Background

CholeQuIC-ER launched in July 2019 with the aim of radically improving outcomes for patients with gallstone disease by reducing time to surgery for this patient group. The project expands on the learning from CholeQuIC, the successful 13 site collaborative, where sites demonstrated significant improvement (see associated publications).

The project was due to close in June 2020, however due to COVID-19 and the temporary suspension of laparoscopic surgery, the project has been extended by six months, and we will continue to work with our teams until December 2020.

Prior to COVID-19, 21 of the 23 sites were consistently collecting data and testing improvement ideas within the first 3 months; changes were introduced and improvements with time to surgery were being demonstrated from November 2019 (month 4) – see Chart 1. Laproscopic surgery was temporarily suspended in March 2020 but restarted in May 2020. CholeQuIC-ER teams have restarted their emergency gallstone services and data collection from May onwards and a relaunch webinar was held on 16 June 2020. Sites are making continued improvements, with average time to surgery dropping below eight days. Variation has been reduced and average time to surgery has dropped from 32 days (Jul-Nov 2019) to 6 days in Aug-Sep 2020 – see Chart 2.

Recent communication with CholeQuIC-ER teams

On 22 September 2020, a CholeQuIC-ER progress webinar was held.

19 of the 23 CholeQuIC-ER sites attended the webinar.

1 of the remaining 4 who did not attend articulated their local situation via email.
Chart 1: Average time to surgery – week

1) Ideas (Jul-Nov19)
2) Improvement (Nov19-Feb20)
3) Pause (Mar-May20)
4) Re-start

Chart 2: Time to surgery – every admission

Mean=31.9 days
Overall Mean=23.2 days
Key themes

- **National guidance**
  » At the start of the UK pandemic (March 2020) following the [Intercollegiate General Surgery Guidance on COVID-19](#), most sites stopped laparoscopic surgery. The guidance at the time stated that surgeons should ‘consider laparoscopy only in selected individual cases’ and that ‘where non-operative management is possible and reasonable (such as for early appendicitis and acute cholecystitis) this should be implemented’. Therefore, most sites stopped laparoscopic surgery and managed patients conservatively using drains or antibiotics. The guidance was updated on 30 May 2020 and now supports hospitals carrying out laparoscopic surgery, provided all risks are mitigated against. We recommend the guidance is updated further so it fully endorses laparoscopic surgery as the best treatment for emergency biliary patients, providing that teams mitigate risks, for example using a smoke extraction device, and wearing PPE3.

  » ALSGBI published an updated position statement on 28 September 2020, which supports ‘the use of laparoscopy in cases where there are clear benefit to the patients and where the hospital and theatre resources allow this to be a safe option’.

  » The NHS Clinical Guide to Surgical Prioritisation During the Coronavirus Pandemic has identified ‘cholecystectomy - post acute pancreatitis’ as Priority 3 surgery that can be delayed for up to 3 months and ‘cholecystectomy - after biliary colic/ cholecystitis’ as Priority level 4 surgery that can be delayed for more than 3 months, all national and international guidelines advocate emergency surgery within 72 hours as the optimal treatment1. We recommend that the ideal treatment is within 72 hours and therefore the priority should be re-graded to priority level 1b Urgent (operation needed with 72 hours).

- **Acute gallbladder services**
  » As a result of the change in guidance all sites have restarted their acute gallbladder services and are carrying out laparoscopic cholecystectomies.

  » The relaunch webinar of 16 June 2020 helped facilitate this for some sites, as did emails exchanged with the project team.

- **In-patient emergency laparoscopic surgery**
  for most centres is the best way to treat this patients group, which links in with the project aims, as ideally patients should have their cholecystectomy on their first admission. We know that patient outcomes are improved by reducing their total exposure time in hospital. So where possible emergency patients presenting with acute biliary pain should have a laparoscopic cholecystectomy straight away as they can be sent home the following day.

- **Alternatively, acute patients could be treated electively.** Most units have restarted their elective surgery, however they have different local arrangements around self-isolation and testing. As well as this, many sites having long waiting lists. For some sites elective surgery is less feasible. Therefore, their default position is to keep fit and consenting acute patients in hospital, operate on them quickly and then send them home, rather than discharging them, as the patient may have to self-isolate or be added to a long waiting list.

  » Many sites are in the process of prioritising their elective waiting lists.

- **Equipment used to mitigate risks**
  » All sites are using PPE.

  » Most centres are using a filtration device, the most popular being CONMED’s AirSeal or Stryker’s device.

  » Most sites are no longer using a minimisation of energy devices.

- **Trainees have commenced carrying out laparoscopic surgery.**

- **Capacity at hospitals**
  » Some teams no longer have access to hospitals they had access to previously, as they have become COVID-19 centres and in one case, one hospital has become the regional Nightingale hospital.
• **Access to theatre**
  » Many sites have lost their weekly lists that were ring-fenced for cholecystectomies.
  » Some sites have found that CEPOD lists have been less busy due to an overall reduction in surgery due to the pandemic, they have therefore utilised these lists to carry out cholecystectomies.
  » Sites have been working hard to ensure they take advantage of any empty slots for example if a patient cancels an operation. Good communication with colleagues has been key to ensuring this process works smoothly.

• **Utilisation of private hospitals**
  » Some sites still have access to private hospitals to carry out laparoscopic cholecystectomies, while others are negotiating contacts and hope to have access to lists shortly.

• **Capacity of surgical team**
  » Many sites have experienced staff shortages due to sickness, and staff having to self-isolate or shield.

• **Patient stories**
  » Some sites reported that during the period they suspended laparoscopic surgery some patients were fitted with drains and they were very difficult to manage and reminded staff why patients with acute gallbladder disease should have laparoscopic cholecystectomies.

• **Patient expectation**
  » One site reported that there has been a change in patient expectations and that many patients are less willing to have surgery and would prefer their condition to be treated conservatively.

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**In summary**

- Many trusts have moved to a default position of carrying out in-patient emergency laparoscopic cholecystectomies.
- Capacity has been reduced and CEPOD is often the main opportunity for teams to carry out cholecystectomies. Excellent communication, both within teams and with other specialties, is key to ensuring that these limited opportunities are utilised.
- Real time data collection is an excellent tool to show to improvement.
- Using a patient story can also be very powerful and change attitudes and practice.

**Next steps**

- We will continue to work with sites to help them to continue to implement changes that will lead to improvement at their site; these changes will be dependent on their local context and unique set of challenges.

**Recruit sites for Chole-QuIC3**

- Due to success of Chole-QuIC and CholeQuIC-ER we will be running a third collaborative that will aim to reduce variation and improve the quality of care for patients with acute gallstone disease.
- Recruitment is open, and the project will launch in 2021.
- We encourage sites that are interested in joining to email: cholequic@rcseng.ac.uk
- For more information, please visit: www.rcseng.ac.uk/cholequic3

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