

Supplementary Table S1. Systematization of search terms. The search terms were subdivided according to the PICOS scheme

Category	Search terms
Population (P)	Gastrointestinal cancer, characterization
Intervention (I)	Gastrointestinal endoscopy, image enhanced endoscopy, magnification, Narrow Band Imaging / methods*, image Interpretation, computer-Assisted / methods precancerous Conditions / diagnostic imaging, Adenocarcinoma / diagnostic imaging
Comparisons (C)	Observer Variation, Predictive Value of Tests, reproducibility of Results
Outcomes (O)	Endpoint, outcome, criteria
Study designs	Prospective, meta-analysis

Supplementary Table S2. Systematic literature search in MEDLINE on the primary research question "With what statistical accuracy can GN be characterized visually-endoscopically?". The numbers behind the diamond symbol refer to the steps in the search history. Query on 05/27/2021.

Aspects of the search	Aspect 1	Aspect 2	Aspect 3	Other aspects, containment/filter	Number of results	Results after critical review of abstracts (incl. references)
MeSH-term(s)	#1: Early Detection of Cancer (Cancer Early Detection, Cancer Early Diagnosis)	("diagnosis"[Mesh] OR "diagnostic imaging"[Mesh] OR "pathology"[Mesh])	"endoscopy, gastrointestinal"[MeSH Terms]		4.183	
Text words	#2: Early Cancer*[tw] AND detect*[tw]		gastrointest*[tw] AND endoscop*[tw]		114	
Final result	Search #1 OR #12 *				254	21

* (("search"[All Fields] OR "searched"[All Fields] OR "searches"[All Fields] OR "searching"[All Fields] OR "searchs"[All Fields]) AND (("early detection of cancer"[MeSH Terms] OR ("Early"[All Fields] AND "detection"[All Fields] AND "cancer"[All Fields]) OR "early detection of cancer"[All Fields]) AND (("early detection of cancer"[MeSH Terms] OR ("Early"[All Fields] AND "detection"[All Fields] AND "cancer"[All Fields]) OR "early detection of cancer"[All Fields] OR ("cancer"[All Fields] AND "Early"[All Fields] AND "detection"[All Fields]) OR "cancer early detection"[All Fields]) AND ("early detection of cancer"[MeSH Terms] OR ("Early"[All Fields] AND "detection"[All Fields] AND "cancer"[All Fields]) OR "early detection of cancer"[All Fields] OR ("cancer"[All Fields] AND "Early"[All Fields] AND "diagnosis"[All Fields]) OR "cancer early diagnosis"[All Fields])) AND ("diagnosis"[MeSH Terms] OR "diagnostic imaging"[MeSH Terms] OR "pathology"[MeSH Terms]) AND "endoscopy, gastrointestinal"[MeSH Terms])) OR ("early cancer*[Text Word] AND "detect*[Text Word] AND ("gastrointest*[Text Word] AND "endoscop*[Text Word]))