



10 YEAR AUDIT OF OESOPHAGOGASTRODUODENOSCOPY : A HOSPITAL KUALA LUMPUR EXPERIENCE

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Introduction:

The objective of this study is to show MGIR as an effective web based gastrointestinal endoscopy information system in planning and evaluating gastrointestinal services.

Study design

The Malaysian Gastrointestinal Registry (MGIR) which was established in 2009 has been widely used to generate data gathered by endoscopy unit of HKL. This is a standardised electronic data entry. Data from the past 10 years(2009-2018) were then tabulated for statistical analysis. In this audit we will focus on the OGDS procedures' analysis.

Results

In all the 34768 OGDS performed, 28% were indicated for dyspepsia followed by upper gastrointestinal bleeding at 22.8%. Investigation of iron deficiency anemia stands low at 8.1% whereas suspected upper gastrointestinal malignancy at lowest 2.7%. Abnormalities at gastric region were commonest at 78% and the lowest at duodenum 27%. Gastric or oesophageal tumours were very low detection (<1%). 61.4% OGDS were performed mainly for diagnostic purpose. OGDS safety profile has been proven to be very low. Complication rate of bleeding stands at 0.3%. Perforation and death was none.

Table 4.1: Indications of oesophagogastroduodenoscopies (OGDS), MGIR, 2009-2018	
Characteristics	N = 34,768 n (%)
Indications	
Dyspepsia	9,722 (28.0)
Gastrointestinal bleeding	7,912 (22.8)
Evaluation/Treatment Portal Hypertension	4,350 (12.5)
Investigation of Irondeficiency Anaemia	2,809 (8.1)
GERD symptoms	2,744 (7.9)
Reevaluation peptic ulcer disease	1,593 (4.6)
Dysphagia/Odynophagia	1,330 (3.8)
Suspected upper GI malignancy	931 (2.7)
Reevaluation of previously Bleeding lesion	619 (1.8)
Surveillance sampling of tissue or fluid is indicated	311 (0.9)
Persistent vomiting of unknown cause	258 (0.7)
Other therapeutic procedures:	300 (0.9)
Investigation of chronic diarrhea	106 (0.3)
Confirmation of radiologically demonstrated lesions	110 (0.3)
Evaluation of caustic injury	9 (0.0)
Unknown	235 (0.7)

Table 4.10: Immediate complications among patients who underwent oesophagogastroduodenoscopies (OGDS), MGIR, 2009-2018

Characteristics	Year										
	Overall	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	N=	N=	N=	N=	N=	N=	N=	N=	N=	N=	N=
	34,768	1,779	4,456	4,544	3,212	3,092	3,104	2,698	3,755	3,901	4,227
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Immediate Complications	158 (0.5)	9 (0.5)	16 (0.4)	36 (0.8)	13 (0.4)	17 (0.5)	11 (0.4)	8 (0.3)	17 (0.5)	17 (0.4)	14 (0.3)
Bleeding	107 (0.3)	7 (0.4)	10 (0.2)	30 (0.7)	9 (0.3)	9 (0.3)	6 (0.2)	5 (0.2)	12 (0.3)	14 (0.4)	5 (0.1)
Perforation	7 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)	1 (0.0)	0 (0.0)	2 (0.1)	1 (0.0)	0 (0.0)	1 (0.0)	1 (0.0)
Death	1 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Others	46 (0.1)	3 (0.2)	7 (0.2)	6 (0.1)	2 (0.1)	9 (0.3)	3 (0.1)	2 (0.1)	5 (0.1)	1 (0.0)	8 (0.2)

Conclusion

Oesophagogastroduodenoscopy remains as a salient tool for diagnostic and therapeutic purposes in patients with upper GI disorders. It should not be used as a first line screening for iron deficiency anemia. In this large sample study, it has been proven that the safety profile of OGDS is excellent.

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APPENDICES

Appendix 4.1: indications of Oesophagogastroduodenoscopies (OGDS), MGIR, 2009-2018

