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PTH-72 A SYMPTOM AND RISK FACTOR QUESTIONNAIRE ACCURATELY PREDICTS UPPER GASTROINTESTINAL CANCER

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Introduction Waiting times for endoscopy are rising rapidly following the COVID-19 pandemic. In addition, cancers may be missed as patients are placed on routine waiting lists but not monitored. Some hospitals use the Edinburgh Dysphagia Score to assess and prioritise patients for investigation. This offers a sensitivity of 98.4% and specificity of 9.3% to detect malignancy in patients presenting with dysphagia.⁴ However, it is not designed for detecting gastric cancer. We aimed to create a more accurate screening questionnaire as an aid to triaging referrals.

Methods Patients were recruited as part of the Saliva to Predict Risk of disease using Transcriptomics and epigenetics (SPIT) study. Patients were recruited from 2 week-wait suspected upper gastrointestinal cancer pathway referrals at 20 hospitals in the United Kingdom. The cohort was further enriched with patients found to have oesophageal adenocarcinoma on emergency hospital admission. They completed over 200 questions about a wide variety of symptoms and risk factors. After data cleaning, 800 patients were available for evaluation. Of these, 80 had upper GI cancer. A machine learning model was developed to identify those at highest risk of having upper GI cancer using a 'cost-based' approach which maximises the chance of detecting cancer. Information gain was followed by correlated feature selection and a multivariable logistic regression curve was created with scores from 0 (cancer very unlikely) to 100 (cancer very likely). The training dataset used 80% of the data and the model was tested with the other 20%.

Results 20 features were found to be important and reproducible. They included age, sex, dysphagia, odynophagia, early satiety, weight loss, duration of chest pain and regurgitation, frequency of acid taste in the mouth, a previous history of smoking, cancer or psychological disorders, current anxiety level and frequency of vegetable intake. The area under the receiver operator curve to detect cancer was 0.83. 50% of cancers scored greater than 85 whereas 50% of normals scored less than 25. At a cut-off score of 10, sensitivity was 98.7% with specificity 26.8% to detect cancer (figure).

Conclusions We have created a simple, reproducible risk score to identify patients at high and low risk of upper GI cancer. It performs better than previous scores but now needs testing in the real world. It might be usable to both upgrade routine patients to urgent endoscopy and remove patients at very low risk from waiting lists, thereby helping to prioritise patients

with a greater clinical need and reducing the endoscopic backlog.

PTH-73 BENCHMARK AUDIT OF THE MANAGEMENT OF POST-OESOPHAGECTOMY BARRETT'S

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Introduction There are clear guidelines regarding the diagnosis and management of Barrett's oesophagus, including diagnosis, screening, surveillance and management (1).

Previous studies have demonstrated that there is a limited role for endoscopic surveillance following oesophagectomy (2).

Currently there is no consensus on whether surveillance for Barrett's should be performed in such patients, or how to manage residual Barrett's post-operatively.

We audited our practice in the management of such patients at a tertiary referral centre.

Methods The records of patients whom underwent oesophagectomy for malignancy between January 1st 2010 and December 31st 2020 identified from EPR were reviewed.

Data obtained included demographics, date of surgery, histological tumour type, TNM staging and whether further endoscopies were performed in each case. Follow up endoscopy reports were assessed for evidence of residual Barrett's, dysplasia or neoplasia and its management.

Results 175 patients met the criteria for inclusion.

The mean age was 64 (22-82; median 65). The majority were male (76.6%). Most cancers were adenocarcinoma (77%).

Following surgery 66 patients had one or more OGD performed, the majority of whom had just one (41).

Two patients were identified as having Barrett's oesophagus at their follow up endoscopy, both of whom were placed on a surveillance program.

In those patients who had repeat endoscopy 3/66 had a cancer recurrence at OGD. However, these had already been identified prior to OGD via CT scan or found at surgery.

Only 6 patients had residual Barrett's oesophagus based on the upper margin of the resection specimen. One also had residual dysplasia at the resection margin. Of these patients only one had an OGD following their surgery, for surgical indications and none had any surveillance endoscopy. One patient with residual Barrett's was subsequently diagnosed with a recurrence of malignancy, initially picked up through CT.

Conclusions Very few patients who had an oesophagectomy had further endoscopy. No patients were diagnosed with recurrence at endoscopy. We are evolving our practice to eradication of Barrett's and dysplasia post-oesophagectomy, in line with the usual management of Barrett's with dysplasia. Further investigation is required to determine whether follow up endoscopy and treatment helps to mitigate the risk of cancer recurrence.

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