

Accreditation Council for Graduate Medical Education (ACGME)

The ACGME's Approach to Limit Resident Duty Hours: A Summary of Achievements for the Second Year under the Common Duty Hour Standards

Rationale for the Duty Hour Limits

In July 2003, the Accreditation Council for Graduate Medical Education (ACGME) instituted common standards that limit duty hours for resident physicians in all accredited programs. As the body responsible for the accreditation of more than 8,000 programs that collectively provide for the education of 100,000 residents, the ACGME is the entity to which the medical community and public looks to set and enforce resident duty hour limits. The ACGME and its Residency Review Committees (RRCs) developed the standards in response to a growing body of scientific information about the negative effects of sleep loss and fatigue on resident education and performance, and the potential for adverse consequences for the safety and well-being of patients and residents. The limits also respond to changes in health care delivery that have increased patient acuity in the nation's teaching hospitals.

The common duty hour limits are part of a comprehensive approach to promote high-quality learning and safe and effective patient care that includes: (1) efforts to promote compliance with the standards; (2) enhanced institutional oversight and local monitoring by the designated institutional official; (3) increasing the resident education community's knowledge about the effect of the standards and innovative ways to conduct education and patient care under more limited resident hours.

The Standards

The ACGME's common duty hour standards acknowledge scientific evidence that long hours and sleep loss have a negative effect on resident performance, learning and well-being. The standards include:

- An 80-hour weekly limit, averaged over four weeks;
- An adequate rest period, which should consist of 10 hours of rest between duty periods;
- A 24-hour limit on continuous duty and up to six added hours for continuity of care and didactics;
- One day in seven free from patient care and educational obligations, averaged over four weeks;
- In-house call no more than once every three nights, averaged over four weeks;
- An option for programs in some specialties to request an increase of up to 8 hours in weekly hours, with an educational rationale and approval of the sponsoring institution and relevant RRC.

The ACGME chose an 80-hour weekly limit to safeguard against chronic sleep loss, and a 24- plus up to six-hour limit on continuous duty to address acute sleep loss, while allowing time for the transfer of care and didactics.

Achievements in Academic Year 2004-05

During the period from July 1, 2004 through June 30, 2005 (Academic Year 2004-05), the ACGME, the RRCs and the residency education community continued their efforts to limit resident duty hours in 8,038 accredited specialty and subspecialty programs. Programs and sponsoring institutions continued to implement changes to residents' clinical education, patient care activities and the mechanisms for duty hour monitoring, using learning gained during the first year under the common standards. Among approaches to reduce resident hours, short call, night float and other rotation changes remained popular, as did hiring nurse practitioners, physician assistants or hospitalists. A small but growing number of programs re-engineered their patient care and education systems to function under reduced hours.

Highlights from the second year under the new standards include:

- The ACGME collected data on duty hour compliance from all accredited programs, with 100% of accredited programs responding. Senior officials at each sponsoring institution verified this information.
- The ACGME monitored compliance with the common duty hour standards, and more restrictive RRC standards in many specialties, by assessing the number of programs cited for duty hour violations, complaints related to resident duty hours. The ACGME also monitors programs operating under a duty hour exception.
- During accreditation site visits, ACGME site visitors interviewed program directors, faculty, residents and sponsoring institution representatives. They also conducted reviews of documents that detail resident hours, including rotation schedules, call rosters and other institutional data to verify compliance with the standards.

