designing effective PA/exercise interventions in this patient population to ensure maximum uptake and adherence.

PWE-20 PERCUTANEOUS CHOLECYSTOSTOMY RATES ARE INCREASED FOLLOWING COVID-19 INDUCED DISRUPTION TO ELECTIVE SURGICAL PATHWAYS

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Introduction The COVID-19 pandemic has led to major service disruptions, including the cessation of elective laparoscopic cholecystectomies (LC), causing delays in managing symptomatic gallstones. We hypothesised that this would lead to an increased need for percutaneous cholecystostomy (PC) for acute cholecystitis.

Methods We performed a retrospective cohort study in a single NHS trust. We included all patients who underwent either LC or PC during the periods of March 1st – August 31st over the years 2019 and 2020. Patient data was obtained from prospectively maintained patient electronic notes. Data are presented as median and interquartile ranges for continuous data and the percentages for categorical data and compared with Mann-Whitney U-test and Fisher's exact tests respectively.

Results We observed a substantial reduction in the number of LC performed in 2020 (n=99) compared to 2019 (n=198), whilst the number of PC performed in 2020 (n=35) was more than double that in 2019 (n=17) (Figure.1). This increase in numbers persisted even after our LC service was restarted. Comparing the patients who underwent PC in both

years, there were no significant differences in age (2019: 68 (45-76) vs 2020: 72 (57-81), $p=0.41$), comorbidities (Charlson comorbidity index ≥ 4 : 10 (59%) vs 16 (46%), $p=0.56$), or in-hospital mortality (2019: 2 (12%) vs 2020: 3 (9%), $p=0.99$).

Conclusions These results show how the cessation of LC service was directly related to increased numbers of invasive 'damage control' procedures for acute cholecystitis, emphasising the importance of maintaining COVID-secure surgical pathways. The numbers of PC remained high even after the restart of LC service, consistent with a 'COVID shadow' resulting from interruptions to elective services that impacts patient care for a prolonged period.

PWE-21 HEPATOCELLULAR CARCINOMA SURVEILLANCE: ULTRASOUND IMAGE QUALITY AND IMPLEMENTATION OF THE US LI-RADS CLASSIFICATION

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Introduction 6-monthly ultrasounds (US) are offered for hepatocellular cancer (HCC) surveillance in at-risk populations. US image quality is variable, depending on patient and liver parenchymal factors, as is reporting of findings. The aim of this audit was to examine reporting practice in our institution, and the proportion of compromised surveillance ultrasounds in our large surveillance cohort.

Methods Electronic records for 50 patients with established cirrhosis undergoing HCC US surveillance were interrogated. The three most recent US were reviewed for reporting of image quality and limitations. Images from a single surveillance visit were then retrospectively reviewed and scored according to the US LI-RADS criteria by two Consultant Radiologists with more than 10 years' experience reporting abdominal US, with a third, consensus read to resolve disagreement.

Results Patients had a mean age of 66 (range 47-84; 16 females, 34 males). Mean surveillance duration was 5 years. All patients had established diagnosis of cirrhosis, most commonly due to non-alcoholic steatohepatitis (NASH) (44%) or alcoholic liver disease (38%). 94/149 (63%) reports commented on quality of images or views. Terminology used for quality reporting were inconsistent amongst reporters. 25/94 (26%) reports used terminology suggesting good or acceptable views and 16/94 (17%) suggested significant limitation to views. The most common reasons cited for poor views were body habitus and overlying bowel gas.

Using US LI-RADS, 47 (94%) patients were classified US-1 (negative), one (2%) patient US-2 (subthreshold) and two (4%) patients US-3 (positive). For image quality, 21 (42%) patients were classified US-A (no limitations), 23 (46%) patients US-B (moderate limitations) and 6 (12%) patients US-C (severe limitations). As expected, there were a higher proportion of severely compromised (LI-RADS US-C) examinations in patients with NASH cirrhosis vs non-NASH cirrhosis (22.7% vs 3.6%; $p=0.075$).

Discussion There was significant variability in US image quality reporting and terminology. Consistent with prior studies of HCC surveillance in Western populations, a significant proportion of patients had severely limited image quality, most

PERCUTANEOUS CHOLECYSTOSTOMY

Abstract PWE-20 Figure 1 Percutaneous cholecystostomy

marked in patients with NASH cirrhosis. Implementation of US LI-RADS at our institution, will standardise reporting and will aid decision-making for clinicians who may wish to consider alternative surveillance imaging, particularly in patients with severely limited US examinations.

