

The ACGME's Approach to Limit Resident Duty Hours 2006-07:

A Summary of Achievements for the Fourth Year under the Common Requirements

Rationale for the Duty Hour Limits

This document summarizes the achievements of the Accreditation Council for Graduate Medical Education (ACGME) in promoting compliance with its duty hour requirements for Academic Year 2006-07, the fourth year under common program requirements that limit duty hours for residents in all accredited programs. As the body responsible for the accreditation of more than 8,300 programs that collectively provide for the education of some 105,000 residents and fellows, the ACGME is the entity to which the medical community and public look to set and enforce resident duty hour limits. The ACGME, its 26 specialty review committees (RCs) and the Institutional Review Committees (IRC) developed the standards in response to changes in health care delivery that have increased patient acuity in teaching hospitals, and to scientific information about the negative effects of sleep loss on resident education and on the safety and well-being of patients and residents.

The ACGME uses a comprehensive approach to address resident duty hours that encompasses: (1) on-site visits and regular surveys of residents and program directors; (2) responding to complaints about duty hour violations; (3) enhancing oversight and monitoring of resident hours; and (4) increasing residents' and the education community's knowledge of the adverse consequences of sleep loss. Limiting resident hours is one part of the ACGME's comprehensive approach to promote high-quality learning and safe and effective patient care. Other components include faculty supervision, teaching and mentoring, educational curricula, clinical rotations that facilitate acquisition of competence for independent practice, and regular evaluation of residents, including assessment of their clinical and procedural skills.

Achievements in Academic Year 2006-07

During Academic Year 2006-07 (July 1, 2006 through June 30, 2007), the ACGME, the RCs and the residency education community continued their efforts to limit resident duty hours in the 8,355 accredited specialty and subspecialty programs. Programs and institutions continue to refine changes to residents' clinical education, patient care activities and mechanisms for duty hour monitoring, using learning gained during the prior years under the common standards. The number of programs that are re-designing their patient care and education systems to adapt them to reduced resident hours continues to grow slowly.

Highlights from the fourth year under the common duty hour standards include:

- The ACGME monitored compliance with the common duty hour standards and the more restrictive RRC specific standards that exist in many specialties. 2,589 programs underwent accreditation reviews, a 9.6% increase over the 2,363 programs that underwent reviews in 2005-06). Of the programs that were reviewed, 227 (8.8%) received one or more citations related to duty hour non-compliance. This represents an increase over the 187 programs (7.9% of those reviewed) cited for duty hour non-compliance 2005-06 (ACGME cited 147 programs (7.3%) for duty hour violations during 2004-05, and 101 programs (5.0%) in 2003-04). *Exhibit 1* compares the numbers of programs cited for duty hours for 2003-04 through 2006-07.
- Of the 8,804 citations received by all programs during 2006-07, 258 (2.9%) related to non-compliance with the duty hour limits. This represents a small increase over the 249 citations for duty hour violations in 2005-06. The percentage of duty hour citations has remained relatively constant (3% in 2005, 4% in 2006, and 3% in 2007), and duty hour citations make up a small percentage of total citations. In contrast, citations related to the Education Program comprise the largest single category (4,717 citations or 54% of the total). Similar to prior years, non-compliance with the 24 + 6 hour limit on continuous duty accounts and citations for "other duty hour citations," which encompasses the specialty-specific duty hour requirements, makes up the largest share of citations. Detailed information is shown at *Exhibit 2*.

