Societé Algerienne d'Endoscopie Digestive "Mindar"

3emes journées nqtionqles d'endoscopie digestive
7/8 novembre 2025

ERCP: The fundamentals

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Let’s start from the origins…

- First ERCP: 1968
- First sphincterotomy: 1973 The term “ERCP cannulation”:

1980: **07** items in PubMedREV ESP ENFERM DIG 2018:110(2):71-73

2015: 92 items in PubMed

2018: **1,563** items in PubMed

- Conventional cannulation (sphinctérotome / guidewire): 70% success.
- 1986: first Precut (named by De la Morena) extensive series of patients was reported by Huibregtse.

REV ESP ENFERM DIG 2018:110(2):71-73

Evolution

- 2001 : De la Morena: how he learned his **needle-knife papillotomy** technique:

- 53 patients : 03 perforations / 03 major bleeding (11,3%) / No pancrétitis.
- Overall success rate: 51/53 (96.2%)

- Transpancréatic sphincterotomy
- Double guide wire
- Pancratic stent……

REV ESP ENFERM DIG 2018:110(2):71-73

From the 70s to 2025: ERCP always a hot topic

Who should be trained in ERCP ?

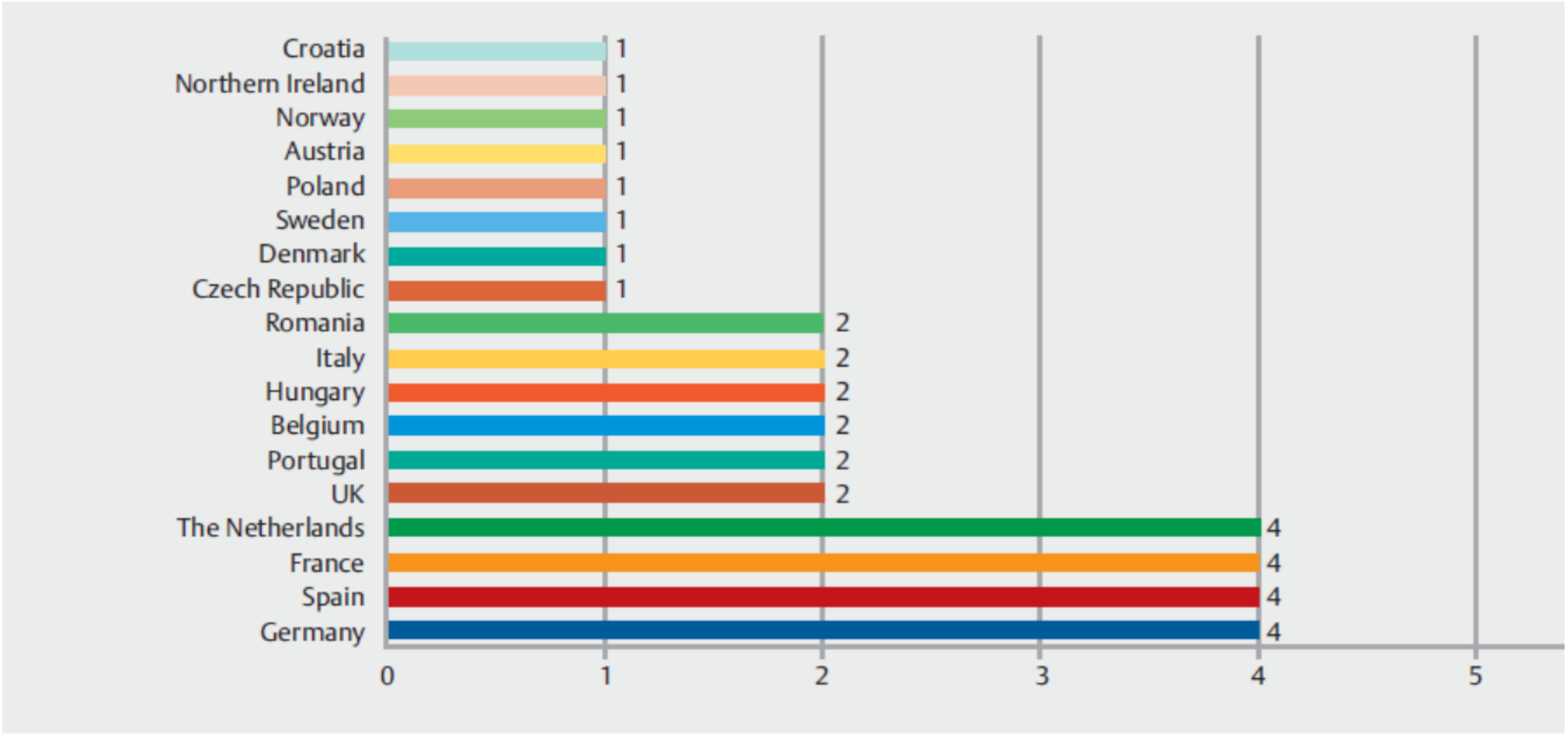
Who will excel in advanced endoscopy? A study assessing the criteria and perceptions of experts with regard to selection of ERCP and EUS trainees

OPEN ACCESS

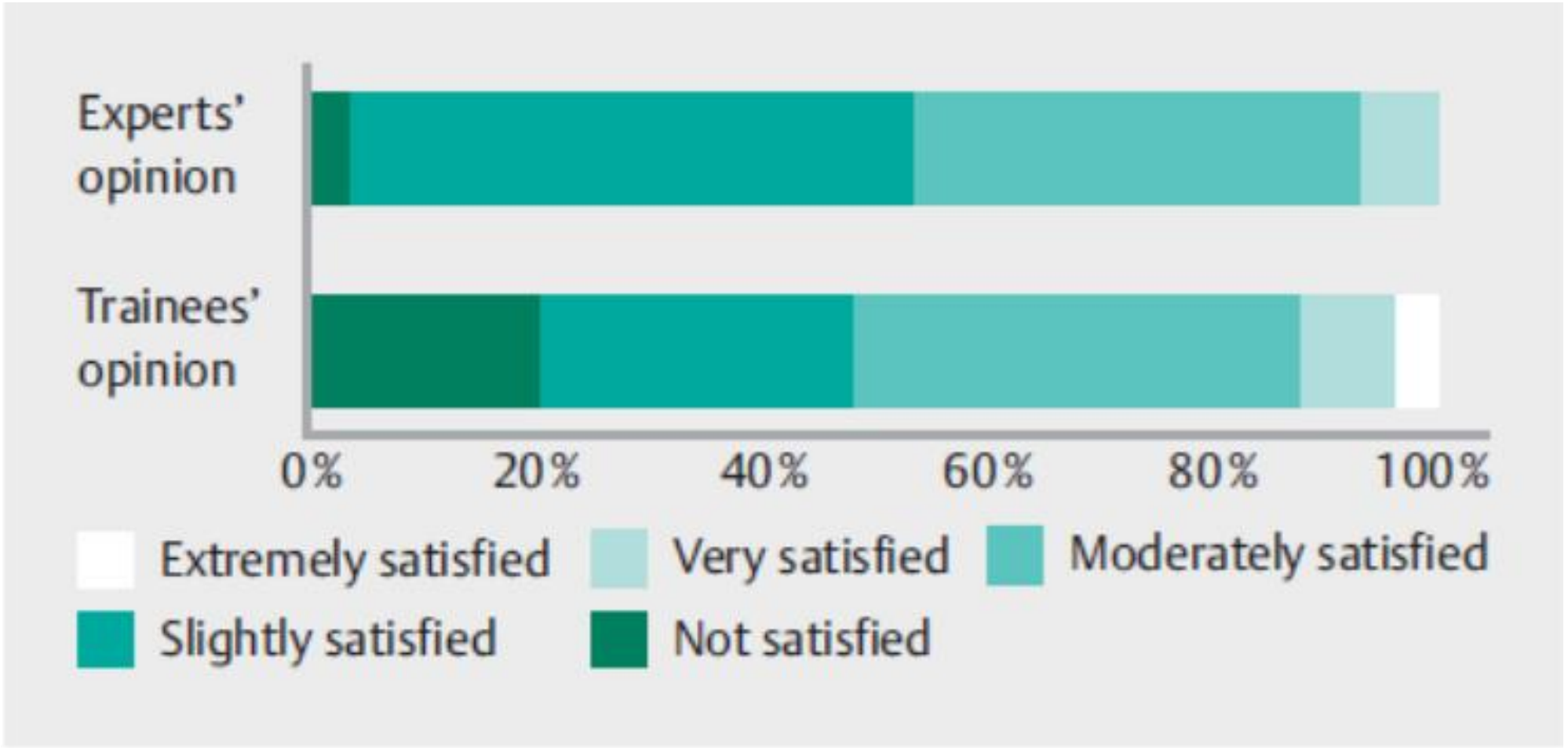
Authors
Sara Campos[1,2], Jacques Devière[1,2,3], Marianna Arvanitakis[2,3]