- Of 2,002 programs that underwent full accreditation reviews during Academic Year 2004-05, 147 programs (7.3%) received one or more citations related to duty hour non-compliance, compared to 101 of 2,027 programs (5.0%) during Academic Year 2003-04. *Exhibit 1* compares citations for the two periods.
- Of the citations during AY 2004-05, 31 citations related to compliance with the 80-hour limit, 31 to the requirement for one day in seven free of program duties, and 31 to the 24- plus up to six-hour limit on continuous duty. Sixty citations related to other common duty hour standards or to more restrictive standards set by the RRCs. RRCs requested that 36 programs provide them with reports that detail their efforts to bring duty hours into compliance. Detailed information on duty hour citations by specialty is shown at *Exhibit 2*.
- ACGME site visitors annually interview approximately 12,000 residents during scheduled site visits. The 2005 ACGME resident survey collected data on duty hour compliance from 33,204 residents in 1,954 programs, and a total of 58,380 residents have been surveyed over the past two years. The 2005 resident survey had an 89% response rate, and just 20 programs did not achieve the required target of having 70% of the residents respond. These programs will be resurveyed in AY 2005-06. In 72 programs (4%), more than 15% of the residents reported working beyond the 80-hour weekly limit. These programs are subject to follow-up by the RRCs.
- In Academic Year 2004-05, 997 residents (3.0% of respondents) spread across 413 programs (21.1%) reported they worked above the 80-hour weekly limit during their most recent rotation, compared to 834 residents (3.3%), distributed across 25% of responding programs during the prior Academic Year.
- ACGME received 16 complaints related to non-compliance related to resident hours. This constituted 20% of all complaints ACGME received. Six complaints were dismissed as unfounded, and for the remainder ACGME instituted appropriate follow-up activities. Details are shown at *Exhibit 3*.
- At the end of AY 2004-05, 68 programs operated under exceptions to extend their weekly duty hours to 88 hours. Three exceptions were for a specific year of training, three were for a specific rotation, and 62 were program-wide. The majority of exceptions were for neurological surgery programs (42 programs), followed by orthopaedic surgery (9 programs) and general surgery (7 programs) and thoracic surgery (7 programs).
- RRCs in 11 specialties have more restrictive standards than the common duty hour limits and/or do not permit programs to apply for the increase in the weekly duty hour limit. Details are shown at *Exhibit 4*.
- The ACGME continues to be sensitive to the issue that reporting alleged non-compliance with the standards may place the individual making the report (the “whistleblowers”) at risk for retaliation or retribution. Through its accreditation standards, enforcement processes, and educational efforts, the ACGME continues to emphasize to program directors and institutional leaders the need to protect these “confidential reporters.”
- The ACGME communicated its approach to limit resident duty hours and its compliance efforts to the academic community and the public through published articles, interviews and information presented on the ACGME Web site and in the quarterly *ACGME Bulletin*. In August 2005, the ACGME sent a letter to the 100,000 residents in accredited programs, informing them about the duty hour standards and compliance activities, including residents’ rights to raise concerns about violations of the standards with their institutions and, ultimately, the ACGME. It also kept the academic community informed about compliance activities and innovative ideas related to duty hours that could be adopted or adapted by other programs and institutions.

Expanding the ACGME’s Focus to the Greater Learning Environment for Residents

The ACGME periodically updates all accreditation standards in response to changes in clinical care and education, and other relevant information. It solicited feedback on aspects of the standards that may benefit from refinement, and is collecting and beginning to analyze data on the effect of the standards. Public attention continues to be focused on resident hours and the mechanisms to ensure compliance with the standards. At the same time, the ACGME firmly believes that an effective approach to protect patient safety and resident education and promote resident well-being requires a broader approach that views duty hours as one factor in a larger set that collectively contribute to a high-quality learning environment. In response, the ACGME authorized a new Committee on Innovation in the Learning Environment to explore and analyze these factors, with the goal of promoting improvement and innovation in the settings where residents train. Projects include innovative approaches to reduce resident hours by analyzing redundant activities, scientific analysis of residents’ work flow using a systems engineering approach, and efforts to identify the attributes that make up a high-quality learning and patient care environment. Results from these efforts are expected in the coming 12 months.

