

# Endoscopy training in Europe

Lars Aabakken

Dept of Medical Gastroenterology

Rikshospitalet, Oslo Norway

# agenda

- Changing format of education
- General teaching principles
- Components of endoscopy education
- Training special skills
- Assessment and accreditation
- Role of ESGE



**“It’s called ‘reading’. It’s how people  
install new software into their brains”**

# Changing format

## IN THE PAST

- 1:1 Tutor/apprentice training
- Certification by eyeballing (or not)
- One-size-fits-all endoscopy training
- Lack of standardization and transparency
- Lack of recertification

## INCREASINGLY

- Hi-volume training centers
- Certification by quality standards
- Differentiated training adapted to practice
- Increasing cross-center standardization
- Increasing role of certification





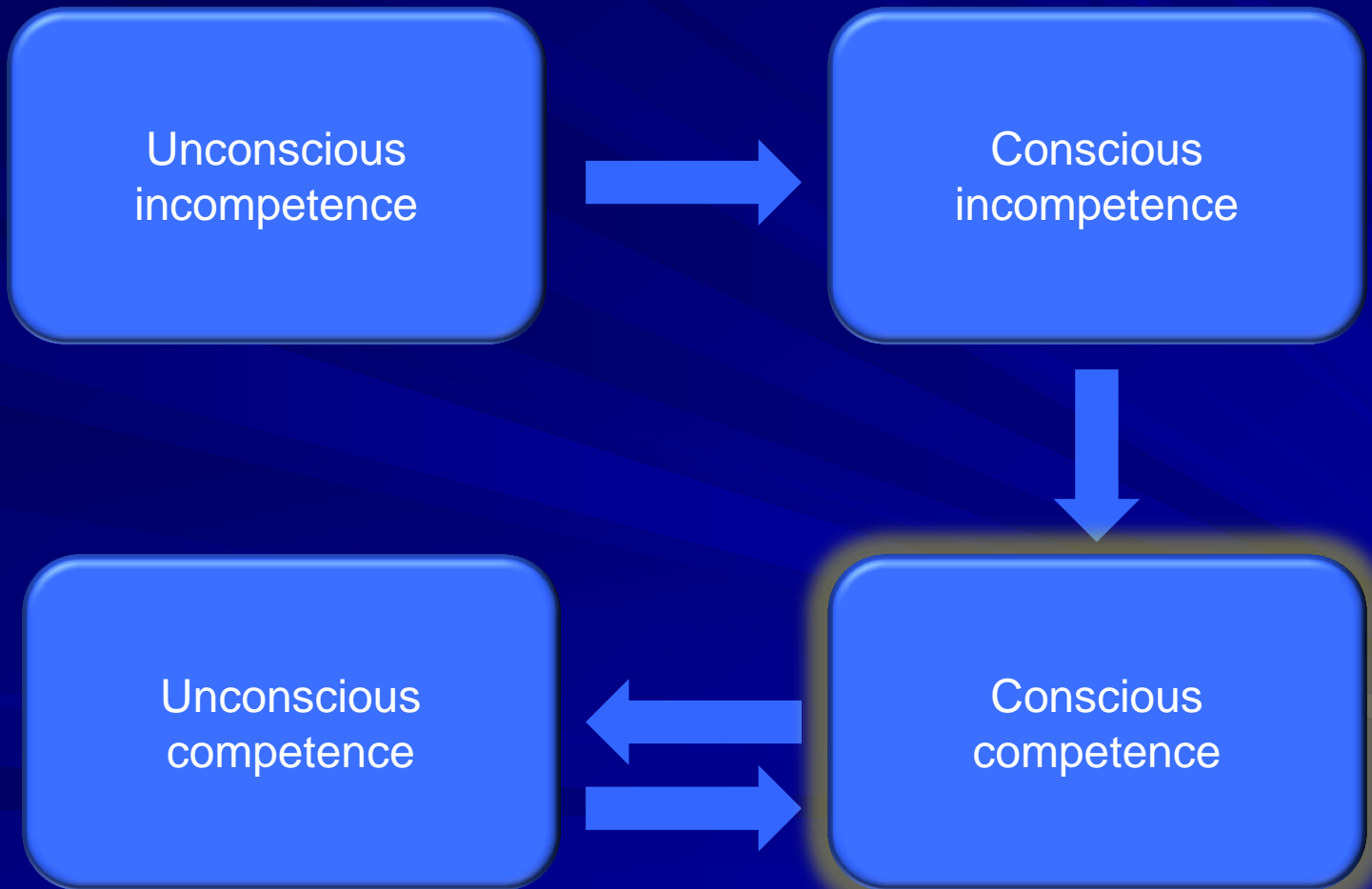
# Skills training

# Expert issues

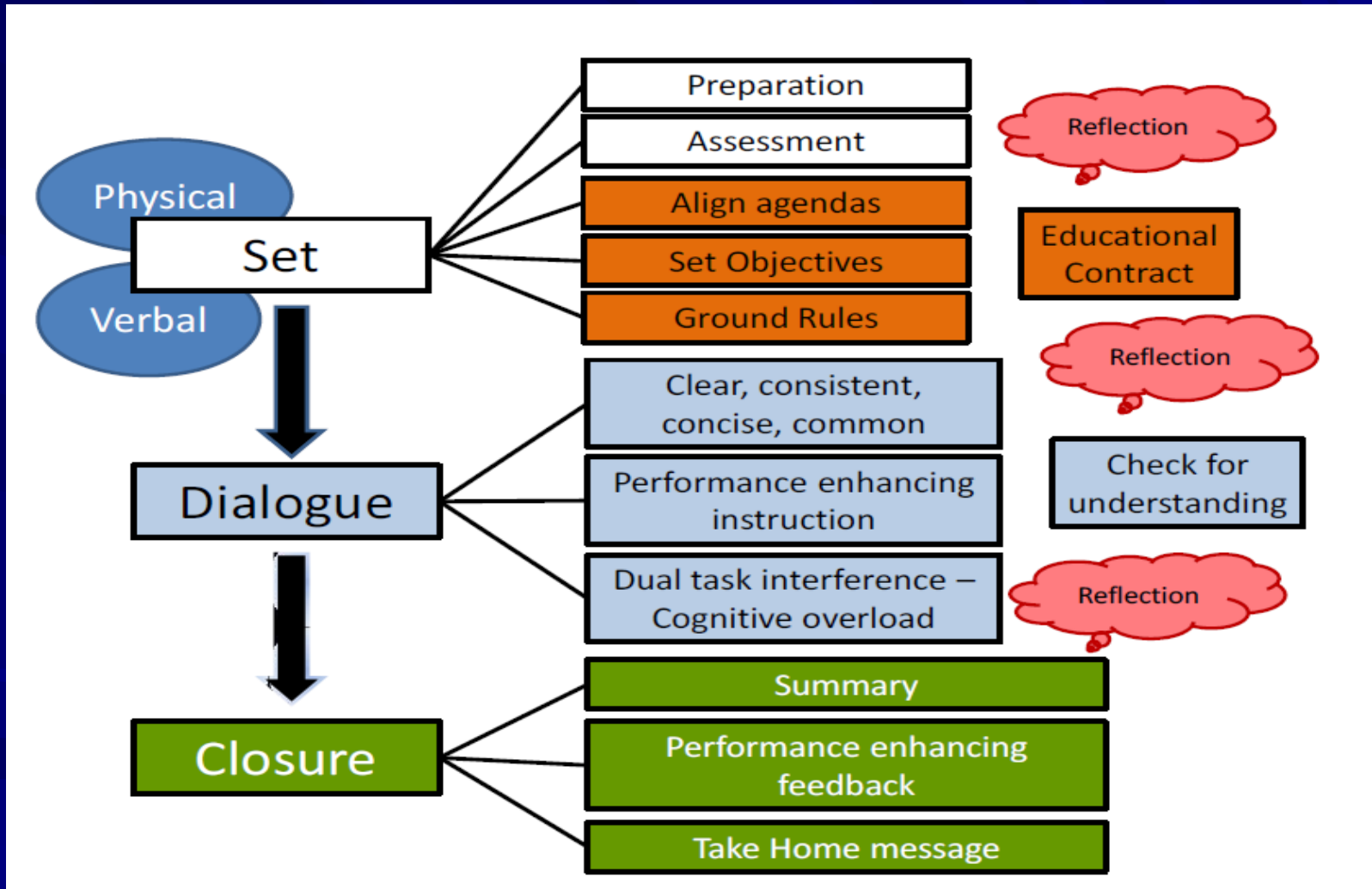
- Skills in technique AND education
- Thinking with a trainees brain (30 years later)
- Letting go..
- Inconscious competence



