



Expert Working Groups: Summary of Findings

Patient Safety

The Patient Safety Working Group explored relationships between resident duty hours, fatigue and patient safety focusing on the Canadian healthcare system. In their paper, the working group concluded that although fatigue can adversely impact performance, sleep deprivation due to long duty hours is only one of many factors, such as workload, working at night, personal factors, etc. that can influence performance. The working group noted that there has been no evidence to show that efforts to restrict duty hours have improved patient outcomes. In the same vein, they stress that restriction of duty hours alone is unlikely to improve patient safety; a broader examination of the system should be undertaken to study handover practice, models of staffing, in addition to other factors, to best ensure patient safety.

As a way forward, the working group describes practical approaches to fatigue management, such as educating residents and programs about important variations in personal tolerance of fatigue as well as fatigue mitigation and management strategies, which may enhance the safety and quality of patient care in the Canadian health care system.

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Medical Education

The Medical Education Working Group examined the impact and evidence related to the intersection of resident duty hours and Medical Education. Recognizing that much of the evidence on the impact of resident duty hours on medical education is mixed or inconclusive and in an effort to contribute to a body of forward-thinking literature, the working group focused on innovations and solutions that could be leveraged in postgraduate (residency) medical education in Canada in an era of resident duty hour changes or regulations.

Key solutions and directions proposed by this group relate to the importance of promoting competency-based medical education, residency education regarding fatigue and fatigue risk management, the development of explicit phases of training and a clear transition period, identifying and focusing on the training of core competencies, and the re-designing of didactic approaches and resident work schedules to ensure an optimal balance between education and service delivery. Recognizing that the ultimate objective of residency education is the development of competency and, ultimately, excellence in care delivery, it is hoped that approaches taking into consideration these factors will improve residency

education and help prevent unintended consequences should resident duty hour regulations be altered in Canada.

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Health Systems Performance and Health Economics

The Health Systems Working Group considered the impact of resident duty hours reform on the performance of health systems, including effects on human health resources, ability to meet clinical care obligations, costs of care provision, and impact on patient outcomes. Although evidence on the impact of resident duty hours on health systems and health economics is scant, especially in Canada, available data, trends and issues were considered. Evidence considered by the working group suggests that careful planning and resource allocation are needed in light of changes to resident duty hours to avoid unintended consequences that may impact safety and quality of care. Other impacts, such as increased resource requirements resulting in the need to hire additional health care providers should also be considered and weighed with solutions such as the use of permanent teams of non-learner staff. By carefully weighing potential impacts, the possibility of achieving a leaner, more efficient system is possible.

The working group concluded that, due to multitude of workforce initiatives occurring in the health care environment, isolating the direct impact of resident duty hour changes will be difficult; however, it is unlikely that the impact will be neutral. Financial implications and impacts to other health care providers will occur as the health system meets its care delivery obligations. Resident duty hour reform will offer a unique opportunity to critically evaluate the impact of different models of care delivery; formal comparative studies of innovations and health systems performance would ensure that this opportunity is used to improve systems, advancing care and practice to benefit patients and all providers.

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Professionalism

The Professionalism Working Group searched for published evidence related to current understanding and thinking regarding issues of professionalism as they specifically relate to resident duty hours. The working group focused on a number of areas of professionalism, such as societal expectations, team based care, generational differences, and conflicts between contracts and patient care as areas that have the potential to be impacted by changes to resident duty hours. The working group acknowledged the often negative depictions of changes in resident duty hours and their potential effects on professionalism that appear in the literature, which often set the stage for defensiveness and tensions on both sides (faculty and learners).

Overall, the working group emphasized that changes to duty hours do not in themselves pose an inherent threat to professionalism. The working group recommended that programs should ensure that all residents, despite modifications to duty hours, are encouraged to develop into reflective practitioners who will be able to function in independent practice settings.

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Resident and Faculty Health and Wellness

The Resident and Faculty Health and Wellness Working Group examined the impact of fatigue and duty hour regulations on mental, physical, and occupational health from the perspective of both residents and faculty. A broad search of the literature was conducted for each of these domains as they pertain to resident duty hours; however, the availability and strength of evidence varies depending on the group and domain identified. The working group concluded that the detrimental impact of traditional call schedules on resident mental, physical and occupational health emerges clearly. While data post-enforcement of work hour limits in other jurisdictions (2003 ACGME regulations) points to stable or improved mental health for residents, the evidence is inconsistent or not supportive of negative impact on clinical faculty. Further study is required to ensure a strong evidence base in this area.

In its recommendations, the working group abstains from promoting specific models of duty hour regulation, except to note that well-being provides sufficient motivation to ensure resident and faculty well-being should be strongly considered in duty hour reform decision-making. Although many successful alternative models of call exist throughout Canada, these have yet to be studied in detail and the working group recognizes that solutions must be respectful of local educational and service-specific realities.

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Special Considerations for Procedural Disciplines

The Procedural Disciplines Working Group identified impacts of resident duty hours and recommendations for potential changes as pertains to the procedural and surgical disciplines specifically. This working group examined resident wellness, education, patient safety and heterogeneity, or the specific considerations for training in such disciplines such as simulation and training length. While the evidence surrounding resident wellness examined by the working group was mixed, more recent publications show evidence of decrease in overall resident wellness (all levels), educational opportunities and career satisfaction following the implementation of the ACGME regulations in the procedural and/or surgical disciplines (Drolet 2012, 2013). Similarly, although most of the evidence related to the impact on education was mixed, an evolving body of evidence suggests that there is a risk that surgical education may be compromised as a result of resident duty hour reforms.

When carefully examining the impact of resident duty hour reform on patient safety, the working group found that literature over the last decade fails to demonstrate improved patient safety following the implementation of reduced resident work hours. The group concluded that more work may be needed, i.e. the study of alternate models of training or strategies, to mitigate the potentially deleterious effects of any proposed changes to resident duty hours.

Lastly, recognizing that Canadian surgeons practice in diverse environments and geographic locations and in settings that range from large, academic, urban environments with many consultants to remote, austere environments, the working group suggested that tailored and flexible approaches to duty hours are more appropriate than fixed maximums, to ensure that surgeons have the expertise to provide surgical care to all Canadian citizens.

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