The Impact of Rolling Theatre Closures on Core Urology training

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Abstract
Since 2008, government funding of the Health Service Executive (HSE) has decreased significantly. Our hospital, Cork University Hospital (CUH), implemented cost saving measures including scheduled operating theatre closures. We studied whether these affected urology training within the hospital. A retrospective review was performed using theatre log books and theatre records to determine the number, type and training status of procedures performed for years 2009 and 2011. Scheduled theatre closures in 2011 resulted in 33 more theatre session cancellations compared to 2009. There was a reduction in the number of procedures performed from 555 cases in 2009 to 443 in 2011 a 10.2% reduction. The number of training cases reduced from 325 (58.9%) in 2009 to 216 (48.7%) in 2011 (Table 1). We have shown that scheduled theatre closures have reduced the number of procedures performed and have impacted on urology training. Our aim was to determine the impact on urology training at CUH. Our results indicate a need to review current training schedules to maximise the benefit of training opportunities. Potential solutions to lessen the impact include providing simulation training using the Royal College of Surgeons in Ireland (RCSI) mobile surgical skills unit during these theatre closures.

Introduction
Government funding of the Health Service Executive (HSE) has decreased significantly since 2008. As a result, management of Cork University Hospital (CUH) implemented so-called cost saving measures, including scheduled operating theatre closures. These closures affect operating theatres one week at a time and rotate through all theatres in the hospital on a monthly basis. The acquisition of surgical skills is a complex process wherein opportunity for deliberate practice is essential. Deliberate Practice requires opportunities to practice, perform, receive feedback, re-practice and re-perform surgical skills. Trainees also learn by modelling expert practitioners. Surgical education relies upon both quality of tuition and quantity of training cases. Decreased working hours resulting from the European working time directive (WTD) has reduced exposure to operative procedures. In addition, in Ireland, the National Treatment Purchase Fund (NTPF), whereby long waiting public patients are treated in Private Hospitals, reduces the number of public theatre cases being performed. Surgical trainees and trainers have become increasingly concerned at the impact on training of scheduled theatre closures at CUH. Our aim was to determine the effect of theatre closures on urological surgery activity at the hospital.

Methods
We undertook a retrospective review of all urology cases performed in 2009 and 2011. We collected data from theatre registers and operation notes on the type, number and training status of the procedures. We defined a training procedure as one performed in some part by a specialist registrar, registrar or senior house officer. Nine core urology procedures were also sub-analysed (Table 1). We determined if there was a decrease in the overall number of operations, the percentage of theatre closures and core training procedures performed.

Results
There were 33 fewer theatre sessions in 2011 compared to 2009. The total number of urological operations decreased from 555 in 2009 to 443 in 2011, a reduction of 20.2%. Eight of the nine core urology procedures were performed less commonly in 2011 (Table 1). The number of training procedures decreased by 10.2% in 2011 (Table 2).

Discussion
There was a significant (20%) decrease in the number of urological procedures undertaken at CUH. This decrease is an accommodation to many other different disciplines including anaesthesiology. It is essential that interventions to deficiencies in surgical training are implemented with a focus on quality of training. The cost saving effects of sequential theatre closures may be offset and substantiated by management considering that numerous salaried staff are left unutilised in theatre and the resulting clinical back-log is referred to the Special Delivery Unit (SDU) often in private hospitals. There are several potential solutions to this problem. Urology training days could be co-ordinated to coincide with rolling theatre closures. This would reduce the number of missed theatre sessions. Coordinating consultant trainer and trainee annual leave to coincide with these theatre closure weeks would also minimise missed training opportunities.

In 2012, theatre closures became more frequent and these are likely to increase in CUH, in many other hospitals across the country and affect other disciplines including anaesthesiology. It is essential that solutions to deficiencies in surgical training are implemented with a focus on quality of training. The cost saving effects of sequential theatre closures may be offset and substantiated by management considering that numerous salaried staff are left unutilised in theatre and the resulting clinical back-log is referred to the Special Delivery Unit (SDU) often in private hospitals. There are several potential solutions to this problem. Urology training days could be co-ordinated to coincide with rolling theatre closures. This would reduce the number of missed theatre sessions. Coordinating consultant trainer and trainee annual leave to coincide with these theatre closure weeks would also minimise missed training opportunities.

Simulation is a tool which could be used to minimise the impact of a reduction in case load on surgical training. Core surgical skills are currently taught via bench-top models. The simulations can be repeated, rehearsed and measured and feedback, re-practice and re-perform surgical skills. Trainees also learn by “modelling” expert practitioners. “Deliberate practice” is essential. Deliberate Practice requires opportunities to practice, perform, receive feedback, re-practice and re-perform surgical skills. Trainees also learn by „modelling“ expert practitioners. Surgery education relies upon both quality of tuition and quantity of training cases. Decreased working hours resulting from the European working time directive (WTD) has reduced exposure to operative procedures. In addition, in Ireland, the National Treatment Purchase Fund (NTPF), whereby long waiting public patients are treated in Private Hospitals, reduces the number of public theatre cases being performed. Surgical trainees and trainers have become increasingly concerned at the impact on training of scheduled theatre closures at CUH. Our aim was to determine the effect of theatre closures on urological surgery activity at the hospital.

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