Comparing Total Duty Hour Citations for the First Two Years under the Common Standards

Specialty	Academic Year 2003-04			Academic Year 2004-05		
	No. of Programs Reviewed	No. of programs cited	% Cited	No. of Programs Reviewed	No. of programs cited	% Cited
Allergy and Immunology	21	3	14.3%	17	0	0.0%
Clin. Laboratory Immunology	10	0	0.0%	1	0	0.0%
Anesthesiology	41	2	4.9%	33	1	3.0%
Anesthesiology Subspecialties.	53	5	9.4%	51	2	3.9%
Colon and Rectal Surgery	10	0	0.0%	14	1	7.1%
Dermatology	26	0	0.0%	26	0	0.0%
Dermatology Subspecialties	26	0	0.0%	24	1	4.2%
Emergency Medicine	29	1	3.4%	29	3	10.3%
Emergency. Med. Subspecialties	19	0	0.0%	5	0	0.0%
Family Practice	154	26	16.9%	97	18	18.6%
Family Practice Subspecialties	35	0	0.0%	34	2	5.9%
Internal Medicine	74	14	18.9%	99	14	14.1%
Internal Medicine Subspecialties	344	10	2.9%	362	12	3.3%
Medical Genetics	12	1	8.3%	13	0	0.0%
Molecular Genetic Pathology	4	0	0.0%	5	0	0.0%
Neurological Surgery	17	0	0.0%	32	3	9.4%
Neurology	29	2	6.9%	33	5	15.2%
Neurology Subspecialties	37	0	0.0%	42	3	7.1%
Nuclear Medicine	13	0	0.0%	16	2	12.5%
Obstetrics and Gynecology	68	4	5.9%	76	9	11.8%
Ophthalmology	34	0	0.0%	21	0	0.0%
Orthopaedic Surgery	57	3	5.3%	52	3	5.8%
Ortho. Surgery Subspecialties	56	0	0.0%	49	2	4.1%
Otolaryngology	29	0	0.0%	27	1	3.7%
Otolaryngology Subspecialties	5	0	0.0%	6	1	16.7%
Pathology	41	0	0.0%	38	0	0.0%
Pathology Subspecialties	88	2	2.3%	71	1	1.4%
Pediatrics	41	2	4.9%	44	8	18.2%
Pediatrics Subspecialties	124	4	3.2%	106	9	8.5%
Phys. Medicine & Rehabilitation	20	0	0.0%	22	3	13.6%
PM & R Subspecialties	8	0	0.0%	9	0	0.0%
Plastic Surgery	45	2	4.4%	23	3	13.0%
Plastic Surgery Subspecialties	21	0	0.0%	7	1	14.3%
Preventive Medicine	17	1	5.9%	13	0	0.0%
Prev. Medicine Subspecialties	3	0	0.0%	1	0	0.0%
Psychiatry	44	1	2.3%	37	2	5.4%
Psychiatry Subspecialties	61	1	1.6%	79	2	2.5%
Radiation Oncology	21	0	0.0%	19	1	5.3%
Diagnostic Radiology	52	0	0.0%	52	4	7.7%
Diagn. Radiology Subspecialties	98	0	0.0%	72	2	2.8%
General Surgery	63	2	3.2%	68	10	14.7%
General Surgery Subspecialties	71	1	1.4%	61	4	6.6%
Thoracic Surgery	31	3	9.7%	33	3	9.1%
Urology	27	2	7.4%	36	2	5.6%
Urology Subspecialties	4	0	0.0%	4	0	0.0%
Transitional Year	30	3	10.0%	43	8	18.6%
Overall Citations	2,027	101	5.0%	2,002	147	7.3%

