Abstract PTH-78 Table 1

	ΔL	Δa^*	Δb^*	$\Delta E_{L^*a^*b^*}$	ΔL_{CAM}	ΔC_{CAM}	ΔH_{CAM}	$\Delta E_{CAM}(\%)$
WLI	5.76	6.23	7.38	11.60	4.83	9.23	19.30	13.12
Enhanced WLI	7.74	8.48	8.44	14.46	6.62	12.29	27.48	18.35
NBI	8.17	10.59	9.50	17.52	9.57	3.73	6.25	10.82
Enhanced NBI	10.23	16.22	21.56	32.53	12.00	10.06	95.32	33.60

in WLI and NBI (multi-modal) and classifies into LGD, HGD and SCC (multi-class).

The averaged colour difference (measured by CIECLAB ΔE) between dysplastic regions and surroundings for the post-processed contrasted images increased from 11.60 to 14.46 for WLI and from 17.52 to 32.53 for NBI. With the addition of contrast-enhanced WLI images to the training of the deep learning system, its sensitivity, specificity and accuracy for detecting LGD increased from 75%, 88.2% and 81.4% to 82.7%, 96.9% and 90.6% respectively and were 88.3%, 94.4% and 92.6% for the classification of SCC, HGD and LGD.

Table The colour differences computed using CIEL*a*b* between each LGD and its surrounding mucosa for original WLI and NBI and their enhanced counterparts for all LGD samples.

Conclusion Computational contrast-enhancement facilitates early identification of oesophageal neoplasia during visual inspection at endoscopy and significantly improves the performance of a deep learning system.

Gastroduodenal

PTH-79 POST-ERADICATION RETESTING FOR HELICOBACTER PYLORI INFECTION IN PATIENTS UNDERGOING UPPER GASTRO-INTESTINAL ENDOSCOPY: COMPLIANCE WITH GUIDELINES

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Introduction Failure to eradicate *Helicobacter pylori* (*Hp*) infection increases the risk of subsequent peptic ulcer disease (PUD) and gastric cancer (GC). Therefore, confirmation of successful eradication is vital, although guidelines differ in their recommendations (Table 1). The prevailing opinion is that retesting should take place 4-8 weeks after treatment completion using the ¹³C-urea breath test (UBT). This study aimed to evaluate compliance with post-eradication testing guidelines in *Hp* positive patients.

Methods Compliance with post-eradication *Hp* testing within the recommended 4-8 week timeframe of treatment completion was retrospectively assessed in 408 patients (60% female; mean $\pm$ 1SD age 40.9 $\pm$ 20.8 yr) with recurrent/previous *Hp* infection who underwent upper GI endoscopy at the Royal Free Hospital (RFH) London between January 2009 and December 2019. Data were collected from GP referral letters, the patients' electronic records, pathology and endoscopy results.

Abstract PTH-79 Table 1 Recommendations for post-eradication testing for *Hp* in available guidelines

Guideline (date)	Main indications for retesting	Retest method	Retesting timeframe (weeks)
NICE (2019)	- Peptic ulcer and <i>Hp</i> infection	UBT	6-8 after start of treatment
Public Health England (2019)	- Poor compliance/high local antibiotic resistance rates - Severe persistent/recurrent symptoms - Peptic ulcer - <i>Hp</i> test within 2/4 weeks of PPI/antibiotics respectively	UBT or SAT	4 (ideally 8) post treatment completion
Maastricht V (2017)	- Routinely offered to all	UBT or monoclonal SAT	4-8 post treatment completion

Results Of the 408 patients, 118 (28.9%) were *Hp* positive on culture; 91/118 (77.1%) received eradication treatment. Post-eradication data were available for 90 patients; of whom 65 (72.2%) underwent *Hp* testing with UBT (38: 58.5%), stool antigen test (SAT) (23: 35.4%), CLO test in one (1.5%) or unrecorded in three. Of the 65 tested, results were available for 58; persistent infection was identified in 37 (63.8%). Only 27.3% were retested within the recommended 4-8 week time frame; the median time for testing was 16 weeks.

Conclusion Compliance with post-eradication *Hp* testing was very poor. Only 77.1% of eligible patients received eradication treatment; of these only 72.2% underwent post-eradication testing and only a quarter within the recommended timeframe. Persistent infection was identified in 63.8% of those tested; current practice is therefore failing patients and necessitates the urgent adoption of a planned 'test, treat, and confirm eradication' care package.

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UBT ¹³C-urea breath test; SAT: stool antigen testing; PPI: Proton pump inhibitor

PTH-80 COMPARISON BETWEEN GLASGOW BLATCHFORD, ROCKALL, AND AIMS65 SCORING SYSTEMS IN PREDICTING OUTCOME OF GASTROINTESTINAL BLEEDING

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