study was to assess the role of Anaerobic Threshold (AT) in cardiopulmonary exercise testing (CPET) as an independent predictor of outcomes in patients undergoing repair of AAA.

**Methods:** An analysis of a prospectively collected data of elective AAA patients. Peri-operative parameters & outcomes were recorded. Primary end point was 30 day mortality. Intergroup analysis (alive vs. dead) was performed using SPSSv16.0.

**Results:** 30 patients [26men; median age 75years (IQR: 68-78)] were included in the study. Median Anaerobic threshold was 12.67ml/min/kg (IQR: 8.6-16.42). Median hospital stay was 7 days (IQR: 5-12), post operative complications were observed in 10 % (n=3) and mortality rate was 7 % (n=2).

**Inter-group Analysis:** There was a significant difference (P=0.042) between the two groups in the AT [median AT, Alive: 12.76ml/min/kg (range: 5.52-22.37), Dead: 6.67ml/min/kg (range: 6.08-7.26)]. However, there was no statistically significant difference between the two groups for basic demographics, co-morbidities and pre-operative medications.

**Conclusion:** Anaerobic threshold in cardiopulmonary exercise testing may be used as an independent predictor of outcome in patients undergoing AAA repair. Further studies are required to validate its role as an independent predictor of morbidity & mortality in patients undergoing repair of Abdominal Aortic Aneurysm.

0549. A CASE CONTROL STUDY OF IDENTIFICATION OF RISK FACTORS AFFECTING PERI-OPERATIVE MORTALITY IN PATIENTS UNDERGOING OPEN REPAIR OF ABDOMINAL AORTIC ANEURYSM

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**Introduction:** Pre operative risk assessment is important in patients undergoing major vascular surgery. The aim of this study was to identify factors influencing 30 day mortality in patients undergoing Abdominal Aortic Aneurysm (AAA) repair.

**Methods:** A retrospective case control study was performed. List of patients who underwent elective open AAA repair between January 2005 and December 2009 was obtained from departmental database. All patients with 30 day mortality were included and matched in 1:3 ratio, with alive patients. Peri-operative parameters & outcomes were recorded for all patients. Statistical analysis was performed using SPSSv16.0.

**Results:** 20 patients [19male; mean age: 74(SD:6.33)] with 30 day mortality were identified and matched to 60 live consecutive controls [52male; mean age:73(SD: 6.11)]. Risk factors associated with 30 day mortality were: Previous MI [OR:3.33 (95%CI:0.91-11.70)]; Diabetes [OR:3.5 (95% CI:0.89-13.26)]; Chronic renal failure [OR:19.67(95% CI:1.19-945)]; Pre-operative investigations associated with mortality were: Abnormal ECG [OR:4.45(95%CI:1.29-15.20)]; Raised creatinine [OR:4.85(95% CI:1.15-20.30)]; AAA AP diameter on CT scan; median 6.25cm(IQR: 5.8-6.8) compared to control 5.6cm(IQR:5.5-6.2)[P=0.009]; Peri-operatively, supra-renal clamping, had a significant associated mortality [OR: 4.33(95% CI:1.14-16.12)].

**Conclusions:** Pre-operative assessment and optimisation should be performed to reduce 30 day mortality after open AAA repair.

0550. NEW ONSET ATRIAL FIBRILLATION AFTER CARDIAC SURGERY: ROLE AND EFFICACY OF DC CARDOVERSION

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**Aim:** Atrial fibrillation (AF) affects 1/3 of patients after cardiac surgery and is often treated with DC cardioversion (DCCV). However, little is published on DCCV in this setting. We investigated the role and efficacy of DCCV in treating AF after cardiac surgery.

**Methods:** Patients who received DCCV after cardiac surgery over 4 years were identified. A pre-determined dataset was collected from patient records and analysed using SPSSv16. Results were considered significant at 5%.

**Results:** We identified 254 patients (mean age 71). Median onset of AF was post-operative day 3. All patients received medical treatment for AF. DCCV was successful in 85%. 87% remained in sinus rhythm at discharge. A greater proportion of patients on digoxin (97%) were restored to sinus in comparison to those on amiodarone (82%).

Patients cardioverted with one shock were more likely to stay in sinus than those needing more shocks (Odds Ratio 6.09). No adverse events were attributed to DCCV. At follow-up, 88% of successful DCCV remained in sinus.

**Conclusions:** DCCV is effective in reverting AF to sinus rhythm after cardiac surgery, and up till follow-up. Successful DCCV avoids the need for anticoagulation. We recommend early DCCV for the treatment of AF after cardiac surgery.

0554. LAPAROSCOPIC MANAGEMENT OF SYMPTOMATIC DUODENAL DIVERTICULUM BY DISTAL GASTRECTOMY AND GASTROJEJENOSTOMY FORMATION


**Introduction:** The incidence of duodenal diverticulum (DD) ranges from 6 to 23%; the majority are asymptomatic and thus identified incidentally. Approximately 25% are symptomatic; presentation is usually non specific, including intractable abdominal discomfort, recurrent vomiting, steatorrhea and or weight loss. Associated complications of DD include pancreatitis, jaundice, duodenal obstruction, bleeding and or perforation. Surgical treatments within the literature include diverticulectomy, duodenal resection, and diverticular inversion.

**Material:** This report outlines the management of two cases of DD presenting with similar symptoms. Both cases underwent laparoscopic intervention; the first receiving an initial Polya gastrojejunostomy; symptom persistence called for revision surgery and conversion of Polya to Roux enY with subsequent distal gastrectomy. The second case underwent Polya and distal gastric transection.

**Results:** Both cases progressed well postoperatively; no direct complications occurred as a result of the bypass surgery and follow up revealed full resolution of the initial presenting symptoms.

**Conclusion:** DD can be successfully and safely treated via laparoscopic gastrectomy or gastric transection with gastrojejunostomy formation; reducing the complications and high mortality that follows more definitive DD excision. Associated morbidity including duodenal strictureing and damage to the ampulla of Vater with subsequent altered bile drainage are further minimized by leaving the DD insitu.

0555. READMISSION RATES WITH GALLSTONE COMPLICATIONS PRIOR TO CHOLECYSTECTOMY

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**Introduction:** Laparoscopic cholecystectomy is one of the most commonly performed operations in the UK. Patients can be admitted numerous times with gallstone complications prior to cholecystectomy. A review of practice at a district general hospital was performed.

**Methods:** The prospectively collected hospital database was reviewed, all emergency admissions with gallstone complications were analysed in the 5 years prior to cholecystectomy. These were divided into two groups pre and post waiting list.

**Results:** There were 497 patients who had an elective cholecystectomy between October 2009 and September 2010. There were 384 (77.3%) females and 113 (22.7%) males. The mean number of days on the waiting list was 68.17 days. In total there were 228 admissions with gallstone related problems prior to definitive surgery. Prior to being put on the waiting list there were 198 admissions, after being listed for cholecystectomy there were a further 30 admissions, 95 % of these admissions were in the 12 months prior to cholecystectomy. Admissions consisted of biliary colic (127), pancreatitis (40), cholecystitis (44), cholangitis (4), jaundice (6), dysfunctional gallbladder (1), CBD stone (4), biliary sepsis (2).

**Conclusion:** There is a high incidence of complications for patients being delayed for cholecystectomy.