Methods: With institutional and heads of departments' approval, an email invitation was sent to consultants and trainees in Western Australia. The email contained a link to an on-line survey questionnaire containing 18 questions and one box for written comments.
Results: At the time of abstract submission, 156 responses (16% trainees, 71% male) were received. Most respondents (62%) thought that RDT did not infringe on employees' rights and 85% felt that healthcare organisations have the right to require such testing when an employee is suspected of using alcohol or drugs before commencing work. Fifty-two percent felt that RDT would improve patient safety but only 44% thought that it would improve staff safety. Most (90%) respondents thought that RDT would not influence their personal use of alcohol and drugs. Sixty-three percent supported RDT of anaesthetists and there were similar levels of support for RDT of surgeons (62%), anaesthesia assistants (66%), PACU staff (65%), operating theatre nurses (64%) and hospital pharmacists (66%). If RDT was introduced, respondents differed in their preferred frequency of testing (26% twice a year, 27% unsure, 9% monthly). RDT of road users by police was supported by 96% of respondents and there were widely differing views on the current system of drug security, distribution or disposal being a deterrent or reducing drug diversion. Several respondents would support a pilot program of RDT so long as all workers in the anaesthesia workplace were included and others suggested a targeted program of RDT for those workers who had been observed to have a decline in their performance.
Discussion: The introduction of RDT into the anaesthesia workplace has been discussed elsewhere.[3] Our survey found majority support for such programs in our hospitals as long as the testing extended to others who work alongside us. There was disagreement whether RDT would enhance patient or staff safety; and the preferred frequency of testing staff if it was to be introduced. There was high support for police testing of road users and uncertainty about the current systems for drug security.

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Comparison of bed-up-head-elevated intubation position with Glidescope-assisted tracheal intubation: a randomised, controlled, non-inferiority trial

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Proper positioning during intubation is critical in order to increase the likelihood of success. The bed-up-head-elevated (BUHE) intubation position has been shown to improve laryngeal view, reduce airway complications and prolong safe apneic time during intubation. Concurrently in the last decade, there has been an exponential increase in the use of video laryngoscopy (VL) devices, especially for difficult airway patients, as it has been shown to improve laryngeal exposure. The use of VL will increase, and may replace traditional laryngoscopy one day. In this study, we sought to determine if the BUHE intubation position is non-inferior to Glidescope-assisted intubation with regards to laryngeal exposure. In addition, we aimed to determine the differences in time required for intubation (TRI) in the two groups.
Methods: A total of 138 ASA 1 to 3 adults planned for elective surgeries were recruited into the study. Patients with Body Mass Index more than 35 kgm-3 were excluded, as were patients who required rapid sequence intubation or awake fibreoptic intubation. Randomisation was performed in blocks of six using computer generated sequences, equally allocating patients into two groups using sealed envelopes. Group A patients ($n = 69$) were intubated in the BUHE position (end point being the horizontal alignment of the external auditory meatus to the sternal angle), while Group B patients ($n = 69$) were intubated using Glidescope laryngoscopy. In both groups, baseline laryngoscopy was first performed in the sniffing position using Macintosh laryngoscope. Laryngeal exposure was measured using Percentage of Glottic Opening (POGO) score, and non-inferiority will be declared if the mean POGO scores in both groups do not differ by -15% for a one sided 97.5% confidence interval. The TRI was measured from beginning of laryngoscopy to the first detected end tidal carbon dioxide and assessed for superiority, as were the secondary outcomes (Number of intubation attempts, use of airway adjuncts, effort during laryngoscopy and complications during intubation).
Results: Mean POGO score in Group A was 80.14 +/− 22.03%, while in Group B it was 86.45 +/− 18.83% ($p = 0.073$), with a mean difference of -6.3% (95% confidence interval -13.2%, 0.6%). In both groups, there was a significant improvement in mean POGO scores (Group A 25.8 +/− 4.7%, Group B 30.7 +/− 6.8%) when compared

to baseline laryngoscopy in the sniffing position ($p < 0.0001$). The mean TRI was 36.23 +/− 14.41s in Group A while Group B had a mean TRI of 44.33 +/− 11.53s ($p < 0.0001$). There were no differences in both groups with regards to secondary outcomes. A post-hoc analysis in patients with baseline Cormack-Lehane 3 grading found a trend for improved laryngeal exposure in Group B (70.5 +/− 29.7%) compared to Group A (49.2 +/− 19.6%) ($p = 0.054$).

