

The Clinical Impact of a Direct Referral Pathway for Laparoscopic Cholecystectomy - A Quality Improvement Project

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Aims

For patients with acute cholecystitis, laparoscopic cholecystectomy is recommended (NICE QS104):

- Within 1 week of diagnosis
- >4 weeks after diagnosis if not performed within 1 week

This project reports on the impact of implementing a direct referral pathway (eTCI) for laparoscopic cholecystectomy for ambulatory biliary colic pathway patients in a district general hospital.

Methods

Criteria for a direct eTCI was introduced in August 2018

Patients included:

- 12 months before introduction (Pre-Group)
- 12 months after introduction (Post-Group)
- Included if they met the direct eTCI criteria

Criteria and eTCI booking procedure displayed in both the emergency department (ED) and ambulatory care unit (ACU) (Figure 1 below)

Biliary Colic Pathway

Criteria for direct listing

- Clinical presentation consistent with biliary colic
- Normal LFT
- USS confirms gallstone(s), normal CBD and IHDs
- BMI ≤ 35
- No significant co-morbidities, i.e. suitable for day case
- No previous laparotomy
- Patient information leaflet given
- Consent obtained

eTCI

- Choose one of the gallbladder surgeons on top of eTCI form (ATS/BK/KSS/PT/RMA/SLO/SLU)
- Select "Pool" for operating list
- Procedure title: Laparoscopic cholecystectomy +/- operative cholangiogram
- Operative duration minimum 90mins

Demographics, time from first presentation to eTCI and operation, outpatient referrals, ED or ACU reattendance, and readmission rates were recorded

Results

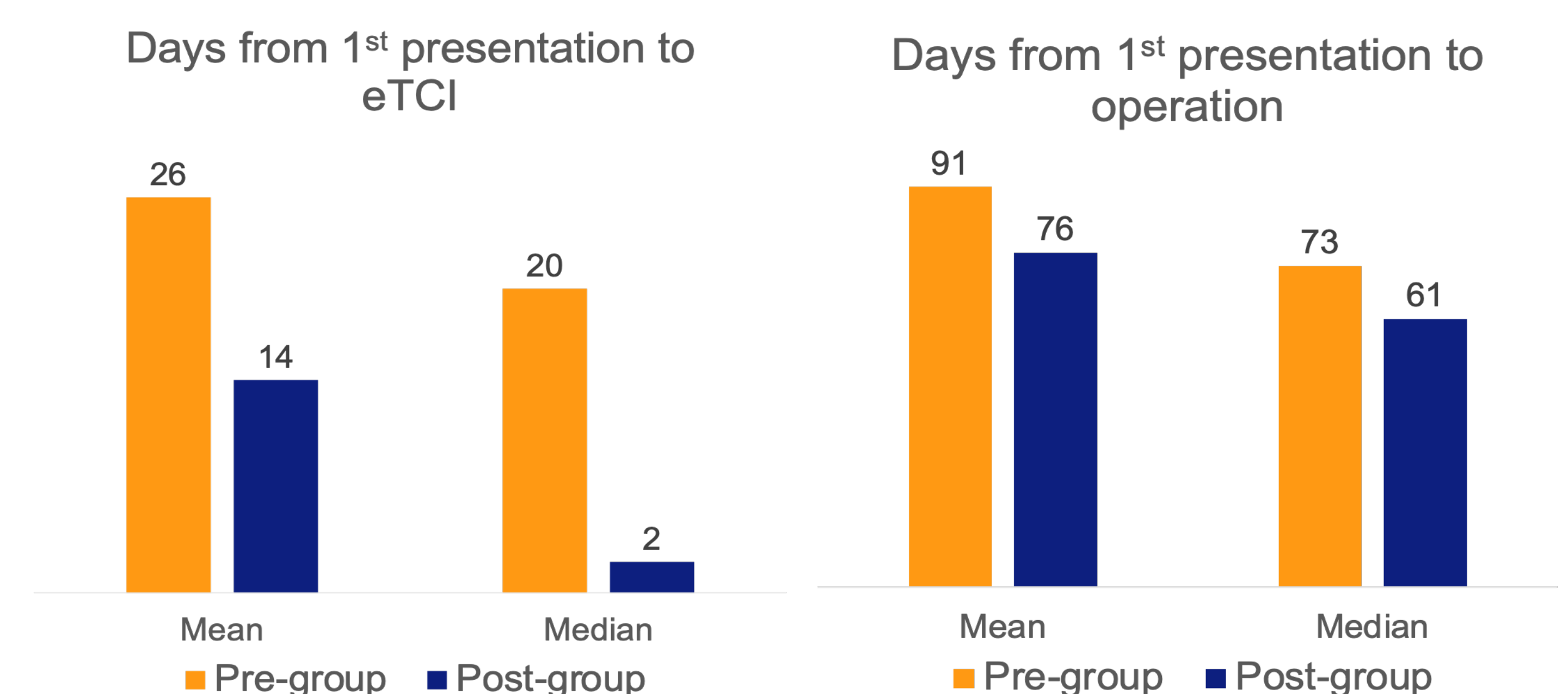
Pre-group: 24 patients (33% male, mean age 42 years)

Post-group: 41 patients (17% male, mean age 46 years)

Post-implementation (* = significant p-values):

- Mean number of days from first presentation to eTCI significantly decreased from 26 to 20 ($p = 0.0396^*$)
- Mean number of days from first presentation to operation decreased from 91 to 73 days ($p = 0.106$)

Figure 2: Number of days from first presentation to eTCI and operation



- Referrals to gallbladder surgeons and upper gastrointestinal surgical clinics significantly decreased from 58.3% to 19.5% ($p = 0.001^*$)
- Readmittance rate significantly decreased from 29.2% to 2.4% ($p = 0.002^*$)
- Reattendance rate to either ED or ACU decreased from 16.7% to 9.7% ($p = 0.413$)

Table 1: Referrals, reattendances in ED/ACU, and readmissions

	Pre-group (n=24)	Post-group (n=41)	P-value
Referral to UGI clinics, no. (%)	14 (58.3)	8 (19.5)	0.001*
ED/ACU reattendance, no. (%)	4 (16.7)	4 (9.7)	0.413
Readmission, no. (%)	7 (29.2)	1 (2.4)	0.002*

Conclusion

The direct eTCI is a safe and effective criteria-driven pathway which has reduced:

- Time to adding patients to the waiting list
- Waiting list time for laparoscopic cholecystectomies
- Referral to gallbladder surgeons and UGI clinics
- ED/ACU reattendance and readmission rates before operation

Demand on emergency and outpatient departments has been reduced, leading to overall cost savings and better quality of care