# Supplementary File

## 1. Definition of ERCP volume categories and expertise levels

**ERCP volume per center** was classified as *high* (>300 procedures/year), *medium* (100–300 procedures/year), or *low* (<100 procedures/year).

**ERCP expertise** was defined as *senior* for physicians performing ERCP independently without supervision (in Slovakia, this includes formally certified endoscopists) and *junior* for those performing ERCP mostly independently but occasionally requiring guidance, including non-certified endoscopists and fellows working exclusively under supervision at the time of the survey.

**Table S1.** Overview of survey questions related to ERCP quality indicators and PEP preventive measure utilisation

| **Question (Number)** | **Close-ended versus open-ended answers** |
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| 5. What is your center's approach to monitoring the post-ERCP pancreatitis (PEP) rate?<br><br>*Diagnostic Criteria for PEP (Based on the 2012 Revised Atlanta Classification)*<br>*Diagnosis requires at least two of the following three criteria:*<br>• *Abdominal pain consistent with acute pancreatitis (AP).*<br>• *Serum amylase and/or lipase levels ≥3× the upper limit of normal.*<br>• *Characteristic findings of AP on imaging (CT, MRI, or abdominal ultrasonography).* | a) We monitor PEP rates using a dedicated internal registry.<br>b) We monitor PEP rates through periodic audits.<br>c) We do not monitor or collect data on PEP rates. |
| 6. When tracking PEP rates, does your center include only inpatients, or both inpatients and external referrals? | Open-ended response. |
| 7. What is your center's approach to monitoring cannulation success rates? | a) We routinely track cannulation rates using a dedicated internal registry that includes all procedures performed by each endoscopist.<br>b) We conduct periodic audits or monitor cannulation rates at least for trainees.<br>c) We do not monitor or collect data on cannulation rates. |
| 8. How do you currently perceive — or how would you perceive, if not currently implemented — the systematic | a) Very positively.<br>b) Somewhat positively.<br>c) Neutral / No strong opinion.<br>d) Somewhat negatively.<br>e) Very negatively. |

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| monitoring of PEP and cannulation success rates at your center? | |
| 9. If you have a negative view of systematically monitoring these parameters (PEP and/or cannulation rates), or if you lack your own data, please indicate the reasons. *Multiple answers possible.* | a) I do not want to know my or my center's data but assume it meets the required criteria.<br>b) I do not want to know my or my center's data because I am concerned about whether it meets the required criteria.<br>c) I do not consider these parameters meaningful or important for clinical practice.<br>d) I lack sufficient time, human resources, or a functioning methodology.<br>e) I lack sufficient time or human resources but would consider monitoring if a functioning methodology were introduced.<br>f) Other reason *(please specify):* _____ |
| 10. How do you assess difficult cannulation in your routine practice?<br><br>*ESGE Difficult Cannulation Criteria*<br>*Defined as any of the following:*<br>• *Cannulation time exceeding 5 minutes,*<br>• *More than 5 contacts with the papilla, or*<br>• *More than one unintentional pancreatic duct cannulations or opacification.* | a) We record the number of contacts with the papilla.<br>b) We measure the time to successful cannulation.<br>c) We track both the number of papilla contacts and the cannulation time.<br>d) We count papilla contacts but estimate the cannulation time.<br>e) We do not record contacts or time; assessment is based on subjective judgment or experience. |
| 11. What is your standard approach to biliary cannulation in patients with a native papilla? | a) I typically initiate cannulation using a sphincterotome.<br>b) I typically initiate cannulation using a standard ERCP cannula.<br>c) I decide on the choice of instrument on a case-by-case basis, depending on the individual patient. |
| 12. What is your preferred strategy for biliary cannulation in patients with a native papilla? | a) I primarily use the guidewire-assisted cannulation technique.<br>b) I primarily use the contrast-assisted cannulation technique.<br>c) I do not have a preferred technique and choose the method based on the clinical situation. |

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| 13. How are NSAID suppositories for PEP prophylaxis administered at your center? | a) NSAIDs suppositories are routinely administered to all patients immediately before or after ERCP.<br>b) NSAID suppositories are administered to selected patients, always immediately before or after ERCP.<br>c) NSAID suppositories are administered to selected patients, with timing not always immediately before or after ERCP.<br>d) NSAID suppositories are not administered at our center. |
| 14. Which NSAID suppositories do you use most frequently? | a) Indomethacin<br>b) Diclofenac<br>c) Indomethacin and diclofenac (used interchangeably)<br>d) Other *(please specify):* |
| 15. If NSAID suppositories are not routinely administered to all patients immediately before or after the procedure, please describe your usual practice and explain the reasons for it. | Open-ended response. |
| 16. Do you use aggressive hydration for PEP prophylaxis at your center?<br><br>*ESGE Aggressive Hydration with Lactated Ringer's Solution Protocol*<br>*Recommended regimen:*<br>*Intravenous administration of 3 mL/kg/hour during ERCP,*<br>*Followed by a 20 mL/kg bolus immediately after the procedure, and*<br>*Continued infusion of 3 mL/kg/hour for 8 hours post-ERCP.* | a) Yes, in patients with contraindications to NSAIDs (without risk of fluid overload).<br>b) Yes, in patients with contraindications to NSAIDs (without risk of fluid overload), in combination with other prophylactic measures (e.g., pancreatic stents).<br>c) Yes, in patients with contraindications to NSAIDs (without risk of fluid overload), but we follow a modified hydration protocol.<br>d) No, we do not use aggressive hydration. |
| 17. If you use a modified hydration regimen, which type of solution do you administer, and what dosing protocol do you follow? | Open-ended response. |
| 18. Under what circumstances do you place prophylactic pancreatic stents (PS) during biliary cannulation?<br>*Select all that apply.*<br><br>*ESGE Difficult Cannulation Criteria*<br>*Defined as any of the following:*<br>• *Cannulation time exceeding 5 minutes,* | a) PS is placed in cases of difficult cannulation with easy pancreatic stenting.<br>b) PS placed after first unintended PD cannulation.<br>e) PS is placed only rarely at our center.<br>f) PS is not placed at our center at all. |