Conclusion: In the normal population, BUHE intubation position provides a non-inferior laryngeal view to Glidescope intubation. The laryngeal views obtained in both approaches were superior to the laryngeal view obtained in the sniffing position. In addition, there is a shorter time to intubation in the BUHE position compared to Glidescope intubation. In view of the many advantages of the BUHE position for intubation, the lack of adverse effects, the simplicity and the cost-effectiveness, we propose that clinicians should consider the BUHE position as the standard intubation position for the normal population.

Hypercoagulability detected by thromboelastography in patients undergoing elective total hip arthroplasty

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Hypercoagulability has been identified as a risk factor for venous thromboembolic disease in patients undergoing total hip arthroplasty. Whilst low molecular weight heparin (LMWH) is administered as routine postoperative chemo-thromboprophylaxis in this group, monitoring the effects of LMWH on global coagulation remains relatively unexplored. Thromboelastography (TEG) is a viscoelastic test that provides a global assessment of coagulation. We used TEG to explore the coagulation state of total hip arthroplasty patients receiving standard chemo-thromboprophylaxis. We hypothesised that a hypercoagulable state would be present in this patient group and performed a prospective observational study to test our hypothesis.

Methods: After Human Research Ethic Committee approval and informed patient consent, we performed this study in a University teaching hospital. We included adult patients undergoing primary elective total hip arthroplasty under general or spinal anaesthesia. We excluded patients on any anticoagulation or antiplatelet therapy and patients with any renal or hepatic impairment. The primary objective was to assess hypercoagulability as measured by TEG by examining changes in the maximum amplitude from baseline values to values on postoperative days 1, 3 and 5. Secondary outcomes included i). evaluating perioperative changes in other TEG parameters (R-time, K-time, and alpha angle) ii). comparing perioperative changes in TEG parameters in patients receiving general anaesthesia (GA group) and spinal anaesthesia (Spinal group), and finally iii). to assess perioperative changes in conventional coagulation tests, namely INR, activated partial thromboplastin time and fibrinogen. TEG parameters of whole blood were assessed immediately prior to skin incision, midpoint intraoperatively, prior to skin closure, and for 5 days postoperatively. Conventional coagulation tests were sampled preoperatively and on postoperative day 5.

Results: Fifty-two patients were enrolled. 20 participants underwent total hip arthroplasty under general anaesthesia and 32 patients underwent spinal anaesthesia. All patients received postoperative 40 mg enoxaparin SC daily. For the primary end point the median (IQR) MA increased from baseline values of 62 mm (56:68) and 61 mm (54:65) in the GA and Spinal groups respectively to 77 mm (74:81) and 78 mm (72:82) ($p = 0.01$) on postoperative Day 5. Compared to baseline values the reaction and coagulation times decreased and the α angle increased in the middle and at the end of surgery. There were no significant changes in the postoperative conventional coagulation tests from baseline values. No patients developed postoperative venous thromboembolism.

Discussion: Chemo-thromboprophylaxis with LMWH in patients following elective total hip arthroplasty failed to prevent a postoperative hypercoagulable state when assessed by TEG. Conversely, the same chemo-thromboprophylaxis did not demonstrate hypercoagulability when assessed by conventional laboratory coagulation tests. Study implications: first our findings suggest that TEG may assist in the detection of perioperative hypercoagulability in patients undergoing elective total hip arthroplasty; second, additional strategies such as the early use of antiplatelet drugs and/or increased doses of fractionated or unfractionated heparin may be needed in select patients to improve the therapeutic benefit of chemo-thromboprophylaxis after total hip arthroplasty.