- Training program directors
- selecting ERCP/EUS trainees and determining the workforce in endoscopy.
- 36 training program directors (TPDs)/experts / 25 trainees /18 countries.
- Application process: mainly by individual request (86.1%).

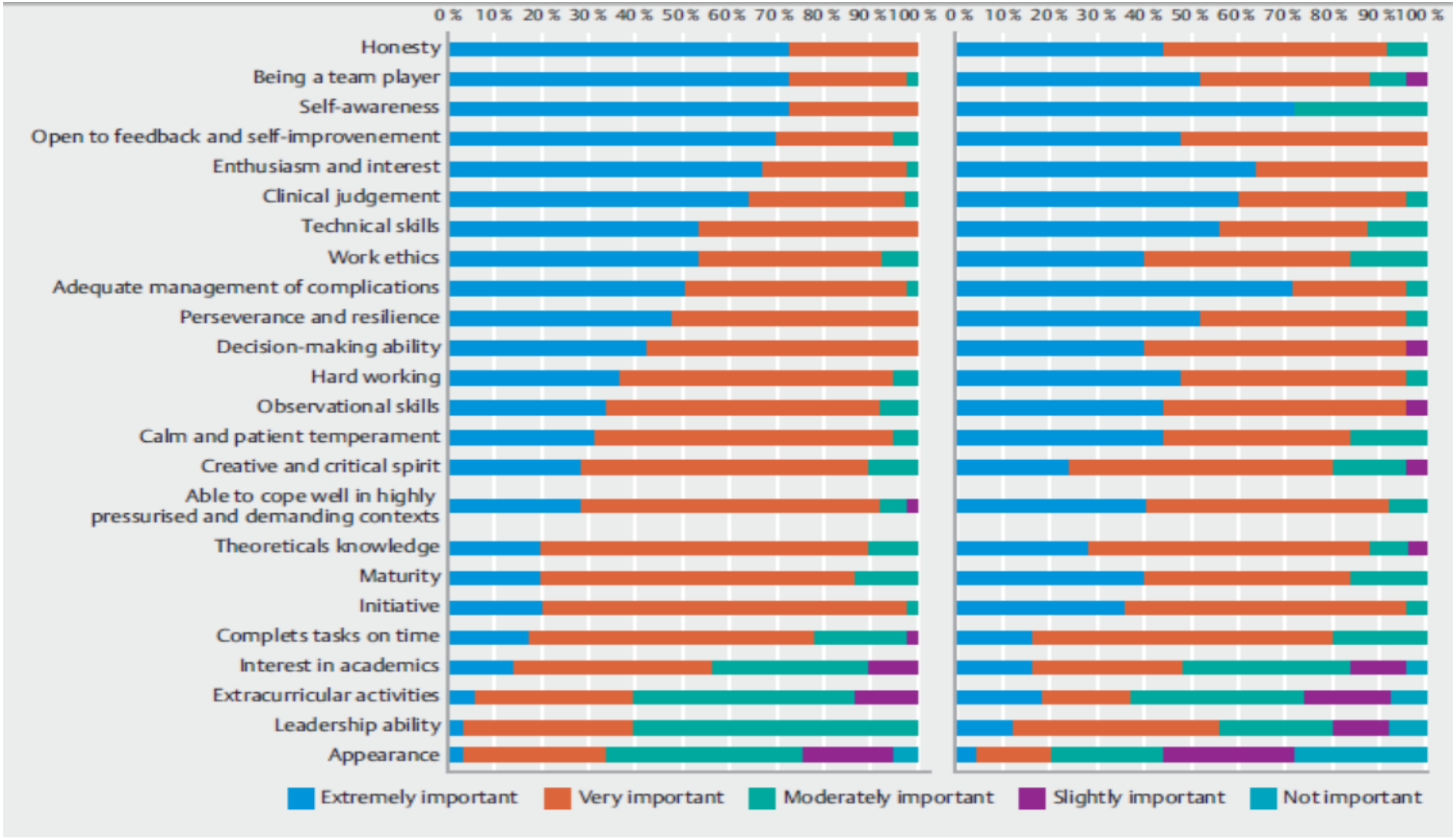
Campos Sara et al. Who will excel… Endosc Int Open 2023; 11: E268–E275 |



▶ **Fig. 1** Geographical distribution of both TPDs/experts and trainee respondents to survey on ERCP/EUS training.



► **Fig. 2** TPD/expert and trainee opinions regarding current ERCP/EUS trainee selection process.



▶**Fig. 3** Rating of trainee characteristics regarding their importance to TPDs/experts (left graphic) and trainees (right graphic).

Results

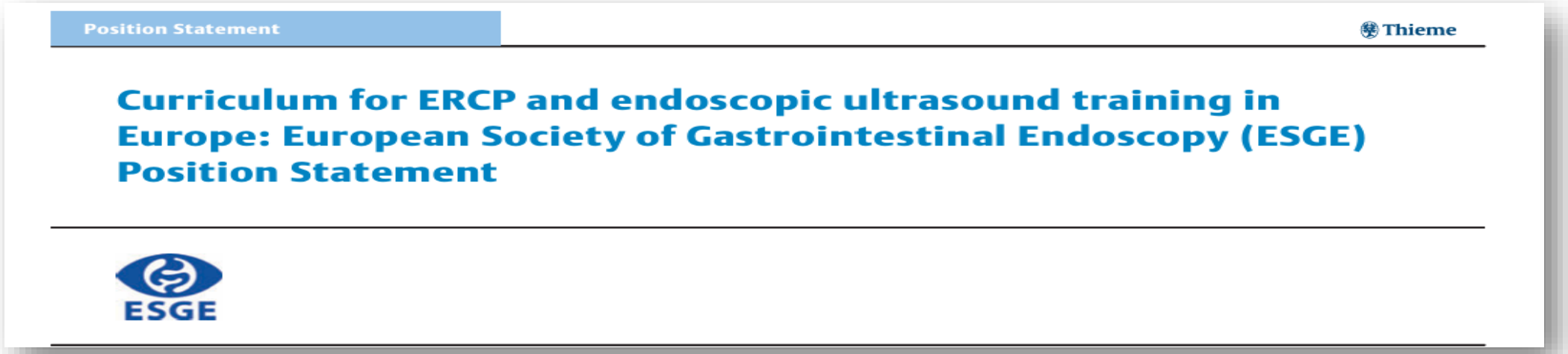
Almost half of TPDs/experts
felt only moderately (38.9%) to slightly (8.3%) satisfied
with the current application process

Experts opinion / Eligibility criteria
diversity of trainee characteristics ++
“honesty” / “being a team player” / “self-awareness” (72.2% each)
Technical skills (ranked 7th but considered extremely important)

Reasons for disqualification
“Disregard for patient welfare”
“lack of work ethic”

Campos Sara et al. Who will excel… Endosc Int Open 2023; 11: E268–E275 | © 2023. The Author(s).