# Conscious competence



# Skills training



# Formatting feedback

1. No feedback
2. Non-instructive negative critique
3. Non-instructive positive feedback
4. Instructive feedback
5. On-demand instructive feedback



## Rules of Pendleton

# -sequential feedback

1. Trainer asks the trainee what he did well
2. The trainer says what he thought he did well
3. The trainer asks the trainee what he might do differently next time
4. The trainer says what he thinks the trainee should do differently next time

# When to take the scope

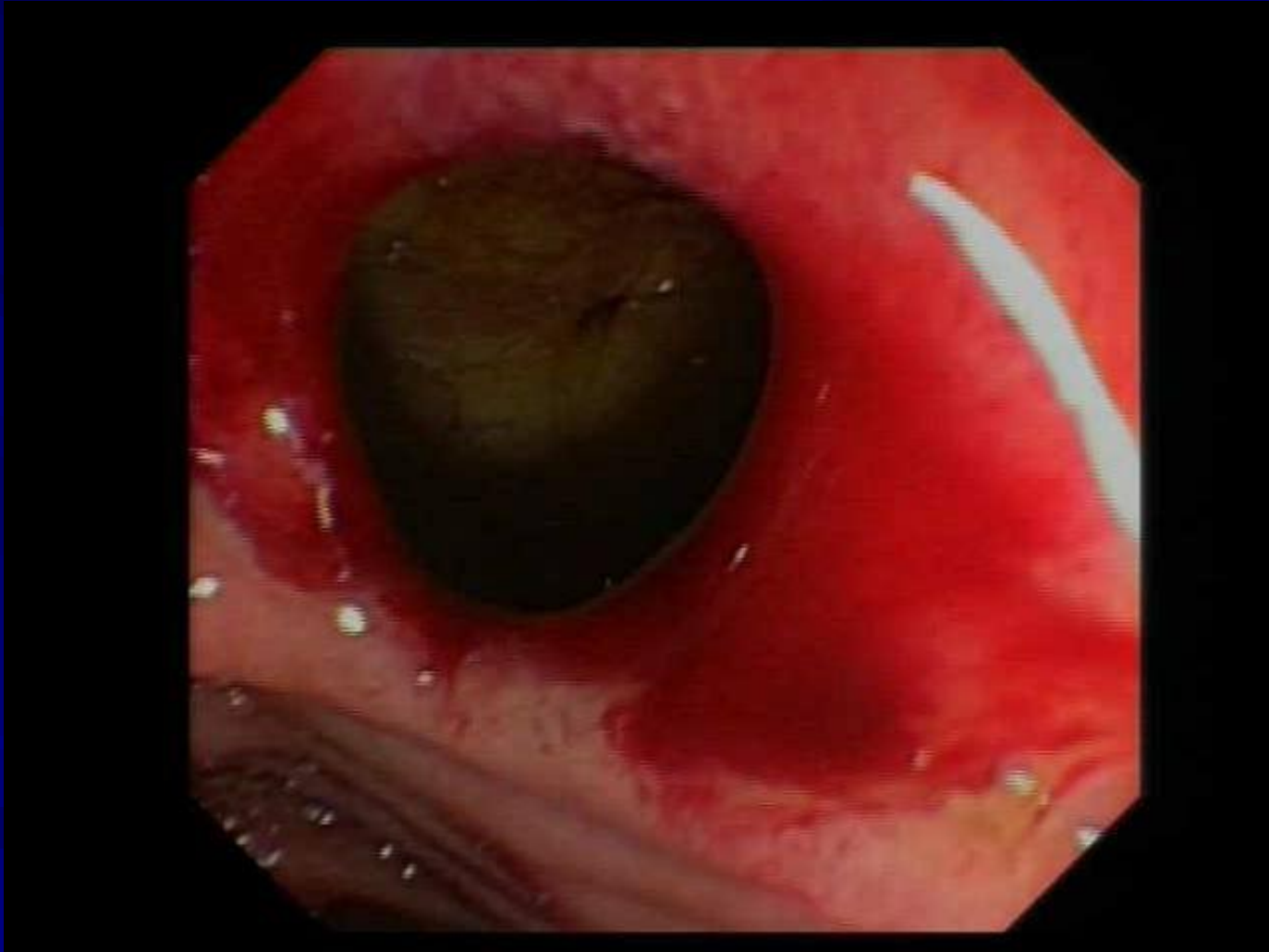
1. Do you know what the problem is?
2. Are your instructions correct?
3. Are your instructions clear?
4. Are your instructions understood by endoscopist?
5. Were the instructions carried out as agreed?
6. Is the technical challenge beyond the skill level of the endoscopist?

