

Cholecystectomy Quality Improvement Collaborative – Extended Reach (Chole-QulC-ER)

Aim

BACKGROUND: Gallstone related disease accounts for approximately 1/3 of emergency general surgery admissions/referrals; management of these patients varies widely across England. Evidence suggests that treating gallstone disease with Laparoscopic-Cholecystectomy (Lap-Chole) within 8 days of admission is the best approach for many patients. Not delaying lap-chole also has wider benefits including a **significant association with shorter length of hospital stay (1), fewer gallstone related complication (2), fewer costs to the NHS and greater gains in Quality Adjusted Life Years (3).**

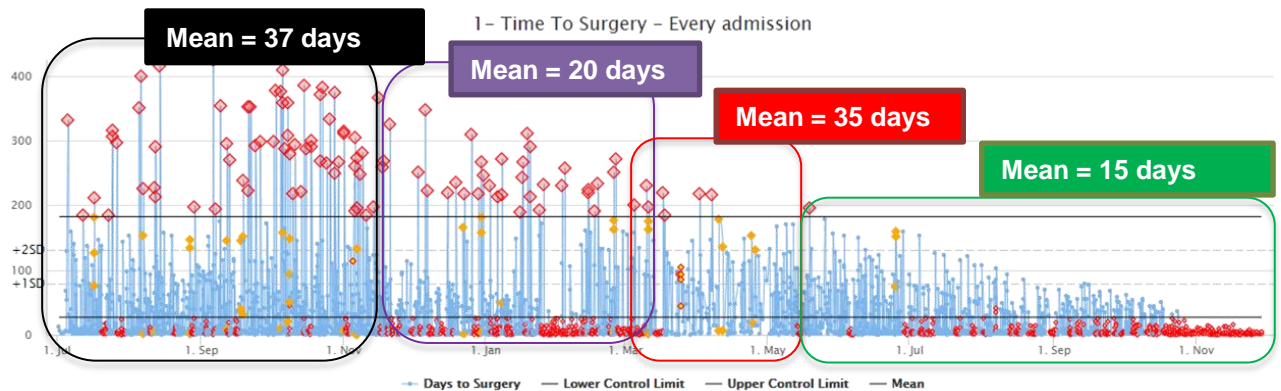
METHODS: Between July 2019 and December 2020, The Royal Bournemouth and Christchurch NHS Foundation Trust, along with 22 other sites, participated in the 'Cholecystectomy Quality Improvement Collaborative – Extended Reach'.

AIM: The overall aim was to **increase the percentage of eligible patients receiving lap-chole within 8 days of presenting at hospitals to 80%**, in line with NICE guidelines (4), using quality improvement methods.

Improvements and measurements

The team tested changes that reduced the time to lap-chole, including introducing a live 'hot list' for patients requiring urgent lap-chole and used urgent slots on elective lists, they also streamlined the processes that lead up to a patient undergoing the surgery.

- **1st improvement measure:** Number of lap-chole performed within 8 days of admission
- **2nd improvement measure:** Average timer to surgery



Outcomes and lessons learnt

The QI improvement methods implemented reduced the amount of time patients waited for a lap-chole:

- **43% of all gallstone patients got surgery within 8 days of admission**
- The **mean time to surgery** for all fit and consenting patients has been **10 days or lower** for the last six months of the program, **reducing to 2 days in the last month (November 2020).**

The team are committed to sustaining the changes, and have developed a sustainability plan which involves embedding the new culture in the system and training all new staff on the process. Learning from staff feedback suggests that for future QI projects, staff would prefer to have allocated improvement time in their job plans, though on the whole this project was well accepted and staff report positive verbal feedback from patients.

REFERENCES: (1) Lyu Y, Cheng Y, Jin H, Jin X, Cheng B, Lu D. Same-admission versus delayed cholecystectomy for mild acute biliary pancreatitis: a systematic review and meta-analysis. *BMC Surgery*. 2018;18(1):111; (2) Zhong F, Wang K, Tan X, Nie J, Huang W, Wang X. The optimal timing of laparoscopic cholecystectomy in patients with mild gallstone pancreatitis: A meta-analysis. *Medicine*. 2019;98(40); (3) Wilson E, Gurusamy K, Gluud C, Davidson BR. Cost-utility and value-of-information analysis of early versus delayed