Technical skills



- At least 300 Gastroscopies
- Meeting ESGE quality mesures for UGI endoscopy

- Level 01 interventional endoscopy experience ??.....not mentionned

Communication from the ASGE Training Committee

Endoscopic retrograde cholangiopancreatography (ERCP): core curriculum

Prepared by: ASGE TRAINING COMMITTEE

Jennifer Jorgensen, MD, Nisa Kubiliun, MD, Joanna K. Law, MD, Mohammad A. Al-Haddad, MD, FASGE, Juliane Bingener-Casey, MD, PhD, Jennifer A. Christie, MD, Raquel E. Davila, MD, FASGE, Richard S. Kwon, MD, Keith L. Obstein, MD, MPH, Waqar A. Qureshi, MD, FASGE, Robert E. Sedlack, MD, MHPE, Mihir S. Wagh, MD, FASGE, Daniel Zanchetti, MD, Walter J. Coyle, MD, FASGE, previous Committee Chair, Jonathan Cohen, MD, FASGE, Committee Chair

This document was reviewed and approved by the Governing Board of the American Society for Gastrointestinal Endoscopy

limitations, and alternatives to the procedure. As a prerequisite, competence in upper endoscopy is required, including visualization of the upper GI tract, minimizing patient discomfort, proper identification of normal and abnormal findings, and mastery of basic therapeutic techniques. Only then can competency in using a side-

Learning curve

Hands on training with the expert:

- Classic way
- Trainee well known by the trainer
- Efficient, but……

Simulator training:

- More opportunities for trainees
- Acceleration of the learning curve
- Patient safety ++++
- But…….

Schutz grading scale in ERCP

TABLE 1. Grading scale for ERCP based on difficulty

	Biliary procedures	Pancreatic procedures
Grade 1	Diagnostic cholangiogram Biliary brush cytology Standard sphincterotomy ± removal of stones <10 mm Stricture dilation/ stent/ NBD for extrahepatic stricture or bile leak	Diagnostic pancreatogram Pancreatic cytology
Grade 2	Diagnostic cholangiogram with BII anatomy Removal of CBD stones >10 mm Stricture dilation/ stent/ NBD for hilar tumors or benign intrahepatic strictures	Diagnostic pancreatogram with BII anatomy Minor papilla cannulation
Grade 3	SOM Cholangioscopy Any therapy with BII anatomy Removal of intrahepatic stones or any stones with lithotripsy	SOM Pancreatoscopy All pancreatic therapy, including pseudocyst drainage

Systematic Review / Meta-analysis

ANNALS OF MEDICINE & SURGERY

OPEN

The use of simulators to acquire ERCP skills: a systematic review

Konstantinos Georgiou, MD, PhD[a], Kiril T. Atliev, MD[b], Ninos Oussi, MD, PhD[e,g], Nikola Boyanov, MD[c], Gabriel Sandblom, MD, PhD[f], Lars Enochsson, MD, PhD[d,h,*]

- 2020 articles inculding: ERCP + simulation or simulator
- 41 reference / 19 articles
- Only 01 met the inclusion criteria

In this systematic review of validation studies of ERCP simulators, only one met the criteria for a correctly performed validation[14]. Furthermore, many of the studies reviewed were performed on a small number of participants and failed to evaluate the role of simulators in acquiring the skills necessary. Further studies are needed that include a sufficient number of participants, that evaluate a complete preclinical training program from beginner to competence to excellence on a simulator validated for ERCP, with continual assessment of competence throughout training.

Position Statement

Thieme

Curriculum for ERCP and endoscopic ultrasound training in Europe: European Society of Gastrointestinal Endoscopy (ESGE) Position Statement

ESGE

Accelerate the learning curve
Training should start with simulator
Encouraged when available

Very low	Weak
Very low	Weak

Communication from the ASGE Training Committee

ERCP CORE CURRICULUM

AMERICAN SOCIETY FOR GASTROINTESTINAL ENDOSCOPY ASGE

Endoscopic re … (ERCP):
core curriculu …

Prepared by: ASG …

Encouraged but…..
Despite the theoretical advantages
to simulator-based training, an objective benefit of
such activity for ERCP has Not yet been demonstrated

FOCUSED REVIEW SERIES:
Training in Endoscopy

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CLINICAL ENDOSCOPY

Open Access

Training in Endoscopy: Endoscopic Retrograde Cholangiopancreatography

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Endoscopic retrograde cholangiopancreatography (ERCP) is a key endoscopy skill used to diagnose and treat pancreatobiliary diseases. However, its diagnostic use is decreasing in favor of other less invasive methods such as magnetic resonance cholangiopancreatography and endoscopic ultrasound. Alternatively, its use has become more important in the therapeutic area. ERCP trainees must know the anatomy and physiology of the pancreatobiliary system, several key basic skills, and complications of a successful procedure. This article briefly introduces basic ERCP knowledge, techniques, numbers necessary to achieve competency, and complications for new ERCP operators. **Clin Endosc 2017;50:334-339**

Key Words: Endoscopy; Cholangiopancreatography, endoscopic retrograde; Biliary tract; Pancreas

Korean Pancreato Biliary Association (KPBA)
03 steps training

- **Before the ERCP procedure:**

- knowledge of the anatomy and physiology
- Medications for sedative endoscopy /proper antibiotic usage
- Informed consent / Gastric endoscopy skill
- ERCP indications and contre-indications +++

During the ERCP procedure:

Basic skills required for beginners +++

Procedure types by difficulty level

knowledge of radiation exposure.

After the ERCP procedure:

The ability to prevent and manage procedure-related complications

Report the results properly after the procedure.

Clin Endosc 2017;50:334-339

ESGE	ASGE
• 300 Upper endoscopy	• Competence in upper endoscopy / mastery basic thérapeutic endoscopy
• Simulator ++ • Formal courses • Learning ressources	• Simulator: why not • Formal courses • Learning ressources
• Minimal training: 12months in high volume center (Schutz 1/2) • 1 more year (Schutz 3/4)	• Minimal training: 12months in high volume center (Schutz 1/2) • 1 more year (Schutz 3/4)
• Trainer: 03 years experience	• Trainer: more then 01 faculty

Volume 83, No. 2 : 2016 GASTROINTESTINAL ENDOSCOPY 279

At the operating room !!!

