who had undergone EMR followed by surveillance of residual Barrett's mucosa. The two groups were matched for any potential confounders to minimise bias.

Results There were 13 patients in each group. Mean age in the EMR group and EMR+RFA group was 70 and 59 years, respectively. Both groups were equally matched in terms of male to female ration (12:1); length of circumferential Barrett's mucosa; lesion Paris classification; mean lesion size; and resection type (Piecemeal or En-bloc). The mean duration of follow-up in the EMR group was 21 months compared to 32 months in the EMR+RFA group. The histological characteristics of lesions in both groups are shown in the table below (Abstract PWE-032 table.1). Overall, histological eradication of EN was achieved in eight (62%) patients in the EMR group and 13 (100%) in the EMR+RFA group at the last follow-up. Persistence or recurrence of EN and the need for further EMR during follow-up occurred in five patients (38%) in the EMR group (two of them had Oesophagectomy) compared to only one (8%) in the EMR +RFA group. One patient (8%) in the EMR group developed oesophageal stricture and no complications occurred in the other group.

Abstract PWE-032 Table 1

Histological characteristics	EMR group (n=13)	EMR + RFA group (n=13)
Pre-EMR lesion histology		
HGD	10 (77%)	10 (77%)
IMC	3 (33%)	3 (33%)
EMR specimen histology		
HGD	6 (46%)	3 (33%)
IMC	7 (64%)	10 (77%)
Clearance at lesion base	13 (100%)	13 (100%)
Residual HGD post EMR	4 (31%)	4 (31%)
Residual LGD post EMR	1 (8%)	1 (8%)

Conclusion These data suggest that adjuvant RFA in this setting can have a significant positive impact on the long term success rate of histological eradication of EN in Barrett's Oesophagus as well as reducing the risk of recurrence of those lesions. It can reduce the need for subsequent EMRs and radical surgery with no safety concerns. The long duration of follow-up and control for confounders add significant validity to the results, despite the relatively small number of patients included.

Competing interests S Sami: None declared, E Telakis: None declared, J Mannath: None declared, P Kaye: None declared, K Ragunath Grant/Research Support from: Olympus, Cook and Barrx medical.

PWE-033 COMPREHENSIVE ASSESSMENT OF OUTCOMES INCLUDING COSTS AND SURVIVAL IN YOUNGER VS OLDER PATIENTS UNDERGOING SURGICAL MANAGEMENT OF OESOPHAGEAL CANCER

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Introduction The aim of this study was to compare disease presentation, clinical and pathological staging, peri-operative outcome, costs and long-term survival of patients 50 years and under (≤50), and those over 50 (>50) undergoing oesophagectomy for oesophageal malignancy.

Methods All patients undergoing oesophagectomy by a single surgeon for cancer between 1991 and 2011 had information prospectively entered in an IRB-approved database. These two groups were compared for symptomatic presentation that is, length of dysphagia and degree of weight loss, clinical and pathologic stage, neoadjuvant therapy, medical co-morbidities, operative outcomes including complications, treatment costs and survival.

Results In total 493 patients underwent surgical resection for oesophageal malignancy from 1991 to 2011. 58 of these patients were ≤50 yrs (44±4.7), and 435 patients were > 50 years (67±8.44). Younger patients demonstrated an increased likelihood for delayed presentation as shown by an increased length of dysphagia (5.79±13.19 vs 3.4±6.97 months) and increased weight loss (14.69±21.12 vs 10.13±14.55 lbs). Older patients typically presented with more cardiac comorbidities. Clinical stage was similar, the younger cohort of patients demonstrated a significantly increased incidence of adenocarcinoma (93.1% vs 82.53%) and Signet ring pathology (10.34% vs 6.44%). Treatment approach was similar except younger patients were more likely to receive neoadjuvant chemoradiotherapy for stage IIA disease (53.85% vs 27.1%) and chemotherapy alone for stage IIB (42.86% vs 11.11%). Length of operation, blood loss, transfusion requirements and length of hospital stay were similar for both groups. However, patients ≤50 years demonstrated significantly shorter Intensive care unit stay (1.43±1.08 vs 2.08±2.59 days), reduced incidence of post-operative complications (29.31% vs 48.51%) and in subset analysis reduced overall cost ($20 133±7048 vs $23 921±10 787). No significant difference was noted in final pathological stage, incidence of complete response to therapy or positive resection margins. Average follow-up was approximately 4 years in the ≤50 age group and 3.5 years in the >50 age group with no difference noted in 5-year survival (46.15% vs 38.33% (p=0.35). Log-rank testing also showed no difference between under 50 and over 50 age groups for all cause mortality during the study period (χ^2 0.432; p=0.511).

