

2. Patient Care - Cardiovascular Nuclear Medicine-Stress Testing: Patient Evaluation and Procedure Monitoring—Patient Care







6. Medical Knowledge - Physiology and Pathophysiology-Medical Knowledge



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### Specialty: Nuclear medicine

7. Medical Knowledge - Anatomic Imaging-Medical Knowledge







#### 11. Medical Knowledge - Regulatory Requirements-Medical Knowledge



Note: Please reference milestone narrative for full text.



10. Medical Knowledge - Medical physics, mathematics, and radiation biology-Medical Knowledge







#### 8. Medical Knowledge - Instrumentation-Medical Knowledge

### Specialty: Nuclear medicine

13. Systems-Based Practice - Computer Systems-Systems-Based Practice



15. Practice-Based Learning and Improvement - Self-Directed Learning and Understanding Scientific Studies—Practice-Based ...



17. Professionalism - Professional Ethics and Accountability-Professionalism



Note: Please reference milestone narrative for full text.



16. Practice-Based Learning and Improvement - Implements Quality Improvement Project—Practice-Based Learning and Improvement







14. Systems-Based Practice - Economics-Systems-Based Practice

### Specialty: Nuclear medicine

19. Interpersonal and Communication Skills - Health Care Team-Interpersonal and Communications Skills



### Specialty: Obstetrics and gynecology

Resident Year	1	2	3	4	Total Residents
# of Residents	1,410	1,380	1,353	1,350	5,493

1. Patient Care - Antepartum Care and Complications of Pregnancy-Patient Care



3. Patient Care - Care of Patients in the Postpartum Period-Patient Care



Note: 4 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Care of Patients in the Intrapartum Period-Patient Care

4. Patient Care - Obstetrical Technical Skills-Patient Care



6. Patient Care - Gynecology Technical Skills: Laparotomy (e.g., Hysterectomy, Myomectomy, Adnexectomy)—Patient Care



Note: 145 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Note: 3 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### Specialty: Obstetrics and gynecology

7. Patient Care - Gynecology Technical Skills: Vaginal Surgery (e.g., Vaginal Hysterectomy, Colporrhaphy, ...





9. Patient Care - Family Planning-Patient Care



11. Patient Care - Care of the Patient with Non-Reproductive Medical Disorders—Patient Care



8. Patient Care - Gynecology Technical Skills: Endoscopy (Laparoscopy, Hysteroscopy, Cystoscopy) – Patient Care



Note: 83 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Patient Care - Ambulatory Gynecology-Patient Care



Note: 31 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 14 of 5,493 residents have a status of "Not Yet Hotated" and are not included in the analysis.

#### Specialty: Obstetrics and gynecology

13. Medical Knowledge - Abdominal/Pelvic Pain (Acute and Chronic) — Medical Knowledge





#### 15. Medical Knowledge - Pelvic Mass-Medical Knowledge



#### 17. Medical Knowledge - First Trimester Bleeding-Medical Knowledge







Note: 51 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Medical Knowledge - Pelvic Floor Disorders (Urinary Incontinence, Pelvic Prolapse, Anal Incontinence)-Medical Knowledge



Note: 648 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 37 of 5,493 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### Specialty: Obstetrics and gynecology

19. Systems-Based Practice - Patient Safety and Systems Approach to Medical Errors: Participate in identifying ...



21. Practice-Based Learning and Improvement - Self-directed Learning/Critical Appraisal of Medical Literature-Practice-Based ...



23. Professionalism - Compassion, Integrity, and Respect for Others-Professionalism



Note: Please reference milestone narrative for full text.



20. Systems-Based Practice - Cost-effective Care and Patient Advocacy

22. Practice-Based Learning and Improvement - Quality Improvement Process: Systematically analyze practice ...



24. Professionalism - Accountability and Responsiveness to the Needs of Patients, Society, and the Profession-Professionalism



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### Specialty: Obstetrics and gynecology

25. Professionalism - Respect for Patient Privacy, Autonomy, Patient-Physician Relationship—Professionalism



27. Interpersonal and Communication Skills - Communication with Physicians and Other Health Professionals  $\ldots$ 







28. Interpersonal and Communication Skills - Informed Consent and Shared Decision Making-Interpersonal and Communication Skills



### Specialty: Female pelvic medicine and reconstructive surgery (OBGYN)

Resident Year	1	2	3	Total Residents
# of Residents	49	45	48	142

#### 1. Patient Care - General Pelvic Floor Evaluation - Patient Care



3. Patient Care - Anal Incontinence and Defecatory Dysfunction Treatment — Patient Care



5. Patient Care - Urogenital Fistulas and Urethral Diverticula Treatment - Patient Care



Note: Please reference milestone narrative for full text.



2. Patient Care - Urinary Incontinence and Overactive Bladder Treatment - Patient Care

Level 5

4. Patient Care - Pelvic Organ Prolapse Treatment - Patient Care



6. Patient Care - Painful Bladder Syndrome Treatment - Patient Care



### Specialty: Female pelvic medicine and reconstructive surgery (OBGYN)

7. Patient Care - Urinary Tract Infection (UTI) - Patient Care



9. Medical Knowledge - Urinary Incontinence and Overactive Bladder Treatment — Medical Knowledge





11. Medical Knowledge - Pelvic Organ Prolapse Treatment — Medical Knowledge

8. Medical Knowledge - Pelvic Floor Anatomy and Physiology — Medical Knowledge



10. Medical Knowledge - Anal Incontinence and Defecatory Dysfunction Treatment — Medical Knowledge







### Specialty: Female pelvic medicine and reconstructive surgery (OBGYN)





#### 15. Medical Knowledge - Neuro-Urology - Medical Knowledge







Note: Please reference milestone narrative for full text.



# 16. Systems-Based Practice - Computer Systems - Systems-Based Practice







14. Medical Knowledge - Urinary Tract Infection — Medical Knowledge

### Specialty: Female pelvic medicine and reconstructive surgery (OBGYN)

19. Practice-Based Learning and Improvement - Scholarly Activity – Practice-Based Learning and Improvement



21. Professionalism - Professional Ethics and Accountability - Professionalism



23. Interpersonal and Communication Skills - Effective Communication - Interpersonal and Communication Skills



Note: Please reference milestone narrative for full text.

20. Practice-Based Learning and Improvement - Implements Quality Improvement Project — Practice-Based Learning and Improvement



22. Interpersonal and Communication Skills - Health Care Teamwork - Interpersonal and Communication Skills



### Specialty: Gynecologic oncology

Resident Year	1	2	3	Total Residents
# of Residents	66	62	61	189

1. Patient Care - PC1: Surgical Care of Gynecologic Cancer – Open Techniques



3. Patient Care - PC3: Medical Management of Gynecologic Cancer – Chemotherapy and Targeted Therapeutics



5. Patient Care - PC5: Hospice and Palliative Care



Note: Please reference milestone narrative for full text.



4. Patient Care - PC4: Peri-operative Care



#### 6. Medical Knowledge - MK1: Anatomy



### Specialty: Gynecologic oncology

7. Medical Knowledge - MK2: Pathology



9. Medical Knowledge - MK4: Genetics, Cancer Biology, and Immunology



11. Medical Knowledge - MK6: Chemotherapy and Targeted Therapeutics



Note: Please reference milestone narrative for full text.

8. Medical Knowledge - MK3: Management of Medical Diseases in Gynecologic Cancer – Organ System Disorders



10. Medical Knowledge - MK5: Radiation Therapy – Radiation Biology and Physics







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### Specialty: Gynecologic oncology

#### 13. Systems-Based Practice - SBP1: Computer Systems



#### 15. Practice-Based Learning and Improvement - PBLI1: Scholarly Activity



#### 17. Professionalism - PROF1: Professional Ethics and Accountability



Note: Please reference milestone narrative for full text.



# 16. Practice-Based Learning and Improvement - PBLI2: Quality Improvement (QI)







## 14. Systems-Based Practice - SBP2: Value-based Patient Care (Quality/Cost)

### Specialty: Gynecologic oncology

19. Interpersonal and Communication Skills - ICS1: Teamwork and Communication with Physicians and Other Health Professionals





20. Interpersonal and Communication Skills - ICS2: Communication with Patients and Families

### Specialty: Maternal-fetal medicine

Resident Year	1	2	3	Total Residents
# of Residents	113	108	104	325

#### 1. Patient Care - PC1: Labor and Delivery Procedures



3. Patient Care - PC3: Medical Complications of Pregnancy



5. Medical Knowledge - MK1: Pathology, Anatomy, and Physiology



Note: Please reference milestone narrative for full text.



#### 2. Patient Care - PC2: Sonographic Diagnosis and Procedures

4. Patient Care - PC4: Obstetrical Complications



6. Medical Knowledge - MK2: Medical Complications of Pregnancy



#### Specialty: Maternal-fetal medicine

7. Medical Knowledge - MK3: Obstetrical Complications



9. Medical Knowledge - MK5: Prenatal Imaging and Diagnosis







Note: Please reference milestone narrative for full text.



10. Systems-Based Practice - SBP1: Computer Systems



12. Practice-Based Learning and Improvement - PBLI1: Scholarly Activity



#### 8. Medical Knowledge - MK4: Genetic Principles

### Specialty: Maternal-fetal medicine

13. Practice-Based Learning and Improvement - PBLI2: Quality Improvement (QI)



15. Professionalism - PROF1: Professional Ethics and Accountability



17. Interpersonal and Communication Skills - ICS1: Teamwork and Communication with Physicians and Other Health Professionals



Note: Please reference milestone narrative for full text.







18. Interpersonal and Communication Skills - ICS2: Communication with Patients and Families



14. Practice-Based Learning and Improvement - PBLI3: Education of Team Members

### Specialty: Reproductive endocrinology and infertility

Resident Year	1	2	3	Total Residents
# of Residents	57	54	48	159

### 1. Patient Care - PC1: General Infertility Evaluation



3. Patient Care - PC3: Surgery for Reproductive Disorders



5. Medical Knowledge - MK2: Genetic Principles



Note: Please reference milestone narrative for full text.

2. Patient Care - PC2: Ovulation Induction (OI) and Assisted Reproductive Technologies (ART)







6. Medical Knowledge - MK3: Reproductive Medicine and Neuroendocrinology



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### Specialty: Reproductive endocrinology and infertility

7. Systems-Based Practice - SBP1: Computer Systems



9. Practice-Based Learning and Improvement - PBLI1: Scholarly Activity



11. Practice-Based Learning and Improvement - PBLI3: Education of Team Members



Note: Please reference milestone narrative for full text.

(Quality/Cost)





12. Professionalism - PROF1: Professional Ethics and Accountability



# 8. Systems-Based Practice - SBP2: Value-based Patient Care (Quality/Cost)

### Specialty: Reproductive endocrinology and infertility

13. Professionalism - PROF2: Compassion, Integrity, and Respect for Others



14. Interpersonal and Communication Skills - ICS1: Teamwork and Communication with Physicians and Other Health Professionals



15. Interpersonal and Communication Skills - ICS2: Communication with Patients and Partner (if applicable)



### Specialty: Ophthalmology

Resident Year	1	2	3	Total Residents
# of Residents	493	481	503	1,477

#### 1. Patient Care - PC-1. Patient Interview



3. Patient Care - PC-3. Office Diagnostic Procedures (Use the Appendix and see Special Note on page v.)







Note: Please reference milestone narrative for full text.



# 2. Patient Care - PC-2. Patient Examination (Use the Appendix and see Special Note on page v.)

#### 4. Patient Care - PC-4. Disease Diagnosis



6. Patient Care - PC-6. Non-Operating Room (OR) Surgery (Use the Appendix and see Special Note on page v.)



### Specialty: Ophthalmology

7. Patient Care - PC-7. OR Surgery (Use the Appendix and see Special Note on page v.)



9. Medical Knowledge - MK-1. Demonstrate level-appropriate knowledge



11. Systems-Based Practice - SBP-1. Work effectively and coordinate patient care in various health care delivery systems



Note: Please reference milestone narrative for full text.



10. Medical Knowledge - MK-2. Demonstrate level-appropriate knowledge applied to patient management



12. Systems-Based Practice - SBP-2. Incorporate cost-effectiveness, risk/benefit analysis, and IT to promote ...



8. Patient Care - PC-8. Consultation

### Specialty: Ophthalmology

13. Systems-Based Practice - SBP-3: Work in interprofessional teams to enhance patient safety, identify  $\ldots$ 



15. Practice-Based Learning and Improvement - PBLI-2. Locate, appraise, and assimilate evidence from scientific  $\ldots$ 



17. Professionalism - PROF-1. Compassion, integrity, and respect for others; sensitivity and responsiveness  $\dots$ 



Note: Please reference milestone narrative for full text.

14. Practice-Based Learning and Improvement - PBLI-1. Self-Directed Learning 1. Identify strengths, deficiencies, ...



16. Practice-Based Learning and Improvement - PBLI-3. Participate in a quality improvement project







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# Specialty: Ophthalmology

19. Professionalism - PROF-3. Respect for patient privacy and autonomy



21. Interpersonal and Communication Skills - ICS-1. Communicate effectively with patients and families with ...



23. Interpersonal and Communication Skills - ICS-3. Work effectively as a member or leader of a health care  $\ldots$ 



Note: Please reference milestone narrative for full text.



22. Interpersonal and Communication Skills - ICS-2. Communicate effectively with physicians, other health ...



24. Interpersonal and Communication Skills - ICS-4. Effectively present didactic and case-based educational  $\ldots$ 



20. Professionalism - PROF-4. Accountability to patients, society, and the profession

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## Specialty: Orthopaedic surgery

Resident Year	1	2	3	4	5	Total Residents
# of Residents	811	806	794	765	775	3,951





Note: 680 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### 3. Patient Care - Ankle Arthritis



Note: 770 of 3,951 residents have a status of "Not Yet Hotated" and are not included in the analysis.

#### 5. Patient Care - Ankle Fracture



Note: Please reference milestone narrative for full text.





Note: 599 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

4. Medical Knowledge - Ankle Arthritis



Note: 692 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 6. Medical Knowledge - Ankle Fracture



Note: 192 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

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# Specialty: Orthopaedic surgery

### 7. Patient Care - Carpal Tunnel



### 9. Patient Care - Degenerative Spinal Conditions





### 11. Patient Care - Diabetic Foot

8. Medical Knowledge - Carpal Tunnel



Note: 587 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Medical Knowledge - Degenerative Spinal Conditions



Note: 586 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

12. Medical Knowledge - Diabetic Foot



note: 729 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### Specialty: Orthopaedic surgery

#### 13. Patient Care - Diaphyseal Femur and Tibia Fracture



#### 15. Patient Care - Distal Radius Fracture (DRF)

17. Patient Care - Adult Elbow Fracture









Note: 171 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### 16. Medical Knowledge - Distal Radius Fracture (DRF)



Note: 311 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 18. Medical Knowledge - Adult Elbow Fracture



Note: 241 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

# 14. Medical Knowledge - Diaphyseal Femur and Tibia Fracture

## Specialty: Orthopaedic surgery

### 19. Patient Care - Hip and Knee Osteo Arthritis (OA)



#### 21. Patient Care - Hip Fracture





23. Patient Care - Metastatic Bone Lesion

20. Medical Knowledge - Hip and Knee Osteo Arthritis (OA)



Note: 372 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 22. Medical Knowledge - Hip Fracture



Note: 167 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 24. Medical Knowledge - Metastatic Bone Lesion



Note: 754 of 3,951 residents have a status of "Not Yet Hotated" and are not included in the analysis.

# Specialty: Orthopaedic surgery

#### 25. Patient Care - Meniscal Tear



#### 27. Patient Care - Pediatric Septic Hip





# 29. Patient Care - Rotator Cuff Injury

#### 26. Medical Knowledge - Meniscal Tear



Note: 537 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 28. Medical Knowledge - Pediatric Septic Hip



Note: 557 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 30. Medical Knowledge - Rotator Cuff Injury



Note: 566 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

# Specialty: Orthopaedic surgery

31. Patient Care - Pediatric Supracondylar Humerus Fracture



# Note: 571 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.





35. Systems-Based Practice - Uses technology to accomplish safe health care delivery



32. Medical Knowledge - Pediatric Supracondylar Humerus Fracture



Note: 513 of 3,951 residents have a status of "Not Yet Rotated" and are not included in the analysis.

34. Systems-Based Practice - Resident will work in interprofessional teams to enhance patient safety and quality care



36. Practice-Based Learning and Improvement - Self-Directed Learning: 1. Identify strengths, deficiencies, ...



### Specialty: Orthopaedic surgery

37. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



39. Professionalism - Accountability to patients, society, and the profession; personal responsibility to  $\ldots$ 



41. Interpersonal and Communication Skills - Teamwork (e.g., physician, nursing and allied health care providers, ...



38. Professionalism - Compassion, integrity, and respect for others as well as sensitivity and responsiveness ...



40. Interpersonal and Communication Skills - Communication



## Specialty: Adult reconstructive orthopaedics

Resident Year	1	Total Residents
# of Residents	40	40

### 1. Patient Care - Knee Arthritis-Patient Care



### 2. Patient Care - Knee Revisions-Patient Care



#### 3. Patient Care - Hip Arthritis-Patient Care



#### 5. Patient Care - Shoulder Arthritis - Patient Care



Note: Please reference milestone narrative for full text.

# 6. Patient Care - Shoulder Revisions - Patient Care



# 4. Patient Care - Hip Revision-Patient Care



### Specialty: Adult reconstructive orthopaedics

7. Patient Care - Elbow Arthritis - Patient Care



### 9. Medical Knowledge - Knee Revision-Medical Knowledge



### 11. Medical Knowledge - Hip Revision-Medical Knowledge



Note: Please reference milestone narrative for full text.



# 8. Medical Knowledge - Knee Arthritis-Medical Knowledge

### 10. Medical Knowledge - Hip Arthritis-Medical Knowledge



#### 12. Medical Knowledge - Shoulder Arthritis - Medical Knowledge



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### Specialty: Adult reconstructive orthopaedics

13. Medical Knowledge - Shoulder Revision - Medical Knowledge



15. Systems-Based Practice - Systems thinking, including cost-effective practice — Systems-Based Practice



17. Systems-Based Practice - Uses technology to accomplish safe health care delivery—Systems-Based Practice



Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 Level 2 Level 1 i Resident Year





18. Practice-Based Learning and Improvement - Self-directed Learning-Practice-Based Learning and Improvement ...



# 14. Medical Knowledge - Elbow Arthritis - Medical Knowledge

### Specialty: Adult reconstructive orthopaedics

19. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



21. Professionalism - Accountability to patients, society, and the profession; personal responsibility to  $\ldots$ 



23. Interpersonal and Communication Skills - Teamwork (e.g., physician, nursing and allied health care providers,  $\ldots$ 



Note: Please reference milestone narrative for full text.