Technical fundamentals / Basic skills

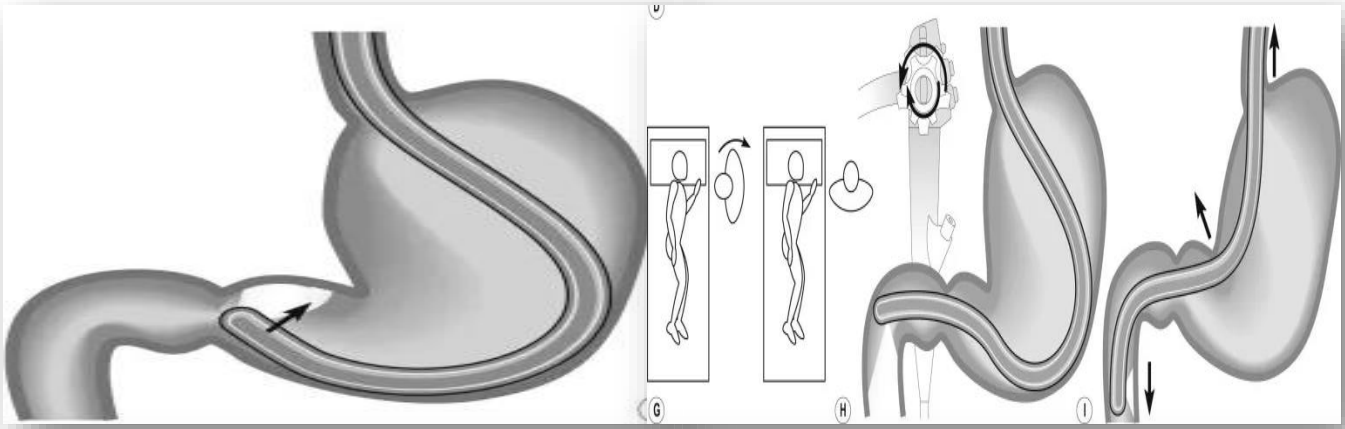
Scope insertion

Safety

Insertion to esophagus, stomach and D2

Passing the pylorus (sun-set manœuvre)

Shortening at D2



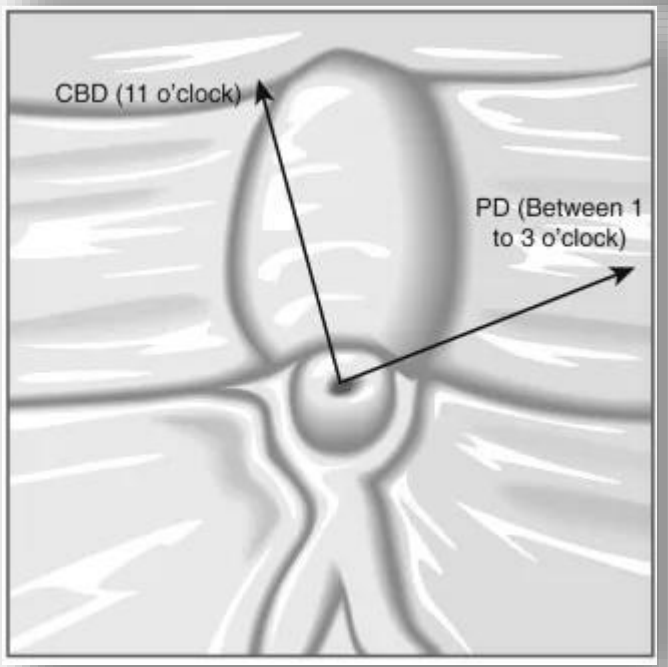
Selective cannulation

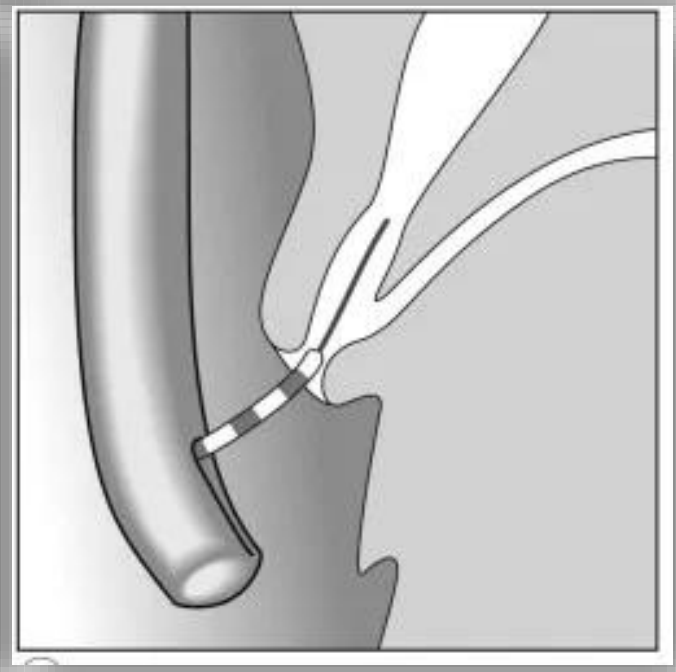
11 o'clock direction: CBD

1 o'clock to 5 o'clock: pancreatic duct

After training: success rate>80%

Précut should be trained (10/15%)





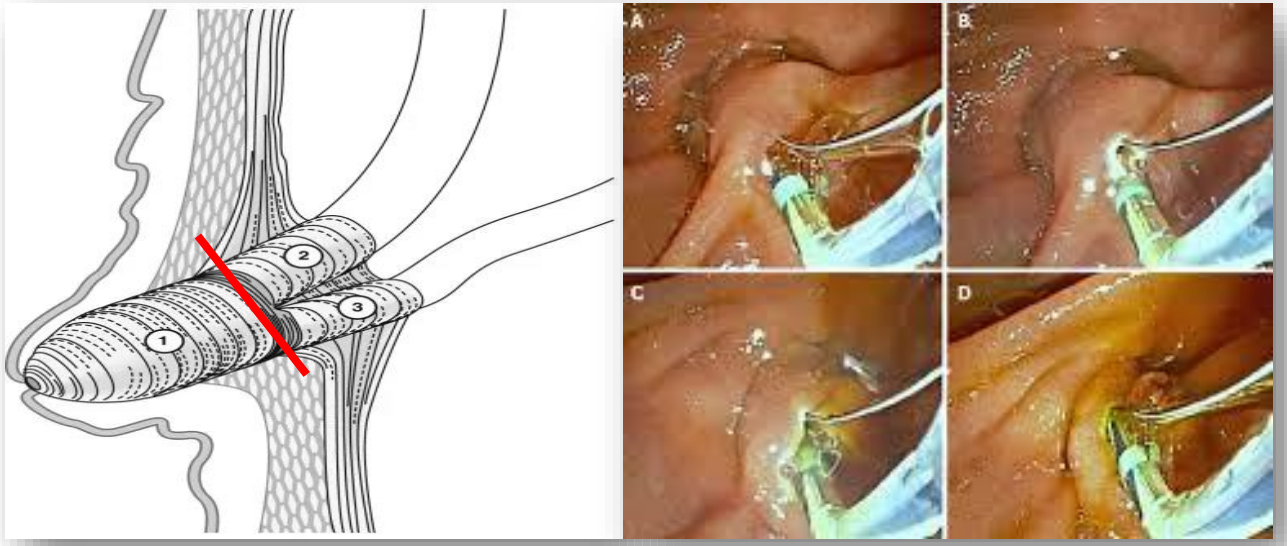
Technical fundamentals / Basic skills

Sphincterotomy

Understanding complications: bleeding / perforaton.