Source: ACGME Citation Database, July 2004, August 2005

AY 2004-05 Duty Hour Citations by Specialty, Citation Detail

Specialties)	Programs Reviewed 2004-05	% of Total Reviewed	Total DH Citations	% of Total DH Citations	80 hours per week	1 day in 7 free	10-hour rest	>24+ 6 hours	Call q 3rd night	Moon-lighting	Other DH Standards
All Specialties	2,196	100%	195	100%	31	31	19	31	7	16	60
Allergy and Immunology	17	0.8%	0	0.0%	0	0	0	0	0	0	0
Anesthesiology	33	1.5%	1	0.5%	0	0	0	1	0	0	0
Anesthesiology Subspecialties	54	2.5%	2	1.0%	0	1	0	0	0	0	1
Colon and Rectal Surgery	14	0.6%	1	0.5%	0	0	1	0	0	0	0
Dermatology	26	1.2%	0	0.0%	0	0	0	0	0	0	0
Dermatology Subspecialties	33	1.5%	1	0.5%	0	0	1	0	0	0	0
Emergency Medicine	29	1.3%	5	2.6%	1	0	0	1	1	0	2
EM Subspecialties	5	0.2%	0	0.0%	0	0	0	0	0	0	0
Family Medicine	97	4.4%	23	11.8%	1	1	0	7	0	3	11
FM Subspecialties	42	1.9%	2	1.0%	0	0	0	0	0	2	0
Internal Medicine	99	4.5%	20	10.3%	2	4	5	7	0	0	2
IM Subspecialties	445	20.3%	15	7.7%	4	4	1	1	1	1	3
Medical Genetics	13	0.6%	0	0.0%	0	0	0	0	0	0	0
Molecular Genetic Pathology	8	0.4%	0	0.0%	0	0	0	0	0	0	0
Neurological Surgery	32	1.5%	3	1.5%	2	0	0	0	0	0	1
Neurology	33	1.5%	6	3.1%	0	1	1	0	0	0	4
Neurology Subspecialties	67	3.1%	4	2.1%	0	2	0	2	0	0	0
Nuclear Medicine	16	0.7%	2	1.0%	0	0	0	0	0	0	2
Obstetrics and Gynecology	76	3.5%	11	5.6%	3	3	0	1	0	0	4
Ophthalmology	21	1.0%	0	0.0%	0	0	0	0	0	0	0
Orthopaedic Surgery	52	2.4%	3	1.5%	2	0	0	1	0	0	0
Orth. Surg. Subspecialties	54	2.5%	6	3.1%	2	3	0	0	1	0	0
Otolaryngology	27	1.2%	1	0.5%	0	0	0	0	0	0	1
Otolaryngology Subspecialties	8	0.4%	1	0.5%	0	0	0	0	0	0	1
Pathology	38	1.7%	0	0.0%	0	0	0	0	0	0	0
Pathology Subspecialties	82	3.7%	1	0.5%	0	1	0	0	0	0	0
Pediatrics	44	2.0%	8	4.1%	1	1	0	2	0	0	4
Pediatric Subspecialties	133	6.1%	11	5.6%	0	0	0	0	1	1	9
Phys. Med. and Rehabilitation	22	1.0%	4	2.1%	1	0	0	1	0	0	2
PM&R Subspecialties	13	0.6%	0	0.0%	0	0	0	0	0	0	0
Plastic Surgery	23	1.0%	13	6.7%	2	2	3	2	2	2	0
Plast. Surg. Subspecialties	7	0.3%	1	0.5%	0	0	0	0	0	1	0
Preventive Medicine	13	0.6%	0	0.0%	0	0	0	0	0	0	0
Prev. Med. Subspecialties	1	0.0%	0	0.0%	0	0	0	0	0	0	0
Psychiatry	37	1.7%	2	1.0%	1	0	0	0	0	0	1
Psych. Subspecialties	85	3.9%	2	1.0%	0	2	0	0	0	0	0
Radiation Oncology	19	0.9%	1	0.5%	0	0	0	0	0	1	0
Radiology-Diagnostic	52	2.4%	4	2.1%	0	1	0	0	0	1	2
Diagn. Rad. Subspecialties	76	3.5%	2	1.0%	0	1	0	0	0	1	0
Surgery-General	68	3.1%	14	7.2%	1	2	3	3	0	2	3
Gen. Surgery Subspecialties	62	2.8%	6	3.1%	2	1	1	0	0	1	1
Thoracic Surgery	33	1.5%	5	2.6%	3	1	0	0	1	0	0
Urology	36	1.6%	2	1.0%	1	0	0	0	0	0	1
Pediatric Urology	6	0.3%	0	0.0%	0	0	0	0	0	0	0
Transitional Year	45	2.0%	12	6.2%	2	0	3	2	0	0	5