22. Interpersonal and Communication Skills - Communication-Interpersonal and Communication Skills



## Specialty: Foot and ankle orthopaedics

Resident Year	1	Total Residents
# of Residents	15	15

### 1. Patient Care - Achilles Disorders-Patient Care



# Level 5 Level 4 Level 3 Level 2 Level Resident Year

2. Medical Knowledge - Achilles Disorder - Medical Knowledge

# 3. Patient Care - Ankle Arthritis-Patient Care



#### 5. Patient Care - Calcaneus Fractures-Patient Care



Note: Please reference milestone narrative for full text.



# 6. Medical Knowledge - Calcaneus Fractures-Medical Knowledge



# 4. Medical Knowledge - Ankle Arthritis-Medical Knowledge

Level 5



### Specialty: Foot and ankle orthopaedics

7. Patient Care - Diabetic Foot-Patient Care



# 8. Medical Knowledge - Diabetic Foot—Medical Knowledge



### 9. Patient Care - Hallux Valgus-Patient Care



# 11. Patient Care - Ankle Arthroscopy: Osteochondritis Dissecans (OCD) Talus—Patient Care



10. Medical Knowledge - Hallux Valgus-Medical Knowledge



12. Medical Knowledge - Ankle Arthroscopy: Osteochondral Defects of the Talus—Medical Knowledge



### Specialty: Foot and ankle orthopaedics

13. Patient Care - Pes Cavus-Patient Care



# 14. Medical Knowledge - Pes Cavus-Medical Knowledge



# 15. Patient Care - Pes Planovalgus-Patient Care



# Practice



17. Systems-Based Practice - Interprofessional Teams-Systems-Based

#### Note: Please reference milestone narrative for full text.



# 16. Medical Knowledge - Pes Planovalgus-Medical Knowledge



18. Systems-Based Practice - Use of technology to accomplish safe health care delivery-Systems-Based Practice



## Specialty: Foot and ankle orthopaedics

19. Systems-Based Practice - Systems thinking, including cost-effective practice—Systems-Based Practice



### 21. Professionalism - Accountability and Responsibility-Professionalism



23. Interpersonal and Communication Skills - Communication-Interpersonal and Communication Skills



Note: Please reference milestone narrative for full text.









24. Interpersonal and Communication Skills - Teamwork—Interpersonal and Communication Skills



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# Specialty: Hand surgery (Orthopaedic surgery)

Resident Year	1	Total Residents
# of Residents	152	152

1. Patient Care - Acquired Conditions (Tumor, Dupuytren's, tenosynovitis, vascular, contractures) — Patient Care



2. Medical Knowledge - Acquired Conditions (Tumor, Dupuytren's, tenosynovitis, vascular, contractures) — Medical Knowledge



#### 3. Patient Care - Arthritis - Patient Care



4. Medical Knowledge - Arthritis - Medical Knowledge



#### 5. Patient Care - Congenital - Patient Care



Note: Please reference milestone narrative for full text.

#### 6. Medical Knowledge - Congenital - Medical Knowledge



# Specialty: Hand surgery (Orthopaedic surgery)

7. Patient Care - Nerve - Patient Care



# 8. Medical Knowledge - Nerve — Medical Knowledge



#### 9. Patient Care - Trauma: Bone, Joint - Patient Care



#### 11. Patient Care - Soft Tissue Trauma, Infections - Patient Care



10. Medical Knowledge - Trauma: Bone, Joint — Medical Knowledge



12. Medical Knowledge - Soft Tissue Trauma, Infections — Medical Knowledge



# Specialty: Hand surgery (Orthopaedic surgery)

13. Patient Care - Tendon — Patient Care



15. Systems-Based Practice - Patient Safety, Resource Allocation, Practice Management — Systems-Based Practice







Level 5 Level 4 Level 3 Level 2 Level 1 i Resident Year

16. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and ...



18. Interpersonal and Communication Skills - Interpersonal and Communication Skills



### 14. Medical Knowledge - Tendon — Medical Knowledge

# Specialty: Musculoskeletal oncology

Resident Year	1	Total Residents
# of Residents	17	17

### 1. Patient Care - Metastatic Bone Lesion-Patient Care



### 3. Patient Care - Malignant Bone Lesion (Primary)-Patient Care



#### 5. Patient Care - Malignant Soft Tissue Tumor-Patient Care



2. Medical Knowledge - Metastatic Bone Lesion-Medical Knowledge



4. Medical Knowledge - Malignant Bone (Primary)-Medical Knowledge



6. Medical Knowledge - Malignant Soft Tissue Tumor—Medical Knowledge



### Specialty: Musculoskeletal oncology

7. Patient Care - Benign Bone Tumor-Patient Care



# 9. Patient Care - Benign Soft Tissue Tumor-Patient Care



11. Systems-Based Practice - Systems thinking, including cost-effective practice—Systems-based Practice



8. Medical Knowledge - Benign Bone Tumor-Medical Knowledge



10. Medical Knowledge - Benign Soft Tissue Tumor-Medical Knowledge







#### Specialty: Musculoskeletal oncology

13. Systems-Based Practice - Uses technology to accomplish safe health care delivery—Systems-based Practice



15. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific  $\ldots$ 



17. Professionalism - Accountability to patients, society, and the profession; personal responsibility to ...



14. Practice-Based Learning and Improvement - Self-Directed Learning-Practice-based Learning and Improvement ...



16. Professionalism - Compassion, integrity, and respect for others as well as sensitivity and responsiveness ...



18. Interpersonal and Communication Skills - Communication-Interpersonal and Communication Skills



## Specialty: Musculoskeletal oncology

19. Interpersonal and Communication Skills -  $\mbox{Teamwork-Interpersonal}$  and Communication Skills



### Specialty: Orthopaedic sports medicine

Resident Year	1	Total Residents*
# of Residents	208	208

\*Note: There are 1 residents with an incomplete milestone evaluation that are excluded from the box plots below.

# 1. Patient Care - Nonoperative: history and physical examination, imaging interpretation, common medical ...





2. Patient Care - Operative Skills-Patient Care

# 3. Patient Care - Team Coverage and Athletic Care: coverage of sporting events, preseason physical examinations, ...



# 5. Medical Knowledge - Medical Issues: cardiopulmonary, skin, heat/cold intolerance, concussions, gastrointestinal ...



4. Medical Knowledge - Basic Science: gross anatomy, microanatomy, rehabilitation and kinesiology, pathophysiology, tissue ...



6. Medical Knowledge - Musculoskeletal: acute and chronic orthopaedic disorders, acute non-orthopaedic  $\ldots$ 



Note: Please reference milestone narrative for full text.

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### Specialty: Orthopaedic sports medicine

7. Systems-Based Practice - Working with interprofessional teams (consultants, certified athletic trainer [ATCs], physical ...



9. Practice-Based Learning and Improvement - Self-directed learning-Practice-based Learning and Improvement



11. Professionalism - Compassion, integrity, respect for others, and sensitivity to the diversity of the athlete-Professionalism



Note: Please reference milestone narrative for full text.



10. Practice-Based Learning and Improvement - Locate, appraise, and contribute to evidence to improve patient ...



12. Professionalism - Accountability to patients, society, and the profession; personal responsibility to ...



# 8. Systems-Based Practice - Systems thinking-Systems-based Practice

### Specialty: Orthopaedic sports medicine

13. Interpersonal and Communication Skills - Communication-Interpersonal and Communication Skills





14. Interpersonal and Communication Skills - Teamwork—Interpersonal and Communication Skills

# Specialty: Orthopaedic surgery of the spine

Resident Year	1	Total Residents
# of Residents	32	32

### 1. Patient Care - Degenerative Lumbar-Patient Care



# Level 5 Level 4 Level 3 Level 2 Level Resident Year

#### 2. Patient Care - Degenerative Cervical-Patient Care





### 5. Medical Knowledge - Degenerative Lumbar-Medical Knowledge



Note: Please reference milestone narrative for full text.

## 6. Medical Knowledge - Degenerative Cervical-Medical Knowledge



# 4. Patient Care - Deformity-Patient Care



### Specialty: Orthopaedic surgery of the spine

# 7. Medical Knowledge - Traumatic-Medical Knowledge



# 9. Systems-Based Practice - Systems-based Practice



11. Practice-Based Learning and Improvement - Evidence-based Medicine–Practice-based Learning and Improvement



### Note: Please reference milestone narrative for full text.



10. Practice-Based Learning and Improvement - Self-directed Learning-Practice-based Learning and Improvement



12. Professionalism - Commitment to diversity, compassion, integrity, sensitivity, and ethics-Professionalism



# 8. Medical Knowledge - Deformity-Medical Knowledge

# Specialty: Orthopaedic surgery of the spine





14. Interpersonal and Communication Skills - Patient Centered Communications–Interpersonal and Communication Skills



15. Interpersonal and Communication Skills - Interpersonal and Communication Skills



### Specialty: Orthopaedic trauma

Resident Year	1	Total Residents
# of Residents	18	18

### 1. Patient Care - Care of multiply injured patient-Patient Care



# 3. Patient Care - Complex Diaphyseal Fracture-Patient Care



#### 5. Patient Care - Complex Periarticular Fractures—Patient Care



Note: Please reference milestone narrative for full text.



# 4. Medical Knowledge - Complex Diaphyseal Fracture-Medical Knowledge



6. Medical Knowledge - Complex Periarticular Fractures-Medical Knowledge



### Specialty: Orthopaedic trauma

### 7. Patient Care - Nonunion/Malunion-Patient Care



### 9. Patient Care - Pelvic and Acetabular fractures-Patient Care



11. Systems-Based Practice - Systems thinking, including cost-effective practice—Systems-Based Practice



Note: Please reference milestone narrative for full text.



10. Medical Knowledge - Pelvic and Acetabular fractures-Medical Knowledge







# 8. Medical Knowledge - Nonunion/Malunion-Medical Knowledge

### Specialty: Orthopaedic trauma

13. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement ...



15. Professionalism - Compassion, integrity, and respect for others, as well as sensitivity and responsiveness  $\ldots$ 



17. Interpersonal and Communication Skills - Communication-Interpersonal and Communication Skills



14. Practice-Based Learning and Improvement - Locate, appraise, and assimilate evidence from scientific ...



16. Professionalism - Accountability to patients, society, and the profession; personal responsibility to ...



18. Interpersonal and Communication Skills - Teamwork (e.g., physician, nursing and allied health care providers,  $\ldots$ 



### Specialty: Pediatric orthopaedics

Resident Year	1	Total Residents
# of Residents	39	39

1. Patient Care - Pediatric Orthopaedics Idiopathic Scoliosis-Patient Care



### 3. Patient Care - Pediatric Orthopaedics developmental dysplasia of hip [DDH] prior to walking age-Patient Care







Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 0 Level 2 Level Resident Year

2. Medical Knowledge - Pediatric Orthopaedics Idiopathic Scoliosis-

Medical Knowledge









# of hip [DDH] prior to walking age-Medical Knowledge

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### Specialty: Pediatric orthopaedics

### 7. Patient Care - Pediatric Orthopaedics Clubfoot-Patient Care



9. Patient Care - Pediatric Orthopaedics Lower Extremity Deformity-Patient Care









8. Medical Knowledge - Pediatric Orthopaedics Clubfoot-Medical

# 10. Medical Knowledge - Pediatric Orthopaedics Lower Extremity Deformity—Medical Knowledge







### Specialty: Pediatric orthopaedics

13. Systems-Based Practice - Systems thinking, including cost-effective practice — Systems-Based Practice



15. Systems-Based Practice - Uses technology to accomplish safe health care delivery–Systems-Based Practice



17. Practice-Based Learning and Improvement - Locates, appraises, and assimilates evidence from scientific  $\ldots$ 



Note: Please reference milestone narrative for full text.





16. Practice-Based Learning and Improvement - Self-Directed Learning-Practice-Based Learning and Improvement 1. Identifies ...



18. Professionalism - Demonstrates compassion, integrity, and respect for others, as well as sensitivity and responsiveness  $\ldots$ 



### Specialty: Pediatric orthopaedics

19. Professionalism - Demonstrates accountability to patients, society, and the profession; demonstrates  $\dots$ 



21. Interpersonal and Communication Skills - Teamwork (e.g., physician, nursing and allied health care providers, ...



20. Interpersonal and Communication Skills - Communication-Interpersonal and Communication Skills


#### Specialty: Osteopathic neuromusculoskeletal medicine

Resident Year	1	2	Total Residents
# of Residents	11	12	23

#### 1. Patient Care - Patient Care 1: Osteopathic Manipulative Techniques (OMT) (Direct and Indirect)



#### 3. Patient Care - Patient Care 3: Patient Management







Note: Please reference milestone narrative for full text.

#### 2. Patient Care - Patient Care 2: Trigger Point Injection, Joint Aspiration, and Injection



4. Patient Care - Patient Care 4: Providing and Requesting Consultation



6. Medical Knowledge - Medical Knowledge 2: Manifestation of systemic disease through neuromusculoskelatal ...



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#### Specialty: Osteopathic neuromusculoskeletal medicine

7. Systems-Based Practice - Systems-Based Practice 1: Patient Safety and Advocacy



9. Practice-Based Learning and Improvement - Practice-based Learning and Improvement 1: Learning and Feedback



11. Professionalism - Professionalism 1: Patient and Community Interactions



8. Systems-Based Practice - Systems-Based Practice 2: Practice Management and Economics



10. Practice-Based Learning and Improvement - Practice-based Learning and Improvement 2: Literature Review and Research







#### Specialty: Osteopathic neuromusculoskeletal medicine

13. Professionalism - Professionalism 3: Maintains emotional, physical, and mental health; and pursues continual  $\dots$ 



15. Interpersonal and Communication Skills - Interpersonal and Communication Skills 2: Interprofessional Communications



14. Interpersonal and Communication Skills - Interpersonal and Communication Skills 1: Develops Meaningful, ...



#### Specialty: Otolaryngology

1. Patient Care - Salivary Disease-Patient Care

Resident Year	1	2	3	4	5	Total Residents
# of Residents	331	327	319	315	314	1,606



### 2. Patient Care - Aerodigestive Tract Lesions (ADT)-Patient Care



3. Patient Care - Sleep Disordered Breathing (SDB)-Patient Care



5. Patient Care - Rhinosinusitis-Patient Care



Note: Please reference milestone narrative for full text.



6. Patient Care - Nasal Deformity-Patient Care



### 4. Patient Care - Facial Trauma-Patient Care



#### Specialty: Otolaryngology

7. Patient Care - Chronic Ear-Patient Care



9. Medical Knowledge - Upper Aerodigestive Tract (UADT) Malignancy-Medical Knowledge



11. Medical Knowledge - Dysphagia-Dysphonia-Medical Knowledge



Note: Please reference milestone narrative for full text.



8. Patient Care - Pediatric Otitis Media-Patient Care

10. Medical Knowledge - Hearing Loss-Medical Knowledge



12. Medical Knowledge - Inhalant Allergy-Medical Knowledge



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#### Specialty: Otolaryngology

13. Systems-Based Practice - Patient Safety-Systems-Based Practice





Level 5

Level

Level 3

Level 2

15. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and ...



#### 16. Professionalism - Professionalism

C



## 17. Interpersonal and Communication Skills - Interpersonal Communication Skills



Note: Please reference milestone narrative for full text.

## 14. Systems-Based Practice - Resource Utilization-Systems-Based Practice

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#### Specialty: Neurotology

Resident Year	1	2	Total Residents
# of Residents	17	12	29





#### 3. Patient Care - Facial Nerve Disorders - Patient Care



#### 5. Medical Knowledge - Dizziness - Medical Knowledge



Note: Please reference milestone narrative for full text.

#### 2. Patient Care - Lateral Skull Base Tumors - Patient Care



#### 4. Medical Knowledge - Hearing Loss - Medical Knowledge



#### 6. Systems-Based Practice - Patient Safety - Systems-Based Practice



#### Specialty: Neurotology





9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement







10. Professionalism - Behavior - Professionalism



 Interpersonal and Communication Skills - Health Care Team Communications – Interpersonal and Communication Skills



11. Professionalism - Leadership - Professionalism



#### Specialty: Neurotology

13. Interpersonal and Communication Skills - Patient- and Family-centered Care – Interpersonal and Communication Skills



#### Specialty: Pediatric otolaryngology

Resident Year	1	Total Residents
# of Residents	35	35

#### 1. Patient Care - Airway Management - Patient Care



#### 2. Patient Care - Pediatric Neck Mass - Patient Care



4. Medical Knowledge - Hearing Loss - Medical Knowledge

#### 3. Patient Care - Rhinology - Patient Care



#### 5. Medical Knowledge - Craniofacial Conditions - Medical Knowledge



Note: Please reference milestone narrative for full text.

#### 6. Systems-Based Practice - Patient Safety - Systems-Based Practice

Resident Year



Level 5

Level 4

Level 3

Level 2

Level 1

#### Specialty: Pediatric otolaryngology

7. Systems-Based Practice - Resource Utilization — Systems-Based Practice



9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement







10. Professionalism - Behavior - Professionalism



12. Interpersonal and Communication Skills - Health Care Team Communications — Interpersonal and Communication Skills



11. Professionalism - Leadership - Professionalism



#### Specialty: Pediatric otolaryngology

13. Interpersonal and Communication Skills - Patient- and Family-centered Care - Interpersonal and Communication Skills



#### Specialty: Pathology-anatomic and clinical

Resident Year	1	2	3	4	Total Residents
# of Residents	634	611	595	505	2,345

1. Patient Care - PC1: Consultation: Analyzes, appraises, formulates, generates, and effectively reports ...



3. Patient Care - PC3: Interpretation and diagnosis: Demonstrates knowledge and practices interpretation  $\ldots$ 







Note: Please reference milestone narrative for full text.



2. Patient Care - PC2: Interpretation and reporting: Analyzes data, appraises, formulates, and generates ...





6. Patient Care - PC6: Procedure: intraoperative consultation/ frozen sections: Demonstrates attitudes,  $\ldots$ 



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#### Specialty: Pathology-anatomic and clinical

7. Patient Care - PC7:Procedures: If program teaches other procedures (e.g., bone marrow aspiration, apheresis,  $\ldots$ 



9. Medical Knowledge - MK2: Teaching: Demonstrates ability to interpret, synthesize, and summarize knowledge;  $\ldots$ 



11. Systems-Based Practice - SBP1: Patient safety: Demonstrates attitudes, knowledge, and practices that  $\ldots$ 



Note: Please reference milestone narrative for full text.

8. Medical Knowledge - MK1: Diagnostic Knowledge: Demonstrates attitudes, knowledge, and practices that ...



10. Medical Knowledge - MK3: Procedure: Autopsy: Demonstrates knowledge and practices that enable proficient performance of ...



12. Systems-Based Practice - SBP2: Lab Management: Regulatory and compliance: Explains, recognizes, summarizes, and is able ...



