

PWE-115

# THE PRAGUE C & M CRITERIA FOR GRADING BARRETT'S OESOPHAGUS: A LIVE ENDOSCOPY EVALUATION OF OBSERVER AGREEMENT

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**Introduction** To validate the Prague C and M criteria for the endoscopic diagnosis and grading of Barrett's oesophagus (BO) in a real-time clinical setting between two experienced endoscopists in a University teaching hospital in the UK.

**Methods** Forty consecutive cases with BO were studied. A nurse endoscopist applied the Prague C and M criteria to record the Circumferential and Maximal extent of BO on push and pull endoscopy, this was repeated on pull endoscopy by a doctor (blinded to the initial assessment, with the nurse endoscopist not present). Landmark measurements were recorded by an independent observer. Intra- and inter-rater agreement regarding the length of C and M was evaluated by the correlation coefficient and Bland-Altman analysis.

**Results** The Pearson correlation coefficients (r) for nurse pull against push endoscopy were 0.89 for C and 0.87 for M ( $p < 0.001$ ), and for doctor against nurse were 0.76 for C and 0.80 for M ( $p < 0.001$ ). Comparing pull against push endoscopy, the exact rates of agreement were 15/40 and 12/40 for C and M respectively, differing by 1 cm in 30/40 and 27/40, and by 2 cm in 30/40 and 36/40 respectively. There were 5 and 4 cases with differences of 3 or 4 cm for C and M respectively. Comparing doctor against nurse, the exact rates of agreement were 8/40 and 6/40 for C and M respectively, differing by 1 cm in 20/40 and 21/40, and by 2 cm in 30/40 and 29/40 respectively. There were 9 and 11 cases with differences of 3 or 4 cm for C and M respectively, and 1 case where C differed by 5 cm. From the Bland-Altman analysis, the mean difference in C between pull and push endoscopy was 0.33 cm (95% CI -0.22 to 2.00), with limits of agreement from -2.59 to 3.24 cm. For M, the mean difference between pull and push endoscopy was 0.63 cm (95% CI 0.07 to 2.03), with limits of agreement from -2.33 to 3.58 cm. The mean difference in C between doctor and nurse was -0.03 cm (95% CI -0.82 to 2.94), with limits of agreement from -4.31 to 4.26 cm. For M the mean difference between doctor and nurse was -0.33 cm (95% CI -1.09 to 2.81), with limits of agreement from -4.41 to 3.76 cm.

**Conclusion** There was good agreement for interobserver C and M values of BO at live endoscopy, but with clinically significant limits of agreement that must be considered in any studies that use the Prague criteria, especially in trials that report a reduction in the length of BO as an end point. In this real-time clinical setting, patient movement and retching, compounded by the lack of 1 cm markings on the endoscope may well have contributed to this reduced degree of agreement.

**Competing interests** None.

**Keywords** Barrett's oesophagus, Endoscopic Classification, Prague C and M.