Modified framework for the management of Acute Gallstone Disease during the COVID-19 pandemic

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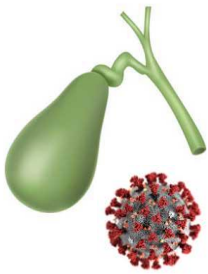

Introduction: **12/03/2020:** World Health Organization declared SARS-CoV-2 a "Global Pandemic"[1]. Subsequent advice from Public Health England, Royal College of Surgeons and NHS to stop all non-emergency surgery, advocating conservative management of acute surgical patients where possible [2].

NICE CG188: patients with acute cholecystitis should undergo Laparoscopic Cholecystectomy (LC) within 1 week of diagnosis for acute cholecystitis and during same admission for mild Gallstone Pancreatitis[3].

Methods: Data was collected of all patients presenting with Acute Gallstone Disease between 23/03/2020-16/08/2020 at Chelsea & Westminster Hospital, and prioritised using our Modified Framework (Figure 2). Patients with mild gallstone pancreatitis, severe cholecystitis (+/- cholecystostomy) and choledocholithiasis were classified as "Urgent" - to undergo Laparoscopic Cholecystectomy during the Recovery phase; those with moderate acute cholecystitis as "Expedited" and Biliary Colic as "Routine" to take place during the "Resolution" phase as theatre capacity increased.

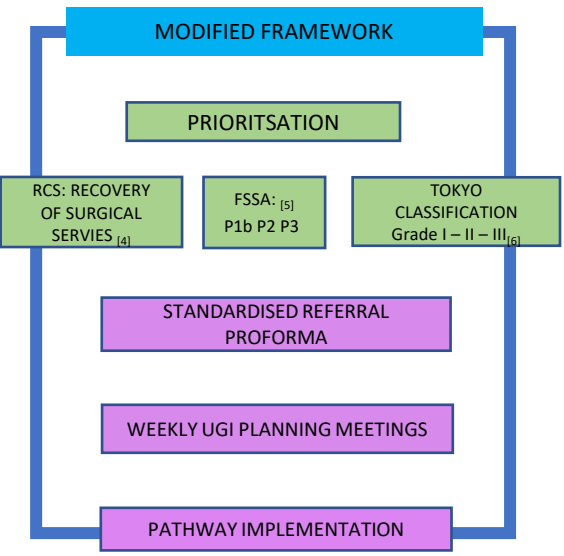

Figure 1: *An outline of the Modified Gallbladder Pathway, including component parts of the Prioritisation process, and subsequent implementation process.*

Results: A total of 78 patients were collected during the pandemic, 68 were for surgical intervention 25 "Urgent", 12 "Expedited" and 31 "Elective". 11 re-presented whilst awaiting operative treatment (16%), majority being "urgent" patients (36%) or those with cholecystostomies (45%) – none of whom were critically unwell. During the "Recovery Phase" (02/06/20-06/07/20) 10 LC's were completed in emergency theatres; with 21 in the "Resolution" Phase (07/07/20-18/08/0) following pathway implementation on dedicated theatre lists. The average waiting time from "Decision to operate" to LC by priority was; "Urgent" 76 days (1-296); "Expedited" 101 days (2-275); "Elective" 119 days (5-261).

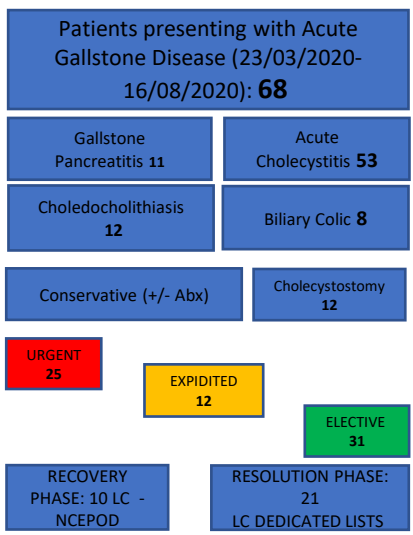

Figure 2 *An overview of the management pathway of patients presenting with Acute Gallstone Disease during the COVID-19 pandemic*

Discussion: The observed increased re-presentation of patients with cholecystostomy reflect s the well-described pit-falls in conservative management of acute gallstone disease, further emphasising the importance of a system enabling timely surgical intervention. Our modified framework enabled case prioritisation, efficient resource allocation and safe care of patients with Acute Gallstone Disease navigating the constantly changing guidelines within the "First Wave" of the pandemic, subsequent restructuring of services, into the "Second Wave" and beyond. This is also in line with the latest RCS report calling for prevention of further disruption to surgical services suffered in the first wave, by proving a clear, evidence-based, effective pathway [7].

REFERENCES: **[1] WHO [2] RCSED**: Clinical guide to surgical prioritisation during the coronavirus pandemic - Update 8 June 2020. **[3]NICE** CG118: *GALLSTONE DISEASE: DIAGNOSIS AND MANAGEMENT OF CHOLELITHIASIS, CHOLECYSTITIS AND CHOLEDOCHOLITHIASIS.* **[4]RSC:** *RECOVERY OF SURGICAL SEVICES.* **[5] FEDERATION OF SURGICAL SPECIALITY ASSOCIATION**: *CLINICAL GUIDE TO SURGICAL PRIORITISATION DURING THE CORONAVIRUS PANDEMIC.*
[6] TOKYO GUIDELINES 2018: DIAGNOSTIC CRITERIA AND SEVERITY GRADING OF ACUTE CHOLECYSTITIS. **[7] RCS:** Protecting surgery through the second wave .