#### Specialty: Pathology-anatomic and clinical

13. Systems-Based Practice - SBP3: Lab Management: Resource Utilization (personnel and finance): Explains, ...



15. Systems-Based Practice - SBP5: Lab Management: Test utilization: Explains, recognizes, summarizes, and is able to apply ...



17. Systems-Based Practice - SBP7: Informatics: Explains, discusses, classifies, and applies clinical informatics (AP/CP)



Note: Please reference milestone narrative for full text.





16. Systems-Based Practice - SBP6: Lab Management: Technology assessment: Explains, recognizes, summarizes, ...



18. Practice-Based Learning and Improvement - PBLI1: Recognition of errors and discrepancies: Displays attitudes, ...



#### Specialty: Pathology-anatomic and clinical

19. Practice-Based Learning and Improvement - PBLI2: Scholarly Activity: Analyzes and appraises pertinent ...



21. Professionalism - PROF2: Professionalism: Demonstrates honesty, integrity, and ethical behavior (AP/CP)



23. Professionalism - PROF4:Professionalism: Gives and receives feedback (AP/CP)



Note: Please reference milestone narrative for full text.





22. Professionalism - PROF3: Professionalism: Demonstrates responsibility and follow-through on tasks (AP/CP)



24. Professionalism - PROF5: Professionalism: Demonstrates responsiveness to each patient's unique characteristics ...



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#### Specialty: Pathology-anatomic and clinical

25. Professionalism - PROF6: Professionalism: Demonstrates personal responsibility to maintain emotional,  $\ldots$ 



27. Interpersonal and Communication Skills - ICS2: Interdepartmental and Healthcare Clinical Team interactions: ...



26. Interpersonal and Communication Skills - ICS1: Intradepartmental interactions and development of leadership ...



#### Specialty: Blood banking/transfusion medicine

Resident Year	1	Total Residents
# of Residents	50	50

#### 1. Patient Care - PC1 - Consultation



#### 2. Patient Care - PC2 - Interpretation, Reporting, and Diagnosis



4. Medical Knowledge - MK1 - Fundamental and Diagnostic Knowledge

#### 3. Patient Care - PC3 - Procedures





Note: Please reference milestone narrative for full text.

5. Medical Knowledge - MK2 - Apheresis

### 6. Systems-Based Practice - SBP1 - Regulatory



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#### Specialty: Blood banking/transfusion medicine

7. Systems-Based Practice - SBP2 - Health Care Teams



## 9. Practice-Based Learning and Improvement - $\mathsf{PBLI1}$ — Evidence-based Utilization



## 11. Practice-Based Learning and Improvement - $\mbox{PBLI3}$ — Research and Scholarly Activity



8. Systems-Based Practice - SBP3 — Lab Management: Resource Utilization (personnel and finance)



10. Practice-Based Learning and Improvement - PBLI2 - Process Improvement and Patient Safety



12. Professionalism - PROF1 - Receiving and Providing Feedback



#### Specialty: Blood banking/transfusion medicine

13. Professionalism - PROF2 — Accountability, Honesty, and Integrity



15. Interpersonal and Communication Skills - ICS1 - Communication with Health Care Providers, Families,  $\ldots$ 



#### 14. Professionalism - PROF3 - Cultural Competency



16. Interpersonal and Communication Skills -  $\mbox{ICS2}$  — Personnel Management and Conflict Resolution



#### Specialty: Cytopathology

Resident Year	1	Total Residents
# of Residents	141	141

1. Patient Care - PC1 - Patient safety: Demonstrates attitudes, knowledge, and practices that contribute ...



3. Medical Knowledge - MK1 — Interpretation and Diagnostic Knowledge: Demonstrates attitudes, knowledge, ...





Note: Please reference milestone narrative for full text.

5. Systems-Based Practice - SBP1 - Regulatory and Compliance: Manages accreditation









#### 6. Systems-Based Practice - SBP2 - Health care teams



#### Specialty: Cytopathology

7. Systems-Based Practice - SBP3 — Lab Management: Utilizes resources (personnel and finance)



## 9. Systems-Based Practice - SBP5 — Lab Management: Quality, Risk Management and Laboratory Safety: Explains, $\ldots$



11. Practice-Based Learning and Improvement -  $\mathsf{PBLI2}-\mathsf{Evidence-based}$  Utilization





10. Practice-Based Learning and Improvement - PBLI1 — Scholarly Activity: Analyzes and appraises pertinent ...



12. Professionalism - PROF1 - Receives and provides feedback



8. Systems-Based Practice - SBP4 — Lab Management: Technical Management

Note: Please reference milestone narrative for full text.

#### Specialty: Cytopathology

13. Professionalism -  $\mathsf{PROF2}$  — Demonstrates accountability, honesty, and integrity



15. Professionalism - PROF4 — Professionalism: Demonstrates personal responsibility to maintain emotional,  $\ldots$ 



17. Interpersonal and Communication Skills - ICS2 - Demonstrates personnel management and conflict resolution



Note: Please reference milestone narrative for full text.



16. Interpersonal and Communication Skills - ICS1 — Communicates with health care providers, families, and patients (as applicable)



18. Interpersonal and Communication Skills - ICS3 - Intra- and Interdepartmental and Health Care Clinical  $\ldots$ 



#### 14. Professionalism - PROF3 - Demonstrates cultural competency

#### Specialty: Forensic pathology

Resident Year	1	Total Residents
# of Residents	43	43

1. Patient Care - PC1 - Patient safety: Demonstrates attitudes, knowledge, and practices that contribute to patient safety



3. Medical Knowledge - MK1 — Interpretation and Diagnostic Knowledge: Understands the types of cases most ...







Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 Level 2 Level 1

2. Patient Care - PC2 - Procedure: Autopsy: Demonstrates attitudes, knowledge, and practices that enables ...







6. Systems-Based Practice - SBP1 - Lab Management: Regulatory and compliance: Explains, recognizes, summarizes, ...



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#### Specialty: Forensic pathology

7. Systems-Based Practice - SBP2 — Lab Management: Quality, risk management, and laboratory safety: Explains, ...



## 9. Systems-Based Practice - SBP4 — Scene Investigation: Demonstrates attitudes, knowledge, and practices $\ldots$



11. Practice-Based Learning and Improvement - PBLI2 — Scholarly Activity: Analyzes and appraises pertinent ...



8. Systems-Based Practice - SBP3 — Interagency Interaction: Demonstrates attitudes, knowledge, and practices ...



10. Practice-Based Learning and Improvement - PBLI1 — Recognition of Errors and Discrepancies: Displays ...







#### Specialty: Forensic pathology

13. Professionalism - PROF2 — Professionalism: Demonstrates responsibility and follow-through on tasks



15. Professionalism - PROF4 — Professionalism: Demonstrates responsiveness to each patient's distinct characteristics and needs



17. Interpersonal and Communication Skills - ICS1 — Intra- and Interdepartmental and Health Care Clinical/Investigative ...



es eeds 16. Professionalism - PROF5 — Professionalism: Demonstrates personal responsibility to maintain emotional, ...

Level 5

Level 4

Level 3

Level 2

Level 1



Resident Year

18. Interpersonal and Communication Skills - ICS2 - Interaction with Others: Seeks help when appropriate



## 14. Professionalism - PROF3 — Professionalism: Giving and receiving feedback

#### Specialty: Hematopathology

Resident Year	1	Total Residents
# of Residents	133	133





3. Patient Care -  $\mbox{PC3}$  — Procedure: Performing bone marrow aspiration and biopsy







Note: Please reference milestone narrative for full text.



## 2. Patient Care - PC2 — Reporting: Integrates complex data to generate accurate, complete but concise, $\dots$





6. Medical Knowledge - MK3 - Interprets and demonstrates diagnostic knowledge for tissue-based specimens  $\ldots$ 



#### Specialty: Hematopathology

7. Medical Knowledge - MK4 — Hematology Knowledge: Demonstrates attitudes, knowledge, and practices that  $\ldots$ 



#### 9. Systems-Based Practice - SBP2 - Health care teams







Note: Please reference milestone narrative for full text.



## 10. Systems-Based Practice - SBP3 — Lab Management: Resource Utilization (personnel and finance)



12. Practice-Based Learning and Improvement -  $\ensuremath{\mathsf{PBLI1}}$  - Scholarly Activity



#### 8. Systems-Based Practice - SBP1 — Regulatory

#### Specialty: Hematopathology

13. Practice-Based Learning and Improvement -  $\mbox{PBLI2}$  —  $\mbox{Evidence-based Utilization}$ 



#### 15. Professionalism - PROF1 - Receives and provides feedback







Note: Please reference milestone narrative for full text.

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16. Professionalism -  $\mathsf{PROF2}$  — Demonstrates accountability, honesty, and integrity



18. Interpersonal and Communication Skills - ICS1 - Communicates with health care providers, families, and patients



#### Specialty: Hematopathology

19. Interpersonal and Communication Skills - ICS2 - Personnel Management and Conflict Resolution



#### Specialty: Neuropathology

Resident Year	1	2	Total Residents
# of Residents	32	16	48

#### 1. Patient Care - PC1 - Procedure: Autopsy (General)



#### 3. Patient Care - PC3 - Procedure: Autopsy (Microscopic and reporting)



#### 5. Patient Care - PC5 — Procedure: Surgical (Microscopic and reporting)



Note: Please reference milestone narrative for full text.



#### 2. Patient Care - PC2 - Procedure: Autopsy (Gross)

4. Patient Care - PC4 - Procedure: Surgical (Gross)



6. Patient Care - PC6 - Procedure: intraoperative Consultation



#### Specialty: Neuropathology

7. Medical Knowledge - MK1 - Diagnostic Knowledge



#### 9. Systems-Based Practice - SBP1 - Regulatory



11. Systems-Based Practice - SBP3 — Lab Management: Resource Utilization (personnel and finance)



Note: Please reference milestone narrative for full text.



#### 10. Systems-Based Practice - SBP2 - Health Care Teams



12. Practice-Based Learning and Improvement -  $\mathsf{PBLI1}$  — Evidence-based Utilization



#### 8. Medical Knowledge - MK2 - Teaching

#### Specialty: Neuropathology

13. Practice-Based Learning and Improvement - PBLI2 - Process Improvement and Patient Safety



#### 15. Professionalism - PROF1 - Receiving and Providing Feedback



17. Professionalism - PROF3 - Cultural Competency



Note: Please reference milestone narrative for full text.



16. Professionalism - PROF2 - Accountability, Honesty, and Integrity



18. Interpersonal and Communication Skills - ICS1 — Communication with Health Care Providers, Families, and Patients (as applicable)



14. Practice-Based Learning and Improvement - PBLI3 — Scholarly Activity

#### Specialty: Neuropathology

19. Interpersonal and Communication Skills - ICS2 - Personnel Management and Conflict Resolution



#### Specialty: Pediatric pathology

Resident Year	1	Total Residents
# of Residents	20	20

#### 1. Patient Care - PC1 - Procedure: Surgical Pathology Grossing



## 2. Patient Care - $\mathsf{PC2}$ — Procedure: intraoperative Consultation/Frozen Sections



#### 3. Patient Care - PC3 - Procedure: Autopsy







# Level 5 Level 4 Level 2 Level 1 I Resident Year

6. Medical Knowledge - MK2 — Application of Knowledge of Perinatal and Pediatric Diseases to Clinical Situations



### 4. Patient Care - PC4 — Reporting

#### Specialty: Pediatric pathology

#### 7. Medical Knowledge - MK3 - Application of Clinical Laboratory Testing



#### 9. Systems-Based Practice - SBP2 - Health Care teams



11. Practice-Based Learning and Improvement -  $\mathsf{PBLI1}$  — Evidence-based Utilization



8. Systems-Based Practice - SBP1 — Regulatory and Compliance: Accreditation Management



## 10. Systems-Based Practice - SBP3 — Lab Management: Resource Utilization (personnel and finance)



12. Practice-Based Learning and Improvement - PBLI2 - Process Improvement and Patient Safety


#### Specialty: Pediatric pathology

#### 13. Professionalism - PROF1 - Receiving and Providing Feedback



### 15. Professionalism - PROF3 - Cultural Competency



17. Interpersonal and Communication Skills - ICS2 — Personnel Management and Conflict Resolution



Note: Please reference milestone narrative for full text.



16. Interpersonal and Communication Skills - ICS1 — Communication with Health Care Providers, Families, and Patients (as applicable)



### 14. Professionalism - PROF2 - Accountability, Honesty, and Integrity

#### Specialty: Selective pathology (Surgical)

Resident Year	1	Total Residents
# of Residents	87	87

1. Patient Care - PC1A - Patient Care and Procedural Skills: Surgical pathology grossing and histologic exam: Demonstrates ...



 Medical Knowledge - MK2A,B — Procedure: intraoperative consultation/frozen sections: Demonstrates attitudes, knowledge, ...



#### 5. Systems-Based Practice - SBP2 - Health care teams



Note: Please reference milestone narrative for full text.



4. Systems-Based Practice - SBP1 - Regulatory

Level 5



Resident Year

#### 2. Medical Knowledge - MK1A - Demonstrates knowledge of established and evolving biomedical, clinical, ...







### Specialty: Selective pathology (Surgical)

7. Practice-Based Learning and Improvement -  $\ensuremath{\mathsf{PBLI1}}$  — Evidence-based Utilization



# 9. Practice-Based Learning and Improvement - $\mbox{PBLI3}$ — Fellows' Scholarly Activity



#### 11. Professionalism - PROF1 - Receives and provides feedback



8. Practice-Based Learning and Improvement - PBLI2 - Process Improvement and Patient Safety



Note: 1 of 87 residents have a status of "Not Applicable" and are not included in the analysis.

10. Practice-Based Learning and Improvement - PBLI4A — Laboratory Management (Applies only to Track A: Surgical Pathology)



Note: 10 of 87 residents have a status of "Not Applicable" and are not included in the analysis.



12. Professionalism -  $\mathsf{PROF2}$  — Demonstrates accountability, honesty, and integrity

### Specialty: Selective pathology (Surgical)

13. Professionalism - PROF3 - Demonstrates cultural competency



14. Interpersonal and Communication Skills - ICS1 - Communicates with health care providers, families, and patients (as applicable)



15. Interpersonal and Communication Skills - ICS2 — Personnel Management and Conflict Resolution



#### Specialty: Selective pathology (Focused Anatomic)

Resident Year	1	Total Residents
# of Residents	79	79

1. Patient Care - PC1B — Patient Care and Procedural Skills: Surgical pathology grossing and histologic exam: Demonstrates ...



3. Medical Knowledge - MK2A, B - Procedure: intraoperative consultation/frozen sections: Demonstrates attitudes, knowledge,  $\ldots$ 



#### 5. Systems-Based Practice - SBP2 - Health care teams



Note: Please reference milestone narrative for full text.



Note: 1 of 79 residents have a status of "Not Applicable" and are not included in the analysis.









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### Specialty: Selective pathology (Focused Anatomic)

7. Practice-Based Learning and Improvement -  $\ensuremath{\mathsf{PBLI1}}$  — Evidence-based Utilization



# 9. Practice-Based Learning and Improvement - $\mbox{PBLI3}$ — Fellows' Scholarly Activity



#### 11. Professionalism - PROF1 - Receives and provides feedback











Note: 6 of 79 residents have a status of "Not Applicable" and are not included in the analysis.



12. Professionalism -  $\mathsf{PROF2}$  — Demonstrates accountability, honesty, and integrity

### Specialty: Selective pathology (Focused Anatomic)

13. Professionalism - PROF3 - Demonstrates cultural competency



15. Interpersonal and Communication Skills -  $\rm ICS2-Personnel$  Management and Conflict Resolution



14. Interpersonal and Communication Skills - ICS1 - Communicates with health care providers, families, and patients (as applicable)



### Specialty: Selective pathology (Focused Clinical)

Resident Year	1	Total Residents
# of Residents	4	4

#### 1. Patient Care - PC1C - Patient Care and Procedural Skills (Applies only to Track C: Focused Clinical Pathology)







#### 3. Systems-Based Practice - SBP1 - Regulatory



#### 5. Systems-Based Practice - SBP3 - Lab Management: Resource Utilization (personnel and finance)



Note: Please reference milestone narrative for full text.

4. Systems-Based Practice - SBP2 - Health care teams







### Specialty: Selective pathology (Focused Clinical)

7. Practice-Based Learning and Improvement - PBLI2 — Process Improvement and Patient Safety



9. Practice-Based Learning and Improvement - PBLI4C — Laboratory Management (Applies only to Track C: Focused Clinical Pathology)



<sup>11.</sup> Professionalism -  $\mathsf{PROF2}$  — Demonstrates accountability, honesty, and integrity





8. Practice-Based Learning and Improvement - PBLI3 - Fellows'

Scholarly Activity

10. Professionalism - PROF1 - Receives and provides feedback







### Specialty: Selective pathology (Focused Clinical)

13. Interpersonal and Communication Skills - ICS1 - Communicates with health care providers, families, and patients (as applicable)



14. Interpersonal and Communication Skills - ICS2 - Personnel Management and Conflict Resolution



#### Specialty: Pediatrics

Resident Year	1	2	3	Total Residents
# of Residents	3,174	3,112	2,908	9,194

1. Patient Care - Gather essential and accurate information about the patient (PC1)  $% \left( {PC1} \right)$ 



Note: 45 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

<sup>3.</sup> Patient Care - Provide transfer of care that ensures seamless transitions (PC3)



Note: 178 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.





Note: Please reference milestone narrative for full text.

2. Patient Care - Organize and prioritize responsibilities to provide patient care that is safe, effective and efficient (PC2)



Note: 95 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

4. Patient Care - Make informed diagnostic and therapeutic decisions that



Note: 77 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

6. Medical Knowledge - Critically evaluate and apply current medical information and scientific evidence for patient care (MK1)





#### Specialty: Pediatrics











11. Practice-Based Learning and Improvement - Identify and perform appropriate learning activities to guide ...



8. Systems-Based Practice - Advocate for quality patient care and optimal patient care systems (SBP2)



Note: 341 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

10. Practice-Based Learning and Improvement - Identify strengths, deficiencies, and limits in one's knowledge and expertise ...



Note: 67 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - Systematically analyze practice using quality improvement ...



are not included in the analysis.

#### Specialty: Pediatrics

13. Practice-Based Learning and Improvement - Incorporate formative evaluation feedback into daily practice (PBLI4)



Note: 53 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

15. Professionalism - Professionalization: A sense of duty and accountability to patients, society, and the profession (PROF2)



17. Professionalism - Self-awareness of one's own knowledge, skill, and emotional limitations that leads  $\ldots$ 







Note: 100 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

16. Professionalism - Professional Conduct: High standards of ethical behavior which includes maintaining ...



Note: 112 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.



Note: 135 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

18. Professionalism - Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients (PROF5)

#### Specialty: Pediatrics

19. Professionalism - Recognize that ambiguity is part of clinical medicine and to recognize the need for  $\ldots$ 



are not included in the analysis.

