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Quality Indicators for ERCP

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ENDOSCOPY

This summary reviews This summary reviews Anderson MA, Cote GA, Keswani RN, Rodriguez SA, Siddiqui UD, Elmunzer BJ. Quality Indicators for ERCP. Am J Gastroenterol. 2026 Jan 1;121(1):80-95.

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STRUCTURED ABSTRACT

Question: What evidence-based quality indicators should be used to measure, benchmark, and improve the safety, effectiveness, and value of endoscopic retrograde cholangiopancreatography (ERCP) across the preprocedure, intraprocedure, and postprocedure phases of care?

Study design: Multisociety guideline and consensus document based on systematic literature review and expert appraisal.

Setting: Endoscopy units performing ERCP across diverse practice environments, including academic and community settings.

Patients: Adults undergoing ERCP for accepted biliary and pancreatic indications.

Interventions: The American College of Gastroenterology (ACG) and the American Society for Gastrointestinal Endoscopy (ASGE) convened an expert task force to update and refine ERCP-specific quality indicators. Indicators were categorized as process or outcome measures, assigned strength-of-evidence ratings, and linked to proposed performance targets. Priority indicators were identified based on clinical relevance, variability in clinical practice, and feasibility of measurement.

Results: Thirteen ERCP-specific quality indicators were proposed, spanning preprocedure, intraprocedure, and postprocedure domains. These indicators focus on appropriate patient selection, technical success, prevention of post-ERCP pancreatitis, and tracking of clinically meaningful downstream events such as unplanned hospitalization and biliary reintervention. The indicators are intended to guide quality improvement efforts rather than define standards for credentialing or reimbursement.

COMMENTARY

Why Is This Important?

ERCP is one of the most technically demanding and highest-risk procedures in gastroenterology, with outcomes that vary widely by operator experience, procedural volume, and institutional infrastructure. Despite advances in technique and prophylaxis, ERCP-related adverse events—including post-ERCP pancreatitis, bleeding, cholangitis, and unplanned hospitalization—remain a major source of patient morbidity and health care utilization. This updated ACG/ASGE quality indicators document provides a contemporary framework to standardize ERCP practice, reduce unwarranted variation, and promote measurable improvements in patient-centered outcomes.

Key Findings

This update proposes 13 ERCP-specific quality indicators across all phases of care, emphasizing appropriate indication selection, technical success (including cannulation and stone clearance), universal use of rectal nonsteroidal anti-inflammatory drugs (NSAIDs) in patients with an intact papilla, and systematic tracking of adverse events and unplanned downstream interventions. Compared with prior iterations, the document adopts a more restrictive approach to ERCP indications, reinforces ERCP as a predominantly therapeutic procedure, and highlights postprocedure outcomes such as unplanned hospitalization and biliary reintervention as pragmatic, high-value measures of quality.

Phase	Quality Indicator	Strength of Recommendation	Measure Type	Performance Target
Preprocedure	ERCP performed for an accepted indication and indication documented (priority)	1C1	Process	≥98%
	Informed consent obtained and documented, including ERCP-specific risks	3	Process	≥98%
	Prophylactic antibiotics administered for appropriate indications	2B	Process	≥98%
Intraprocedure	Deep cannulation of the duct of interest achieved in native papillae (priority)	1C	Outcome	≥90%
	Radiation exposure documented and exposure-reduction measures used	1C	Process	≥98%
	Successful extraction of extrahepatic bile duct stones in normal anatomy (priority)	1B	Outcome	≥90%
	Rectal indomethacin or diclofenac administered in patients with intact papilla (priority)	1A	Process	≥90%
	Use or nonuse of prophylactic pancreatic stent documented and tracked in high-risk cases	1A	Process	≥98%
Postprocedure	Unplanned hospital visit within 30 days of ERCP (priority)	1C	Outcome	<15%
	Unplanned biliary intervention within 30 days of ERCP	1C	Outcome	<15%
	Post-ERCP pancreatitis rate documented and tracked	3	Process	≥95%
	Clinically significant hemorrhage after sphincterotomy/sphincteroplasty documented and tracked	3	Process	≥95%
	Cholangitis within 30 days documented and tracked	3	Process	≥95%

Table 1. ERCP quality indicators with associated performance targets. Clinical implications of each strength of recommendation are as follows: 1A, strong recommendation, can be applied to most clinical settings; 1B, strong recommendation, likely to apply to most practice settings; 1 Cþ, strong recommendation, can apply to most practice settings in most situations; 1C, intermediate-strength recommendation, may change when stronger evidence is available; 2A, intermediate-strength recommendation, best action may differ depending on circumstances or patients or societal values; 2B, weak recommendation, alternative approaches may be better under some circumstances; 2C, very weak recommendation, alternative approaches are likely to be better under some circumstances; 3, weak recommendation, likely to change as data become available. ERCP, endoscopic retrograde cholangiopancreatography.

Caution

Several indicators rely on process measures rather than outcomes, reflecting ongoing challenges in defining objective, risk-adjusted ERCP benchmarks across heterogeneous practice settings. Rigid adherence to performance targets—particularly for cannulation success or prophylactic pancreatic stent placement—may inadvertently encourage overly aggressive maneuvers that increase procedural risk. These indicators are intended for internal quality improvement and benchmarking, not for credentialing, reimbursement, or punitive comparison.

My Practice

This document reinforces the importance of thoughtful case selection to avoid diagnostic ERCP, routine rectal NSAID prophylaxis in all ERCP performed on native papillas in the absence of contraindications, deliberate decision-making regarding when to persist versus defer during technically challenging ERCPs. It emphasizes the importance of tracking, the measurement and documentation of radiation exposure, to promote as low as reasonably achievable(ALAR) principles. Tracking unplanned hospitalizations and early reinterventions offers a practical way to identify opportunities for improvement in preprocedure evaluation, intraprocedure technique, and postprocedure care, while allowing meaningful longitudinal self-benchmarking.

Future Research

Future studies should focus on developing more objective outcome definitions for post-ERCP pancreatitis and bleeding, refining risk-adjusted benchmarks, and evaluating how structured quality improvement initiatives influence patient-centered outcomes and health care utilization. As alternative drainage strategies such as EUS-guided biliary drainage continue to evolve, their role within ERCP quality metrics will require ongoing reassessment.

Conflicts of Interest

The authors of the summary have no conflicts of interest.