

Theatre efficiency in a busy orthopaedic group practice: safety and effectiveness

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The measured downtime between cases, even in an efficient theatre setup, is between 12 and 20 minutes. Add to this the extra time taken for induction, patient setup and prepping of the patient, and it grows to around 20–30 minutes a case. Given an average eight to ten case list, this totals to around 2 hours 40 minutes per day. This 'loss' affects a) theatre efficiency; b) surgeon's time utilisation; c) staff home times. In addition, longer lists require patients to be operated late, affecting their discharge times.

A solution to improve efficiency has been for the anaesthetist to prepare and induce the next patient on the list just before completing the previous patient's anaesthetic, while the surgeon is finishing off the current case. Thus, the surgeon can seamlessly complete the first case and have the second case prepped while doing their notes. So once the assistant and scrub nurse are ready, the surgeon can go straight into the next case.

There have been potential concerns raised about this practice from a patient safety point of view. There are, however, no scientifically referenced guidelines to the contrary in South Africa. Internationally, it is accepted that a single anaesthetist can safely look after several patients concurrently under anaesthesia, utilising anaesthetic-experienced nurses to monitor the cases.

This report presents the experience of one highly experienced anaesthetist, with intensive care experience of many years, working with a team of busy orthopaedic surgeons doing on average 80 cases per month. The anaesthetist has worked with this group for over 21 years. For efficiency, the surgeons use two adjacent theatres with two sets of nursing and anaesthetics staff to get their busy lists completed in the allocated theatre time and not have to work into the night.

All cases are examined by the anaesthetist and, if suitable, enter this anaesthetic programme. Patients requiring major surgery such as knee replacements are, before admission, worked up by a specialist physician. Thus, the patients that enter this form of overlapping anaesthetic programme are all ASA I and II rated. When the anaesthetist is out of a theatre, the patient is monitored by a highly experienced anaesthetic nurse.

Records have been reviewed over the 21 years and include over 16 000 such 'overlapping' cases that have been carried out by the senior of three anaesthetists who have used this efficient technique of managing busy patient lists. There have been no adverse events while the anaesthetist has been either inducing or waking up the other patient in the adjacent theatre. This finding is corroborated by the two other specialist anaesthetists who have similarly managed some lists.

Suffice it to say that, should the anaesthetist not be happy with the condition of any patient before or during anaesthesia, the subsequent case is not anaesthetised until the prior patient has been extubated and is awake.

The author presents this series to highlight that with the correctly trained anaesthetic assistants, experienced specialist anaesthetists and proper workup and assessment of patients, this system is efficient, cost-effective and completely safe as for any other anaesthetic procedure on suitably chosen patients. ■