Outcomes of the NHS England Service Evaluation of Cytosponge triage for patients with reflux in secondary care and endoscopy impact

Morris D [1] , Graham C [2] , Foerster K [2] , Harvey R [3]
[1] East And North Herts NHS Trust, Stevenage, United Kingdom
[2] NHS England, United Kingdom
[3] Bedford Hospital NHS Trust, Bedford, United Kingdom

Introduction In COVID-19, gastroscopy activity reduced to 46.5% usual. A triage pathway using capsule sponge (Cytosponge) (CS), an oesophageal cell sampling device coupled with Trefoil factor3 (TFF3) which detects Barrett's Oesophagus (BO), was commissioned by NHS England (NHSE) in 2021 to recover services and achieve the NHS Long Term Plan ambition to improve early diagnosis. Results were available in Jan 2024. Aims were formative and summative assessments of the pathway in secondary care in patients with low-risk reflux symptoms on system and patient outcomes

Methods A mixed-method service evaluation was implemented across 17 Cancer Alliances in England. Routine service and activity data were evaluated for eligible patients waiting for routine endoscopy February 2021 to March 2022 to compare waiting times, subsequent tests and patient outcomes. Data were collected through semi-structured interviews, pathway mapping, and collaborative workshops to investigate design, management and implementation. Surveys and interviews were offered to assess patient experience. A cost-effectiveness model (CEM) was developed to evaluate direct costs and benefits using a lifetime time horizon. NHSE and Trusts were required to process patient information for COVID-19 purposes under general COPI notice Coronavirus (COVID-19) and 3(4) of the Health Service COPI 2022, informed consent was obtained for surveys, interviews; analysis used anonymised data, adhering to Data Protection Act and UK GDPR

Results 2,170 patients received the test. CS effectively reduced endoscopy demand by 78%. CS helped triage high or low risk patients, as all BO cases were found at endoscopy in positive results, while no BO was detected in patients with negative results. No serious adverse events were reported in this time period. Patients were appropriately prioritised for endoscopy based on CS result. CS did lengthen time to end of pathway overall in patients receiving non-urgent endoscopy referral following positive CS. 82% Patients were satisfied with their experience and waiting times. A dedicated CS team of administrative and clinical roles was crucial for successful implementation, scalability and sustainability. The programme resulted in a per-patient cost-saving of £421.57

Conclusions The findings suggest implementation of a CS triage pathway is cost-effective and cost-saving, safe and acceptable for patients. CS could be useful across all NHS trusts, particularly those with long endoscopy waiting times to guide appropriate endoscopy. Evidence from this evaluation has been used to support local commissioning across secondary care. Long term outcomes should be evaluated