Only THEN take the scope...





# The perils of hands-off..



# Diverging agendas

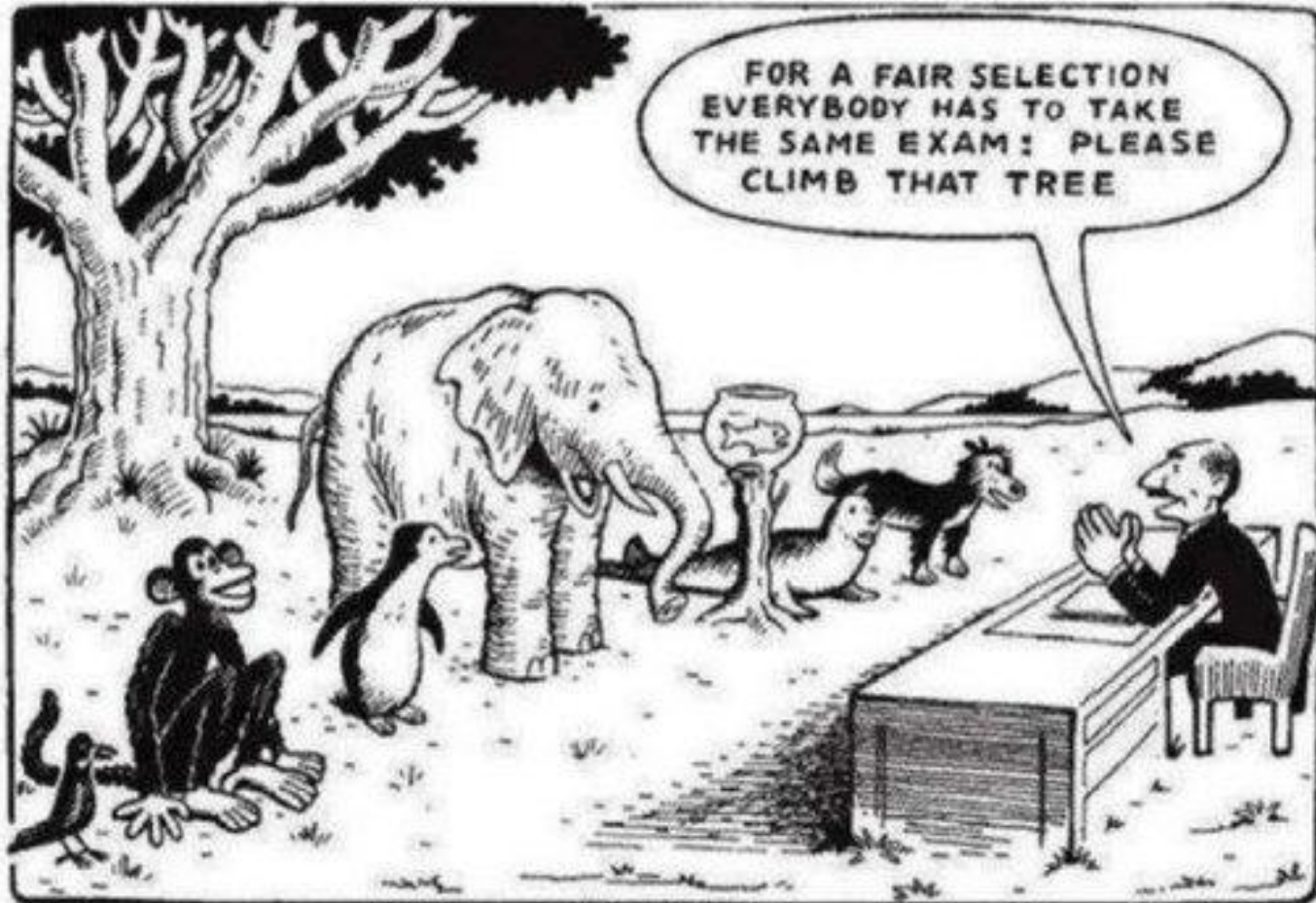
## Trainer

- Skills
  - Endoscopic technique
  - Prioritisation
  - Time management
- Knowledge
  - Pre-, post and intra-operatively
