

### P-BN29 Laparoscopic cholecystectomy during the era of a Covid-19 pandemic; a cohort study

Sian Davies, Nadar Ghassemi, Ning Yi Lo, Sneha Rathod, Alex Carney, Alyssa Ralph, Bravean Kulendrarajah, Tejinderjit Athwal, Chandra Cheruvu  
UHNM, Stoke-on-Trent, United Kingdom

**Background:** The Covid-19 era has created a lot of uncertainty for management of common emergency and elective surgical conditions such as acute cholecystitis and other gallstone disease related emergency admissions. At our centre we continued to provide early operative intervention for patients presenting with biliary disease and acute cholecystitis throughout the Covid-19 era during both the 1<sup>st</sup> and the 2<sup>nd</sup> waves, despite a significant local surge in Covid-19 hospital admissions impacting on the available resources. Here we present the outcomes of our experience of managing such patients during the Covid-19 pandemic of 2020 of both 1st and 2nd waves.

**Methods:** A retrospective observational study was performed on all patients presenting with acute cholecystitis and biliary disease who underwent elective and emergency surgical intervention at UHNM (University Hospital of North Midlands) during the second wave of the Covid pandemic (2<sup>nd</sup> CW) between 14/10/2020 and 14/01/2021). These were then compared with patients who presented in the first Covid wave (1<sup>st</sup> CW) of 1/03/2020 – 30/06/2020, and a control group pre-covid (CG) 1/03/2019 – 30/06/2019, Patients were identified using ICD-10 codes K80 (Cholelithiasis) and K81 (Cholecystitis) and OPCS codes J18.1 – J18.5. Primary endpoints were length of stay, 30 day readmission rates, mortality and morbidity.

**Results:** A total of 146 patients were identified who underwent laparoscopic cholecystectomy during the study time period (2<sup>nd</sup> CW). In comparison to 104 patients during the first covid wave cohort (1<sup>st</sup> CW) and the control group (CG) of 217 patients in the preceding non covid year. Length of stay (LOS) was significantly lower in the 2<sup>nd</sup> CW cohort in comparison to both the previous 1<sup>st</sup> CW cohort and the CG cohort ( $p < 0.0001$ ), with readmissions also being statistically lower (5% vs 15% and 12% respectively  $p = 0.027$ ). There was no statistical difference in outcomes for post-operative complications as per Clavien-Dindo classification.

**Conclusions:** Overall our study demonstrates that the recommended good practice of early surgical intervention in both emergency and elective gallstone disease can continue during the pandemic periods without any significant impact on patient care & outcomes. Also during this period length of stay was significantly shortened and lower 30 day readmission rates which are likely to be multifactorial but where lessons could be potentially learnt.