21. Interpersonal and Communication Skills - Demonstrate the insight and understanding into emotion and  $\ldots$ 



20. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public, ...



Note: 78 of 9,194 residents have a status of "Not yet assessable" and are not included in the analysis.

#### Specialty: Adolescent medicine

Resident Year	1	2	3	Total Residents
# of Residents	33	33	23	89

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions











Note: Please reference milestone narrative for full text.

2. Patient Care - PC2. Make informed diagnostic and therapeutic



4. Patient Care - PC4. Provide appropriate role modeling



6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



#### Specialty: Adolescent medicine

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



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#### Specialty: Adolescent medicine

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment,  $\dots$ 



Note: Please reference milestone narrative for full text.

14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families,  $\ldots$ 











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#### Specialty: Adolescent medicine

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\dots$ 



#### Specialty: Child abuse pediatrics

Resident Year	1	2	3	Total Residents
# of Residents	14	10	12	36

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: Please reference milestone narrative for full text.

2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems ...





#### Specialty: Child abuse pediatrics

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.





11. Practice-Based Learning and Improvement - PBL11. Identify strengths, deficiencies, and limits in one's knowledge and expertise



8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



Note: 2 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Child abuse pediatrics

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.





note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Child abuse pediatrics

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care ...



Note: 1 of 36 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Developmental-behavioral pediatrics

Resident Year	1	2	3	Total Residents
# of Residents	42	32	34	108





<sup>3.</sup> Patient Care - PC3. Develop and carry out management plans







Note: Please reference milestone narrative for full text.



2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment





6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



#### Specialty: Developmental-behavioral pediatrics

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBL11. Identify strengths, deficiencies, and limits in one's knowledge and expertise



8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



Note: 4 of 108 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



Note: 7 of 108 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



#### Specialty: Developmental-behavioral pediatrics

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining ...



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



16. Professionalism - PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients







#### Specialty: Developmental-behavioral pediatrics

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



#### Specialty: Neonatal-perinatal medicine

Resident Year	1	2	3	Total Residents
# of Residents	262	257	244	763

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

<sup>5.</sup> Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.

2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

4. Patient Care - PC4. Provide appropriate role modeling



Note: 2 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems ...



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Neonatal-perinatal medicine

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



not included in the analysis.





11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise







Note: 14 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



Note: 4 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



not included in the analysis.

#### Specialty: Neonatal-perinatal medicine

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



Note: 2 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

18. Professionalism - PROF4. The capacity to accept that ambiguity is

part of clinical medicine and to recognize ...



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Neonatal-perinatal medicine

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



Note: 1 of 763 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pediatric cardiology

Resident Year	1	2	3	Total Residents
# of Residents	155	145	138	438

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



Note: 2 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: Please reference milestone narrative for full text.

2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment



Note: 2 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.

4. Patient Care - PC4. Provide appropriate role modeling



Note: 4 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems ...





#### Specialty: Pediatric cardiology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



Note: 2 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.





11. Practice-Based Learning and Improvement - PBL11. Identify strengths, deficiencies, and limits in one's knowledge and expertise







Note: 8 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



Note: 4 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



#### Specialty: Pediatric cardiology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



Note: 2 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...







Note: 3 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 2 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.





#### Specialty: Pediatric cardiology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



not included in the analysis.

21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care ...



Note: 2 of 438 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pediatric critical care medicine

Resident Year	1	2	3	Total Residents
# of Residents	195	170	155	520

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.





4. Patient Care - PC4. Provide appropriate role modeling



6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



Note: 4 of 520 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Pediatric critical care medicine

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



<sup>9.</sup> Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...


#### Specialty: Pediatric critical care medicine

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\ldots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment,  $\ldots$ 



Note: Please reference milestone narrative for full text.





16. Professionalism - PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients



18. Professionalism - PROF4. The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



### Specialty: Pediatric critical care medicine

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



### Specialty: Pediatric emergency medicine (Pediatrics)

Resident Year	1	2	3	Total Residents
# of Residents	145	138	110	393

1. Patient Care - Gather essential and accurate information about the patient: Abstracts current findings  $\ldots$ 



3. Patient Care - Provide transfer of care that ensures seamless transitions —  $\ensuremath{\mathsf{PC3}}$ 



not included in the analysis.





Note: Please reference milestone narrative for full text.



2. Patient Care - Organize and prioritize responsibilities to provide patient care that is safe, effective,  $\ldots$ 

0

0

Level 5





6. Patient Care - Diagnostic Studies: Applies the results of diagnostic testing based on the probability ...



#### Specialty: Pediatric emergency medicine (Pediatrics)

7. Patient Care - Observation and Reassessment: Re-evaluates patients undergoing emergency department (ED) ...



not included in the analysis.

9. Patient Care - General Approach to Procedures: Performs the indicated procedure on all appropriate patients ...











10. Patient Care - Anesthesia and Acute Pain Management: Provides safe acute pain management, anesthesia, ...



Note: 2 of 393 residents have a status of "Not Yet Assessable" and are not included in the analysis.





#### Specialty: Pediatric emergency medicine (Pediatrics)

13. Systems-Based Practice - Advocate for quality patient care and optimal patient care systems — SBP1



15. Practice-Based Learning and Improvement - Use information technology to optimize learning and care delivery — PBLI1



17. Professionalism - The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



14. Systems-Based Practice - Participate in identifying system errors and implementing potential systems solutions - SBP2



16. Professionalism - Self-awareness of one's own knowledge, skill, and emotional limitations that leads  $\ldots$ 



18. Professionalism - Practice flexibility and maturity in adjusting to change with the capacity to alter behavior - PROF3



### Specialty: Pediatric emergency medicine (Pediatrics)

19. Professionalism - Provide leadership skills that enhance team functioning, the learning environment,  $\ldots$ 



21. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public,  $\ldots$ 



23. Interpersonal and Communication Skills - Act in a consultative role to other physicians and health professionals - ICS3



Note: Please reference milestone narrative for full text.





22. Interpersonal and Communication Skills - Demonstrate the insight and understanding into emotion and ...



### Specialty: Pediatric endocrinology

Resident Year	1	2	3	Total Residents
# of Residents	84	85	75	244

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.





4. Patient Care - PC4. Provide appropriate role modeling



6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



#### Specialty: Pediatric endocrinology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty







11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



Note: 3 of 244 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



Note: 3 of 244 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



#### Specialty: Pediatric endocrinology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining ...



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



16. Professionalism - PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients



18. Professionalism - PROF4. The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



### Specialty: Pediatric endocrinology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



### Specialty: Pediatric gastroenterology

Resident Year	1	2	3	Total Residents
# of Residents	110	99	94	303

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.



4. Patient Care - PC4. Provide appropriate role modeling



6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



### Specialty: Pediatric gastroenterology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



Note: 1 of 303 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



#### Specialty: Pediatric gastroenterology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



Note: Please reference milestone narrative for full text.





16. Professionalism - PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients



18. Professionalism - PROF4. The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



#### Specialty: Pediatric gastroenterology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



#### Specialty: Pediatric hematology/oncology

Resident Year	1	2	3	Total Residents
# of Residents	173	164	166	503

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions







note: 4 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.





Note: 4 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

4. Patient Care - PC4. Provide appropriate role modeling



Note: 3 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems ...



Note: 6 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Pediatric hematology/oncology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



Note: 4 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.





11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise







Note: 8 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



Note: 11 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



#### Specialty: Pediatric hematology/oncology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



Note: 5 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...







Note: 3 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 3 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.





### Specialty: Pediatric hematology/oncology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



Note: 3 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care ...



Note: 4 of 503 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pediatric infectious diseases

Resident Year	1	2	3	Total Residents
# of Residents	69	60	44	173

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.



2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment

4. Patient Care - PC4. Provide appropriate role modeling



6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



### Specialty: Pediatric infectious diseases

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



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#### Specialty: Pediatric infectious diseases

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining ...



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 Level 2 Level 1 1 2 3 Resident Year









14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...

#### Specialty: Pediatric infectious diseases

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\dots$ 



### Specialty: Pediatric nephrology

Resident Year	1	2	3	Total Residents
# of Residents	38	34	31	103

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.



2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment





6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems  $\ldots$ 



### Specialty: Pediatric nephrology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty







11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



Note: 13 of 103 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



### Specialty: Pediatric nephrology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



not included in the analysis.

15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining ...



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



Note: Please reference milestone narrative for full text.

education of patients, families, ... 0 Level 5 Level 4 Level 3 Level 2 Level 2 3 Resident Year

14. Practice-Based Learning and Improvement - PBLI4. Participate in the





18. Professionalism - PROF4. The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



### Specialty: Pediatric nephrology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\dots$ 



#### Specialty: Pediatric pulmonology

Resident Year	1	2	3	Total Residents
# of Residents	58	59	41	158

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.

2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

4. Patient Care - PC4. Provide appropriate role modeling



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems ...



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

#### Specialty: Pediatric pulmonology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBL11. Identify strengths, deficiencies, and limits in one's knowledge and expertise







Note: 4 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



Note: 2 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



#### Specialty: Pediatric pulmonology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



<sup>15.</sup> Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment, ...



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.





#### Specialty: Pediatric pulmonology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\dots$ 



Note: 1 of 158 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pediatric rheumatology

Resident Year	1	2	3	Total Residents
# of Residents	36	28	24	88

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



3. Patient Care - PC3. Develop and carry out management plans



5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to  $\ldots$ 



Note: Please reference milestone narrative for full text.

2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment



4. Patient Care - PC4. Provide appropriate role modeling



Note: 1 of 88 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - SBP1. Work effectively in various health care delivery settings and systems ...



Note: 4 of 88 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Pediatric rheumatology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - SBP3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or ...



Note: 4 of 88 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



included in the analysis.

12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



### Specialty: Pediatric rheumatology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining  $\dots$ 



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment,  $\dots$ 



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



16. Professionalism - PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients







### Specialty: Pediatric rheumatology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



#### Specialty: Pediatric sports medicine

Resident Year	1	Total Residents
# of Residents	26	26

# 1. Patient Care - History and Physical Examination: Medical and Musculoskeletal — Patient Care 1 $\,$



# 3. Patient Care - Team Coverage and Athletic Care: Coverage of Sporting Events, Pre-participation Physical $\ldots$



# 5. Medical Knowledge - Medical Issues in Sports Medicine — Medical Knowledge 2 $\ensuremath{\mathsf{2}}$



Note: Please reference milestone narrative for full text.

Level 5 Level 4 Level 3 Level 2 Level 1 I Resident Year

# 2. Patient Care - Medical Management: Differential Diagnosis, Diagnostic Testing, Interpretation of Data $\ldots$





6. Medical Knowledge - Musculoskeletal Issues in Sports Medicine - Medical Knowledge 3  $\,$ 



#### Specialty: Pediatric sports medicine

7. Systems-Based Practice - Working with Interprofessional Teams (consultants, certified athletic trainers ...



9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement  $\ldots$ 







8. Systems-Based Practice - Systems Thinking — Systems-Based Practice 2



10. Practice-Based Learning and Improvement - Locate, Appraise, and Assimilate Evidence from Scientific  $\ldots$ 



12. Professionalism - Knowledge about and Adherence to the Ethical Principles Relevant to the Practice of Sports Medicine  $-\ldots$ 


### Specialty: Pediatric sports medicine

13. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...







## Specialty: Pediatric transplant hepatology

Resident Year	1	Total Residents
# of Residents	13	13

1. Patient Care - PC1. Provide transfer of care that ensures seamless transitions



### 3. Patient Care - PC3. Develop and carry out management plans



# 5. Medical Knowledge - MK1. Locate, appraise, and assimilate evidence from scientific studies related to $\ldots$



2. Patient Care - PC2. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment



4. Patient Care - PC4. Provide appropriate role modeling







### Specialty: Pediatric transplant hepatology

7. Systems-Based Practice - SBP2. Coordinate patient care within the health care system relevant to their clinical specialty



9. Systems-Based Practice - SBP4. Work in interprofessional teams to enhance patient safety and improve patient care quality



11. Practice-Based Learning and Improvement - PBLI1. Identify strengths, deficiencies, and limits in one's knowledge and expertise



Note: Please reference milestone narrative for full text.





10. Systems-Based Practice - SBP5. Participate in identifying system errors and implementing potential systems solutions



12. Practice-Based Learning and Improvement - PBLI2. Systematically analyze practice using quality improvement methods, and ...



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#### Specialty: Pediatric transplant hepatology

13. Practice-Based Learning and Improvement - PBLI3. Use information technology to optimize learning and care delivery



# 15. Professionalism - PROF1. Professional Conduct: High standards of ethical behavior which includes maintaining ...



17. Professionalism - PROF3. Provide leadership skills that enhance team functioning, the learning environment,  $\ldots$ 



14. Practice-Based Learning and Improvement - PBLI4. Participate in the education of patients, families, ...



16. Professionalism - PROF2. Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients



18. Professionalism - PROF4. The capacity to accept that ambiguity is part of clinical medicine and to recognize ...



### Specialty: Pediatric transplant hepatology

19. Interpersonal and Communication Skills - ICS1. Communicate effectively with physicians, other health professionals, and ...



21. Interpersonal and Communication Skills - ICS3. Act in a consultative role to other physicians and health professionals



20. Interpersonal and Communication Skills - ICS2. Work effectively as a member or leader of a health care  $\ldots$ 



## Specialty: Physical medicine and rehabilitation

Post Graduate Year	1	2	3	4	Total Residents
# of Residents	120	439	411	381	1,351

1. Patient Care - PC1. History (Appropriate for age and impairment)



3. Patient Care - PC3. Diagnostic Evaluation This includes: • Differential diagnosis of primary and secondary conditions ...



5. Patient Care - PC5. Rehabilitation/Functional Management Includes rehabilitation interventions in inpatient,  $\ldots$ 



Note: Please reference milestone narrative for full text.











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### Specialty: Physical medicine and rehabilitation

7. Patient Care - PC7. Procedural Skills: Electrodiagnostic Procedures



9. Systems-Based Practice - SBP1. Systems thinking: demonstrates awareness of and responsiveness to larger  $\ldots$ 



11. Systems-Based Practice - SBP3. Patient safety: Understands ways to improve health care safety through  $\ldots$ 



Note: Please reference milestone narrative for full text.

8. Medical Knowledge - Medical Knowledge (MK) Physiatric knowledge (medical, functional, and psychosocial) in the care of ...



10. Systems-Based Practice - SBP2. Team approach to enhance patient care coordination. Rehabilitation team ...



12. Practice-Based Learning and Improvement - PBL11. Self-Directed Learning and Teaching  ${\scriptstyle \bullet}$  Identify strengths, ...



### Specialty: Physical medicine and rehabilitation

13. Practice-Based Learning and Improvement - PBLI2. Locate, appraise, and assimilate evidence from scientific  $\dots$ 



15. Professionalism - PROF1. Compassion, integrity, and respect for others, as well as sensitivity and responsiveness ...



17. Professionalism - PROF3. Professional behaviors and accountability to self, patients, society, and the profession



Note: Please reference milestone narrative for full text.

14. Practice-Based Learning and Improvement - PBLI3. Quality Improvement (QI) Residents must actively participate ...



16. Professionalism - PROF2. Knowledge about, respect for, and adherence to the ethical principles (including ...



18. Interpersonal and Communication Skills - ICS1. Relationship Management



### Specialty: Physical medicine and rehabilitation

19. Interpersonal and Communication Skills - ICS2. Information gathering and sharing



### Specialty: Brain injury medicine (Physical medicine and rehabilitation)

Resident Year	1	<b>Total Residents</b>
# of Residents	13	13

# 1. Patient Care - Patient Care - History and Physical Examination of Individuals with Brain Injury



# 3. Patient Care - Patient Care - Evaluation and Diagnosis of Individuals with Brain Injury across the Entire Spectrum of Severity







Note: Please reference milestone narrative for full text.

2. Patient Care - Patient Care - Spasticity Interventions (e.g., Chemodenervation, Neurolytic Procedures, ...







6. Medical Knowledge - Medical Knowledge – Traumatic and Nontraumatic Brain Injury This includes: • Epidemiology ...



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### Specialty: Brain injury medicine (Physical medicine and rehabilitation)

7. Medical Knowledge - Medical Knowledge – Functional Outcomes and Assessment across the Entire Spectrum of Brain Injury Severity



9. Systems-Based Practice - Systems-Based Practice – Work In Interprofessional Teams to Enhance Patient Safety and Patient ...



11. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement - Self-directed Learning  $\dots$ 



8. Systems-Based Practice - Systems-Based Practice - Systems Thinking, including Cost- and Risk-effective Practice



10. Systems-Based Practice - Systems-Based Practice – Coordination and Transitions in Care



12. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Location, Appraisal,  $\dots$ 



### Specialty: Brain injury medicine (Physical medicine and rehabilitation)

13. Professionalism - Professionalism - Compassion, Integrity, Accountability, and Respect for Self and Others



15. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Relationship Development,  $\ldots$ 



#### 14. Professionalism - Professionalism - Medical Ethics



16. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Information Sharing, Gathering, and Technology



#### Specialty: Spinal cord injury medicine

Resident Year	1	Total Residents
# of Residents	21	21

1. Patient Care - Patient Care - History and Physical Examination of Individuals with Spinal Cord Disorders



#### 3. Patient Care - Patient Care - Medical/Surgical Management of Individuals with Spinal Cord Disorders ...



# 5. Medical Knowledge - Medical Knowledge - Traumatic and Non-Traumatic Spinal Cord Disorders This includes: ...



Note: Please reference milestone narrative for full text.

2. Patient Care - Patient Care - Diagnostic Evaluation of Individuals with Spinal Cord Disorders This ...











### Specialty: Spinal cord injury medicine

7. Systems-Based Practice - Systems-Based Practice - Systems Thinking for Individuals with Spinal Cord  $\dots$ 



# 9. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Self-Directed Learning and Teaching







8. Systems-Based Practice - Systems-Based Practice - Patient Safety for Individuals with Spinal Cord Disorders: ...



10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Locate, Appraise, ...







### Specialty: Spinal cord injury medicine

13. Professionalism - Professionalism - Professional Behaviors and Accountability to Self, Patients, Society, and the Profession



15. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Information Gathering and Sharing







### Specialty: Pediatric rehabilitation

Resident Year	1	2	Total Residents
# of Residents	15	12	27

1. Patient Care - Patient Care - History and Physical Examination for Pediatric Rehabilitation Patients ...



3. Patient Care - Patient Care - Medical Management of Pediatric Rehabilitation Medicine Patients This  $\ldots$ 







Note: Please reference milestone narrative for full text.