Performed after CBD cannulation

Not to perform it too fast (pancreatic duct++)



Balloon dilatation

Knowing the indications

The balloon size

Gradual expansion of the balloon

Complications : bleeding/perforation/pancréatitis

Technical fundamentals / Basic skills

CBD stones removal / Stent insertion

Most commonly performed procédures

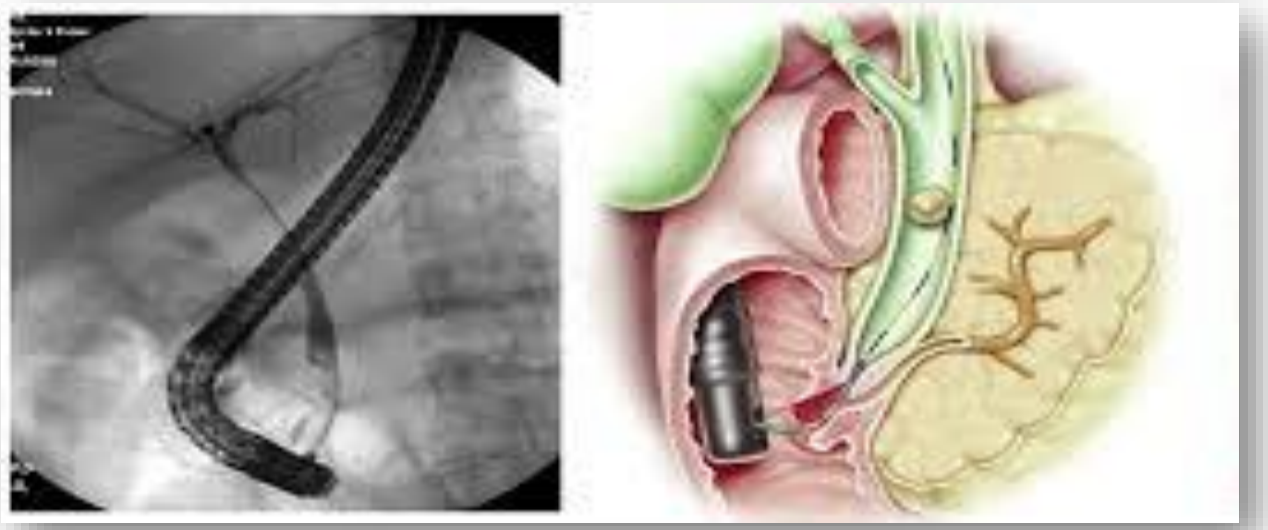
success rate should be ≥85%

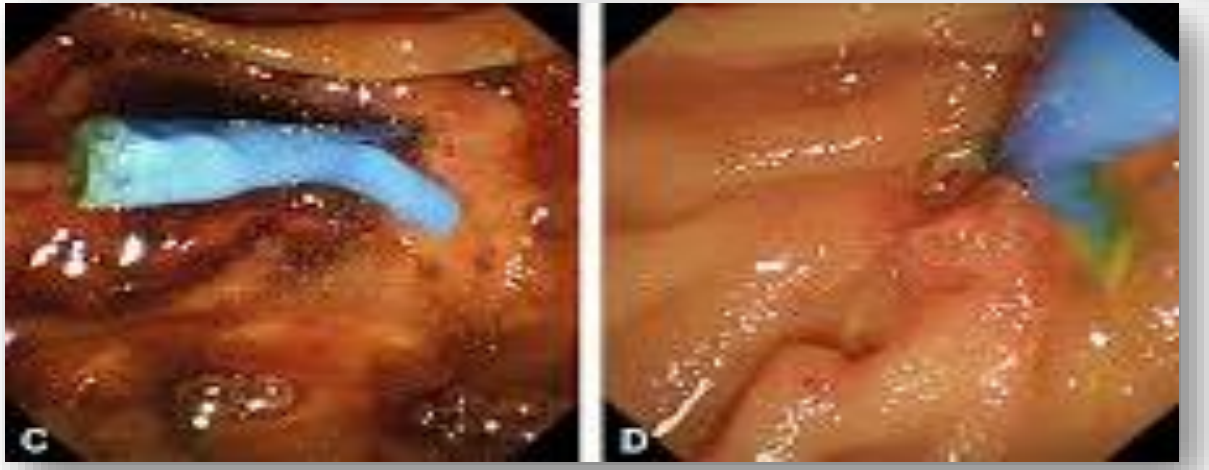
Basket / Balloon

Basket impaction +++

Lithotripsy

Type/ lenth and diameter of the stent.





Competency assessment

BESAT score

▶ **Table 1** Inter-item and item-total correlations for BESAT.

	DS	PA	E	GP	PTC	C	T	AEDI	ASI	WA	SAWP	PJ	GA	TBS
Alignment and maintenance of positioning														
Duodenoscope stability	–													
Papillary alignment	.624	–												
Cannulation														
Efficiency	.618	.711	–											
Gentleness of manipulation	.402	.463	.644	–										
Positioning and trajectory of catheter/wire	.538	.782	.745	.674	–									
Sphincterotomy														
Control	.473	.401	.545	.437	.425	–								
Trajectory	.435	.397	.510	.430	.475	.742	–							
Avoidance of excess diathermy injury	.327	.323	.402	.291	.449	.618	.681	–						
Adequacy of size for indication	.466	.471	.660	.355	.575	.682	.645	.637	–					
Wire manipulation and positioning														
Wire advancement	.312*	.429	.449	.492	.577	.529	.555	.473	.399	–				
Stable and appropriate wire position	.382	.280*	.315*	.323	.361	.598	.573	.460	.407	.750	–			
Procedural judgment	.610	.709	.780	.629	.763	.578	.610	.493	.596	.655	.515	–		
Global assessment	.572	.735	.840	.611	.815	.552	.580	.483	.662	.550	.390	.849	–	
Total BESAT score	.593	.618	.639	.532	.578	.575	.727	.606	.742	.726	.696	.827	.744	–

BESAT, Bethesda ERCP Skill Assessment Tool; DS, duodenoscope stability; PA, papillary alignment; E, efficiency; GM, gentleness of manipulation; PTC, positioning and trajectory of catheter/wire; C, control; T, trajectory; AEDI, avoidance of excess diathermy injury; ASI, adequacy of size for indication; WA, wire advancement; SAWP, stable and appropriate wire position; PJ, procedural judgement; GA, global assessment; TBS, total BESAT score.
*$P < .05$; all other $P < .0$.

TEESAT scale

The EUS and ERCP Skills Assessment Tool (TEESAT)

ERCP

Assigned Code:_____

Indication for ERCP(mark all that apply):

Biliary:

- ☐ Stent removal/change
- ☐ Suspected/established CBD stones
- ☐ Post-transplant stricture
- ☐ Stricture
  - ☐Benign ☐Malignant ☐Indeterminate
  - ☐Bismuth I ☐Bismuth II ☐Bismuth III ☐Bismuth IV
- ☐Bile leak
- ☐Cholangioscopy
- ☐Suspected sphincter of Oddi dysfunction
- ☐Other:_____

Pancreatic:

- ☐Stricture
- ☐Leak/fistula
- ☐Recurrent acute pancreatitis
- ☐Stent removal/change
- ☐Suspected SOD
- ☐Stone
- ☐Minor papilla endotherapy
- ☐Pancreatoscopy
- ☐Other:_____

FAILED ERCP from outside center? ☐Yes ☐No

If yes, ☐Biliary ☐Pancreatic

ASGE ERCP Degree of Difficulty Grade:

Biliary:

Grade 1	Grade 2	Grade 3
☐Diagnostic cholangiogram ☐Biliary brush cytology ☐Standard sphincterotomy ☐+/- removal of stones < 10mm ☐Stricture dilation/stent for benign extrahepatic stricture or bile leak	☐Diagnostic cholangiogram with BII anatomy ☐Removal of CBD stones >10mm ☐Stricture dilation/stent for hilar tumors or benign intrahepatic stricture or bile leak	☐SOM ☐Cholangioscopy ☐Any therapy altered anatomy ☐Removal of intrahepatic stones with lithotripsy

