

Improving day surgery rates of anterior cruciate ligament reconstruction surgery in surgical units not dedicated to performing day surgery

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Abstract

Background and Aims Current guidance advises that at least 90% of anterior cruciate ligament reconstructions are performed as day case operations. Same-day surgery rates achieved by surgical units have significant clinical and financial implications. The primary aim of this multi-centre study was to determine the rate of admission and causes for admissions in patients undergoing anterior cruciate ligament reconstruction. **Method** Patient documentations were studied for those who underwent an elective anterior cruciate ligament reconstruction between January 2015 and April 2019. Contributing factors related to admission length were investigated and included patient age, gender, body mass index (BMI), operating surgeon, operating hospital, American Society of Anaesthesiology (ASA) grade, and position of the patient on the operating list. Both univariate and multivariate analysis was conducted using the STATA/IC 16.1 statistical package. **Results** The day surgery rate of anterior cruciate ligament reconstructions were 52% (50/95). Patients positioned later on the operating list were more likely to be admitted post-operatively (OR = 4.49; $p=0.002$; 95% CI = 1.72-11.69) and this was the only factor associated with admission. A large majority of admitted patients (95.6%) were admitted without a clinical cause and were otherwise safe for same-day discharge. **Conclusions** The day surgery rate for ACL reconstruction remains low, despite an extremely low complication rate. Reconfiguration of the operating lists and positioning anterior cruciate ligament reconstructions earlier in the day will likely increase the same-day discharge rate.

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