6. Medical Knowledge - Medical Knowledge - Physiatric knowledge (medical, functional, and psychosocial) ...



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## Specialty: Pediatric rehabilitation

7. Medical Knowledge - Medical Knowledge - Growth and Development This includes:  $\bullet$  Personal-social  $\bullet$  ...



9. Systems-Based Practice - Systems-Based Practice - Patient Safety: Understands ways to improve health ...







Note: Please reference milestone narrative for full text.





10. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement – Self-directed Learning and Teaching







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### Specialty: Pediatric rehabilitation

13. Professionalism - Professionalism - Demonstrates compassion, integrity, and respect for others, as well  $\dots$ 



15. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Relationship Management



14. Professionalism - Professionalism - Professional Behaviors and Accountability to Self, Patients, Society, and the Profession



16. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Information Gathering and Sharing



### Specialty: Sports medicine (Physical medicine and rehabilitation)

Resident Year	1	Total Residents
# of Residents	28	28

1. Patient Care - History and Physical Examination: Medical and Musculoskeletal — Patient Care 1  $\,$ 



# 3. Patient Care - Team Coverage and Athletic Care: Coverage of Sporting Events, Pre-participation Physical $\ldots$







2. Patient Care - Medical Management: Differential Diagnosis, Diagnostic Testing, Interpretation of Data ...



4. Medical Knowledge - Science of Sports Medicine, including Anatomy, Physiology, Cellular Biology, Epidemiology, ...



6. Medical Knowledge - Musculoskeletal Issues in Sports Medicine - Medical Knowledge 3



### Specialty: Sports medicine (Physical medicine and rehabilitation)

7. Systems-Based Practice - Working with Interprofessional Teams (consultants, certified athletic trainers ...



# 9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement ...



# 11. Professionalism - Compassion, Integrity, Accountability, and Respect for Self and Others — Professionalism 1



Note: Please reference milestone narrative for full text.



10. Practice-Based Learning and Improvement - Locate, Appraise, and Assimilate Evidence from Scientific  $\ldots$ 



12. Professionalism - Knowledge about and Adherence to the Ethical Principles Relevant to the Practice of Sports Medicine  $-\ldots$ 



8. Systems-Based Practice - Systems Thinking — Systems-Based Practice 2

### Specialty: Sports medicine (Physical medicine and rehabilitation)

13. Interpersonal and Communication Skills - Relationship Development, Teamwork, and Managing Conflict — ...





14. Interpersonal and Communication Skills - Information Sharing, Gathering, and Technology — Interpersonal ...

### Specialty: Plastic surgery

Resident Year	1	2	3	Total Residents
# of Residents	78	87	103	268





#### 2. Medical Knowledge - Surgical Care - Medical Knowledge



3. Patient Care - Wound Care - Patient Care







Note: Please reference milestone narrative for full text.

4. Medical Knowledge - Wound Care - Medical Knowledge



#### 6. Medical Knowledge - Tissue Transfer - Medical Knowledge



### Specialty: Plastic surgery















Note: 7 of 268 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Medical Knowledge - Head and Neck - Medical Knowledge



included in the analysis.





8. Medical Knowledge - Congenital Anomalies — Medical Knowledge

## Specialty: Plastic surgery

### 13. Patient Care - Facial Aesthetics - Patient Care



### 15. Patient Care - Non-Cancer Breast Surgery — Patient Care





17. Patient Care - Breast Reconstruction - Patient Care



Note: 9 of 268 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Medical Knowledge - Non-Cancer Breast Surgery — Medical Knowledge



included in the analysis.





## 14. Medical Knowledge - Facial Aesthetics - Medical Knowledge

## Specialty: Plastic surgery

19. Patient Care - Reconstruction of the Trunk and Perineum — Patient Care



21. Patient Care - Upper Extremity Trauma - Patient Care







Note: Please reference milestone narrative for full text.



22. Medical Knowledge - Upper Extremity Trauma - Medical Knowledge



24. Medical Knowledge - Non-trauma Hand — Medical Knowledge



20. Medical Knowledge - Reconstruction of Trunk and Perineum – Medical Knowledge

### Specialty: Plastic surgery













are 26. Medical Knowledge - Cosmetic Trunk and Lower Extremity — Medical Knowledge



Note: 1 of 268 residents have a status of "Not Yet Rotated" and are not included in the analysis.

28. Medical Knowledge - Lower Extremity - Medical Knowledge



included in the analysis.

30. Systems-Based Practice - Resource Allocation — Systems-Based Practice



### Specialty: Plastic surgery

31. Systems-Based Practice - Practice Management - Systems-Based Practice



33. Practice-Based Learning and Improvement - Research and Teaching - Practice-Based Learning and Improvement



35. Professionalism - Personal Accountability - Professionalism



32. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and ...



34. Professionalism - Ethics and Values - Professionalism







### Specialty: Plastic Surgery - Integrated

Resident Year	1	2	3	4	5	6	Total Residents
# of Residents	160	153	154	141	121	105	834





3. Patient Care - Wound Care - Patient Care



Note: 22 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: Please reference milestone narrative for full text.



<sup>2.</sup> Medical Knowledge - Surgical Care — Medical Knowledge

4. Medical Knowledge - Wound Care — Medical Knowledge



Note: 20 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Medical Knowledge - Tissue Transfer - Medical Knowledge



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Note: 11 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### Specialty: Plastic Surgery - Integrated

7. Patient Care - Congenital Anomalies - Patient Care



Note: 140 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.



#### 9. Patient Care - Head and Neck — Patient Care

Note: 99 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.







# Note: 116 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Resident Year

10. Medical Knowledge - Head and Neck - Medical Knowledge



Note: 96 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 86 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Note: Please reference milestone narrative for full text.

8. Medical Knowledge - Congenital Anomalies - Medical Knowledge

### Specialty: Plastic Surgery - Integrated

#### 13. Patient Care - Facial Aesthetics - Patient Care



Note: 203 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### 15. Patient Care - Non-Cancer Breast Surgery — Patient Care









Note: 165 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Medical Knowledge - Non-Cancer Breast Surgery — Medical Knowledge



Note: 58 of 834 residents have a status of "Not Yet Rotated" and are no included in the analysis.

18. Medical Knowledge - Breast Reconstruction - Medical Knowledge



Note: 48 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Note: Please reference milestone narrative for full text.

#### 14. Medical Knowledge - Facial Aesthetics - Medical Knowledge

### Specialty: Plastic Surgery - Integrated

19. Patient Care - Reconstruction of the Trunk and Perineum — Patient Care



Note: 45 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.







23. Patient Care - Non-trauma Hand - Patient Care





Note: 44 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 84 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 84 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

### Specialty: Plastic Surgery - Integrated

## 25. Patient Care - Cosmetic Trunk and Lower Extremity - Patient Care



included in the analysis.





#### 29. Systems-Based Practice - Patient Safety - Systems-Based Practice



0 Level 5 0

Knowledge



26. Medical Knowledge - Cosmetic Trunk and Lower Extremity - Medical

Note: 117 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

28. Medical Knowledge - Lower Extremity - Medical Knowledge



Note: 50 of 834 residents have a status of "Not Yet Rotated" and are not included in the analysis.

30. Systems-Based Practice - Resource Allocation - Systems-Based Practice



### Specialty: Plastic Surgery - Integrated

31. Systems-Based Practice - Practice Management — Systems-Based Practice



33. Practice-Based Learning and Improvement - Research and Teaching - Practice-Based Learning and Improvement



35. Professionalism - Personal Accountability - Professionalism



32. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and ...



34. Professionalism - Ethics and Values - Professionalism



36. Interpersonal and Communication Skills - Interpersonal and Communication Skills



## Specialty: Hand surgery (Plastic surgery)

Resident Year	1	Total Residents
# of Residents	23	23

# 1. Patient Care - Acquired Conditions (Tumor, Dupuytren's, tenosynovitis, vascular, contractures) — Patient Care



2. Medical Knowledge - Acquired Conditions (Tumor, Dupuytren's, tenosynovitis, vascular, contractures) — Medical Knowledge



#### 3. Patient Care - Arthritis - Patient Care



### 4. Medical Knowledge - Arthritis - Medical Knowledge







Note: Please reference milestone narrative for full text.

#### 6. Medical Knowledge - Congenital - Medical Knowledge



## Specialty: Hand surgery (Plastic surgery)





# 8. Medical Knowledge - Nerve — Medical Knowledge



### 9. Patient Care - Trauma: Bone, Joint - Patient Care



#### 11. Patient Care - Soft Tissue Trauma, Infections - Patient Care







12. Medical Knowledge - Soft Tissue Trauma, Infections — Medical Knowledge



### Specialty: Hand surgery (Plastic surgery)

## 13. Patient Care - Tendon - Patient Care



15. Systems-Based Practice - Patient Safety, Resource Allocation, Practice Management — Systems-Based Practice









16. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and ...



18. Interpersonal and Communication Skills - Interpersonal and Communication Skills



14. Medical Knowledge - Tendon — Medical Knowledge
#### Specialty: Preventive medicine (Aerospace Medicine)

Resident Year	1	2	Total Residents
# of Residents	19	15	34

1. Patient Care - Emergency Preparedness and Response: Apply skills in Emergency Preparedness and Response - Patient Care 1



3. Patient Care - Inform and Educate : Inform and educate populations about health threats and risks - Patient Care 3  $\,$ 







Level 5 Level 4 Level 3 Level 2 Level 1 1 2 Resident Year











### Specialty: Preventive medicine (Aerospace Medicine)

7. Patient Care - Develop and applying medical standards, grant exceptions - Patient Care 7  $\,$ 



9. Patient Care - Identifying appropriate patients for aeromedical transport and provide guidance for safe  $\ldots$ 



11. Patient Care - Advise in techniques for sustaining and enhancing human performance - Patient Care 11



Note: Please reference milestone narrative for full text.

8. Patient Care - Educate passengers and physicians about the hazards of flight with certain medical conditions ...







12. Patient Care - Appropriate safety information and education and conducting the medical aspects of any  $\ldots$ 



### Specialty: Preventive medicine (Aerospace Medicine)

13. Patient Care - Conduct aeromedical research - Patient Care 13



15. Patient Care - For space-based programs only : Apply medical care standards and programs, evaluating  $\ldots$ 



17. Medical Knowledge - Environmental Health - Medical Knowledge 2





16. Medical Knowledge - Behavioral Health - Medical Knowledge 1



18. Medical Knowledge - Biostatistics - Medical Knowledge 3



#### Specialty: Preventive medicine (Aerospace Medicine)

19. Medical Knowledge - Epidemiology - Medical Knowledge 4



21. Systems-Based Practice - Incorporate considerations of cost awareness and risk-benefit analysis in patient  $\ldots$ 



23. Practice-Based Learning and Improvement - Identify strengths, deficiencies, and limits in one's knowledge ...



20. Systems-Based Practice - Work and coordinate patient care effectively in various health care delivery ...



22. Systems-Based Practice - Work in interprofessional teams to enhance patient safety and improve patient ...



24. Professionalism - Compassion, integrity, and respect for others, as well as sensitivity and responsiveness  $\ldots$ 



### Specialty: Preventive medicine (Aerospace Medicine)

25. Professionalism - Accountability to patients, society and the profession - Professionalism 2  $\,$ 



27. Interpersonal and Communication Skills - Maintain comprehensive, timely and legible medical records,  $\ldots$ 



26. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public, ...



### Specialty: Preventive medicine (Occupational Medicine)

Resident Year	1	2	Total Residents
# of Residents	65	58	123

1. Patient Care - Toxicology: Recognize, evaluate, and treat exposures to toxins at work or in the general ...



3. Patient Care - Emergency Preparedness and Response: Apply skills in Emergency Preparedness and Response - Patient Care 3  $\,$ 



Note: 2 of 123 residents have a status of "Not Yet Hotated" and are no included in the analysis.





Note: Please reference milestone narrative for full text.







Note: 1 of 123 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Patient Care - Policies and Plans: Develop policies and plans to support individual and community health  $\ldots$ 



### Specialty: Preventive medicine (Occupational Medicine)

7. Patient Care - Evaluating Health Services: Evaluate population-based health services - Patient Care 7



# 9. Patient Care - Occupational and Environmental Medicine (OEM) Related Law and Regulations: Comply with ...



11. Patient Care - Health and Productivity: Identify and address individual and organizational factors in  $\ldots$ 



8. Patient Care - Clinical Occupational and Environmental Medicine: Provide evidence-based clinical evaluation ...



10. Patient Care - Work Fitness and Disability Integration: Determine if a worker can safely be at work/complete ...



Note: 1 of 123 residents have a status of "Not Yet Rotated" and are not included in the analysis.





### Specialty: Preventive medicine (Occupational Medicine)

13. Patient Care - OEM Related Management and Administration - Patient Care 13



#### 15. Medical Knowledge - Behavioral Health - Medical Knowledge 1







14. Patient Care - Ethics: Apply an ethical approach to promote the health and welfare of the individual worker and protect ...



16. Medical Knowledge - Environmental Health - Medical Knowledge 2







### Specialty: Preventive medicine (Occupational Medicine)

19. Systems-Based Practice - Work and coordinate patient care effectively in various health care delivery ...



21. Systems-Based Practice - Work in interprofessional teams to enhance patient safety and improve patient  $\ldots$ 



23. Professionalism - Compassion, integrity, and respect for others, as well as sensitivity and responsiveness  $\ldots$ 



Note: Please reference milestone narrative for full text.

20. Systems-Based Practice - Incorporate considerations of cost awareness and risk-benefit analysis in patient ...



22. Practice-Based Learning and Improvement - Identify strengths, deficiencies, and limits in one's knowledge ...



24. Professionalism - Accountability to patients, society and the profession - Professionalism 2  $\,$ 



### Specialty: Preventive medicine (Occupational Medicine)

25. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public, ...





26. Interpersonal and Communication Skills - Maintain comprehensive, timely and legible medical records, ...

### Specialty: Preventive medicine (Public Health)

Resident Year	1	2	Total Residents
# of Residents	100	82	182

1. Patient Care - Emergency Preparedness and Response: Apply skills in Emergency Preparedness and Response - Patient Care 1



3. Patient Care - Inform and Educate: Inform and educate populations about health threats and risks - Patient Care 3  $\,$ 







Note: Please reference milestone narrative for full text.

2. Patient Care - Community Health: Monitor, diagnose, and investigate community health problems - Patient Care 2



Note: 3 of 182 residents have a status of "Not Yet Rotated" and are not included in the analysis.

4. Patient Care - Policies and Plans: Develop policies and plans to support individual and community health ...



Note: 1 of 182 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Patient Care - Descriptive Epidemiology: Able to characterize the health of a community - Patient Care  ${\bf 6}$ 



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### Specialty: Preventive medicine (Public Health)

7. Patient Care - Analytic Epidemiology: Able to design and conduct an epidemiologic study - Patient Care 7



9. Patient Care - Surveillance Systems: Design and operate a surveillance system - Patient Care 9



11. Patient Care - Conditions of Public Health Significance: Implement appropriate clinical care for individuals ...



8. Patient Care - Disease Outbreak: Investigate and respond to a cluster or outbreak - Patient Care 8



Note: 6 of 182 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Patient Care - Clinical Preventive Services (CPS): Analyze evidence regarding the performance of proposed ...



Note: 4 of 182 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 1 of 182 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### Specialty: Preventive medicine (Public Health)

#### 13. Medical Knowledge - Behavioral Health - Medical Knowledge 1



#### 15. Medical Knowledge - Biostatistics - Medical Knowledge 3



17. Systems-Based Practice - Incorporate considerations of cost awareness and risk-benefit analysis in patient ...



Note: Please reference milestone narrative for full text.



Note: 3 of 182 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Systems-Based Practice - Work and coordinate patient care effectively in various health care delivery ...



18. Systems-Based Practice - Work in interprofessional teams to enhance patient safety and improve patient ...



14. Medical Knowledge - Environmental Health - Medical Knowledge 2

#### Specialty: Preventive medicine (Public Health)

19. Practice-Based Learning and Improvement - Identify strengths, deficiencies, and limits in one's knowledge ...



21. Professionalism - Accountability to patients, society and the profession - Professionalism 2  $\,$ 



23. Interpersonal and Communication Skills - Maintain comprehensive, timely and legible medical records, ...



Note: Please reference milestone narrative for full text.





22. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public, ...



#### Specialty: Psychiatry

Resident Year	1	2	3	4	Total Residents*
# of Residents	1,682	1,629	1,538	1,101	5,950

\*Note: There are 1 residents with an incomplete milestone evaluation that are excluded from the box plots below.





2. Patient Care - PC2. Psychiatric Formulation and Differential Diagnosis [see narrative footnote 1] A: ...



3. Patient Care - PC3. Treatment Planning and Management A: Creates treatment plan B: Manages patient crises, ...



5. Patient Care - PC5. Somatic Therapies Somatic therapies including psychopharmacology, electroconvulsive ...



Note: Please reference milestone narrative for full text.

4. Patient Care - PC4. Psychotherapy Refers to 1) the practice and delivery of psychotherapies, including ...



6. Medical Knowledge - MK1. Development through the life cycle (including the impact of psychopathology ...



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#### Specialty: Psychiatry

7. Medical Knowledge - MK2. Psychopathology [see narrative footnote 1] Includes knowledge of diagnostic ...



9. Medical Knowledge - MK4. Psychotherapy Refers to knowledge regarding: 1) individual psychotherapies, ...



11. Medical Knowledge - MK6. Practice of Psychiatry A: Ethics B: Regulatory compliance C: Professional development and frameworks



Note: Please reference milestone narrative for full text.





10. Medical Knowledge - MK5. Somatic Therapies Medical Knowledge of somatic therapies, including psychopharmacology, ...



12. Systems-Based Practice - SBP1. Patient Safety and the Health care Team A: Medical errors and improvement  $\ldots$ 



#### Specialty: Psychiatry

13. Systems-Based Practice - SBP2. Resource Management (may include diagnostics, medications, level of care, ...



15. Systems-Based Practice - SBP4. Consultation to non-psychiatric medical providers and non-medical systems ...



17. Practice-Based Learning and Improvement - PBLI2. Formal practicebased quality improvement based on ...



Note: Please reference milestone narrative for full text.





16. Practice-Based Learning and Improvement - PBLI1. Development and execution of lifelong learning through ...



18. Practice-Based Learning and Improvement - PBLI3. Teaching A: Development as a teacher B: Observable teaching skills



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#### Specialty: Psychiatry

19. Professionalism - PROF1. [see narrative footnote 1] Compassion, integrity, respect for others, sensitivity ...



21. Interpersonal and Communication Skills - ICS1. Relationship development and conflict management with  $\dots$ 



20. Professionalism - PROF2. Accountability to self, patients, colleagues, and the profession A: Fatigue ...



22. Interpersonal and Communication Skills - ICS2. Information sharing and record keeping A: Accurate and  $\ldots$ 



### Specialty: Child and adolescent psychiatry

Resident Year	1	2	Total Residents
# of Residents	491	395	886





3. Patient Care - PC3 - Treatment Planning and Management







Note: Please reference milestone narrative for full text.



