Introduction: Considerable controversy exists regarding the optimal work hours of physicians and surgeons in training. The current concerns in residency training committees is determining appropriate resident duty hours. How many hours should residents be working and how will this impact the residents, delivery of quality healthcare, and patient safety. A recent meta-analysis reported that reduced call hours showed little improvement on healthcare and even a negative effect in most aspects including patient safety, and resident wellness, burnout and education (1,2).

Extensive research has recently examined the issues associated with making changes, but none have specifically looked at the field of anesthesia. The primary objective of this study was to assess anesthesia residents' opinions and perceptions on wellness/burnout, fatigue, education, and patient safety after the initiation of a reduced call model (16 hour call).

Methods: After appropriate ethics approval was obtained, a prospective cohort study was conducted at three time points in the 2013-2014 academic year. A web-based questionnaire consisting of 23 questions (an adaptation of the already validated survey produced by Drolet et al. in the NEJM) was electronically distributed to all anesthesia residents from postgraduate years 1 to 5 who were part of the active call roster (n=84) (3). Descriptive summaries were calculated, counts and percentages were used for categorical variables, and answers to open text questions were reviewed for themes.

Results: A response rate of 67% was obtained for this study. The majority of anesthesia residents (65%) approved a 16-hour call schedule, and felt that their overall quality of life of a junior (PGY2 and below) or senior resident (PGY3 and above) had improved (55% and 73% respectively), They reported overall feeling less fatigued.

Most respondents indicated that the quality of education remained unchanged (47%), or had improved (31%) (Figure 1).

Most felt better prepared for the royal college exam (52%).

Most thought patient safety had improved or was unchanged (48%).
The strengths of our study are that it is the first in Canada to present anesthesia residents’ perceptions at multiple time periods throughout the year immediately following implementation of a 16-hour call model.

**Conclusion:** Our study demonstrated that 16-hour call improved resident wellness, reduced burnout and fostered an environment where residents are less fatigued and more satisfied with their educational experience and promoted an environment of patient safety. Overall, the anesthesia residency group demonstrated that a 16-hour call model is not only preferred but beneficial. The study has several implications: it can inform the active policy debate, guide ongoing implementation of the current duty hour requirements, and direct future policy. Limiting duty hours represents a necessary paradigm shift in the medical environment, and change will take time. As the pendulum on duty hour swings, it is important to continue to teach clinical medicine, but foster an environment where residents thrive, and patients are safe.

**References:**

3. NEJM 2010 363(23):e34.