Pancreatic:

Grade 1	Grade 2	Grade 3
☐Diagnostic pancreatogram ☐Pancreatic cytology	☐Diagnostic pancreatogram with BII anatomy ☐Minor papilla cannulation	☐SOM ☐Pancreatoscopy ☐Any therapy altered anatomy ☐All pancreatic therapy including pseudocyst drainage

Maneuvers (ALL ERCPs):

1(superior) =achieves without instruction **2(advanced)** =achieves with minimal verbal cues
3(intermediate) = achieves with multiple verbal cues or hands on assistance **4 (novice)** =unable to complete
N/T= not attempted **N/A=** not applicable

Intubation	1 2 3 4 N/T N/A
Achieving the short position	1 2 3 4 N/T N/A
Identifying the papilla	1 2 3 4 N/T N/A

Native papilla?	☐ yes ☐ no
Prior biliary sphincterotomy?	☐ yes ☐ no
Prior pancreatic sphincterotomy?	☐ yes ☐ no

The EUS and ERCP Skills Assessment Tool (TEESAT)

BILIARY ERCP

Technical Aspects

1(superior) =achieves without instruction **2(advanced)** =achieves with minimal verbal cues
3(intermediate) = achieves with multiple verbal cues or hands on assistance **4 (novice)** =unable to complete
N/T= not attempted **N/A=** not applicable

Stent removal	1 2 3 4 N/T N/A
Cannulation- Contrast visualization of bile duct	1 2 3 4 N/T N/A
Inadvertent cannulation of pancreatic duct	☐ yes ☐ no
Sphincterotomy	☐ yes ☐ no
If yes	1 2 3 4 N/T N/A
Wire placement in desired (biliary) duct?	☐ yes ☐ no
If yes	1 2 3 4 N/T N/A
Double-wire used to cannulate bile duct	☐ yes ☐ no
Wire placed in pancreatic duct?	1 2 3 4 N/T N/A
Cannulation of CBD achieved?	☐ yes ☐ no
Cannulation of CBD?	1 2 3 4 N/T N/A
PD stent placed to facilitate BD cannulation?	☐ yes ☐ no
Wire placed in PD?	1 2 3 4 N/T N/A
PD stent placement?	1 2 3 4 N/T N/A
Cannulation of CBD achieved?	☐ yes ☐ no
Cannulation of CBD?	1 2 3 4 N/T N/A
Pre-cut sphincterotomy?	1 2 3 4 N/T N/A

Time to attempt cannulation of first duct of interest for trainee (To start when cannulating device out of duodenoscope)? _____**(in minutes)**

If trainee cannulation failed, did supervisor succeed? ☐ yes ☐ no

Time for attending to achieve cannulation?_____ **(in minutes)**

Technique used to achieve cannulation?

☐Regular cannulation ☐Double-wire ☐PD Stent placement ☐Pre-cut sphincteromy

Balloon sweep	1 2 3 4 N/T N/A
Use of basket	1 2 3 4 N/T N/A
Mechanical lithotripsy	1 2 3 4 N/T N/A
Stone clearance	1 2 3 4 N/T N/A
Stricture dilation	1 2 3 4 N/T N/A
Stent insertion	1 2 3 4 N/T N/A

Cognitive Aspects

1(superior) =appropriate knowledge, requires no instruction **2(advanced)** =achieves with minimal verbal cues
3(intermediate) = achieves with multiple verbal cues **4 (novice)** =poor knowledge unable to achieve endpoint
N/T= not attempted **N/A=** not applicable

Fellow demonstrated clear understanding of indication of procedure	1 2 3 4 N/T N/A
Cholangiogram	1 2 3 4 N/T N/A
Appropriate use of fluoroscopy	
Proficient use of real time cholangiogram interpretation and ability to identify nature of pathology (stone, stricture, leak, etc.)	1 2 3 4 N/T N/A
Logical plan based on cholangiogram findings	1 2 3 4 N/T N/A
Fellow demonstrated clear understanding for appropriate use of rectal indomethacin?	1 2 3 4 N/T N/A

Achievement of competency

UNITED EUROPEAN GASTROENTEROLOGY ueg journal

Original Article

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2019, Vol. 7(2) 239–249

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Measuring trainee competence in performing endoscopic retrograde cholangiopancreatography: A systematic review of the literature

**Theodor Voiosu[1,2], Paul Bălănescu[1], Andrei Voiosu[2], Andre
Carmen Preda[1,3], Devica S Umans[4], Radu Bogdan Mateescu[1]
Jeanin E van Hooft[4]**

- 522 initially identified articles
- Only 20 studies included
- Main outcome measure: threshold for achieving competence in ERCP
- Secondary outcome: Assessment of trainee performance

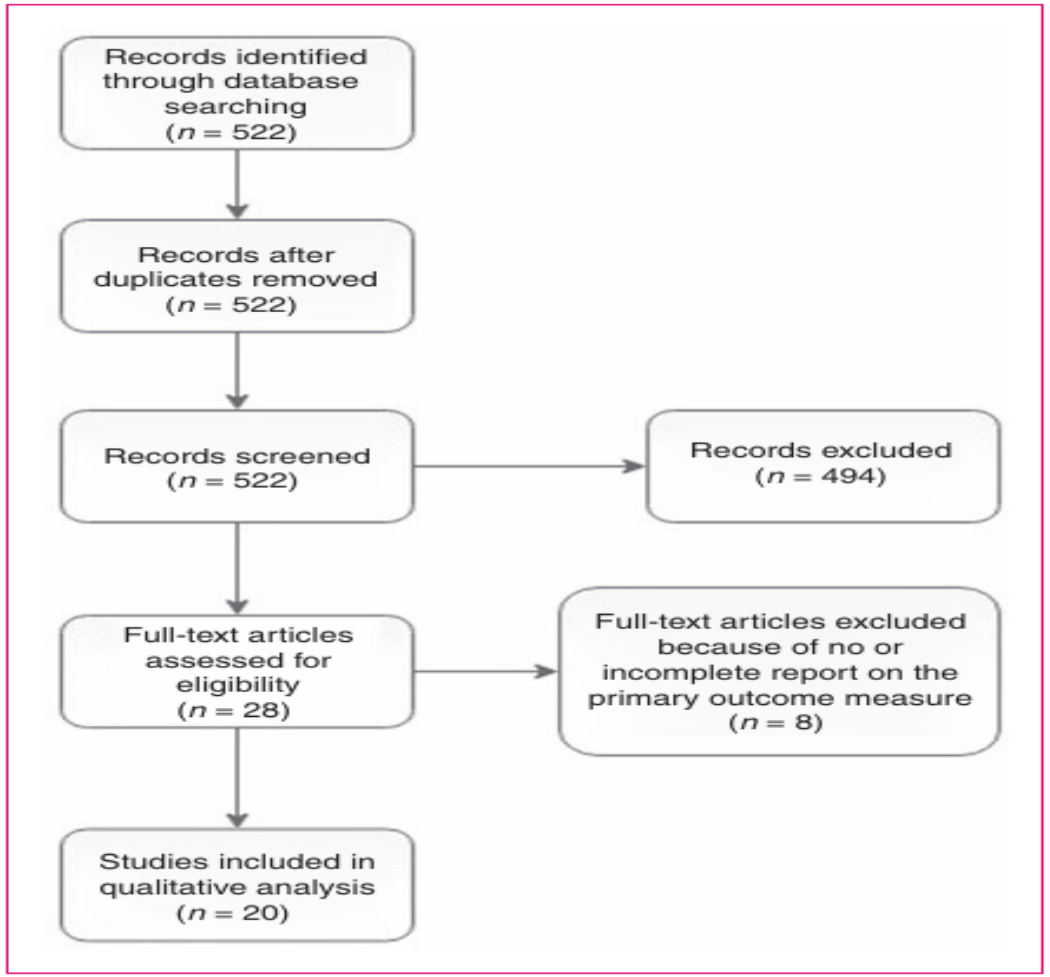

Table 4. Comparison of definition of competence and trainee performance across studies included in the final analysis.

