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ADHERENCE TO BEST PRACTICES IN THE DETECTION AND CHARACTERISATION OF PREMALIGNANT UPPER GASTROINTESTINAL LESIONS AMONG ENDOSCOPISTS IN INDIA: A SURVEY

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Background Given the high morbidity of gastric and esophageal cancers and the absence of population-based screening in India, it is important that all elective Esophago-Gastro-Duodenoscopies (EGDs), irrespective of the primary indication, be viewed as an opportunity to screen for pre-malignant lesions as this will help in early detection of these cancers. With this premise, we aimed to assess the adherence to best practices with regard to the detection of pre-malignant upper gastrointestinal lesions (PMUGIL) among endoscopists in India.

Methods We conducted an electronic survey among endoscopists in India with the *primary objective* of assessing adherence to best practices (an arbitrary threshold of 90% adherence was

considered adequate) and with the *secondary objectives* of assessing the adequacy of training, availability of appropriate facilities and differences between teaching and non-teaching centers.

Results Among 422 eligible responses, the adherence to best practices assessed were lower than the set threshold in all except one metric (table 1) in both teaching centers and non-teaching centers. Only 58.5% of endoscopists had received training in the detection of PMUGIL. Appropriate Image Enhanced Endoscopy (IEE) facilities for evaluating PMUGIL were available to only 58.05% of surveyed endoscopists.

Conclusions Strategies to improve detection of PMUGIL should be directed at improving best practice adherence, training and endoscopy equipment.

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APPLICATION OF DIGITAL PATHOLOGY IN DIAGNOSIS OF TISSUE-BASED HELICOBACTER PYLORI INFECTION

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Background Recent advances in pathology service ensure the provision of quality and safety patient management of infectious diseases. Introduction of advanced equipment in the laboratory better manages the growing need for patient service in the hospitals. *Helicobacter pylori* is a common gastric pathogen that may cause gastritis, peptic ulcer and gastric cancer diseases. Digital pathology provides excellent supports to tissue-based research, clinical diagnosis and patient management of infection caused by this common stomach germ. This study focuses on the applications of digital pathology in clinical pathology, aiming at investigating the recent advances for optimizing the quality of pathology service and providing better patient management of *Helicobacter pylori* infections.

Methods A qualitative study with literature review has been performed on the application of digital pathology in the diagnosis of *Helicobacter pylori* infection for gastric biopsies. An inductive qualitative study had been performed, which involved the literature review of websites based documents and case study reflective notes, etc. Conclusions were then made based on the findings and patterns identified in the study. The study used 'maximum variation sample' for eliminating the factor of demographic variable affecting the result of the study.

Results Results showed that digital pathology allows digital slide sharing and remote analysis in pathology networks. Diagnosis of *Helicobacter pylori* infection is facilitated through utilizing powerful computer interface supported with feature-rich viewing software. It allowed better patient management through the prompt and correct choice of drug. Timely adoption of digital pathology is thus vital for providing high-quality pathology service in the hospital.

Conclusions With the application of whole slide imaging, digital pathology is a recent advanced technology employed in the clinical pathology laboratory worldwide. The scanning of conventional glass slides into digital slides facilitates both diagnosis and public health research. It allows accurate diagnosis with readily retrievable archival images to compare with the latest microscopic finding. Digital pathology utilizes high performance web-based infrastructure to support the diagnosis of tissue-based *Helicobacter pylori* infection. Whole slide scans stored in the cloud-based server with data security measures

Abstract IDDF2020-ABS-0150 Table 1

Best practice		Adherence		P value
		Overall	Teaching centre	
Adequate time		29.76% (125/420)	33.47%	0.06
Sedation use		14.01% (59/421)	13.5%	0.73
Anti-spasmodic use		03.82% (16/419)	03.39%	0.6
Adequate photo-documentation		14.8% (62/419)	12.77%	0.19
Reporting of pre-malignant lesions	Gastric	41.99% (173/412)	38.96%	0.16
	Intestinal			
	Metaplasia			
	Gastric	70.39% (290/412)	70.56%	0.93
	Atrophy			
	Barrett's	90.78% (374/412)	90.91%	0.92
	Esophageal mucosal lesions	77.43% (319/412)	76.62%	0.66
Use of Image Enhanced Endoscopy (IEE) Criteria	Gastric mucosal lesions	86.65% (357/412)	85.71%	0.53
	EGGIM	08.79% (35/398)	10.81%	0.11
	Kimura - Takemoto	11.31% (45/398)	13.06%	0.21
	BING	21.86% (87/398)	26.58%	0.01
	PREDICT	03.27% (13/398)	03.15%	0.89
	IPCL	36.43% (145/398)	41.89%	0.01