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| • *More than 5 contacts with the papilla, or*<br>• *More than one unintentional pancreatic duct (PD) cannulations or opacification.*<br><br>*ESGE Easy Pancreatic Stenting (PS) Criteria*<br>*Includes any of the following:*<br>*Pancreatic guidewire-assisted biliary cannulation,*<br>*Transpancreatic sphincterotomy, or*<br>*Repeated inadvertent PD cannulation.* | |
| 19. If prophylactic pancreatic stents are rarely or never used in your practice, please explain the reasons. | Open-ended response. |
| 20. What is the typical timing at your center for checking and, if necessary, removing a prophylactic pancreatic stent after insertion? | Open-ended response. |

**Table S2.** Center volume

| **Number of ERCPs per year** | **Slovakia N (%)** | **Czechia N (%)** | **Total N (%)** |
|---|---|---|---|
| **<100** | 1 (7.1) | 0 | 1 (3.9) |
| **100-300** | 9 (64.3) | 3 (25) | 12 (46.1) |
| **>300** | 4 (28.6) | 9 (75) | 13 (50) |

ERCP- Endoscopic retrograde cholangiopancreatography

**Table S3.** Endoscopist Workforce

| **Center** | **Slovakia-senior** | **Slovakia-junior** | **Czechia – senior** | **Czechia-junior** |
|---|---|---|---|---|
| **1** | 2 | 1 | 2 | 0 |
| **2** | 4 | 1 | 2 | 1 |
| **3** | 2 | 0 | 4 | 1 |
| **4** | 1 | 0 | 2 | 1 |
| **5** | 1 | 0 | 6 | 2 |
| **6** | 2 | 0 | 5 | 1 |
| **7** | 1 | 0 | 3 | 2 |
| **8** | 2 | 1 | 6 | 6 |
| **9** | 1 | 0 | 2 | 0 |
| **10** | 1 | 2 | 1 | 0 |
| **11** | 1 | 1 | 4 | 1 |
| **12** | 1 | 2 | 2 | 2 |
| **13** | 1 | 2 | | |
| **14** | 3 | 1 | | |

The median number of senior endoscopists per center was 1 (range 1–4) in Slovakia and 2.5 (range 1–6) in Czechia ($p = 0.006$), while the median number of junior endoscopists per center was 1 (range 0–2) in Slovakia and 1 (range 0–6) in Czechia ($p = 0.31$).

**Table S4.** Trainee involvement

| Trainees involved regularly | Slovakia N (%) | Czechia N (%) | Total N (%) |
|---|---|---|---|
| **Yes** | 9 (64.3) | 10 (83.3) | 19 (73.1) |
| **No** | 5 (35.7) | 2 (16.7) | 7 (26.9) |

In Czechia, 83.3% of centers reported regular trainee participation, compared with 64.3% in Slovakia (p = 0.37).

**Table S5.** Attitude Toward Monitoring of PEP and Cannulation Rates

| Answer options | Slovakia (%) | Czechia (%) | Total (%) |
|---|---|---|---|
| **Very positively** | 13 (92.9) | 3 (25) | 16 (61.5) |
| **Somewhat positively** | 1 (7.1) | 8 (66.7) | 9 (34.6) |
| **Neutral/No strong opinion** | 0 | 1 (8.3) | 1 (3.9) |
| **Somewhat negatively** | 0 | 0 | 0 |
| **Very negatively** | 0 | 0 | 0 |

Slovak respondents had a significantly more positive view of this practice (p = 0.001), with most rating it as *very positive*, whereas Czech respondents most often rated it as *somewhat positive*.

**Table S6.** Barriers to Monitoring PEP and Cannulation Rates Among Centers Lacking These Data (n = 12)

| Answer options | Slovakia (%) | Czechia (%) | Total (%) |
|---|---|---|---|
| **a)** | 1 (16,7) | 1 (16,7) | 2 (16,7) |
| **b)** | 0 | 0 | 0 |
| **c)** | 0 | 0 | 0 |
| **d)** | 0 | 0 | 0 |
| **e)** | 5 (83.3) | 5 (83.3) | 10 (83.3) |
| **f)** | 0 | 0 | 0 |

Answer coded (a–f) for the Question 9 correspond to those listed in Table S1.

**Table S8.** Overview of the Timing of Evaluation of Pancreatic Stent Passage and Endoscopic Extraction

| Cumulative timing of evaluation (range: 24 hours–4 weeks) | Slovakia (%) | Czechia (%) | Total (%) | p-value |
|---|---|---|---|---|
| **Never** | 1 (7.1) | 0 | 1 (3.6) | 1 |
| **≤ 5 days** | 9 (64.3) | 8 (66.7) | 17 (65.4) | 1 |
| **≤ 7 days** | 11 (78.6) | 11 (91.7) | 22 (84.6) | 0.598 |
| **> 7 days** | 2 (14.3) | 1 (8.3) | 3 (11.5) | 1 |