- During accreditation site visits, ACGME site visitors interviewed program directors, faculty, residents and sponsoring institution representatives, and reviewed documents that detail resident hours, including rotation schedules, call rosters and other program and institutional data to verify compliance with the standards. ACGME site visitors annually interview some 12,000 residents.
- The ACGME resident survey collected data on duty hour compliance from its resident survey. In 2007, 3,025 (36%) programs and 58,602 (55 %) participated, an increase of 10,426 residents over the prior year. The 2007 resident survey changed the format of the duty hour questions. Approximately 94% of residents said they always or usually meet the ACGME's weekly duty hour limits. The most frequent area of non-compliance was the 24 + 6 hour limit on continuous hours, with 7% of residents reporting they meet this standard sometimes, rarely, or never.
- In its enforcement of the duty hour standards, the ACGME uses a substantial compliance model that distinguishes between individual residents reporting they work beyond the duty hour limits, and programs where several residents report they worked beyond three or more duty of the hour standards. In addition, the information from the resident survey always is verified during the site visit. Using a substantial compliance model, 115 out of 3,025 (3.8%) programs were identified as potential outliers. Added analysis showed that programs in this category were more likely to have residents reporting on potential issues with faculty teaching, intimidation and service obligations. Programs identified as outliers receive follow-up from the ACGME, which may include moving up the date of the site visit.
- During 2006-07, 54 programs operated under a duty hour exception, which allowed residents in the programs to work up to 88 weekly hours. The number of exceptions decreased over the prior year (54 vs. 64). For Academic Year 2007-08, the number of programs operating under an exception has declined to 40. For added detail see *Exhibit 3*. The ACGME performs added monitoring of programs under a duty hour exception. Residents in programs with an exception are surveyed every year, and programs in which two or more residents reported working above the limits receive follow-up from the ACGME.
- The ACGME received 10 complaints related to duty hours during Academic Year 2006-07. This represents 23% of the 44 complaints received during the year. It compares to 7 complaints ACGME received during 2005-06, 16 complaints received during 2004-05 and 53 complaints related to duty hours that were received during 2003-04. For all complaints that were substantiated, the ACGME instituted appropriate follow-up.

Expanding the Focus to the Learning Environment

The ACGME communicates its approach to limiting resident duty hours and its compliance efforts to the academic community and the public through published articles, interviews and information presented on its web site and in the quarterly *Bulletin*. It also shares with the academic community compliance activities and innovative ideas related to duty hours that could be adopted or adapted by other programs.

The ACGME believes that that an effective approach to promote safe care, resident learning and resident well-being requires a broader approach that views duty hours as one of many factors that contribute to a high-quality learning environment. The ACGME authorized a Committee on Innovation in the Learning Environment, with the goal of aggregating knowledge about the learning environment, developing new models for dissemination, and advancing the accreditation standards and processes. In September 2007, the first report of this committee was approved by the ACGME. Recommendations in the report include analyzing the relationship between duty limits and resident learning and engagement in clinical care; development of ACGME-supported accreditation pilots to refine the duty hour standards in individual specialties. The ultimate goal is to use this information to refine the accreditation standards and processes.