2. Patient Care - PC2 — Psychiatric Formulation and Differential Diagnosis [see narrative footnote 1]

4. Patient Care - PC4 - Psychotherapy



6. Medical Knowledge - MK1 — Development in Infancy, Childhood, and Adolescence, Including the Impact of  $\ldots$ 



#### Specialty: Child and adolescent psychiatry

7. Medical Knowledge - MK2 — Psychopathology and Wellness, including Knowledge of Diagnostic Criteria, ...



9. Medical Knowledge - MK4 — Psychotherapy: Refers to knowledge regarding: 1) individual psychotherapies,  $\ldots$ 







Note: Please reference milestone narrative for full text.





10. Medical Knowledge - MK5 — Somatic Therapies: Medical Knowledge of Somatic Therapies, including Psychopharmacology, ECT,  $\dots$ 



12. Systems-Based Practice - SBP1 - Patient Safety and the Health Care Team



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#### Specialty: Child and adolescent psychiatry

#### 13. Systems-Based Practice - SBP2 - Resource Management



15. Systems-Based Practice - SBP4 — Consultation to and Integration with Non-psychiatric Medical Providers  $\ldots$ 







Note: Please reference milestone narrative for full text.



16. Practice-Based Learning and Improvement - PBL1 - Development and Execution of Lifelong Learning through  $\ldots$ 



18. Professionalism -  $\mathsf{PROF1}$  — Compassion, Integrity, Respect for Others, Sensitivity to Diverse Patient ...



### 14. Systems-Based Practice - SBP3 - Community-based Care

#### Specialty: Child and adolescent psychiatry

19. Professionalism -  $\mathsf{PROF2}$  — Accountability to Self, Patients, Colleagues, and the Profession



21. Interpersonal and Communication Skills -  $\rm ICS2-Information$  Sharing and Record Keeping



20. Interpersonal and Communication Skills - ICS1 - Relationship Development and Conflict Management with ...



#### Specialty: Forensic psychiatry

Resident Year	1	Total Residents
# of Residents	81	81

1. Patient Care - PC1 — Patient Care A. Provides psychiatric care in a forensic setting



# 3. Medical Knowledge - $\rm MK1$ — Knowledge of the Law and Ethical Principles as they relate to the Practice ...



# 5. Systems-Based Practice - SBP1 — Patient/Evaluee Safety and the Health Care Team A. Medical errors and $\ldots$



Note: Please reference milestone narrative for full text.

Level 3 Level 2 Level 2 Level 1 i Resident Year A. Medical Knowledge - MK2 — Knowledge of Clinical Psychiatry Especially Relevant to Forensic Psychiatry ...

Level 5

Level 4







# 2. Patient Care - PC2 — Procedural Skills A. Conducts a forensic psychiatric evaluation in criminal and $\ldots$

#### Specialty: Forensic psychiatry

7. Systems-Based Practice - SBP3 — Consultation to Medical Providers and Non-medical systems (e.g., military,  $\ldots$ 



9. Practice-Based Learning and Improvement - PBL12 — Teaching A. Development as a teacher B. Observable teaching skills



11. Professionalism - PROF2 — Accountability to Self, Patients, Colleagues, Legal Systems, Professionals, ...



Note: Please reference milestone narrative for full text.





10. Professionalism -  $\mathsf{PROF1}$  — Compassion, Integrity, Respect for Others, Sensitivity to Diverse Patient ...



12. Interpersonal and Communication Skills - ICS1 - Relationship Development and Conflict Management with  $\dots$ 



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### Specialty: Forensic psychiatry

13. Interpersonal and Communication Skills - ICS2 — Information Sharing and Record Keeping A. Accurate and ...



#### Specialty: Geriatric psychiatry

Resident Year	1	Total Residents
# of Residents	53	53

1. Patient Care - PC1 - Geriatric Psychiatric Evaluation and Differential Diagnosis A. Geriatric-specific ...



3. Patient Care - PC3 - Treatment Planning and Management A. Participates in the development, management, ...







Note: Please reference milestone narrative for full text.

2. Patient Care - PC2 - Geriatric Therapeutic Modalities A. Somatic Therapies [see narrative footnote 2] ...



4. Medical Knowledge - MK1 - Development through Later-life A. Knowledge of developmental theories across ...







#### Specialty: Geriatric psychiatry

7. Systems-Based Practice - SBP1 - Patient Safety and the Health Care Team A. Medical errors and improvement  $\ldots$ 



9. Systems-Based Practice - SBP3 - Community-based Care A. Community-based programs B. Self-help groups C. Recovery and rehabilitation



11. Practice-Based Learning and Improvement - PBLI1 - Development and Execution of Lifelong Learning through ...



8. Systems-Based Practice - SBP2 - Resource Management: Costs of care and resource management



10. Systems-Based Practice - SBP4 - Consultation to non-psychiatric medical providers and non-medical systems ...



12. Practice-Based Learning and Improvement - PBLI2 - Teaching A. Development as a teacher B. Observable teaching skills



#### Specialty: Geriatric psychiatry

13. Professionalism - PROF1 - Compassion, Integrity, Respect for Others, Sensitivity to Diverse Patient  $\ldots$ 



15. Interpersonal and Communication Skills - ICS1 - Relationship Development and Conflict Management with ...



14. Professionalism - PROF2 - Accountability to Self, Patients, Colleagues, and the Profession A. Fatigue ...



16. Interpersonal and Communication Skills - ICS2 - Information Sharing and Record Keeping A. Accurate and  $\ldots$ 



#### Specialty: Consultation-liaison psychiatry

Resident Year	1	Total Residents
# of Residents	88	88

1. Patient Care - PC1 - Consultative Patient Care: clarifying the question, gathering data and collateral ...



#### 3. Medical Knowledge - MK1 — Knowledge regarding Psychiatric Illnesses in the Medically III: assessment ...







Note: Please reference milestone narrative for full text.

2. Patient Care - PC2 - Integrated Patient Care: performing, coordinating, and supervising care in multidisciplinary ...











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### Specialty: Consultation-liaison psychiatry

7. Systems-Based Practice - SBP2 — Resource Management: costs of care and resource selection



9. Systems-Based Practice - SBP4 — Consultation to Health Care Systems



11. Practice-Based Learning and Improvement - PBLI2 — Teaching A. Development as a teacher B. Observable teaching skills



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - SBP3 — Community-based Care: community-based programs; self-help groups, including ...







12. Professionalism - PROF1 — Compassion, Integrity, and Respect A. Compassion for others, self-reflection, sensitivity to  $\ldots$ 



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#### Specialty: Consultation-liaison psychiatry

13. Professionalism - PROF2 — Accountability to Self, Patients, Colleagues, and Profession A. Work balance ...



14. Interpersonal and Communication Skills - ICS1 — Relationship Development and Conflict Management A. ...



15. Interpersonal and Communication Skills - ICS2 — Information Sharing and Record Keeping A. Accurate ...



#### Specialty: Radiation oncology

1. Patient Care - Lymphoma - Patient Care

Resident Year	1	2	3	4	Total Residents
# of Residents	196	193	195	186	770



3. Patient Care - Genitourinary (GU) - Patient Care







Note: Please reference milestone narrative for full text.

2. Patient Care - Head and Neck - Patient Care



Note: 55 of 770 residents have a status of "Not Yet Rotated" and are not included in the analysis.

4. Patient Care - Palliation — Patient Care



Note: 33 of 770 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Patient Care - Gastrointestinal (GI) - Patient Care



### Specialty: Radiation oncology





included in the analysis.





11. Patient Care - Stereotactic Radiosurgery (SRS)/Stereotactic Body Radiotherapy (SBRT) - Patient Care



8. Patient Care - Lung - Patient Care



Note: 47 of 770 residents have a status of "Not Yet Rotated" and are not included in the analysis.

10. Patient Care - Brachytherapy - Patient Care



included in the analysis.





included in the analysis.

### Specialty: Radiation oncology

#### 13. Medical Knowledge - Radiation/Cancer Biology — Medical Knowledge



Note: 14 of 770 residents have a status of "Not Yet Rotated" and are not included in the analysis.

15. Systems-Based Practice - Incorporate considerations of cost awareness and risk-benefit analysis in patient-  $\ldots$ 



17. Practice-Based Learning and Improvement - Identify strengths, deficiencies, and limits in one's knowledge ...



Note: Please reference milestone narrative for full text.

14. Systems-Based Practice - Work and coordinate patient care effectively in various health care delivery ...



16. Systems-Based Practice - Work in interprofessional teams to enhance patient safety and improve patient ...



18. Practice-Based Learning and Improvement - Participate in the education of patients, families, students, ...



### Specialty: Radiation oncology

19. Professionalism - Compassion, integrity, and respect for others, as well as sensitivity and responsiveness ...



21. Interpersonal and Communication Skills - Effective communication with patients, families, and the public,  $\ldots$ 



20. Professionalism - Accountability to patients, society, and the profession; personal responsibility to ...



22. Interpersonal and Communication Skills - Effective member or leader of a health care team or other professional  $\dots$ 



### Specialty: Radiology-diagnostic

Resident Year	1	2	3	4	Total Residents*
# of Residents	1,217	1,188	1,199	1,165	4,769

\*Note: There are 2 residents with an incomplete milestone evaluation that are excluded from the box plots below.

#### 1. Patient Care - Consultant (PCTS1)





3. Medical Knowledge - Protocol selection and optimization of images (MK1)



5. Systems-Based Practice - Quality Improvement (SBP1)



Note: Please reference milestone narrative for full text. 468 • MILESTONES NATIONAL REPORT 2018 4. Medical Knowledge - Interpretation of examinations (MK2)



6. Systems-Based Practice - Health care economics (SBP2)



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2. Patient Care - Competence in procedures (PCTS2)
## Specialty: Radiology-diagnostic

7. Practice-Based Learning and Improvement - Patient safety: contrast agents; radiation safety; MR safety; sedation (PBLI1)



9. Practice-Based Learning and Improvement - Scholarly activity (PBLI3)



11. Interpersonal and Communication Skills - Effective communication with patients, families, and caregivers (ICS1)



Note: Please reference milestone narrative for full text.



8. Practice-Based Learning and Improvement - Self-Directed Learning (PBLI2)

10. Professionalism - Professional Values and Ethics (PROF1)



12. Interpersonal and Communication Skills - Effective communication with members of the health care team (ICS2)



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## Specialty: Abdominal radiology

Resident Year	1	Total Residents
# of Residents	45	45

### 1. Patient Care - Consultant - Patient Care 1



## Level 5 0

2. Patient Care - Competence in Procedures - Patient Care 2



4. Medical Knowledge - Protocol Selection and Optimization of Imaging

0

• 0

0

0 0

Resident Year

- Medical Knowledge 1

Level 5

Level 4

Level 3

Level 2

Level 1

### 3. Patient Care - Patient Safety - Patient Care 3



### 5. Medical Knowledge - Interpretation - Medical Knowledge 2



Note: Please reference milestone narrative for full text.





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### Specialty: Abdominal radiology

7. Systems-Based Practice - Health Care Economics — Systems-Based Practice 2



# 9. Practice-Based Learning and Improvement - Scholarly Activity - Practice-Based Learning and Improvement 2 $\,$







#### 10. Professionalism - Individual - Professionalism 1







11. Professionalism - Systems - Professionalism 2



## Specialty: Abdominal radiology

13. Interpersonal and Communication Skills - Effective communication with members of the health care team  $\ldots$ 



## Specialty: Musculoskeletal radiology

Resident Year	1	Total Residents*
# of Residents	32	32

\*Note: There are 3 residents with an incomplete milestone evaluation that are excluded from the box plots below.

#### 1. Patient Care - Patient Safety - Patient Care 1







# 3. Patient Care - Competence in Procedures: Arthrography, Biopsy, other Therapeutic Procedures — Patient $\ldots$



# 4. Medical Knowledge - Image Interpretation-Radiography — Medical Knowledge 1



# 5. Medical Knowledge - Image Interpretation-Cross-sectional — Medical Knowledge 2 $\,$



<sup>6.</sup> Medical Knowledge - Cross-sectional Protocols — Medical Knowledge 3



Note: Please reference milestone narrative for full text.

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### Specialty: Musculoskeletal radiology

7. Systems-Based Practice - Quality Improvement (QI) — Systems-Based Practice 1



# 9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement 1







8. Systems-Based Practice - Healthcare Economics - Systems-Based

10. Practice-based Learning and Improvement - Scholarly Activity — Practice-based Learning and Improvement 2



### 12. Professionalism - Systems — Professionalism 2



Note: Please reference milestone narrative for full text.

### 11. Professionalism - Individual - Professionalism 1

## Specialty: Musculoskeletal radiology

13. Interpersonal and Communication Skills - Effective Communication with Patients, Families, and Caregivers ...





14. Interpersonal and Communication Skills - Effective Communication with Members of the Health Care Team  $\ldots$ 

### Specialty: Neuroradiology

Resident Year	1	Total Residents
# of Residents	280	280

### 1. Patient Care - Consultant in Neuroradiology - Patient Care 1



### 3. Patient Care - Patient Safety - Patient Care 3







Note: Please reference milestone narrative for full text.



# 2. Patient Care - Competence in Invasive and Non-invasive Procedures - Patient Care 2









### Specialty: Neuroradiology

7. Systems-Based Practice - Health Care Economics — Systems-Based Practice 1



9. Practice-Based Learning and Improvement - Scholarly Activity — Practice-Based Learning and Improvement 2







10. Practice-Based Learning and Improvement - Implements Quality Improvement (QI) Project — Practice-Based ...



#### 12. Professionalism - Systems - Professionalism 2







## Specialty: Neuroradiology

13. Interpersonal and Communication Skills - Effective Communication with Patients, Families and Caregivers — Interpersonal  $\ldots$ 





14. Interpersonal and Communication Skills - Effective Communication

## Specialty: Pediatric radiology

Resident Year	1	Total Residents
# of Residents	55	55

### 1. Patient Care - Consultant - Patient Care 1



### 3. Patient Care - Competence in Procedures - Patient Care 3



### 5. Medical Knowledge - Interpretation — Medical Knowledge 2



Note: Please reference milestone narrative for full text. 479 • MILESTONES NATIONAL REPORT 2018



### 2. Patient Care - Safety - Patient Care 2





6. Medical Knowledge - Knowledge of Basic and Clinical Science Appropriate to Pediatric Radiology — Medical Knowledge 3



## Specialty: Pediatric radiology

7. Systems-Based Practice - Quality Improvement — Systems-Based Practice 1



# 9. Practice-Based Learning and Improvement - Self-directed learning - Practice-Based Learning and Improvement 1





Level 5 Level 4 Level 3 Level 2 Level 1 1 Resident Year

10. Practice-Based Learning and Improvement - Scholarly Activity — Practice-Based Learning and Improvement 2



12. Interpersonal and Communication Skills - Effective Communication with Patients, Families, and Caregivers ...



8. Systems-Based Practice - Health Care Economics — Systems-Based Practice 2

## Specialty: Pediatric radiology

13. Interpersonal and Communication Skills - Effective Communication with Members of the Health Care Team ...





14. Interpersonal and Communication Skills - Effective Teaching - Interpersonal and Communication Skills 3  $\,$ 

## Specialty: Vascular and interventional radiology

Resident Year	1	Total Residents
# of Residents	294	294

#### 1. Patient Care - Non-procedural Care/Consultation - Patient Care 1



## 2. Patient Care - Procedural Skills - Patient Care 2



#### 3. Patient Care - Safety - Patient Care 3







Note: Please reference milestone narrative for full text.

4. Medical Knowledge - Diagnosis and Intervention in Primary Vascular Disease - Medical Knowledge 1



6. Medical Knowledge - Percutaneous Organ Access and Intervention -Thorax, Peritoneum, Retroperitoneum, ...



## Specialty: Vascular and interventional radiology





# 9. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement 1 $\,$





10. Practice-Based Learning and Improvement - Scholarly Activity - Practice-Based Learning and Improvement 2



### 12. Professionalism - Systems — Professionalism 2







## Specialty: Vascular and interventional radiology

13. Interpersonal and Communication Skills - Effective Communication with Patients, Families, and Caregivers ...





14. Interpersonal and Communication Skills - Effective Communication with Members of the Health Care Team  $\ldots$ 

## Specialty: Interventional radiology - integrated

Resident Year	1	2	3	4	5	Total Residents
# of Residents	22	13	10	15	2	62

### 1. Patient Care - PC1 - Diagnostic Radiology: Consultant



# 2. Patient Care - PC2 - Diagnostic Radiology: Competence in Procedures



### 3. Patient Care - PC3 - Diagnostic Radiology: Safety



5. Patient Care - PC5 - Interventional Radiology: Procedural Skills



Note: Please reference milestone narrative for full text.

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4. Patient Care - PC4 - Interventional Radiology: Non-procedural Care/Consultation and Follow-Up



6. Patient Care - PC6 - Diagnostic and Interventional Radiology: Procedural Radiation Safety



## Specialty: Interventional radiology - integrated

7. Medical Knowledge -  $\rm MK1$  – Diagnostic Radiology: Protocol Selection and Optimization of Images



9. Medical Knowledge - MK3 – Diagnosis and Intervention in Primary Vascular Disease



11. Medical Knowledge -  $\rm MK5-Percutaneous$  Organ Access and Intervention



Note: Please reference milestone narrative for full text.

Level 2 Level 2 Level 1 1 2 3 4 5 Resident Year

10. Medical Knowledge - MK4 - Transcatheter Therapy - Embolization



12. Systems-Based Practice - SBP1 - Quality Improvement (QI)



# 8. Medical Knowledge - MK2 – Diagnostic Radiology: Interpretation of Examinations

## Specialty: Interventional radiology - integrated

13. Systems-Based Practice - SBP2 - Health Care Economics



15. Practice-Based Learning and Improvement - PBLI2 - Scholarly Activity



17. Professionalism - PROF2 - Compassion, Integrity, Accountability, and Respect for Self and Others



Level 5

Level 1



3

Resident Year

5

14. Practice-Based Learning and Improvement - PBLI1 - Self-directed Learning

16. Professionalism - PROF1 - Administrative Tasks

2



18. Interpersonal and Communication Skills - ICS1 - Effective Communication with Patients, Families, and Caregivers



## Specialty: Interventional radiology - integrated

19. Interpersonal and Communication Skills - ICS2 – Diagnostic Radiology: Effective Communication with Members ...



20. Interpersonal and Communication Skills - ICS3 – Interventional Radiology: Effective Communication with  $\ldots$ 



### Specialty: Surgery

Resident Year	1	2	3	4	5	Total Residents
# of Residents	2,808	1,656	1,413	1,327	1,295	8,499





are not included in the analysis.

