Institute of Medicine Report on Resident Work Hours

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Health Policy Fellowship
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The Path to Today

- 1984: Death of Libby Zion
- 1987: The Bell Commission
  - ad hoc advisory committee on emergency services appointed by New York State Commissioner of Health
- 2000: Institute of Medicine report *To Err is Human*
  - Medical errors leads to 44,000 and 98,000 deaths each year in the U.S
- 2003: Implementation of the ACGME Duty Hours
- 2008: Institute of Medicine report * Resident Duty Hours: Enhancing Sleep, Supervision, and Safety*
<table>
<thead>
<tr>
<th>Variable</th>
<th>2003 ACGME Duty-Hour Limits</th>
<th>IOM Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. hours week</td>
<td>80-hrs, averaged over 4 weeks</td>
<td>No change</td>
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<tr>
<td>Maximum shift length</td>
<td>30 hrs (admitting patients up to 24 hrs, then 6 additional hrs for transitional and educational activities)</td>
<td>30 hrs (admitting patients up to 16 hrs, plus 5 hrs protected sleep period between 10 pm and 8 am, remaining hrs for transitional and educational activities); 16 hrs with no protected sleep period</td>
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<tr>
<td>Maximum in-hospital on-call</td>
<td>Every 3rd night, on average</td>
<td>Every 3rd night, no averaging</td>
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<tr>
<td>Minimum time off between scheduled shifts</td>
<td>10 hrs after a shift</td>
<td>10 hrs after a day shift, 12 hrs after a night shift, 14 hrs after any extended duty period of 30 hrs, not returning until 6 am of next day</td>
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<tr>
<td>Maximum frequency of in-hospital night shifts</td>
<td>Not addressed</td>
<td>48 hrs off after 3 or 4 nights of consecutive duty</td>
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<tr>
<td>Mandatory Time off</td>
<td>4 days per month ; 1 day (24 hrs) a week, average over 4 weeks</td>
<td>5 days per month ; 1 day (24 hrs) per week, no averaging, One 48-hour period per month</td>
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<tr>
<td>Moonlighting</td>
<td>Internal moonlighting counted against 80-hour week limit</td>
<td>Moonlighting counted against 80-hour week limit</td>
</tr>
<tr>
<td>Limit on hours for exceptions</td>
<td>88 hrs for select programs with sound educational rationale</td>
<td>No change</td>
</tr>
<tr>
<td>Emergency room limits</td>
<td>12-hour shift limit, equivalent period of time off between shifts; 60-hour workweek with an additional 12 hrs for education</td>
<td>No change</td>
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</tbody>
</table>
Errors due to Fatigue

Errors due to disruption of continuity of care
• 101,000 physicians-in-training in US

• Estimated Cost of Implementation
  • $1.6 billion (in 2006 US dollars)
Shift Work In Health Care

- Nursing
  - Rotational Shifts
    - 2x as likely to report accidents or errors
    - 2.5x more likely to report ‘near-miss’ accidents or errors

Since 1989, an increase in preventable adverse events attributed to handoffs and cross-coverage of unfamiliar patients

• 5 week study
  • Outcome Measures: Patient outcomes and resident education
  • Findings: no evidence of compromise to patient care or resident education as measured by end of rotation examination
• Criticism of Study: poor design of the length and pattern of shifts
European Experience

- European Working Time Directive (EWTD)
  - 1998: 56 hour work week for all working within the European Union
  - 2009: 48 hour work week for all physicians working within the European Union
  - Physician feel that the EWTD legislation will have a negative effect on clinical experience, patient care, and training of physicians
  - Warwick EWTD Study → 33% fewer medical errors occurred on an intervention rotation with shifts up to 48-hours as compared to a traditional 56 hour per week schedule

Stakeholders-Opposed

- Association of American Medical Colleges (AAMC)
  
  Any further modification will require substantial commitment of time and resources to ensure the “safe, high-quality patient care while still ensuring that tomorrow's doctors receive the very best clinical education.”
Dr. Kevin Volpp, Assistant Professor of Medicine and Health Care Management at The Wharton School

“Increasing evidence that resident sleep deprivation endangers patients and residents, but studies have not shown consistent benefit from implementation of the current ACGME standards.”
American Association of Neurosurgical Surgeons Association

The IOM report fails to address the risk associated with increased number of handoffs and the lack of continuity of care in neurosurgical patients.
"The recommendations in this new report are an important corroboration of our advocacy over the course of many years about the dangers of long hours to patient care and to resident well-being"
American Medical Student Organization (AMSA)

AMSA feels the report stopped short of providing enforceable rules to hospitals and calls for support of legislation that enforces the work hour regulations through civil penalties rather than a loss of accreditation and appropriate funding to hospitals to hire auxiliary staff.
Recommendations

- Hold implementation of the IOM recommendations
  - No clear evidence that the implementation results in a net improvement in patient safety and resident quality of life

- Pilot hospitals
  - Well-designed randomized controlled.
    - Measure outcomes of patient and resident well-being as well as effect on resident education and health care cost
  - Design systems to ensure safe transfer of care