Abstract

Laparoscopic cholecystectomy is a common procedure performed in both emergency and elective settings. Our aim was to analyse the trends in laparoscopic surgery in Ireland in the public and private healthcare systems. In particular we studied the trend in day case laparoscopic cholecystectomy. National HIPE data for the years 2010-2012 was obtained. Similar datasets were obtained from the three main health insurers. 19,214 laparoscopic cholecystectomies were performed in the public sector and 4,063 were carried out on private patients in public hospitals. This leaves 9,662 public patients having laparoscopic cholecystectomies in public hospitals over the 3-year period. Of note, the number of procedures performed per year increased by over 400 during this time period, in spite of significant fluctuation in the number of patients seeking laparoscopic surgery in the public sector over the course of the study, with a reduction in length of stay from 4.0 days to 3.46 days (p=0.01). ALOS decreased for each of the private insurers over the same time period. The ALOS was significantly shorter for each of the private insurers as compared with the public sector in each of the years studied (p<0.05 in each case). Rates of day case surgery were low in all healthcare settings for laparoscopic cholecystectomy, with a mere 5.1% of cases performed as day case procedures in the private setting in 2010. This is in spite of the shorter overall ALOS seen in private patients. The number of day case procedures rose in the public setting, both for public and private patients over the study period, increasing to 21.9% and 18% respectively. This is compared with a day case rate of 5.9% in the private sector in 2012, relatively static as compared with 2010.

Discussion

There has been a significant increase in the burden of gallstone disease in Europe in recent years, and given increasing life spans and aging populations, it is likely this trend will continue. There has been a significant increase in the burden of gallstone disease in Europe in recent years, and given increasing life spans and aging populations, it is likely this trend will continue. The rates of laparoscopic cholecystectomy performed in the private system remained relatively static over the study period. This is true both for private patients in public hospitals and for those in private hospitals. Of more interest however is the comparison between day case rates for private patients on each pathway. There was an increase in day care procedures in those treated in public hospitals to a level similar to that seen for public patients. However, the rates of day care procedures in the private system remained low and static. We can speculate that this may be due to a lack of surgical trainees in the private system providing pre-operative and post-operative care to patients and a lack of emergency departments to facilitate the rare cases where re-admission is required. However, this should not be an
Breaking Barriers to Successful Implementation of Day Case Laparoscopic Cholecystectomy

BADS has recommended that 60% of all laparoscopic cholecystectomies can be carried out as day cases. The data from this study has shown that in 2012 the day case rates in public hospitals were 21.9% and 17.5% for public and private patients respectively. The day case rate in private hospitals in 2012 was only 5.9%. This forces us to ask, how do we compare to other health systems and what are the barriers that are stopping us from reaching day case rates of over 60%? The issues that come to mind are; is the correct infrastructure in place? What are the attitudes of healthcare staff and patients towards day case surgery? What can hospitals do to ensure the changes they make are effective and continue to improve? The day case rates for laparoscopic cholecystectomy in the U.K. have been estimated by the BADS. The national median is 39% and the top 25% of hospitals have a day case rate of 54% with the top 5% of hospitals having an impressive day case rate of 65%. In order to provide an effective day case service appropriate infrastructure needs to be in place. Hospitals must have a dedicated day surgery ward and allocated time in theatres for these procedures. Pre-assessment clinics are vital to ensure that only patients who are suitable for DCLC are selected and their preoperative work up is completed prior to their admission. Hospitals must have a discharge plan for patients, as mentioned above nurse led discharge has been shown to be safe. Patients should be discharged based on parameters such as vital signs, pain scores and ability to wash and dress as opposed to strict time limits. Patients should have access to a phone help line and rapid access back to the hospital in cases where there are complications. Along with infrastructure a care pathway for those who need cholecystectomy has been shown to help improve the day case rates.

Changing attitudes is the next most important step in implementing a successful DCLC service. Surgeons need to be aware of the importance of patient selection for DCLC. Selecting only those patients who are suitable will reduce the rate of unexpected admission and hence improve service planning and provision. There still remains understandable doubt amongst many surgeons about the safety of DCLC. The Cochrane review mentioned above has shown that day case surgery is as safe as overnight surgery and as the rate of day case procedures increases surgeons may become more comfortable with making earlier discharges. The attitude of other staff in the hospital towards DCLC is also a factor that can determine success. All ward and theatre staff involved in the care of these patients should understand the goals that are trying to be achieved. Patients should be admitted and taken to theatre in a timely fashion so that they have an adequate recovery period before their discharge in the evening. Patients are the final group whose attitudes need to be addressed. This can start in the outpatient clinics and pre-assessment clinics and patients may even need reassurance right up to the time of their discharge. Patients should also be provided with information leaflets well before their admission for surgery to help them understand the process. In order to maintain high rates of day case surgery each unit needs to continuously monitor and audit their performance. Regular feedback to all those involved is vital to ensure that the service continues to run efficiently.

DCLC has been shown to be as safe as overnight surgery. In the current financial climate there is increasing pressure being placed on hospitals to increase their rate of day surgery. While Irish hospitals have shown an increase in day case rates in recent years we still lag behind our counterparts in the U.K. Improved infrastructure, changing attitudes and continuous audit are vital components required to implement a successful day surgery unit.

References