  - Increase trainee awareness of patients' needs
- Attitudes
  - Motivation
  - Relationship with endoscopic staff
  - Relationship with patient

## Trainee

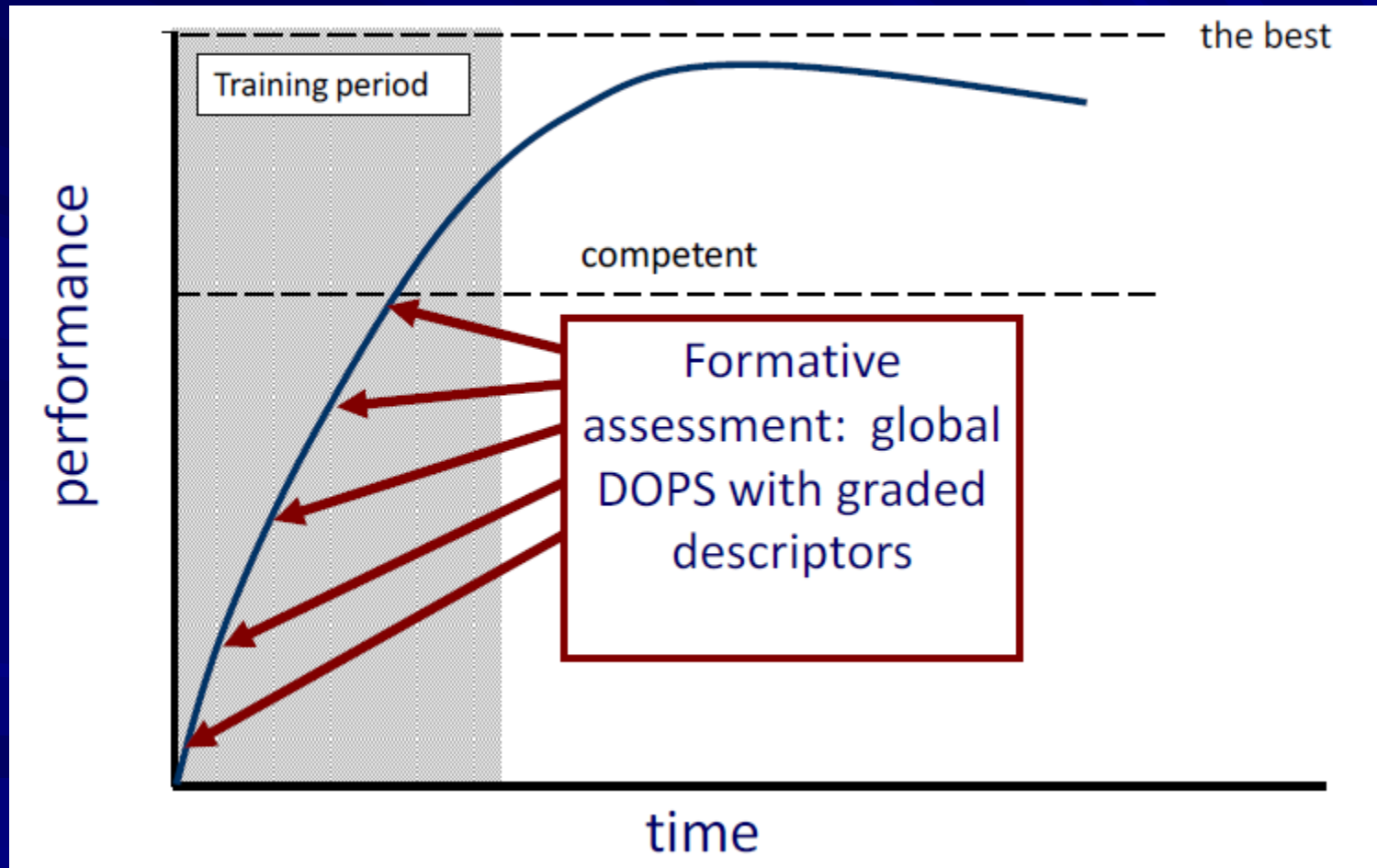
- Get to the coecum
- Keep hold of the scope

