

2022 Safe Anaesthesia Liaison Group Scholarship Update

The Safe Anaesthesia Liaison Group (SALG) continues to partner with Beth Israel Deaconess Medical Centre (BIDMC) in Boston, USA and Harvard Medical School to offer a 2-year scholarship for consultant anaesthetists looking to develop expertise in quality improvement and patient safety. The programme features a fully-funded Master's degree in Healthcare Quality & Safety from Harvard Medical School, and a position as a Fellow at BIDMC that combines part-time clinical work with protected time to develop operational and research projects.

As this year's departing scholar, I want to highlight this opportunity and reflect on some of the projects I was involved in over the last 12 months.

My graduating year at Harvard Medical School was inspirational, with classes on *Leadership*, *Integration of technology into medical practice*, and a seminar series on *Diagnostic errors* being standouts. The quality of teaching was exceptional, and discussion with teachers and classmates from around the globe provided fresh perspectives on patient safety. The year culminated in my capstone project centred on debriefing after serious peri-operative adverse events, which has shown promise at improving departmental safety culture at BIDMC as well as identifying and correcting latent hazards.

Being part of the BIDMC Quality & Safety team provided the chance to work collaboratively on numerous projects throughout the year. We developed guidelines for the safe use of TIVA, redesigned our theatre-to-ICU handover process, and rolled out a new quick reference emergency manual for theatres using whole team in-situ simulation. Other duties included reviewing reported adverse events using the National Patient Safety Foundation's Root cause analysis squared framework [1]. This forms the basis of weekly fellow-led morbidity and mortality meetings that feature a systems-based review of an adverse event with recommendations for corrective actions. Within the department there is a strong focus on education, and with my colleagues I provided staff training on *Quality improvement*, *Implementation science* and *Root cause analysis* for our residents and interns. We also partnered with the hospital's environmental group to

begin the process of systematically assessing the greenhouse gas emissions attributable to anaesthesia. A time series analysis I designed to assess the impact of our successful desflurane withdrawal highlighted the ongoing impact of our use of nitrous oxide. This initiated a data-driven feasibility assessment of pipeline decommissioning that was subsequently approved by the executive group. As recognition of the expected significant reduction in greenhouse gas emissions from our move to cylinder-only provision of nitrous oxide, I was honoured to receive one of the hospital's Jane Matlaw Environmental Champion awards.

A highlight of the scholarship is collaboration with the BIDMC research team to learn methodology required to conduct retrospective cohort studies. These have included investigating the safety implications of muscle relaxants in interventional pulmonology procedures, the benefits of second-generation supraglottic devices and, with colleagues in Sheffield, outcomes and risk factors associated with ventilator-associated pneumonia in trauma patients [2]. This year also saw the conclusion of the data collection phase of our prospective study investigating the effects of whole team in-situ simulation in out-of-theatre areas where anaesthesia is provided.

The SALG-BIDMC scholarship is a unique and innovative career development opportunity, equipping scholars with theoretical and practical skills in quality and safety. The clinical work is challenging, rewarding and a great way to experience US healthcare. Boston is a large and vibrant city with experiences to suit all interests, and I would recommend the scholarship



to anyone considering applying. More details, including the application process and person specification, can be found on the SALG [3] and Harvard Medical School [4] websites.

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*Nimmo AF, Absalom AR, Bagshaw O, et al. Guidelines for the safe practice of total intravenous anaesthesia (TIVA): joint guidelines from the Association of Anaesthetists and the Society for Intravenous Anaesthesia, 2018

