

Operating theatre efficiency; there are no time differences between morning and afternoon lists.

Department of Clinical Sciences, Danderyd Hospital
Elin Löfgren
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Supervisor: Jan Jakobsson

Introduction: The operating theatre account for a big part of hospital expenses and is consequently an important target for improvements. Whether the perioperative theatre efficiency differs during the day is uncertain. There has been an internal debate at Danderyd Hospital regarding whether the efficacy is lower during the afternoon.

Aims: The study aimed to detect any difference in anaesthesia and surgery time between morning and afternoon for high volume surgical procedures.

Material and Methods: This observational register study, based on data from the Swedish Perioperative Register, included patients who have undergone primary knee arthroplasty or laparoscopic cholecystectomy at Danderyd Hospital. The primary outcome was anaesthesia and surgery time difference between morning and afternoon lists. Patient time was used as a measure of anaesthesia time. Secondary outcomes included difference in time at post anaesthesia care unit (PACU), differences in time events between gender and annual changes.

Results: A total of 593 knee arthroplasties and 1070 laparoscopic cholecystectomies were analysed. Mean patient time for knee arthroplasties was 3:34±0:38(h:min) for morning procedures compared to 3:36±0:38 in the afternoon, the mean surgery time was 1:39±0:29 compared to 1:40±0:25. Mean time at PACU was longer in the morning (p=0.006). Mean patient time for cholecystectomies was 2:16±0:40 for morning procedures compared to 2:15±0:41 in the afternoon, mean surgery time was 1:09±0:34 compared to 1:12±0:37. The mean time at PACU was longer in the afternoon, p=0.042.

Conclusions: No difference in anaesthesia or surgery time was found between morning and afternoon for either procedure. Further studies are warranted to assess whether theatre efficiency can be further improved.

Keywords: operating theatre, efficiency, time difference, morning, afternoon