Comparing Total Duty Hour Citations for Academic Years 2003-04 through 2006-07

Specialty	AY 2003-04		AY 2004-05		AY 2005-06		AY 2006-07	
	Programs cited	% Cited	Programs cited	% Cited	Programs cited	% Cited	Programs cited	% Cited
Allergy and Immunology	3	14.0%	0	0.0%	3	11.1%	3	33%
Anesthesiology	2	0.0%	1	3.0%	6	17.1%	6	18%
Anesthesiology Subsp.	5	9.4%	2	3.9%	2	4.3%	2	4%
Colon and Rectal Surgery	0	0.0%	1	7.1%	4	16.7%	0	0%
Dermatology	0	0.0%	0	0.0%	1	2.4%	0	0%
Dermatology Subsp.	0	0.0%	1	4.2%	0	0.0%	2	17%
Emergency Medicine	1	3.4%	3	10.3%	9	20.9%	21	54%
Emergency Med. Subsp.	0	0.0%	0	0.0%	1	9.1%	2	11%
Family Practice	26	16.9%	18	18.6%	25	23.4%	25	20%
Family Practice Subsp.	0	0.0%	2	5.9%	1	2.2%	0	0%
Internal Medicine	14	18.9%	14	14.1%	12	20.0%	16	18%
Internal Medicine Subsp.	10	2.9%	12	3.3%	12	4.2%	10	3%
Medical Genetics	1	8.3%	0	0.0%	0	0.0%	0	0%
Mol. Genetic Pathology	0	0.0%	0	0.0%	0	0.0%	0	0%
Neurological Surgery	0	0.0%	3	9.4%	5	26.3%	2	18%
Neurological Surgery Subsp.	0	--	0	--	0	--	1	100%
Neurology	2	6.9%	5	15.2%	5	16.1%	7	23%
Neurology Subspecialties	0	0.0%	3	7.1%	2	2.5%	8	9%
Nuclear Medicine	0	0.0%	2	12.5%	1	6.3%	3	25%
Obstetrics & Gynecology	4	5.9%	9	11.8%	13	14.0%	12	20%
Ophthalmology	0	0.0%	0	0.0%	0	0.0%	4	15%
Orthopaedic Surgery	3	5.3%	3	5.8%	3	7.5%	1	3%
Ortho. Surgery Subsp.	0	0.0%	2	4.1%	0	0.0%	3	10%
Otolaryngology	0	0.0%	1	3.7%	2	7.7%	3	19%
Otolaryngology Subsp.	0	0.0%	1	16.7%	0	0.0%	0	0%
Pain Medicine	0	--	0	--	0	--	2	8%
Pathology	0	0.0%	0	0.0%	2	3.6%	3	13%
Pathology Subspecialties	2	2.3%	1	1.4%	1	0.7%	4	5%
Pediatrics	2	4.9%	8	18.2%	15	25.4%	9	21%
Pediatrics Subspecialties	4	3.2%	9	8.5%	10	5.2%	10	7%
Phys. Med. & Rehabilitation	0	0.0%	3	13.6%	5	20.0%	2	25%
PM & R Subspecialties	0	0.0%	0	0.0%	0	0.0%	0	0%
Plastic Surgery	2	4.4%	3	13.0%	2	6.5%	0	0%
Plastic Surgery Subsp.	0	0.0%	1	14.3%	1	20.0%	0	0%
Preventive Medicine	1	5.9%	0	0.0%	0	0.0%	1	7%
Medical Toxicology	0	0.0%	0	0.0%	0	--	0	0%
Psychiatry	1	2.3%	2	5.4%	3	6.0%	6	15%
Psychiatry Subspecialties	1	1.6%	2	2.5%	4	4.8%	3	7%
Radiation Oncology	0	0.0%	1	5%	0	0.0%	3	14%
Diagnostic Radiology	0	0.0%	4	7.7%	4	8.7%	5	14%
Diagn. Radiology Subsp.	0	0.0%	2	2.8%	2	3.0%	4	8%
Sleep Medicine	0	--	0	--	0	0.0%	0	0%
Surgery	2	3.2%	10	14.7%	20	20.0%	19	41%
Surgery Subsp.	1	1.4%	4	6.6%	1	1.5%	7	26%
Thoracic Surgery	3	9.7%	3	9.1%	2	6.7%	5	38%
Urology	2	7.4%	2	5.6%	2	4.9%	5	25%
Urology Subspecialties	0	0.0%	0	0.0%	0	0.0%	0	0%
Transitional Year	3	10.0%	8	18.6%	7	20.6%	2	11%
Internal Medicine-Pediatrics	--		--		--		6	8%
Totals, All Specialties/Subspecialties	101	5.0%	147	7.3%	187	8.1%	227	8.8%

Source: ACGME Citation Database, July 2004, August 2005, August 2006, August 2007

