

Oral Abstracts

Rapid Fire Papers 2

[O41] THEATRE DOOR OPENING AS A MARKER OF THEATRE DISCIPLINE AND INFECTION CONTROL: ARE STANDARDS SLIPPING?

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Aim: Peri-prosthetic joint infection is a serious and expensive complication of joint arthroplasty. Theatre discipline has infection prevention at its core with multiple studies correlating increased door opening with surgical site infection. The WHO, NICE and Philadelphia Consensus all advocate minimal theatre traffic. The Dutch Health Inspectorate consider >5 door openings per procedure excessive.

Method: This prospective observational study over five weeks observed theatre door traffic during hip and knee arthroplasty within the eight laminar flow theatres at our institution. Two students attached to the department collected data. Half way through the study notices reminding people not to enter during arthroplasty were placed on the theatre doors.

Results: The students observed 59 knee or hip arthroplasty 32 prior to notice's being placed on the theatre doors. The average number of door openings per case was 67 (25-130) prior to intervention and 70 (34-158) after intervention, although opening rates reduced from 1/min to 0.9/min ($p=0.053$). Reasons for door opening were drawing up medications, blood tests, delivery surgical equipment, general enquiries, staff breaks and "unknown" entries and exits.

Conclusions: The rate of door opening was excessive and remained so after reminders were displayed. This deterioration in theatre discipline potentially has a significant negative impact on theatre hygiene and infection control. Individually wrapped components and screws along with the increasing component choice may have played some role in 'legitimizing' door opening. It will be challenging to reverse this behavioural trend but must be achieved.