Source: ACGME Citation Database, August 2005

**Complaints about Alleged Non-Compliance with the Duty Hour Standards
and their Disposition**

July 1, 2004 through June 30, 2005, Compared to Prior Academic Year

Specialty	No. of Complaints	% of all Complaints	Residents in specialty	% of all residents
General Surgery	4	25.0	7,492	7.3
Family Practice	3	18.8	9,834	9.3
Anesthesiology	2	12.5	5,051	4.9
Internal Medicine	1	6.3	21,960	21.4
Neurological Surgery	1	6.3	798	.8
Neurology	1	6.3	1,552	1.5
Pediatrics	1	6.3	7,876	7.7
Neonatal-Perinatal Medicine	1	6.3	524	.5
Preventive Medicine	1	6.3	351	.3
Urology	1	6.3	978	1.0
<i>Total, Specialties with complaints</i>	<i>16</i>	<i>100.0</i>	<i>56,416</i>	<i>55.0</i>
<i>Residents in Specialties without duty hour complaints</i>			<i>46,155</i>	<i>45.0</i>
<i>Total Residents</i>			102,571	100.0

<i>Disposition of Complaint</i>	<i>Number</i>	<i>% of all complaints</i>
Disposition pending	4	25.0%
Deferred until outside litigation is completed	1	6.3%
Cited and warned of adverse action	1	6.3%
Proposed Probation	1	6.3%
Monitor at next site visit	2	12.5%
Requested progress report	1	6.3%
Complaint dismissed as unfounded	6	37.5%
Total	16	100.0%

**Specialty-Specific Duty Hour Requirements that Exceed the Common Duty Hour Requirements
In Effect July 1, 2005**

<p>Allergy and Immunology: V.F.6. The RRC for Allergy & Immunology will not consider requests for an exception to the limit to 80 hours per week, averaged monthly.</p>
<p>Anesthesiology: V.F.3.b: During the 6 additional hours (after the end of the on-call period), residents may not administer anesthesia in the operating room for a new operative case or manage new admissions to the ICU. The resident should not manage non-continuity patients in the 6 hours post-call.</p> <p>V.F.2.d. The RRC will not consider requests for a rest period of less than 10 hours.</p> <p>V.F.6. The RRC for Anesthesiology will not consider requests for an exception to the limit to 80 hours per week, averaged monthly.</p>
<p>Emergency Medicine: IV.A. 7.a.2) While on duty in the emergency department, residents may not work longer than 12 continuous scheduled hours. There must be at least an equivalent period of continuous time off between scheduled work periods.</p> <p>IV.A. 7.a. 3) A resident should not work more than 60 scheduled hours per week seeing patients in the emergency department and no more than 72 duty hours per week. Duty hours comprise all clinical duty time and conferences, whether spent within or outside the educational program, including all on-call hours.</p> <p>V.F.6. The RRC for Emergency Medicine will not consider requests for an exception to the limit to 80 hours per week, averaged monthly.</p>
<p>Family Practice: V.F.2.d. The RRC will not consider requests for a rest period of less than 10 hours.</p> <p>V.D.6. The RRC for Family Practice will not consider requests for an exception to the limit to 80 hours per week, averaged monthly.</p>
<p>Internal Medicine: In-house call must occur no more frequently than every third night (<i>this standard does not permit averaging the frequency of in-house call</i>).</p> <p>V.D.6. The RRC for Internal Medicine will not consider requests for an exception to the limit to 80 hours week, averaged monthly.</p>
<p>Neurology: V.F.6. The RRC for Neurology will not consider requests for exceptions to the limit to 80 hours per week, averaged monthly.</p>
<p>Nuclear Medicine: V.F.6. The RRC for Nuclear Medicine will not consider requests for exceptions to the limit to 80 hours per week, averaged monthly.</p>
<p>Pediatrics: V.F.6. The RRC for Pediatrics will not consider requests for exceptions to the limit to 80 hours per week, averaged monthly.</p>
<p>Preventive Medicine: V.F.6. The RRC for Preventive Medicine will not consider requests for an exception to the limit to 80 hours per week, averaged monthly.</p>
<p>Psychiatry: V.F.6. The RRC for Psychiatry will not consider requests for exceptions to the limit to 80 hours per week, averaged monthly.</p>
<p>Diagnostic Radiology: V.F.6. The RRC for Diagnostic Radiology will not consider requests for exceptions to the limit to 80 hours per week, averaged monthly.</p>