AY 2006-07 Duty Hour Citations by Specialty, Citation Detail

	Pro-grams	Cited	All Cita-tions	Duty hours	% Duty Hours	80 hours	1 day in 7	10 hours	Call q 3 days	24+6 hours	Moon-lighting	Over-sight	Other
Totals	8,355	1,781	8,804	258	2.9%	32	31	24	3	59	19	23	67
All. & Immunology	71	9	38	2	5.3%		1						1
Anesthesiology	131	34	146	7	4.8%	1	1	2	1	2			
Anesth Subsp.	108	55	267	2	0.7%					1		1	
Colorectal Surgery	45	7	30	0									
Dermatology	113	11	37	0									
Dermatology Subsp.	82	12	60	2	3.3%							1	1
Emergency Medicine	140	39	241	29	12.0%	7	7			7	3		5
EM Subspecialties	43	19	73	2	2.7%	1		1					
Family Medicine	464	123	1223	29	2.0%	1	2	1		14	1	5	5
FM Subspecialties	125	36	111	0									
Internal Medicine	385	87	523	21	4.0%			4	1	3		1	12
IM Subspecialty	1502	293	1504	16	1.1%	1		1		1	1	5	7
Medical Genetics	48	9	30	0									
Med. Gen. Subsp.	18	1	1	0									
Neurological Surgery	97	11	83	2	2.4%	1							1
Neurology	122	31	169	8	4.7%	1	1				1		5
Neurology Subsp.	342	93	445	9	3.8%	2	1			3	3		
Nuclear Medicine	61	12	53	3	5.7%						1	2	
Obst. & Gynecology	250	61	321	13	4.0%	3	1	1		3	1	1	3
Ophthalmology	117	26	115	5	4.3%		1				1		3
Orthopaedic Surgery	152	32	160	1	0.6%					1			
Orthop. Surg. Subsp.	200	30	103	2	1.9%							2	
Otolaryngology	105	16	68	1	1.5%								1
Otolaryng. Subsp.	20	3	19	0	0.0%								
Pain Medicine	90	24	130	3	2.3%		2						1
Pathology	150	23	106	3	2.8%		1	2					
Pathology Subsp.	381	74	275	6	2.2%		2	1			1	1	1
Pediatrics	201	43	283	10	3.5%		1			7			2
Pediatrics Subsp.	661	149	576	11	1.9%	1		1	1	1	2	4	1
Phys. Med. & Rehab.	79	8	35	2	5.7%		1						1
PM&R Subsp.	35	2	3	0									
Plastic Surgery	89	17	48	0									
Plast. Surgery Subsp.	18	2	5	0									
Preventive Medicine	75	14	59	1	1.7%	1							
Prevent. Med. Subsp.	5	1	0	0									
Psychiatry	181	40	220	6	2.7%	1				2	1		2
Psychiatry Subsp.	285	43	157	3	1.9%						1		2
Radiation Oncology	79	21	93	3	3.2%								3
Diagnostic Radiology	188	35	127	5	3.9%		1				2		2
Diagn. Rad. Subsp.	270	49	203	4	2.0%			1					3
Sleep Medicine	46	18	83	0									
Surgery	252	46	204	26	2.0%	6	5	1		11			3
Surgery Subsp.	216	27	67	4	2.0%	3		1					
Thoracic Surgery	85	13	63	1	2%					1			
Urology	120	20	79	8	10%	2	2	3					1
Urology Subsp.	22	2	2	0									
Transitional Year	129	19	101	2	2%			2					
Int. Med./Pediatrics	79	72	232	6	3%		1	2		2			1

Source: ACGME Citation Database, August 2007

Programs on Duty Hour Exceptions, AY 2004-05 through Current AY (2007-08)

	2004-05		2005-06		2006-07		2007-08 (current)
	Programs with a duty hour exception	Programs in the Specialty with at least 1 duty citation	Programs with a duty hour exception	Programs in the Specialty with at least 1 duty citation	Programs with a duty hour exception	Programs in the Specialty with at least 1 duty citation	Programs with a duty hour exception
Neurological Surgery	42	2	44	5	39	2	34
Orthopaedic Surgery	9	0	4	3	0	0	0
Otolaryngology	2	1	4	2	0	0	0
Surgery	7	6	4	20	8	16	1
Thoracic Surgery	7	3	8	2	7	1	5
Urology	1	1	0	0	0	0	0
Total	68	13	64	32	54	19	40