

Quality measures in the design, conduct, and reporting of endoscopic research.

American Society for Gastrointestinal Endoscopy (ASGE) [2-4] · 2026

Advancing Endoscopy Research: A Study Guide for Quality and Equity

This study guide provides a comprehensive overview of the frameworks and measures proposed by the American Society for Gastrointestinal Endoscopy (ASGE) task force to improve the rigor, transparency, and impact of endoscopy-related research. It focuses on methodological standards, data integrity, health equity, and practical implementation.

Core Concepts in Endoscopy Research Quality

1. Methodological Development of Research Measures

The development of quality measures for endoscopic research relies on a structured, multi-disciplinary approach. A task force of experts in research methodology and endoscopy quality assurance utilized a rigorous process to identify and finalize these measures:

- **Systematic Review:** Literature searches were conducted through PubMed (from inception through June 2025) using Medical Subject Headings (MeSH) and pertinent keywords.
- **Cross-Disciplinary Evidence:** Because many measures are understudied specifically within endoscopy, evidence was drawn from general medicine and surgery to support their importance.
- **Expert Consensus:** In instances where empirical evidence was limited, measures were finalized through unstructured but unanimous expert opinion and group consensus.
- **Source Fidelity:** Investigators are encouraged to utilize resources like the **EQUATOR Network** to promote accurate and transparent reporting across all health research domains.

2. Central Monitoring and Data Integrity

Effective data monitoring is critical, particularly in multicenter research, to prevent the "multiplicative negative effects" caused by misinterpretation of protocols at peripheral sites.

Monitoring Strategy	Purpose and Impact
Central Monitoring	Identifies trends in incoming data before they negatively impact findings; allows for course correction.
Duplicate Data Entry	Used in large registries (e.g., Canadian GI bleeding registry) to minimize the risk of manual errors.
Medical Record Review	Evaluating a percentage (e.g., 20%) of records to ensure the accuracy of data collection practices.
Aggregate Trend Review	A practical solution for under-resourced studies to track eligibility trends even when comprehensive monitoring is too costly.

Case Study: Rectal Indomethacin for post-ERCP Pancreatitis (PEP) A clinical trial failed to identify enrollment practices that inadvertently enriched the study sample with sphincter of Oddi dysfunction (SOD) patients. Because there was no monitoring apparatus, the most significant limitation of the trial—the disproportionate SOD population—was not corrected during the study.

3. The Integration of Health Equity

Health equity must be an intentional consideration throughout the entire research continuum, rather than an afterthought.

- **The Research Continuum:** Equity considerations must span study choice, patient selection, data collection, and the interpretation/reporting of results.
- **AI and Predictive Analysis:** In studies involving artificial intelligence, unbiased data collection and diverse training set variable selection are critical. This ensures the resulting algorithm or model is safe and effective for all patient populations.
- **Stigma and Discrimination:** Disparities in research activity between diseases (e.g., inflammatory bowel disease vs. chronic pancreatitis) can reflect research discrimination based on stigma or perceived socioeconomic status.
- **Community Engagement:** In large-scale clinical trials, partnering with health equity experts and engaging representatives from diverse communities is vital for generalizability.

4. Implementation and Practicality

While the proposed quality measures are aspirational, they are designed to be achievable.

- **Resource Management:** Certain measures (e.g., blinding, trial oversight) require additional funding and experts (statisticians, equity experts), while others do not.
- **Incremental Progress:** Even partial application of these measures is considered valuable. The primary goal is for investigators to critically consider each measure during the study design phase.
- **Collaboration:** Progress is achieved by sharing experiences regarding research limitations and creative solutions at conferences and through peer-reviewed publications.

Short-Answer Practice Questions

1. **What was the timeframe for the literature review conducted by the ASGE task force?**
 2. **Why did the task force examine evidence from general medicine and surgery rather than focusing solely on endoscopy?**
 3. **According to the document, what is the "EQUATOR Network"?**
 4. **How did the lack of a monitoring apparatus affect the trial on rectal indomethacin for post-ERCP pancreatitis?**
 5. **What method did the Canadian registry of endoscopy in upper GI bleeding use to minimize error risk?**
 6. **In the context of AI and predictive analysis, why is training set variable selection considered a critical equity issue?**
 7. **Identify two phases of the "research continuum" where an intentional approach to equity should be applied.**
 8. **What was the primary goal of centrally reviewing 20% of medical records in the study comparing ERCP with percutaneous drainage?**
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Essay Prompts for Deeper Exploration

1. **The Role of Expert Opinion in Guideline Development:** The task force utilized expert opinion for measures where supporting evidence was limited. Discuss the benefits and potential drawbacks of relying on consensus-based expert opinion in the creation of medical research standards.
 2. **Data Monitoring as a Quality Safeguard:** Using the examples provided in the text (the PEP trial and the Canadian GI registry), analyze how central monitoring serves as both a quality control and a course-correction mechanism in multicenter clinical trials.
 3. **Applying an "Equity Lens" to Endoscopic Research:** Examine the document's assertion that equity must be "intentional" throughout the research process. How might failing to engage diverse community representatives or ignoring unbiased data collection in AI models lead to "unintended consequences for traditionally disadvantaged patients"?
 4. **Feasibility vs. Rigor:** The document acknowledges that high-quality research is "never the path of least resistance." Discuss the balance between aspirational research standards and the practical realities of under-resourced studies.
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Glossary of Important Terms

- **AGREE (Appraisal of Guidelines for Research & Evaluation):** A reporting checklist and tool used to improve the quality and reporting of clinical practice guidelines.
- **ARRIVE (Animal Research: Reporting of In Vivo Experiments):** Guidelines specifically developed for reporting research involving animal models.
- **CARE (Case Report):** Consensus-based clinical case reporting guidelines.
- **CONSORT (Consolidated Standards of Reporting Trials):** An updated guideline for reporting randomized trials to ensure transparency and accuracy.
- **EQUATOR Network:** An international organization that promotes accurate, complete, and transparent reporting across all health research domains.
- **Generalizability:** The extent to which research results can be applied to diverse, real-world patient populations; often improved through community engagement.
- **MeSH (Medical Subject Headings):** A controlled vocabulary used by PubMed for indexing and searching medical information.
- **PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses):** A set of standards for reporting systematic reviews and meta-analyses.
- **SOD (Sphincter of Oddi Dysfunction):** A condition mentioned as a critical confounding variable in post-ERCP pancreatitis research.
- **STARD (Standards for Reporting Diagnostic Accuracy):** A list of essential items for reporting studies that evaluate the accuracy of diagnostic tests.
- **STROBE (Strengthening the Reporting of Observational Studies in Epidemiology):** Guidelines for the reporting of observational research studies.