3. Patient Care - Performance of Operations and Procedures (POP) - PATIENT CARE (PC3)



Note: 27 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: Please reference milestone narrative for full text.

2. Patient Care - Care For Diseases and Conditions (CDC) - PATIENT CARE (PC2)



4. Medical Knowledge - Care For Diseases and Conditions (CDC) - MEDICAL KNOWLEDGE (MK1)



Note: 11 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

6. Systems-Based Practice - Coordination of Care (CC) - SYSTEMS-BASED PRACTICE (SBP1)



Note: 12 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Surgery

7. Systems-Based Practice - Improvement of Care (IC) - SYSTEMS-BASED PRACTICE (SBP2)



Note: 21 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 16 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

11. Professionalism - Care for Diseases and Conditions (CDC) - PROFESSIONALISM (PROF1)







Note: 86 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

10. Practice-Based Learning and Improvement - Improvement of Care (IC) - PRACTICE-BASED LEARNING AND IMPROVEMENT (PBLI3)



Note: 71 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

12. Professionalism - Maintenance of Physical and Emotional Health (MPEH) - PROFESSIONALISM (PROF2)



Note: 15 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

### Specialty: Surgery



13. Professionalism - Performance of Assignments and Administrative

Note: 12 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

15. Interpersonal and Communication Skills - Coordination of Care (CC) - INTERPERSONAL AND COMMUNICATION SKILLS (ICS2)



Note: 10 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.





Note: 10 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

16. Interpersonal and Communication Skills - Performance of Operations and Procedures (POP) - INTERPERSONAL ...



Note: 26 of 8,499 residents have a status of "Not Yet Assessable" and are not included in the analysis.

## Specialty: Complex general surgical oncology

Resident Year	1	2	Total Residents
# of Residents	54	53	107

### 1. Patient Care - Patient Care - Hepatobiliary/Pancreas: Evaluation and **Multimodality Care**



3. Patient Care - Patient Care - Endocrine/Head and Neck: Evaluation and Multimodality Care







Note: Please reference milestone narrative for full text.

Aspects of Surgical Interventions Level 5 Level 4 Level 3 O Level 2

ż



Resident Year



6. Patient Care - Patient Care - Gastrointestinal/Gynecology/Thoracic: Technical Aspects of Surgical Interventions



Level

2. Patient Care - Patient Care - Hepatobiliary/Pancreas: Technical

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## Specialty: Complex general surgical oncology

<sup>7.</sup> Patient Care - Patient Care - Breast: Evaluation and Multimodality Care



9. Patient Care - Patient Care - Melanoma, Sarcoma, Common and Rare Cutaneous and Soft Tissue Malignancies: Evaluation and ...







Note: Please reference milestone narrative for full text.



10. Patient Care - Patient Care - Melanoma, Sarcoma, Common and Rare Cutaneous and Soft Tissue Malignancies: ...







8. Patient Care - Patient Care - Breast: Technical Aspects of Surgical Interventions

## Specialty: Complex general surgical oncology

13. Systems-Based Practice - Systems-Based Practice — Coordination and Transitions of Care



15. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement — Scholarly Activity



17. Practice-Based Learning and Improvement - Practice-based Learning and Improvement — Self-Directed Learning



Note: Please reference milestone narrative for full text.





16. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement - Teaching







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## Specialty: Complex general surgical oncology

19. Professionalism - Professionalism - Ethical Issues in Cancer Patients



21. Professionalism - Professionalism - Healthy Work Environment



23. Interpersonal and Communication Skills - Interpersonal and Communication Skills — Effective Communication  $\ldots$ 



Note: Please reference milestone narrative for full text.



22. Interpersonal and Communication Skills - Interpersonal and Communication Skills — Effective Communication with Patients  $\dots$ 



## 20. Professionalism - Professionalism - Personal Responsibility

## Specialty: Pediatric surgery

Resident Year	1	2	Total Residents
# of Residents	44	37	81

### 1. Patient Care - Bronchoscopy/Esophagoscopy - Patient Care



3. Patient Care - Inguinal hernia repair on a child less than six months of age - Patient Care



5. Patient Care - Hirschsprung pull through - Patient Care



Note: Please reference milestone narrative for full text.

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2. Patient Care - Esophageal atresia/Tracheoesophageal Fistula (TEF) Repair - Patient Care



4. Patient Care - Intestinal/duodenal atresia (DA) repair - Patient Care



6. Patient Care - Wilms/Neuroblastoma Resection - Patient Care



## Specialty: Pediatric surgery

### 7. Patient Care - Congenital Diaphragmatic Hernia Repair — Patient Care



## 9. Patient Care - General Patient Care Assessment - Patient Care









### 10. Medical Knowledge - Medical Knowledge







Note: Please reference milestone narrative for full text.

### 8. Patient Care - General Procedure Assessment - Patient Care

## Specialty: Pediatric surgery

## 13. Systems-Based Practice - Patient Safety - Systems-Based Practice



15. Practice-Based Learning and Improvement - Evidence-based Medicine — Practice-Based Learning and Improvement





14. Systems-Based Practice - Systems-based Documentation -

Systems-Based Practice

16. Practice-Based Learning and Improvement - Self-directed Learning - Practice-Based Learning and Improvement







17. Professionalism - Integrity - Professionalism



## Specialty: Pediatric surgery

### 19. Professionalism - Behavior and Respect - Professionalism



21. Interpersonal and Communication Skills - Collaborator — Interpersonal and Communication Skills





# 22. Interpersonal and Communication Skills - Patient- and Family-centered Care - Interpersonal and Communication Skills



## 20. Professionalism - Leadership - Professionalism

## Specialty: Surgical critical care

Resident Year	1	Total Residents
# of Residents	262	262

### 1. Patient Care - Patient Care - Respiratory Failure



2. Medical Knowledge - Medical Knowledge - Respiratory Failure (Ventilator-Associated Events)



4. Medical Knowledge - Medical Knowledge - Nutritional Support

0 0

0

Resident Year

Level 5

Level 4

Level 3

Level 2

Level 1

### 3. Patient Care - Patient Care - Nutritional Support



#### 5. Patient Care - Patient Care - Shock/Resuscitation



Note: Please reference milestone narrative for full text.

6. Medical Knowledge - Medical Knowledge - Shock/Resuscitation



## Specialty: Surgical critical care

7. Patient Care - Patient Care - Acute Kidney Injury



# Level 5 Level 4 Level 3 0 o Level 2 Level 1 Resident Year

8. Medical Knowledge - Medical Knowledge - Acute Kidney Injury

9. Patient Care - Patient Care - Trauma and Burns



11. Patient Care - Patient Care - Cardiac Disorders of Critically-III Patients



10. Medical Knowledge - Medical Knowledge - Trauma and Burns







## Specialty: Surgical critical care

13. Patient Care - Patient Care - Neurologic Disorders of Critically-III Patients



15. Patient Care - Patient Care - Gastrointestinal (GI) Disorders of Critically-III Patients

















14. Medical Knowledge - Medical Knowledge - Neurologic Disorders of Critically-III Patients

## Specialty: Surgical critical care

19. Patient Care - Patient Care - Procedural Competence\*



# 21. Systems-Based Practice - Systems-Based Practice — Coordination and Transitions of Care



23. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement — Teaching



20. Systems-Based Practice - Systems-Based Practice — Administrative Responsibility



22. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement — Improvement of Care



24. Practice-Based Learning and Improvement - Practice-based Learning and Improvement — Self-Directed Learning



## Specialty: Surgical critical care

25.  $\ensuremath{\mathsf{Professionalism}}$  –  $\ensuremath{\mathsf{Professionalism}}$  and  $\ensuremath{\mathsf{Personal}}$  Behavior



### 27. Professionalism - Professionalism - Personal Responsibility



29. Interpersonal and Communication Skills - Interpersonal and Communication Skills – Effective Communication with Patients ...



26. Professionalism - Professionalism - Ethical Issues in Critically-III



28. Professionalism - Professionalism - Healthy Work Environment



30. Interpersonal and Communication Skills - Interpersonal and Communication Skills — Effective Communication  $\ldots$ 


#### Specialty: Vascular surgery

Resident Year	1	2	Total Residents
# of Residents	124	123	247

#### 1. Patient Care - PC1: Patient Data



2. Patient Care - PC2: Vascular Medicine

screening, surveillance)

Level 5

Level 4

Level 3

Level 2

Level 1



4. Patient Care - PC4: Longitudinal Care (e.g., outpatient management,

o

2

#### 3. Patient Care - PC3: Perioperative Care





Note: Please reference milestone narrative for full text.

5. Patient Care - PC5: Technical Skills - Procedural Preparation

6. Patient Care - PC6: Technical Skills - Open Surgical Skills



Resident Year

#### Specialty: Vascular surgery

7. Patient Care - PC7: Technical Skills - Endovascular



9. Medical Knowledge - MK1: Procedural Rationale – Basic Procedures (e.g., amputation, basic arteriovenous ...



11. Medical Knowledge - MK3: Procedural Understanding – Basic Procedures (e.g., amputation, basic AV fistula/graft, ...



Note: Please reference milestone narrative for full text.

8. Patient Care - PC8: Vascular Imaging (e.g., computed tomography [CT], magnetic resonance [MR], angiography, ultrasonography)



10. Medical Knowledge - MK2: Procedural Anatomy – Basic Procedures (e.g., amputation, basic AV fistula/graft, ...



12. Medical Knowledge - MK4: Crisis Management – Basic Procedures (e.g., amputation, basic AV fistula/graft, ...



#### Specialty: Vascular surgery

13. Medical Knowledge - MK5: Procedural Rationale – Intermediate Procedures (e.g., femoral-popliteal bypass, extra-anatomic ...



15. Medical Knowledge - MK7: Procedural Understanding - Intermediate Procedures (e.g., femoral-popliteal ...



17. Medical Knowledge - MK9: Procedural Rationale – Advanced Procedures (e.g., open aortic surgery at all ...



Note: Please reference milestone narrative for full text.





16. Medical Knowledge - MK8: Crisis Management - Intermediate Procedures (e.g., femoral-popliteal bypass, ...



18. Medical Knowledge - MK10: Procedural Anatomy – Advanced Procedures (e.g., open aortic surgery at all levels, mesenteric ...



#### Specialty: Vascular surgery

19. Medical Knowledge - MK11: Procedural Understanding - Advanced Procedures (e.g., open aortic surgery ...



#### 21. Systems-Based Practice - SBP1: Radiation Safety



#### 23. Systems-Based Practice - SBP3: Improvement of Care



Note: Please reference milestone narrative for full text.



Resident Year

2

22. Systems-Based Practice - SBP2: Coordination of Care

Level 1



24. Practice-Based Learning and Improvement - PBLI1: Teaching



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#### Specialty: Vascular surgery

25. Practice-Based Learning and Improvement - PBLI2: Self-directed Learning



### 27. Professionalism - PROF1: Integrity





26. Practice-Based Learning and Improvement - PBLI3: Quality

#### 28. Professionalism - PROF2: Personal Wellbeing



30. Interpersonal and Communication Skills - ICS1: Communication with Patients and Families



29. Professionalism - PROF3: Administrative Tasks



#### Specialty: Vascular surgery

31. Interpersonal and Communication Skills - ICS2: Communications with Healthcare Team



#### Specialty: Vascular surgery - integrated

1. Patient Care - PC1: Patient Data

Resident Year	1	2	3	4	5	Total Residents
# of Residents	61	59	60	53	39	272



2. Patient Care - PC2: Vascular Medicine

Level 5

Level 4

Level 3

Level 2

Level 1

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3. Patient Care - PC3: Perioperative Care



5. Patient Care - PC5: Technical Skills - Procedural Preparation



Note: Please reference milestone narrative for full text.

6. Patient Care - PC6: Technical Skills - Open Surgical Skills

2





0

3

Resident Year

0

0

0

5

#### Specialty: Vascular surgery - integrated

<sup>7.</sup> Patient Care - PC7: Technical Skills - Endovascular



9. Medical Knowledge - MK1: Procedural Rationale – Basic Procedures (e.g., amputation, basic arteriovenous ...



11. Medical Knowledge - MK3: Procedural Understanding – Basic Procedures (e.g., amputation, basic AV fistula/graft, ...



8. Patient Care - PC8: Vascular Imaging (e.g., computed tomography [CT], magnetic resonance [MR], angiography, ultrasonography)



10. Medical Knowledge - MK2: Procedural Anatomy – Basic Procedures (e.g., amputation, basic AV fistula/graft, ...



12. Medical Knowledge - MK4: Crisis Management – Basic Procedures (e.g., amputation, basic AV fistula/graft,  $\ldots$ 



#### Specialty: Vascular surgery - integrated

13. Medical Knowledge - MK5: Procedural Rationale – Intermediate Procedures (e.g., femoral-popliteal bypass, extra-anatomic ...



15. Medical Knowledge - MK7: Procedural Understanding - Intermediate Procedures (e.g., femoral-popliteal ...



17. Medical Knowledge - MK9: Procedural Rationale – Advanced Procedures (e.g., open aortic surgery at all ...



14. Medical Knowledge - MK6: Procedural Anatomy – Intermediate Procedures (e.g., femoral-popliteal bypass, ...



16. Medical Knowledge - MK8: Crisis Management – Intermediate Procedures (e.g., femoral-popliteal bypass, ...



18. Medical Knowledge - MK10: Procedural Anatomy – Advanced Procedures (e.g., open aortic surgery at all levels, mesenteric ...



#### Specialty: Vascular surgery - integrated

19. Medical Knowledge - MK11: Procedural Understanding – Advanced Procedures (e.g., open aortic surgery ...



21. Systems-Based Practice - SBP1: Radiation Safety







20. Medical Knowledge - MK12: Crisis Management – Advanced Procedures (e.g., open aortic surgery at all ...



22. Systems-Based Practice - SBP2: Coordination of Care



24. Practice-Based Learning and Improvement - PBLI1: Teaching



#### Specialty: Vascular surgery - integrated

25. Practice-Based Learning and Improvement - PBLI2: Self-directed Learning



# 26. Practice-Based Learning and Improvement - PBLI3: Quality Improvement



#### 27. Professionalism - PROF1: Integrity



### 28. Professionalism - PROF2: Personal Wellbeing



29. Professionalism - PROF3: Administrative Tasks



30. Interpersonal and Communication Skills - ICS1: Communication with Patients and Families



#### Specialty: Vascular surgery - integrated

31. Interpersonal and Communication Skills - ICS2: Communications with Healthcare Team



#### Specialty: Thoracic surgery

Resident Year	1	2	Total Residents
# of Residents	71	66	137

1. Patient Care - Ischemic Heart Disease — Patient Care and Technical Skills



included in the analysis.

<sup>3.</sup> Patient Care - Cardiopulmonary Bypass, Myocardial Protection and Temporary Circulatory Support — Patient ...



Note: 2 of 137 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 5. Patient Care - Valvular Disease - Patient Care and Technical Skills



Note: Please reference milestone narrative for full text.



#### 2. Medical Knowledge - Ischemic Heart Disease - Medical Knowledge

Note: 2 of 137 residents have a status of "Not Yet Rotated" and are not included in the analysis.





Note: 3 of 137 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 6. Medical Knowledge - Valvular Disease — Medical Knowledge



#### Specialty: Thoracic surgery

7. Patient Care - Great Vessel Disease — Patient Care and Technical Skills



#### 9. Medical Knowledge - Congenital Heart Disease - Medical Knowledge



#### 11. Patient Care - Esophagus - Patient Care and Technical Skills





Note: 2 of 137 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Resident Year

10. Medical Knowledge - End Stage Cardiopulmonary Disease - Medical Knowledge



Note: 6 of 137 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 12. Medical Knowledge - Esophagus - Medical Knowledge



Note: Please reference milestone narrative for full text.

#### 8. Medical Knowledge - Great Vessel Disease - Medical Knowledge

#### Specialty: Thoracic surgery

#### 13. Patient Care - Lung and Airway - Patient Care and Technical Skills















Note: 2 of 137 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Medical Knowledge - Chest Wall/Pleura/Mediastinum — Medical Knowledge



included in the analysis.





Note: Please reference milestone narrative for full text.

#### 14. Medical Knowledge - Lung and Airway - Medical Knowledge

#### Specialty: Thoracic surgery

19. Professionalism - Ethics and Values - Professionalism



21. Interpersonal and Communication Skills - Interpersonal and **Communication Skills** 







Level 5



20. Professionalism - Personal Accountability - Professionalism

22. Systems-Based Practice - Patient Safety - Systems-Based Practice







#### Specialty: Thoracic surgery

25. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and  $\ldots$ 





26. Practice-Based Learning and Improvement - Research and Teaching - Practice-Based Learning and Improvement

#### Specialty: Thoracic surgery

Resident Year	1	2	3	Total Residents*
# of Residents	28	31	32	91

\*Note: There are 7 residents with an incomplete milestone evaluation that are excluded from the box plots below.

### 1. Patient Care - Ischemic Heart Disease - Patient Care and Technical



#### 3. Patient Care - Cardiopulmonary Bypass, Myocardial Protection and Temporary Circulatory Support - Patient ...



#### 5. Patient Care - Valvular Disease - Patient Care and Technical Skills



Note: 1 of 84 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Note: Please reference milestone narrative for full text.









6. Medical Knowledge - Valvular Disease - Medical Knowledge



Note: 1 of 84 residents have a status of "Not Yet Rotated" and are not included in the analysis.

# 2. Medical Knowledge - Ischemic Heart Disease - Medical Knowledge

#### Specialty: Thoracic surgery

7. Patient Care - Great Vessel Disease - Patient Care and Technical Skills



#### 9. Medical Knowledge - Congenital Heart Disease - Medical Knowledge



#### 11. Patient Care - Esophagus - Patient Care and Technical Skills



8. Medical Knowledge - Great Vessel Disease - Medical Knowledge

Note: 2 of 84 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Resident Year

10. Medical Knowledge - End Stage Cardiopulmonary Disease -Medical Knowledge



#### 12. Medical Knowledge - Esophagus - Medical Knowledge



<sup>0</sup> Level 5 0 0 Level Level 3 Level 2 Level C 2 3

#### Specialty: Thoracic surgery

#### 13. Patient Care - Lung and Airway - Patient Care and Technical Skills



included in the analysis.





17. Patient Care - Critical Care - Patient Care and Technical Skills







Note: 2 of 84 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Medical Knowledge - Chest Wall/Pleura/Mediastinum - Medical Knowledge



included in the analysis.





Note: Please reference milestone narrative for full text.

#### 14. Medical Knowledge - Lung and Airway - Medical Knowledge

#### Specialty: Thoracic surgery

19. Professionalism - Ethics and Values - Professionalism



21. Interpersonal and Communication Skills - Interpersonal and **Communication Skills** 



23. Systems-Based Practice - Resource Allocation - Systems-Based Practice



Level 5



22. Systems-Based Practice - Patient Safety - Systems-Based Practice







Note: Please reference milestone narrative for full text.