# Assessment



Our Education System

# Skills acquisition



## Formative ERCP DOPS Assessment Form - JAG approved

Endoscopist: ..... Date ..... Trainer / Peer .....

- Scale: 4** - Highly skilled performance  
**3** - Competent & safe throughout procedure, no uncorrected errors  
**2** - Some standards not yet met, aspects to be improved, some errors uncorrected  
**1** - Accepted standards not yet met, frequent errors uncorrected  
**N/A** - Not applicable

Criteria	Score	Comments							
<b>Assessment, Consent, Communication</b> <ul style="list-style-type: none"> <li>• Obtains informed consent using a structured approach                             <ul style="list-style-type: none"> <li>- Satisfactory procedural information</li> <li>- Risk &amp; complications explained</li> <li>- Co-morbidity</li> <li>- Sedation</li> <li>- Opportunity for questions</li> </ul> </li> <li>• Selects &amp; prepares cases appropriate to the procedure</li> <li>• Demonstrates respect for patient's views and dignity during the procedure</li> <li>• Communicates clearly with patient, including outcome of procedure with appropriate management and f/u plan. Full endoscopy report.</li> </ul>	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>								
<b>Safety &amp; sedation</b> <ul style="list-style-type: none"> <li>• Safe and secure IV access</li> <li>• Gives appropriate dose of analgesia and sedation and ensures adequate oxygenation and monitoring of patient</li> <li>• Demonstrates good communication with the nursing staff, including dosages &amp; vital signs</li> </ul>	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>								
<b>Endoscopic Skills during insertion &amp; procedure</b> <ul style="list-style-type: none"> <li>• Checks endoscope function before intubation</li> <li>• Intubates the oesophagus safely</li> <li>• Intubates the duodenum under direct vision</li> <li>• Uses distension, suction &amp; lens washing appropriately</li> <li>• Achieves a satisfactory position opposite the ampulla (or target)</li> <li>• Demonstrates awareness of patient's consciousness and comfort during the procedure and takes appropriate actions</li> <li>• Completes procedure in reasonable time</li> </ul>	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>								
<b>Diagnostic &amp; Therapeutic Ability</b> <ul style="list-style-type: none"> <li>• Adequate ampullary visualisation</li> <li>• Catheterises the duct of interest</li> <li>• Accurate identification &amp; appropriate management of pathology</li> <li>• Selects and correctly uses appropriate accessories</li> <li>• High quality images recorded</li> <li>• Applies therapeutic techniques appropriately and safely</li> <li>• Recognises &amp; manages complications appropriately</li> </ul>	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> <tr><td style="height: 20px;"> </td></tr> </table>								