First author, year	Definition of competence	Percentage of trainees achieving competence	Necessary caseload before competence is reached	Observations
Jowell, 1996	80% Or more of examinations graded as satisfactory by the supervisor (score of 1, 2 or 3 on a 6-point scale)	23.5% (4/17)	120–140 ERCPs to achieve 'overall competence'	Only 9/17 trainees performed >100 procedures; no trainee reached competence for native papilla cannulation by 180 procedures
Watkins, 1996	Successful cannulation of desired duct >90%	10% (2/20)	100 ERCPs	Unclear if only native papilla cases were included. Mean number of procedures/ trainee = 36
Verma, 2007	Deep CBD cannulation rate >80%	100% (1/1)	350 ERCPs	Single operator study with long-term follow-up (>1000 procedures reported)
Vitale, 2006	CBD cannulation rate >85%	76.9% (10/13)	148 ERCPs	Significant proportion of diagnostic ERCPs, no data on native papilla cannulation rates
Waller, 2009	CBD cannulation in native papilla (cusum analysis)	100% (1/1)	100 ERCPs	Overall cannulation rate 70.6% in native papillas over a total caseload of 238 cases
Ekkelenkamp, 2014	80% CBD cannulation rate overall	13.3% (2/15)	160 ERCPs	Results reported by trainee (self-reported) None achieved >80% cannulation rates in native papilla cases
Wani, 2016	Native papilla cannulation rate (CBD) (cusum analysis)	0% (0/5)	N/A	All trainees had a caseload of at least 270 ERCPs during the study period
Wani, 2017	Cusum analysis of cannulation technique in native papilla as assessed by the trainer using a dedicated instrument (TEESAT)	17.6% (3/17)	N/A	60% (12/20) Of trainees achieve overall technical competence as assessed using TEESAT

CBD: common bile duct; cusum: cumulative sum; ERCP: endoscopic retrograde cholangiopancreatography; N/a: not applicable; TEESAT: The EUS and ERCP Skills Assessment Tool.

United European Gastroenterology Journal 2019, Vol. 7(2) 239–249

UNITED EUROPEAN GASTROENTEROLOGY ueg journal

Original Article

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SAGE

Measuring trainee competence in performing endoscopic retrograde cholangiopancreatography: A systematic review of the literature

Conclusions:

- Current literature identifies cannulation rate of a native papilla to be the most appropriate measure of ERCP competence.
- Most trainees do not reach predefined competence thresholds
- Most appropriate competence measure remains subject for debate.

Achievment of competence

Table 2. Recommended Adequate Numbers of ERCP Experience in Each Skills in a Prospective Study

Skills of ERCP	Adequate numbers of ERCP before achievement
Cholangiography	160
Pancreatography	140
Deep cannulation of the pancreatic duct	160
Stone extraction	120
Stent insertion	60
Overall competence	180–200

ERCP, endoscopic retrograde cholangiopancreatography. Adapted from Jowell et al.[11]

KSGE: >30 ERCP cases (>10 therapeutic procedures) as an optional criteria
Overall competence after completing 180–200 ERCP

ASGE: **100** ERCP in 1997/ **200** ERCP in 2016

ESGE: **> 300** ERCP

UK Joint Advisory: **> 300** ERCP

It's not only about numbers

Personalized assessment +++
Technical succés **(80%/90%)**
Difficulty level of cases
Patients outcome

Clin Endosc 2017;50:334-339
GASTROINTESTINAL ENDOSCOPY Volume 83, No. 2 : 2016

Thieme

UK Joint Advisory Group consensus statements for training and certification in endoscopic retrograde cholangiopancreatography

Authors

Keith Siau[1,2], Margaret G Keane[3], Helen Steed[4,5], Grant Caddy[6], Nick Church[7], Peter Neville[10], Kofi Oppong[11], Bharat Paranandi[12], Ashraf Rasheed[13], Richard Webster[8], Gavin Johnson[8], on behalf of the Joint Advisory Group on Gastrointestinal

- Definition of competence in trainees
- Acquisition of competence
- Assessment of competence
- Post-certification support

The following aspects were not included within the scope of this guideline:

- Advanced procedures (e.g. and 4 procedures)
- Advanced therapies (e.g. photodynamic therapy, cholangioscopy, ampullectomy, endoscopic ultrasound (EUS)-assisted ERCP)
- Pediatric ERCP
- Up-skilling for established independent endoscopists
- Trainees or practitioners from the majority of ERCP training has been undertaken outside the UK or before implementation of this document

▶ **Table 2** Modified Schutz scale for grading complexity in endoscopic retrograde cholangiopancreatography (ERCP) [30].

Grade[1]	Procedure
1	Deep cannulation of duct of interest, main papilla, or sampling Biliary stent removal or exchange
2	Biliary stone extraction < 10 mm Treatment of biliary leaks Treatment of extrahepatic strictures (benign or malignant) Placement of prophylactic pancreatic stents
3	Biliary stone extraction > 10 mm Minor papilla cannulation in divisum, and therapy Removal of internally migrated biliary stents Intraductal imaging, biopsy or fine needle aspiration Management of acute or recurrent pancreatitis Treatment of pancreatic strictures Removal of pancreatic stones that are mobile and < 5 mm Treatment of hilar tumours Treatment of benign biliary strictures, hilum and above Management of suspect sphincter of Oddi dysfunction
4	Removal of internally migrated pancreatic stents Intraductal image-guided therapy (e. g. lithrotripsy) Removal of pancreatic stones that are impacted and/or > 5 mm Removal of intrahepatic stones Pseudocyst drainage or necrosectomy Ampullectomy ERCP after Whipple's or Roux-en-Y bariatric surgery

ERCP, endoscopic retrograde cholangiopancreatography.
[1] Add one grade (for a maximum grade of 4) for procedures performed after normal working hours, in post-Bilroth II gastrectomy patients, or for procedures that had been previously unsuccessful.