#### 20. Professionalism - Personal Accountability - Professionalism

#### Specialty: Thoracic surgery

25. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and ...



26. Practice-Based Learning and Improvement - Research and Teaching - Practice-Based Learning and Improvement



#### Specialty: Congenital cardiac surgery

Resident Year	1	Total Residents
# of Residents	12	12

#### 1. Patient Care - Patient Care - Technical Skills and Performance



#### 3. Medical Knowledge - Medical Knowledge - Anatomy and Diagnosis



# 5. Medical Knowledge - Medical Knowledge — Pathophysiology and Management of the Post-operative State



Note: Please reference milestone narrative for full text.



#### 2. Patient Care - Patient Care - Pre- and Post-operative Care





#### 6. Systems-Based Practice - Systems-Based Practice



#### Specialty: Congenital cardiac surgery

# 7. Practice-Based Learning and Improvement - Practice-Based Learning and Improvement



# Level 5 Level 4 Level 3 Level 2 Level 1 Level 1

Resident Year

8. Professionalism - Professionalism

9. Interpersonal and Communication Skills - Interpersonal and Communication Skills



#### Specialty: Thoracic surgery - integrated

Resident Year	1	2	3	4	5	6	Total Residents
# of Residents	36	37	35	27	27	21	183

1. Patient Care - Ischemic Heart Disease - Patient Care and Technical Skills



3. Patient Care - Cardiopulmonary Bypass, Myocardial Protection and Temporary Circulatory Support - Patient ...



Note: 13 of 183 residents have a status of "Not Yet Rotated" and are not included in the analysis.

#### 5. Patient Care - Valvular Disease - Patient Care and Technical Skills



Note: Please reference milestone narrative for full text.



#### 2. Medical Knowledge - Ischemic Heart Disease - Medical Knowledge



included in the analysis.

4. Medical Knowledge - Cardiopulmonary Bypass, Myocardial Protection and Temporary Circulatory Support - Medical Knowledge



Note: 10 of 183 residents have a status of "Not Yet Rotated" and are not included in the analysis.

6. Medical Knowledge - Valvular Disease - Medical Knowledge



included in the analysis.

#### Specialty: Thoracic surgery - integrated

<sup>7.</sup> Patient Care - Great Vessel Disease - Patient Care and Technical Skills



# included in the analysis.

#### 9. Medical Knowledge - Congenital Heart Disease - Medical Knowledge



#### 11. Patient Care - Esophagus - Patient Care and Technical Skills





Note: 10 of 183 residents have a status of "Not Yet Rotated" and are not included in the analysis.

Resident Year

10. Medical Knowledge - End Stage Cardiopulmonary Disease -Medical Knowledge



included in the analysis.





#### Specialty: Thoracic surgery - integrated

#### 13. Patient Care - Lung and Airway – Patient Care and Technical Skills



Note: 12 of 183 residents have a status of "Not Yet Rotated" and are not included in the analysis.











Note: 9 of 183 residents have a status of "Not Yet Rotated" and are not included in the analysis.

16. Medical Knowledge - Chest Wall/Pleura/Mediastinum — Medical Knowledge



Note: 12 of 183 residents have a status of "Not Yet Rotated" and are not included in the analysis.



18. Medical Knowledge - Critical Care — Medical Knowledge

included in the analysis.

Note: Please reference milestone narrative for full text.

#### 14. Medical Knowledge - Lung and Airway - Medical Knowledge

#### Specialty: Thoracic surgery - integrated

19. Professionalism - Ethics and Values - Professionalism



21. Interpersonal and Communication Skills - Interpersonal and Communication Skills



23. Systems-Based Practice - Resource Allocation — Systems-Based Practice





20. Professionalism - Personal Accountability - Professionalism

22. Systems-Based Practice - Patient Safety - Systems-Based Practice







#### Specialty: Thoracic surgery - integrated

25. Practice-Based Learning and Improvement - The ability to investigate and evaluate the care of patients, to appraise and  $\dots$ 



26. Practice-Based Learning and Improvement - Research and Teaching - Practice-Based Learning and Improvement



#### Specialty: Urology

Resident Year	1	2	3	4	Total Residents
# of Residents	333	324	320	311	1,288





3. Patient Care - Develops a patient care plan, including medical, surgical, and/or radiological interventions.  $\ldots$ 



5. Patient Care - Performs open surgical procedures. (PC5)



Note: Please reference milestone narrative for full text.

2. Patient Care - Uses diagnostic tests and procedures, including performance and interpretation of imaging studies. (PC2)











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#### Specialty: Urology

7. Patient Care - Performs laparoscopic/robot-assisted surgical procedures. (PC7)



#### 8. Patient Care - Performs office-based procedures. (PC8)



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9. Medical Knowledge - Surgical Care (MK1)



11. Medical Knowledge - Evidence-based Medicine (MK3)



Note: Please reference milestone narrative for full text.

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Resident Year

10. Medical Knowledge - Differential Diagnosis (MK2)

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Level 5

Level 4

Level 3

Level 2

Level 1



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12. Medical Knowledge - Core Domains (MK4)

#### Specialty: Urology

13. Systems-Based Practice - Works effectively within and across health delivery systems. (SBP1)  $\,$ 



15. Systems-Based Practice - Works in interprofessional teams to enhance patient safety. (SBP3)



17. Practice-Based Learning and Improvement - Improves via feedback and self-assessment. (PBLI1)



Note: Please reference milestone narrative for full text.









18. Practice-Based Learning and Improvement - Learns and improves by asking and answering clinical questions from a patient ...



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#### Specialty: Urology

19. Practice-Based Learning and Improvement - Acquires the best evidence. (PBLI3)  $% \left( \left( \mathsf{PBLI3}\right) \right) \right)$ 



21. Practice-Based Learning and Improvement - Applies the evidence to decision-making for individual patients. (PBLI5)



23. Practice-Based Learning and Improvement - Participates in the education of other team members. (PBLI7)



Note: Please reference milestone narrative for full text.





22. Practice-Based Learning and Improvement - Improves the quality of care for a panel of patients. (PBLI6)







#### Specialty: Urology

25. Professionalism - Demonstrates compassion, integrity, and respect for others. (P2)  $% \left( \mathsf{P2}\right) =\left( \mathsf{P2}\right) \left( \mathsf{P2$ 



27. Professionalism - Demonstrates respect for patient privacy and autonomy.  $(\mbox{P4})$ 



29. Professionalism - Demonstrates sensitivity and responsiveness to diverse populations, including diversity ...



Note: Please reference milestone narrative for full text.

26. Professionalism - Demonstrates responsiveness to patient needs that supersede self-interest. (P3)







30. Interpersonal and Communication Skills - Communicates effectively with patients and families with diverse socioeconomic ...



#### Specialty: Urology



31. Interpersonal and Communication Skills - Effectively counsels, educates, and obtains informed consent. (See PC) (ICS2)





32. Interpersonal and Communication Skills - Communicates effectively with physicians, other health professionals, ...



34. Interpersonal and Communication Skills - Works effectively as a member or leader of a health care team  $\dots$ 



#### Specialty: Female pelvic medicine and reconstructive surgery (Urology)

Resident Year	1	2	3	Total Residents
# of Residents	14	12	9	35

#### 1. Patient Care - General Pelvic Floor Evaluation - Patient Care



3. Patient Care - Anal Incontinence and Defecatory Dysfunction Treatment — Patient Care



5. Patient Care - Urogenital Fistulas and Urethral Diverticula Treatment - Patient Care



Note: Please reference milestone narrative for full text.

- Patient Care

2. Patient Care - Urinary Incontinence and Overactive Bladder Treatment



4. Patient Care - Pelvic Organ Prolapse Treatment — Patient Care



6. Patient Care - Painful Bladder Syndrome Treatment - Patient Care



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### Specialty: Female pelvic medicine and reconstructive surgery (Urology)

7. Patient Care - Urinary Tract Infection (UTI) - Patient Care



9. Medical Knowledge - Urinary Incontinence and Overactive Bladder Treatment - Medical Knowledge







Note: Please reference milestone narrative for full text.

Knowledge 0 0 Level 5 Level 4 Level 3 Level 2 0 Level 2 3 Resident Year

8. Medical Knowledge - Pelvic Floor Anatomy and Physiology - Medical









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### Specialty: Female pelvic medicine and reconstructive surgery (Urology)

13. Medical Knowledge - Painful Bladder Syndrome Treatment — Medical Knowledge



#### 15. Medical Knowledge - Neuro-Urology - Medical Knowledge







Note: Please reference milestone narrative for full text.



# 16. Systems-Based Practice - Computer Systems — Systems-Based Practice







### 14. Medical Knowledge - Urinary Tract Infection - Medical Knowledge

### Specialty: Female pelvic medicine and reconstructive surgery (Urology)

19. Practice-Based Learning and Improvement - Scholarly Activity – Practice-Based Learning and Improvement



21. Professionalism - Professional Ethics and Accountability — Professionalism



23. Interpersonal and Communication Skills - Effective Communication - Interpersonal and Communication Skills



Note: Please reference milestone narrative for full text.

20. Practice-Based Learning and Improvement - Implements Quality Improvement Project — Practice-Based Learning and Improvement



22. Interpersonal and Communication Skills - Health Care Teamwork - Interpersonal and Communication Skills



### Specialty: Pediatric urology

Resident Year	1	Total Residents
# of Residents	24	24

1. Patient Care - Information Gathering, Preoperative/Diagnostic Testing, Differential Diagnosis - Patient Care 1



# 3. Patient Care - Perioperative Care (Fluid and Electrolytes, Pain Management) - Patient Care 3 $\,$







# 2. Patient Care - Patient Management/Indications for Surgery/Judgment - Patient Care 2



4. Patient Care - Genital Reconstructive Procedures - Patient Care 4







### Specialty: Pediatric urology

7. Patient Care - Laparoscopic/Robotic - Patient Care 7



9. Medical Knowledge - Related Fields of Knowledge (Nephrology, Endocrinology, Radiation Safety, etc.) - Medical Knowledge ...



11. Systems-Based Practice - Cost Awareness and Risk-Benefit Analysis In Patient Care - Systems-Based Practice 2



Level 5 Level 4 Level 3 Level 2 Level

Resident Year

10. Systems-Based Practice - Working Effectively Within and Across Health Delivery Systems for the Benefit ...



12. Systems-Based Practice - Enhancing Patient Safety - Systems-Based Practice 3



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### Specialty: Pediatric urology

13. Practice-Based Learning and Improvement - Improves via feedback and self-assessment - Practice-Based ...



15. Practice-Based Learning and Improvement - Education of Team Members — Practice-Based Learning and Improvement 3  $\,$ 



17. Professionalism - Respect for Patient Privacy and Autonomy - Professionalism 2



14. Practice-Based Learning and Improvement - Evidence-based Learning — Practice-Based Learning and Improvement 2



16. Professionalism - Work Ethic: Integrity, Altruism, and Teamwork — Professionalism 1  $\,$ 







### Specialty: Pediatric urology

19. Interpersonal and Communication Skills - Communication: Families and Care Givers — Interpersonal and  $\ldots$ 



21. Interpersonal and Communication Skills - Communication: Personal Interactions with Physicians, Nurses,  $\ldots$ 



20. Interpersonal and Communication Skills - Communication: Children - Interpersonal and Communication Skills 2



22. Interpersonal and Communication Skills - Use of Technology and Information Sharing Modalities to Facilitate  $\ldots$ 



#### Specialty: Transitional year

Resident Year	1	Total Residents*		
# of Residents	1,335	1,335		

\*Note: There are 3 residents with an incomplete milestone evaluation that are excluded from the box plots below.

#### 1. Patient Care - PC1. History: Obtains a comprehensive medical history





2. Patient Care - PC2. Physical Examination: Performs a comprehensive

physical examination

3. Patient Care - PC3. Differential Diagnosis and Assessment: Integrates information to develop an appropriate ...



5. Patient Care - PC5. Urgent and Emergent Medical Conditions: Recognizes urgent and emergent medical conditions ...



Note: Please reference milestone narrative for full text. 548 • MILESTONES NATIONAL REPORT 2018 4. Patient Care - PC4. Management: Generates an appropriate diagnostic and therapeutic plan for assigned patients



6. Patient care - PC6. Guidelines and Preventive Care: Applies basic preventive care, diagnosis, and treatment guidelines, ...



### Specialty: Transitional year

7. Patient Care - PC7. Procedures: Demonstrates understanding of indications/contraindications and ability ...



# 9. Medical Knowledge - MK2. Certification Examinations: Demonstrates ability to successfully pass appropriate ...



11. Systems-Based Practice - SBP2. Works in interdisciplinary teams to enhance patient safety and improve patient care quality















#### Specialty: Transitional year

13. Practice-Based Learning and Improvement - PBLI1. Self-Directed Assessment and Self-Directed Learning ...



15. Practice-Based Learning and Improvement - PBLI3. Implements a Quality Improvement Project



17. Professionalism - PROF2. Knowledge about, respect for, and adherence to the ethical principles relevant to the practice ...



Note: Please reference milestone narrative for full text.

14. Practice-Based Learning and Improvement - PBLI2. Locates, appraises, and assimilates evidence from valid ...



16. Professionalism - PROF1. Compassion, integrity, and respect for others, as well as sensitivity and responsiveness ...







### Specialty: Transitional year

19. Professionalism - PROF4. Personal responsibility to maintain emotional, physical, and mental health



# 21. Interpersonal and Communication Skills - ICS2. Communicates effectively with physicians, other health ...



23. Interpersonal and Communication Skills - ICS4. Maintains comprehensive, timely, and legible medical records



Note: Please reference milestone narrative for full text.

20. Interpersonal and Communication Skills - ICS1. Communicates effectively with patients, family, and the ...



22. Interpersonal and Communication Skills - ICS3. Works effectively as a member or leader of a healthcare  $\ldots$ 



### Specialty: Internal medicine/Pediatrics

Resident Year	1	2	3	4	Total Residents
# of Residents	378	384	368	365	1,495

#### **Internal Medicine**

1. Patient Care - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s)



3. Patient Care - Manages patients with progressive responsibility and independence



5. Patient Care - Requests and provides consultative care



Note: 19 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.

Note: Please reference milestone narrative for full text.

2. Patient Care - Develops and achieves comprehensive management plan for each patient



4. Patient Care - Skill in performing procedures



Note: 26 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.

#### 6. Medical Knowledge - Clinical knowledge



### Specialty: Internal medicine/Pediatrics

#### Internal Medicine

7. Medical Knowledge - Knowledge of diagnostic testing and procedures



9. Systems-Based Practice - Recognizes system error and advocates for system improvement



Note: 5 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.

11. Systems-Based Practice - Transitions patients effectively within and across health delivery systems



8. Systems-Based Practice - Works effectively within an interprofessional team (e.g. peers, consultants, ...



10. Systems-Based Practice - Identifies forces that impact the cost of health care, and advocates for, and ...



Note: 5 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.





Note: 6 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.

### Specialty: Internal medicine/Pediatrics

#### **Internal Medicine**

13. Practice-Based Learning and Improvement - Learns and improves via  $\ensuremath{\mathsf{performance}}$  audit



Note: 23 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.

15. Practice-Based Learning and Improvement - Learns and improves at the point of care



Note: 5 of 1,495 residents have a status of "Not Yet Assessed" and are not included in the analysis.

17. Professionalism - Accepts responsibility and follows through on tasks



Note: Please reference milestone narrative for full text.

Aspirational Ready for Unsupervised Practice Critical Deficiencies 1 2 3 4 Resident Year





18. Professionalism - Responds to each patient's unique characteristics and needs



14. Practice-Based Learning and Improvement - Learns and improves via feedback

### Specialty: Internal medicine/Pediatrics

#### **Internal Medicine**

19. Professionalism - Exhibits integrity and ethical behavior in professional conduct



21. Interpersonal and Communication Skills - Communicates effectively in interprofessional teams (e.g. peers, ...



20. Interpersonal and Communication Skills - Communicates effectively with patients and caregivers



22. Interpersonal and Communication Skills - Appropriate utilization and completion of health records



#### Specialty: Internal medicine/Pediatrics

#### Pediatrics

1. Patient Care - Gather essential and accurate information about the patient  $% \left( {{{\rm{D}}_{{\rm{B}}}}} \right)$ 



Note: 4 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

3. Patient Care - Provide transfer of care that ensures seamless transitions



Note: 30 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.



5. Patient Care - Develop and carry out management plans

Note: Please reference milestone narrative for full text.

2. Patient Care - Organize and prioritize responsibilities to provide patient care that is safe, effective and efficient



Note: 3 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.





Note: 4 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.



Note: 2 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

6. Medical Knowledge - Critically evaluate and apply current medical information and scientific evidence for patient care (MK1)

#### Specialty: Internal medicine/Pediatrics

#### Pediatrics

7. Systems-Based Practice - Coordinate patient care within the health care system relevant to their clinical specialty



Note: 6 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

9. Systems-Based Practice - Work in interprofessional teams to enhance patient safety and improve patient care quality



Note: 2 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

11. Practice-Based Learning and Improvement - Identify and perform appropriate learning activities to guide ...



Note: Please reference milestone narrative for full text.

8. Systems-Based Practice - Advocate for quality patient care and optimal patient care systems



Note: 27 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

10. Practice-Based Learning and Improvement - Identify strengths, deficiencies, and limits in one's knowledge and expertise



Note: 5 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

12. Practice-Based Learning and Improvement - Systematically analyze practice using quality improvement ...



Note: 54 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

#### Specialty: Internal medicine/Pediatrics

#### Pediatrics

13. Practice-Based Learning and Improvement - Incorporate formative evaluation feedback into daily practice



Note: 3 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

15. Professionalism - Professionalization: A sense of duty and accountability to patients, society, and the profession (PROF2)



Note: 8 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

17. Professionalism - Self-awareness of one's own knowledge, skill, and emotional limitations that leads ...



not included in the analysis.

Note: Please reference milestone narrative for full text.

14. Professionalism - Demonstrate humanism, compassion, integrity, and respect for others; based on the  $\ldots$ 



Note: 6 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

16. Professionalism - Professional Conduct: High standards of ethical behavior which includes maintaining ...



Note: 10 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.



Note: 11 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

18. Professionalism - Trustworthiness that makes colleagues feel secure when one is responsible for the care of patients (PROF5)

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### Specialty: Internal medicine/Pediatrics

#### Pediatrics

19. Professionalism - Recognize that ambiguity is part of clinical medicine and to recognize the need for  $\ldots$ 



Note: 5 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

21. Interpersonal and Communication Skills - Demonstrate the insight and understanding into emotion and ...



Note: 16 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.

20. Interpersonal and Communication Skills - Communicate effectively with patients, families, and the public, ...



Note: 5 of 1,495 residents have a status of "Not yet assessable" and are not included in the analysis.