Conclusion This study demonstrates younger patients have fewer complications and less overall treatment costs following oesophagectomy. In spite of having a more delayed presentation, and a higher incidence of adenocarcinoma younger patients presented with a similar stage and demonstrated similar overall survival.

Competing interests S Markar Grant/Research Support from: Ryan Hill Research Foundation, A Karthikesalingam: None declared, D Low: None declared.

PWE-034 THE CLINICAL AND ECONOMIC COST OF DELIRIUM FOLLOWING SURGICAL RESECTION FOR OESOPHAGEAL MALIGNANCY

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Introduction Delirium is an under-estimated and serious complication following major surgery, particularly in the elderly population. The aim of this study was to identify pre-operative risk factors for delirium following oesophagectomy for malignancy, and investigate its impact upon short and long-term outcome.

Methods All patients undergoing oesophagectomy for cancer between 1991 and 2011 had information prospectively entered in an IRB-approved database. Patients were divided into two groups based upon the presence or absence of clinically-significant post-operative delirium, and were compared with respect to use of neoadjuvant therapy, medical co-morbidities, operative outcomes, post-operative complications, overall cost and survival. For the purposes of this study delirium was defined as an acute fluctuating confusional state that required intervention.

Results 500 patients were included in this analysis; 46 (9.2%) patients with post-operative delirium and 454 patients without. In the delirium group, age was significantly increased (71±8.1 yrs vs 63±10.9 yrs) and BMI was reduced (25±4.2 vs 27±4.8 kg/m^2). There were no significant differences in cardiac, pulmonary or renal co-morbidities, however ASA grade (2.8±0.4 vs 2.6±0.5) and

Charlson Co-morbidity index (2.5±0.7 vs 2.3±0.6) were significantly increased in the delirium group. There were no significant differences between the groups in the use of neoadjuvant therapy. Analysis demonstrated that delirium was associated with a significantly longer hospital (14±7.5 vs 10.9±5.7 days) and ICU stay (3.6±3.8 vs 2.7±16.9 days). Furthermore post-operative delirium was associated with a significantly increased incidence of post-operative pneumonia (21.7% vs 7.9%), pneumothorax (10.9% vs 2.6%), re-intubation (10.9% vs 1.8%) and increased overall treatment costs ($28 223±13 018 vs $22 702±9689; p<0.05). Age was the only pre-operative predictor of post-operative delirium in multivariate modelling (OR 1.08; 95% CI 1.04 to 1.12, p<0.05). Patients were followed-up for an average of approximately 4 years. There was no significant difference between the groups in overall survival (1105±910 days vs 1273±1428; p=0.28).

Conclusion This study demonstrates that delirium is a risk factor for complicated post-operative recovery and increased treatment costs following oesophagectomy, and furthermore that age is independently predictive of its development. Focused screening will allow targeted preventative strategies to be employed in the peri-operative period to reduce complications and cost associated with delirium.

Competing interests None declared.

PWE-035 CENTRALISATION OF UPPER GI CANCER SERVICES—IS THE HUB REALLY BETTER THAN THE SPOKE?

