

# ANALYSIS OF ESGE PERFORMANCE MEASURES FOR SMALL BOWEL CAPSULE ENDOSCOPY

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## INTRODUCTION

The European Society of Gastrointestinal Endoscopy (ESGE) identified the need to benchmark the quality of small bowel capsule endoscopy (SBCE) and produced a set of performance measures.

Objective: To critically evaluate the accordance of the performance measures for SBCE in a tertiary center.

## **METHODS**

Retrospective analysis of sequential SBCE performed from January 2017 to June 2020. 10 performance measures (6 key, 4 minor) were evaluated.

#### **RESULTS**

252 SBCE were included, 48.8% male, mean age of 63±18 years-old.

## Regarding the key performance measures:

- 95% SBCE were performed for appropriate indications according to ESGE performance measures guidelines;
- Complete small bowel visualization was achieved in 90%;
- The overall diagnostic yield was 63%, but varied according to indication (78% for overt GI bleeding).
- The majority (40/59) of SBCE were performed within 14 days of overt bleeding episode;
- Referral for device assisted enteroscopy in accordance with ESGE recommendations occurred in 39%;
- Capsule retention in 0,8%.

### Regarding the minor performance measures:

- 94% had an adequate small bowel cleansing level according to Brotz scale (30 reports excluded: preparation not stated/significant active bleeding);
- 73% (27/37) of patients with high risk of capsule retention were offered a patency capsule;
- 90% SBCE were reported using standard terminology;
- No reports stated the reading speed.

## Table 1 – Performance measure analysis

Key pertormance measures	Target	Our center
Indication for SBCE	>95%	95 %
Cecal visualization	>80%	90 %
Lesion detection rate	>50%	63 %
Timing in GI bleeding	>90%	68 %
Appropriate referral for DAE	>75%	39 %
Capsule retention	<2%	0.8 %
Minor performance measures		
Adequate bowel preparation	>95%	94 %
Patient selection	>95%	57 %
Use of standard terminology	>90%	90 %
Reading speed	>90%	0 %

## **CONCLUSIONS**

Performance measures audit is of utmost importance to improve quality of care. However, its applicability may present some drawbacks:

- the calculation of DAE referral rate might be underestimated in cases of operable high confidence small-bowel tumors or Saurin P1 red spots;
- the calculation of patient selection for patency capsule in high risk of capsule retention may be influenced by previous dedicated small bowel imaging.

Although many SBCE were not performed within 14 days of overt GI bleeding, there was a particularly high diagnostic yield for this indication.

## **REFERENCES**

Spada C, McNamara D, Despott E. Performance measures for small-bowel endoscopy: a European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative. Endoscopy 2019; 51 | Brotz C. et al. A validation study of 3 grading systems to evaluate small-bowel cleansing for wireless capsule endoscopy: a quantitative evaluation, and an overall adequacy assessment. Gastrointestinal Endosc. 2009 Feb. |

Korman, L Y, Delvaux M, Gay G. Capsule Endoscopy Structured Terminology (CEST): Proposal of a Standardized and Structured Terminology for Reporting Capsule Endoscopy Procedures. Endoscopy 2005; 37: 951±959