Characteristics	Year										
	Overall	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	N = 34,768 n (%)	N = 1,779 n (%)	N = 4,456 n (%)	N = 4,544 n (%)	N = 3,212 n (%)	N = 3,092 n (%)	N = 3,104 n (%)	N = 2,698 n (%)	N = 3,755 n (%)	N = 3,901 n (%)	N = 4,227 n (%)
Dyspepsia	9,722 (28.0)	345 (19.4)	1,142 (25.8)	1,254 (27.6)	893 (28.3)	879 (28.4)	972 (31.3)	871 (32.4)	1,286 (34.6)	1,834 (47.8)	1,383 (33.0)
Upper abdominal symptoms associated with other symptoms or signs suggesting various organic disease or in patients > 45 years old	7,386 (20.9)	241 (13.6)	749 (16.8)	802 (17.9)	688 (21.5)	637 (20.8)	791 (25.6)	658 (24.6)	886 (23.8)	1,046 (26.9)	758 (17.9)
GERD symptoms	2,917 (8.4)	85 (4.8)	343 (7.8)	285 (6.3)	172 (5.4)	163 (5.3)	135 (4.4)	123 (4.6)	386 (10.4)	431 (11.1)	620 (14.9)
Dysphagia/Odynophagia	1,330 (3.8)	64 (3.6)	173 (3.9)	172 (3.8)	154 (4.8)	190 (6.1)	158 (5.1)	138 (5.1)	130 (3.5)	154 (3.9)	139 (3.3)
Gastrointestinal bleeding	8,473 (24.4)	271 (15.3)	1,084 (24.4)	1,113 (24.6)	785 (23.8)	789 (25.6)	782 (25.2)	725 (26.9)	827 (24.7)	881 (22.3)	1,084 (25.6)
Active Recent bleeding	6,974 (20.2)	191 (10.8)	636 (14.4)	684 (15.4)	487 (15.0)	582 (18.5)	646 (20.8)	639 (24.1)	855 (23.0)	845 (21.6)	886 (21.7)
Cocul	1,121 (3.2)	34 (1.9)	226 (5.1)	137 (3.0)	62 (1.9)	131 (4.2)	81 (2.6)	82 (3.0)	121 (3.2)	186 (4.8)	160 (3.8)
Reevaluation of previously Bleeding lesion	621 (1.8)	22 (1.2)	70 (1.6)	60 (1.3)	57 (1.8)	26 (0.8)	57 (1.8)	38 (1.4)	35 (0.9)	146 (3.7)	102 (2.4)
Reevaluation peptic ulcer disease	1,593 (4.6)	110 (6.2)	264 (5.9)	297 (6.7)	184 (5.7)	191 (6.2)	194 (6.3)	194 (7.3)	129 (3.4)	139 (3.5)	142 (3.4)
Investigation of Irondeficiency Anaemia	2,809 (8.1)	382 (21.5)	382 (8.6)	440 (9.7)	298 (9.3)	266 (8.6)	320 (10.3)	371 (14.1)	359 (9.6)	379 (9.6)	423 (9.9)
Evaluation/Treatment Portal Hypertension	4,350 (12.5)	57 (3.2)	425 (9.5)	541 (12.0)	394 (12.4)	388 (12.6)	391 (12.7)	251 (9.4)	584 (15.6)	634 (16.3)	594 (14.1)
Evaluation of caustic injury	9 (0.0)	1 (0.0)	1 (0.0)	1 (0.0)	2 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.0)	1 (0.0)	1 (0.0)
Other therapeutic procedures:	300 (0.9)	37 (2.1)	42 (0.9)	39 (0.9)	30 (1.0)	19 (0.6)	12 (0.4)	6 (0.2)	24 (0.6)	41 (1.0)	57 (1.3)
Placement of feeding tubes	123 (0.4)	2 (0.1)	21 (0.5)	14 (0.3)	20 (0.6)	19 (0.6)	6 (0.2)	2 (0.3)	23 (0.6)	18 (0.4)	18 (0.4)
Dilatation of stenotic lesions	81 (0.2)	3 (0.2)	6 (0.1)	9 (0.2)	4 (0.1)	2 (0.1)	2 (0.1)	0 (0.0)	4 (0.1)	2 (0.0)	17 (0.4)
Management of Achalasia	24 (0.0)	1 (0.0)	6 (0.1)	7 (0.2)	1 (0.0)	1 (0.0)	1 (0.0)	1 (0.0)	1 (0.0)	4 (0.0)	2 (0.0)
Palliative treatment of stenosing neoplasms	20 (0.0)	0 (0.0)	1 (0.0)	4 (0.0)	4 (0.1)	3 (0.0)	2 (0.0)	2 (0.3)	4 (0.1)	1 (0.0)	2 (0.0)
Removal of foreign bodies	25 (0.0)	0 (0.0)	3 (0.1)	2 (0.0)	3 (0.1)	2 (0.1)	1 (0.0)	1 (0.0)	3 (0.8)	5 (0.1)	11 (0.3)
Removal of retained colonic lesions	35 (0.1)	1 (0.0)	3 (0.1)	3 (0.1)	3 (0.1)	0 (0.0)	1 (0.0)	0 (0.0)	5 (0.0)	4 (0.0)	11 (0.3)
Persistent vomiting of unknown cause	267 (0.8)	4 (0.2)	36 (0.8)	52 (1.1)	17 (0.5)	25 (0.8)	38 (1.2)	20 (0.7)	35 (0.9)	15 (0.4)	20 (0.5)
Confirmation of radiologically demonstrated lesions	110 (0.3)	4 (0.2)	7 (0.2)	10 (0.2)	11 (0.4)	11 (0.4)	11 (0.4)	11 (0.4)	11 (0.3)	11 (0.3)	11 (0.3)
Surveillance sampling of tissue or fluid is indicated	334 (1.0)	16 (0.9)	35 (0.8)	27 (0.6)	19 (0.6)	9 (0.3)	17 (0.5)	12 (0.4)	24 (0.6)	36 (0.9)	36 (0.8)
Bornell's oesophagus	242 (0.7)	8 (0.4)	23 (0.5)	22 (0.5)	15 (0.4)	9 (0.3)	5 (0.2)	9 (0.3)	15 (0.4)	20 (0.5)	20 (0.5)
Familial adenomatous polyposis syndrome	20 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other polypoid syndrome	20 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Investigation of chronic diarrhea	106 (0.3)	2 (0.1)	11 (0.2)	11 (0.2)	11 (0.3)	11 (0.4)	11 (0.4)	11 (0.4)	11 (0.3)	11 (0.3)	11 (0.3)
Suspected upper GI malignancy	1,294 (3.7)	26 (1.5)	12 (0.3)	12 (0.3)	12 (0.3)	12 (0.3)	12 (0.3)	12 (0.3)	12 (0.3)	12 (0.3)	12 (0.3)
Others	3,976 (11.4)	281 (15.8)	481 (10.8)	456 (10.1)	302 (9.4)	301 (9.7)	301 (9.7)	301 (11.2)	355 (9.5)	325 (8.3)	400 (9.5)