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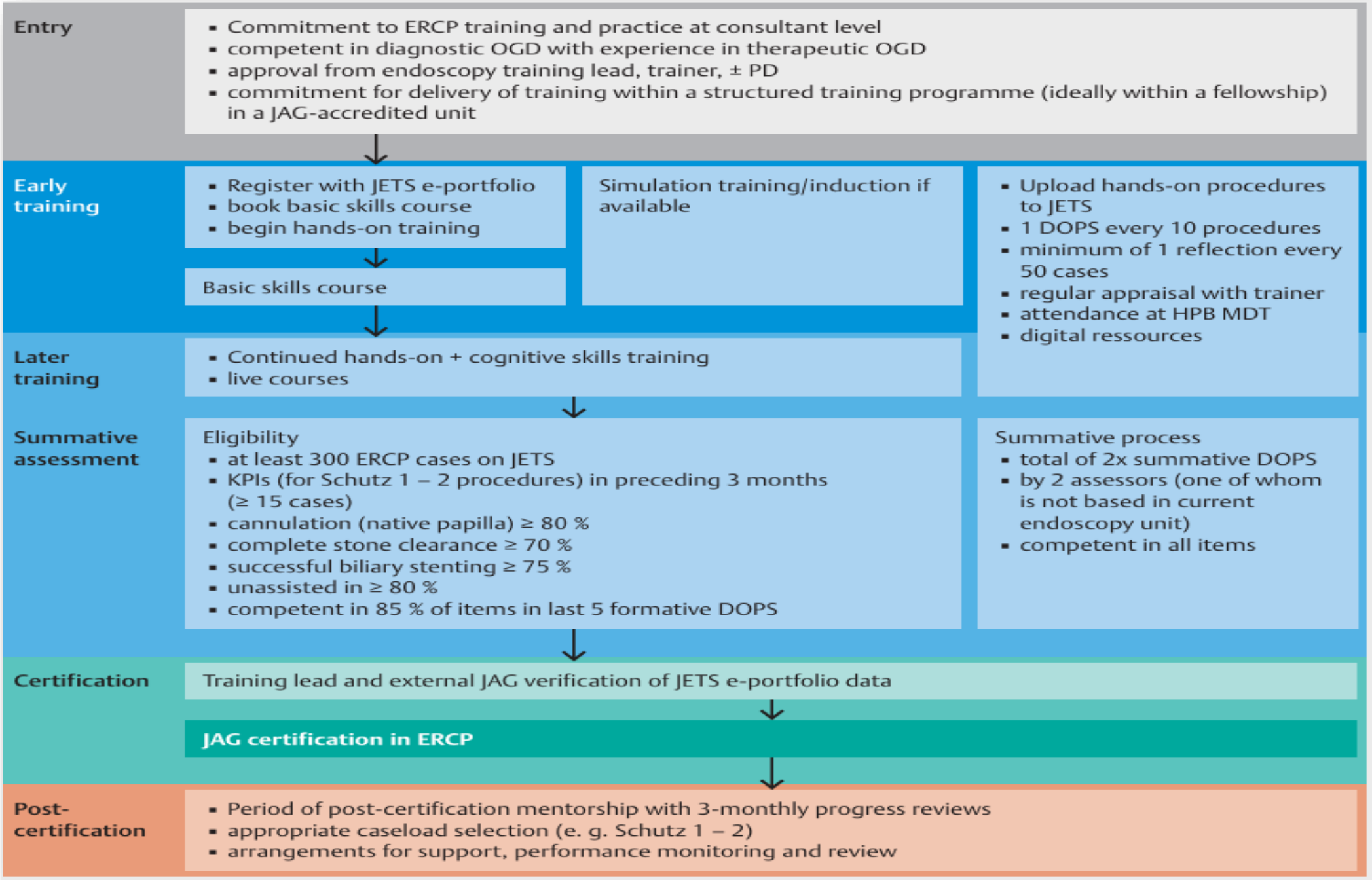

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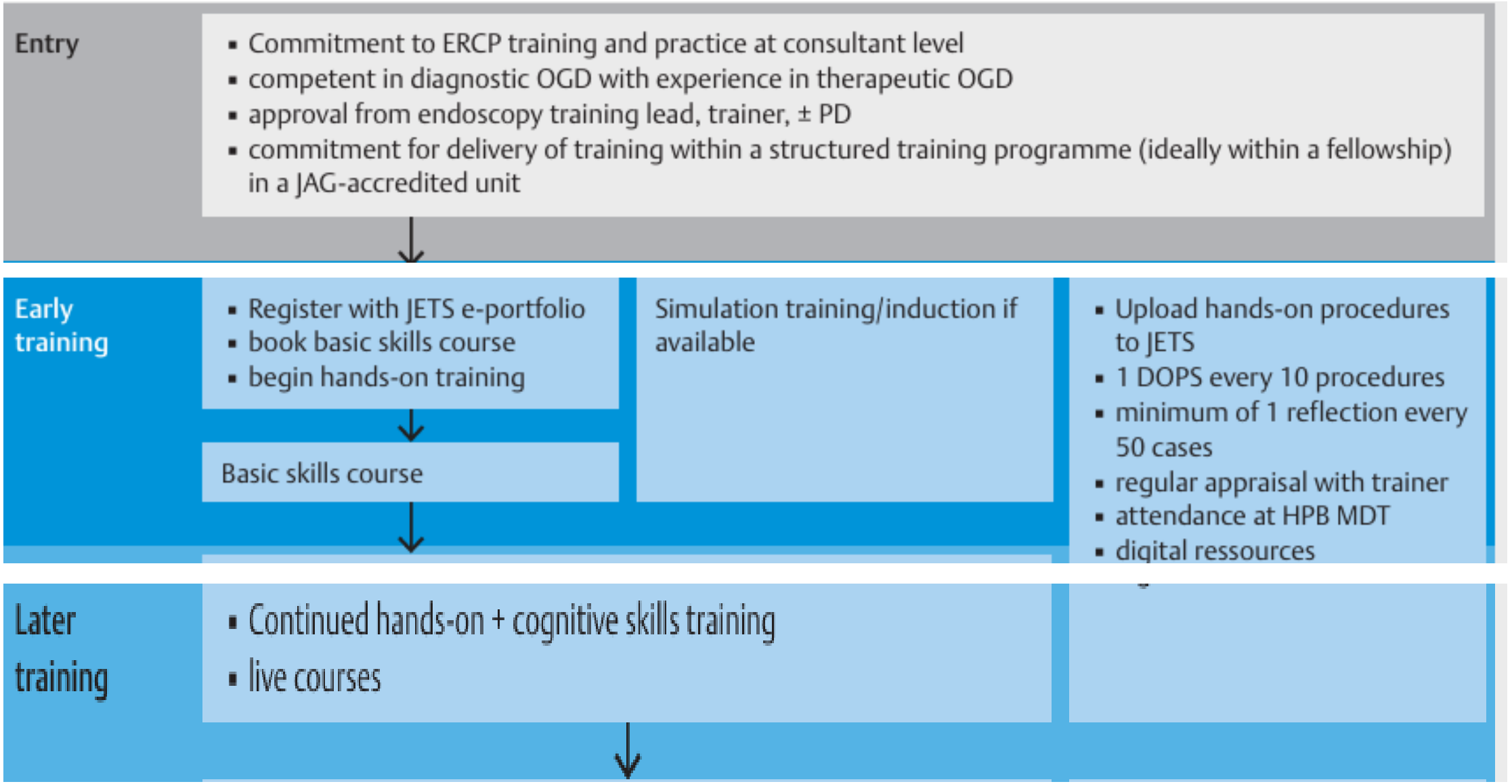

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Summative assessment

Eligibility
- at least 300 ERCP cases on JETS
- KPIs (for Schutz 1 – 2 procedures) in preceding 3 months (≥ 15 cases)
- cannulation (native papilla) ≥ 80 %
- complete stone clearance ≥ 70 %
- successful biliary stenting ≥ 75 %
- unassisted in ≥ 80 %
- competent in 85 % of items in last 5 formative DOPS

Summative process
- total of 2x summative DOPS
- by 2 assessors (one of whom is not based in current endoscopy unit)
- competent in all items

Certification

Training lead and external JAG verification of JETS e-portfolio data

↓

JAG certification in ERCP

↓

Post-certification

- Period of post-certification mentorship with 3-monthly progress reviews
- appropriate caseload selection (e. g. Schutz 1 – 2)
- arrangements for support, performance monitoring and review

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At the end……..

- ERCP: fascinating technic

- So many criterias to consider for training programs: from application to full competency approuval.
- Technical skills: not the only important elligibility criteria.

- With commitment, hard work and experience all can be done.
- Love of endoscopy……the very first criteria.