procedure it can be helpful to decompress the gallbladder by aspirating its contents. The benefit of gallbladder aspiration in the elective setting is however unclear.^{1,2} It is important to be aware of the likely microflora of bile in patients undergoing emergency cholecystectomy to facilitate the use of appropriate targeted antibiotics. The aim of this study was to establish the prevalence of intraoperative gallbladder aspiration during acute cholecystectomy and to determine the microflora after microscopy and culture.

Methods A retrospective analysis of patients who underwent emergency cholecystectomy for acute cholecystitis over an 18-month period (July 2010 to January 2012) identified from PAS data. Cross referencing with microbiology electronic database for microscopy and culture findings from gallbladder aspiration samples.

Results 124 patients (36 male, 88 female, age range 18–90 years) underwent cholecystectomy during the study period. 29 (23.4%) patients underwent intraoperative aspiration of gallbladder contents, of which 20 (69.0%) had no organisms seen at microscopy and 14 (48.3%) grew no organisms after incubation in culture medium. Abstract PTU-088 table 1 outlines the organisms isolated in the remaining 15 patients; four grew an isolated organism and 11 grew more than one organism and also details the antibiotic profile following culture.

Abstract PTU-088 Table 1 Microorganisms isolated after culture of gallbladder aspirates and antibiotic profile (S = sensitive, R = resistant)

	Frequency	Antibiotic							
		Amoxicillin		Augmentin		Tazocin		Gentamicin	
		S	R	S	R	S	R	S	R
<i>E coli</i>	15	2	10	8	5	12	2	6	0
<i>Klebsiella pneumonia</i>	4	0	4	5	0	5	0	3	0
<i>Enterococcus faecalis</i>	3	3	0	0	0	0	0	0	0
<i>Enterobacter cloacae</i>	2	0	1	0	2	2	0	0	0

Conclusion In order to facilitate emergency cholecystectomy for acute cholecystitis it is often necessary to decompress the gallbladder by aspirating its contents. In our case series this was necessary in 23% of patients. Almost half of aspirates were found to be sterile. In the remainder, the most common organism isolated after culture is *Escherichia coli*, which is usually resistant to amoxicillin, but sensitive to tazocin. However, the sensitivity of *E coli* to augmentin is less clear and surgeons should be aware of this when initiating antibiotic prophylaxis for acute cholecystitis.

Competing interests None declared.

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PTU-089 NATIONAL STUDY OF OUTCOMES FOR CHOLANGIOCARCINOMA PATIENTS FOLLOWING BILIARY ENDOSCOPY: LINKAGE ANALYSIS OF ADMINISTRATIVE DATA FOR ENGLISH HOSPITALS (2006–2008)

doi:10.1136/gutjnl-2012-302514c.89

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Introduction Cholangiocarcinoma (CC) is a rare and challenging cancer with poor prognosis and low operative rate. Early successful

biliary drainage is a key determinant of outcome and ERCP is the primary modality. It is unclear whether current care organisation for CC is optimal. We report a national study aimed at describing outcomes for all patients undergoing ERCP for CC in English hospitals and volumes at cancer networks and institutions.

Methods We built on linkage methods applied to overall ERCP mortality¹ to develop new techniques to map the entire pathway of hospital care for incident cases of CC. 2 years of Hospital Episode Statistics (HES) data were merged (2006–2008) and admissions screened for CC diagnosis. To identify a 1-year incident cohort of CC, we selected only patients with first cancer coding in middle year (October–September), then extracted all admissions within 6 months (before and after) of first cancer coding, ordered chronologically, screened for ERCP, radiological intervention (PTC) and major surgery codes. Identified first and subsequent procedure dates, admission diagnoses and co-morbidity. Linkage to death registry for death date. Cases allocated to cancer networks using provider codes.

Results Nationally, 1211 CC patients underwent ERCP with mean age (SD) of 72 (12) years and 623 male (51.4%). First ERCP was performed during an acute (emergency) hospitalisation in 690 cases (57%). **ERCP case volumes** for CC ranged from 7 to 79 patients per Cancer Network and 1–57 patients per Trust (n=146 institutions). **Outcomes (post-first ERCP): Mortality:** 7 day [40 (3.3%); 30 day: 172 (14.2%); 365 day: 781 (64.5%). **Emergency readmission:** 7 day: 110 (9.1%); 30 day: 252 (20.8%). **Additional PTC:** 213 (17.6%) with poorer 365 d survival in those needing both (ERCP alone: 64.5% vs ERCP+PTC: 73%, p=0.013, non-surgical cases only). Patients requiring first ERCP during an acute hospitalisation had poorer prognosis than those on elective pathway (Log rank, p<0.001). 365 day mortality for surgical 42.4% vs non-surgical 66.2% (p<0.001).

Conclusion First endoscopic intervention for this rare form of cancer is undertaken in most English hospitals, often during acute hospitalisation. There is wide variation in institutional case load. These data provide a potential tool for exploring variation in relation to local or network service provision and organisation.

Competing interests None declared.

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PTU-090 TYPE 2 DIABETES AS A POSITIVE RISK FACTOR IN THE AETIOLOGY OF CHOLANGIOCARCINOMA: A CASE-CONTROL STUDY IN TWO UK CENTRES

doi:10.1136/gutjnl-2012-302514c.90

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Introduction The incidence of cholangiocarcinoma has increased worldwide with the mortality still remaining high. The aetiology in Western populations is largely unknown, but diabetes may be involved by influencing the neoplastic process via hyperinsulinaemia and the stimulation of the IGF-1 axis. As there are few population based studies looking at this, the aim of this study was to investigate if there is a positive association between type 2 diabetes and the development of cholangiocarcinoma in two centres in the UK. As oral hypoglycaemics may have anti-cancer properties, these drugs were considered when assessing the effect of diabetes.