

# Prophylaxis of Post-ERCP Pancreatitis: The Gap between Evidence-Based Guidelines and Clinical Practice

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## Keywords

NSAIDs · Endoscopic sphincterotomy · Pancreatic stent · Post-ERCP pancreatitis · Prophylaxis · Survey

**Profilaxia da pancreatite pós-CPRE: A diferença entre as guidelines baseadas na evidência e a prática clínica**

## Palavras Chave

AINEs · Esfincterotomia endoscópica · Prótese pancreática · Pancreatite pós-CPRE · Profilaxia · Questionário

Endoscopic retrograde cholangiopancreatography (ERCP) remains one of the most complex and “risky” endoscopic techniques and the one with a longer learning curve. Pancreatitis is the most common serious complication of ERCP [1, 2] and a frequent legal claim for ERCP-related malpractice. Post-ERCP pancreatitis (PEP) occurs in 2–10% of unselected patients and in up to 40% of the high-risk patients [2]. Even for experienced endoscopists, PEP is an unpredictable event, although enough data about risk factors and prophylaxis measures are available. Manipulation of pancreatic ducts is a well-known risk factor for PEP, and pancreatic stent placement is protective for PEP after pancreatic sphincterotomy [3].

The European Society of Gastrointestinal Endoscopy (ESGE) and American Society of Gastrointestinal Endos-

copy (ASGE) published guidelines on PEP prevention in 2014 and 2017, respectively, where both patient- and procedure-associated risk factors are identified, and prophylaxis measures are evidence-based and recommended [1, 4]. These measures may be as simple and safe as the use of rectal nonsteroidal anti-inflammatory drugs (NSAIDs; indometacin, diclofenac) or more technically demanding as the use of protective pancreatic stents. Systemic interventions, such as periprocedural vigorous hydration, may reduce not only the incidence but also the severity of PEP [1, 4].

Comparison between centers may be troublesome as the complexity of treated patients significantly varies. The definition of “personal experience” should not rely only on the number of cases encountered but also take the competence to treat according to complexity into consideration. Well-established grading scales for the degree of the difficulty of ERCP procedures are available [5, 6].

In this issue of *GE – Portuguese Journal of Gastroenterology*, the paper “ERCP in Portugal. A wide survey on the prevention of post-ERCP pancreatitis and papillary cannulation techniques” by Lopes and Canena [7] investigates the compliance of the Portuguese ERCP specialists with the ESGE guidelines for PEP prophylaxis. This survey of the attendants of an ERCP meeting puts the focus on four specific items: (1) technique for biliary cannulation; (2) NSAID use for PEP prophylaxis; (3) attempt to put a protective pancreatic stent after pancreatic guide-wire-assisted biliary cannulation; and (4) use of precut as the first rescue technique after cannulation failure. The

survey comprises a representative sample of 28 Portuguese ERCP specialists and shows surprising results demonstrating an evident discrepancy between evidence-based guidelines and clinical practice. This discrepancy is even more pronounced among the most experienced endoscopists, here defined by the number of procedures per year and procedures not adjusted to their complexity. Not less surprising answers about training in precut, an advanced ERCP technique, show that this was done in an autonomous way by the majority of participants. Unfortunately, the authors did not include any questions about vigorous periprocedural hydration. Although the survey of attendants of an ERCP meeting where the topic to be studied was on debate may have introduced some bias, the results are interesting and should be taken seriously.

The evidence for the use of NSAIDs, a simple and safe measure for PEP prophylaxis, is sufficient for their use in high- and low-risk patients, at least when they have a virgin papilla or when an intervention on the pancreatic duct is intended [1]. This is now adopted as a strong recommendation in all major guidelines. The current study reports the use of NSAIDs by only 54% of the endoscopists and, even more surprisingly, less use by those who have encountered the largest number of cases. This is again in complete contradiction with the evidence, which shows a beneficial impact even in ERCPs performed by experienced physicians. When compared with a similar survey performed in 2009 [8] when some evidence was already available, but guidelines had not been implemented, the percentage of physicians adequately using NSAIDs has grown from <20 to 54%, showing a progressive impact. However, this is still far from being appropriate. The results presented here suggest that a subgroup of physicians does not believe that the use of NSAIDs might have an impact on their own practice; or

they do not want to change their habits. Prophylactic pancreatic stenting is indicated in high-risk patients (previous history of PEP, sphincter of Oddi dysfunction, precut, pancreatic sphincterotomy, and multiple PD accesses or injections) [1, 4]. It is difficult to know the real percentage of physicians doing it, but it is probably <50%, similar to the results of the survey done 8 years ago [8].

Taken together, the results presented here demonstrate that there is still a lot of work to be done in educating and convincing even the most experienced endoscopists that processing evidence requires large studies on hundreds of patients and cannot just result from “personal experience”; a tendency that we all may have.

The correct identification of high-risk patients and the compliance with the established guidelines are obviously associated with a lower PEP incidence [9]. Therefore, personal experience in ERCP and confidence should not be motives for diverging from evidence-based recommendations. It turns clear that ERCP specialists and trainees must know the importance of PEP prophylaxis measures and follow it. This is true especially for the more experienced ones who assume a low incidence of PEP and therefore consider such prophylaxis measures unnecessary. An advanced course of ERCP is the right setting to not only teach the techniques but also how to prevent complications. This is the reason why such a survey is welcomed and may help standardizing the practice and incrementing the quality of ERCP in Portugal.

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### Disclosure Statement

The authors have no conflicts of interest to declare.

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