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Introduction The aim of this study was to assess whether patients diagnosed with oesophageal or gastric cancer at a local district general hospital (the "spoke") have a similar temporal pathway through the decision making and treatment process compared to those patients presenting at the centralised, tertiary hospital (the "hub").

Methods Between April 2010 and April 2011, patients with a new diagnosis of oesophago-gastric cancer from both the hub and spoke hospitals were analysed. Data regarding diagnosis, time from diagnosis to multidisciplinary meeting (MDM) discussion and time from MDM decision to first treatment were all recorded. Statistical analysis was performed using parametric two-tailed t-test to assess significance.

Results There was a statistically significant increase in the time from diagnosis to MDM discussion at the spoke hospital compared to the hub (13.3 days vs +25.67 days; p=0.001). However, time to first treatment (surgery, palliative therapy, neo-adjuvant therapy or best supportive care) was significantly increased in the hub hospital compared to the spoke (43.4 days vs 25.5 days; p=0.023).

Conclusion This study is the first of its kind to show that there is a disparity in the management pathways of patients who first present to a regional hospital rather than the tertiary centre. Patients at the spoke hospital have a longer lead time into the MDM but non-operative treatment appears to be delivered more quickly locally.

Competing interests None declared.

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PWE-036 WHAT IS THE SURVIVAL OF PATIENTS WITH OESOPHAGEAL CANCER FOLLOWING PALLIATIVE STENTING?

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Introduction Oesophageal cancer is the seventh leading cause of cancer death worldwide. Unfortunately the majority of patients with oesophageal carcinoma are incurable at diagnosis. Self-expanding metal stents (SEMs) are effective palliation for relieving dysphagia. The aim of this study was to determine survival duration following oesophageal stenting for malignant strictures and to identify potential factors that predict a poor outcome.

Methods We undertook a retrospective analysis to evaluate the outcome of patients following SEMs for malignant oesophageal strictures and possible prognostic factors over 6-year period (2004—2010). We analysed the Salisbury oesophageal stent database, reporting system and patient clinical management database to obtain data. We recorded age, sex, date of diagnosis stent and death, type of cancer, haemoglobin, creatinine, CRP and albumin, and whether chemotherapy or radiotherapy had been given. The results were statistically analysed using the unpaired t-Test and Pearson's correlation coefficient.

Results Between June 2004 and December 2010 we identified 128 patients who had one or more SEM inserted. One patient was excluded from the analysis. 46 (36%) patients were female and 81 (64%) male with a mean age of 76.7 (range 35—98). Adenocarcinoma accounted for 87 (69%) patients, 38 (30%) squamous cell carcinoma, and two others. The mean life expectancy was 147 days (range 8—1028 days) following the first stent deployment and 273 days (range 1—928 days) from diagnostic endoscopy. The 30-day mortality was 10%. There was no difference in mortality when age (p=0.19), sex (p=0.35), haemoglobin (p=0.23), CRP (p=0.34), albumin (p=0.36) or creatinine (p=0.28) were compared. Patients with adenocarcinoma had a mean survival 163 days from initial stent which was statistically better than 108 days in the squamous cell carcinoma group (p=0.09). Patients receiving chemotherapy or chemoradiotherapy survived on average 18 days longer than those who had SEMs alone, regardless of histology (p<0.0001).

Conclusion Incurable oesophageal cancer has a bleak prognosis, but survival after SEMs is significant. In our study age, sex, and simple laboratory investigations were not predictive of mortality following SEMs. This suggests that it is not possible to estimate survival using any of these factors, and palliative SEMs should be considered in all patients. Squamous cell carcinoma has a significantly shorter life expectancy than adenocarcinoma following palliative SEMs. Those patients who had adjuvant chemotherapy or chemoradiotherapy had significantly improved survival, either due to the direct effect of the treatment or because of selection of fitter patients. Our data offers useful survival and 30-day mortality figures to help inform patients and make clinical management decisions.

Competing interests None declared.