PWE-22 ON THE CLIF EDGE: PREDICTING MORTALITY IN ACUTE ON CHRONIC LIVER FAILURE ON INTENSIVE CARE

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Introduction Acute-on-Chronic Liver Failure (ACLF) is an acute hepatic decompensation with organ failure in a patient with cirrhosis¹. It is characterized by a severe systemic inflammatory response and is associated with high short-term mortality and significant morbidity². CLIF-C ACLF is a physiological scoring system, derived from the largest internationally agreed registry, used to grade the severity of ACLF. This may be used to predict mortality and guide acute management, including consideration of orthotopic liver transplantation.

Methods We retrospectively collected data on patients admitted to our Intensive Care Unit (ICU) with ACLF between January 2016 and September 2018. Patients were identified from our online critical care database and case notes were obtained, where possible, from our medical records for analysis. We retrospectively calculated CLIF-C scores for patients at the time of admission to ICU and 48 hours later. Other data collected included the cause of patients' cirrhosis, ICNARC scores, length of hospital and critical care admission and patient outcomes.

Results Data on 23 patients were analysed from this period; 11 had a new diagnosis of cirrhosis during their acute admission and 12 were previously diagnosed; Alcoholic Liver Disease was the most common cause of cirrhosis (65%). Mean CLIF-C scores at admission and 48 hours were 61/62 respectively with predicted mortality of 64% at 1 month and 85% at 12 months. 11/23 (48%) died during admission and 12/23 (52%) survived to discharge; 2 of the patients who survived died within the following 12 months, increasing our observed 12 month mortality to 57%. Patients who died had higher CLIF-C scores than those who survived (mean 62/66 vs. 60/59), with a greater degree of observed organ dysfunction and longer critical care admission (7 days vs. 5 days), however these findings were not statistically significant.

Conclusions CLIF-C scores were not shown to accurately predict patient outcome in this analysis; the observed 12 month mortality of 57% was markedly lower than the predicted mortality (85%) using this scoring system. There was, however, some correlation between higher predicted mortality and actual mortality. Pre-existing cirrhosis, longer times from hospital admission to ICU admission and higher ICNARC scores were also associated with worse outcomes. Further studies with a larger sample size are warranted to assess the utility of CLIF-C ACLF in patient prognostication and to inform critical care management.

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PWE-23 LIVER TRANSPLANT FOLLOW UP APPOINTMENTS IN SECONDARY CARE: COSTS AND THE PATIENT EXPERIENCE

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Introduction The 2020 BSG Adult liver transplantation guideline suggests that most patients can be discharged from tertiary to secondary-care services 3 months post-transplant¹. Despite this recommendation many patients remain under tertiary care follow up for many years.

As virtual clinics become more ubiquitous the barriers to patients accessing tertiary care services may reduce but some issues still need face to face contact. Liver transplant is a high cost intervention at £21,000-£48,000 per quality adjusted life year². Therefore, it is important to assess post-transplant costs, quality of care and quality of life in transplant patients followed up solely in secondary care in a district hospital over a 20 year period.

Method The EQ5D-5L quality of life tool³, clinic experience and travel costs questionnaires were sent to 30 patients, who had received a liver transplant and were under local follow up. Data on the number of local follow up clinic appointments that these patients had attended was also collected.

Results 25 patients responded. There EQ5D-5L scores are shown in table 1.

The combined mean EQ5D-5L tariff was 0.78; which is comparable to the data published by *Bryan et al.*, from the Queen Elizabeth and Royal Free Hospitals (EQ5D tariff 0.77)⁴.

The clinic experience questionnaire showed high levels of patient satisfaction with their secondary care follow up appointment, across all domains.

The travel costs for those patients who did not benefit from NHS patient transport services spent on average £36 more to attend clinics at tertiary care as opposed to the secondary care settings. For this cohort to receive follow up exclusively in tertiary care would, on average, equate to personal travel costs of £1158.34 to date.

Conclusion This study finds that patients who receive secondary care follow up after liver transplant have high levels of satisfaction with their clinic appointments and good quality of life. They also benefit from a significant reduction in travel time and costs.

Even in an era of increasing utilisation of virtual clinics, tertiary follow up offers no clear benefit to the patient and may increase costs to the patient and/or health service as a whole. Secondary care follow up of the post-transplant patient

Abstract PWE-23 Table 1 Percutaneous cholecystostomy

Table 1.	Mobility	Self-care	Usual activities	Pain/Discomfort	Anxiety/Depression
1	56% (n=14)	96% (n=23)	48% (n=12)	48% (n=12)	52% (n=13)
2	24% (n=6)	8% (n=2)	24% (n=6)	16% (n=4)	32% (n=8)
3	12% (n=3)	0% (n=0)	24% (n=6)	32% (n=8)	12% (n=3)
4	8% (n=2)	0% (n=0)	4% (n=1)	4% (n=1)	4% (n=1)
5	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)