### Case difficulty

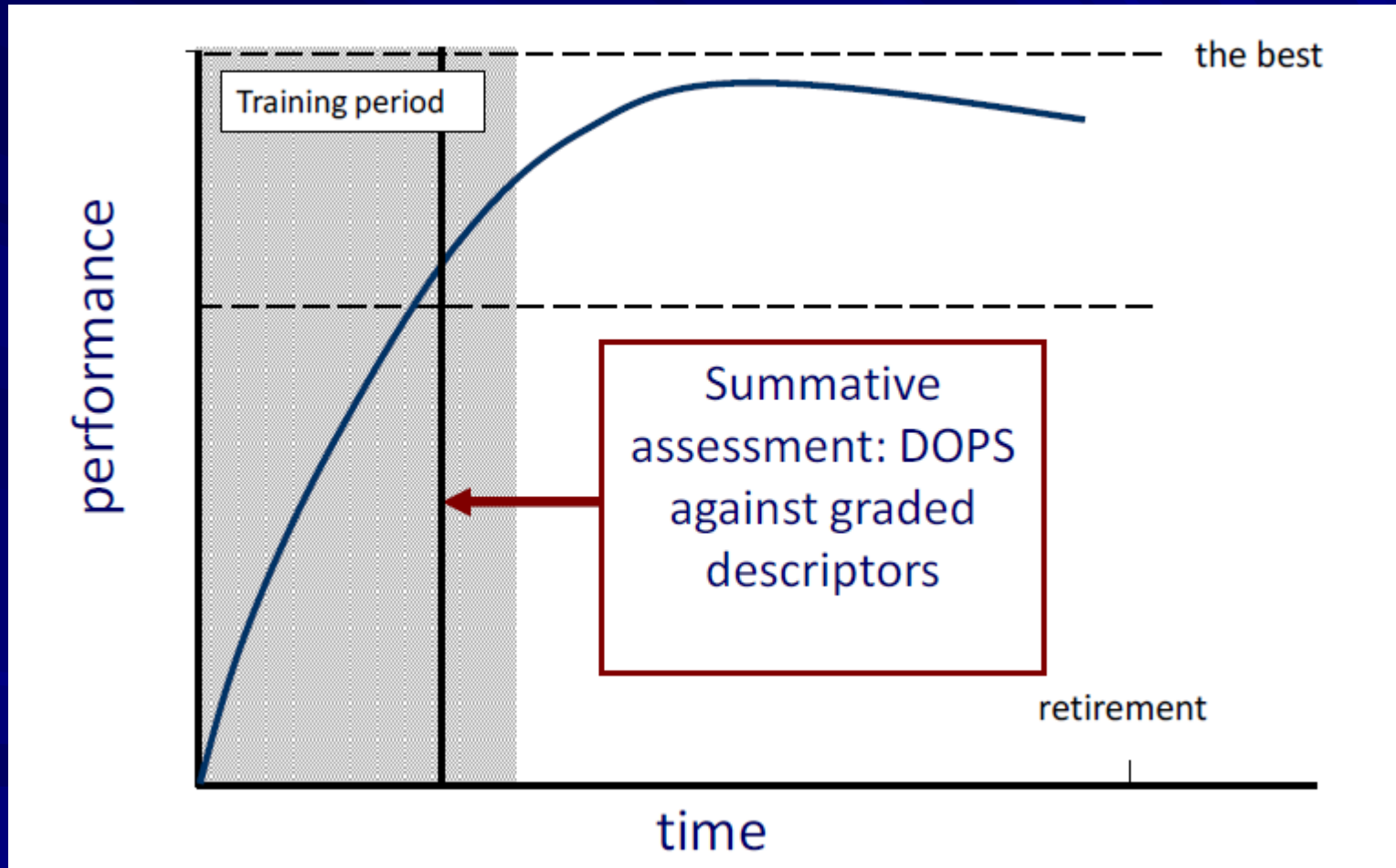
Extremely easy	Fairly easy	Average	Fairly difficult	Very challenging
1	2	3	4	5

Learning objectives for next cases



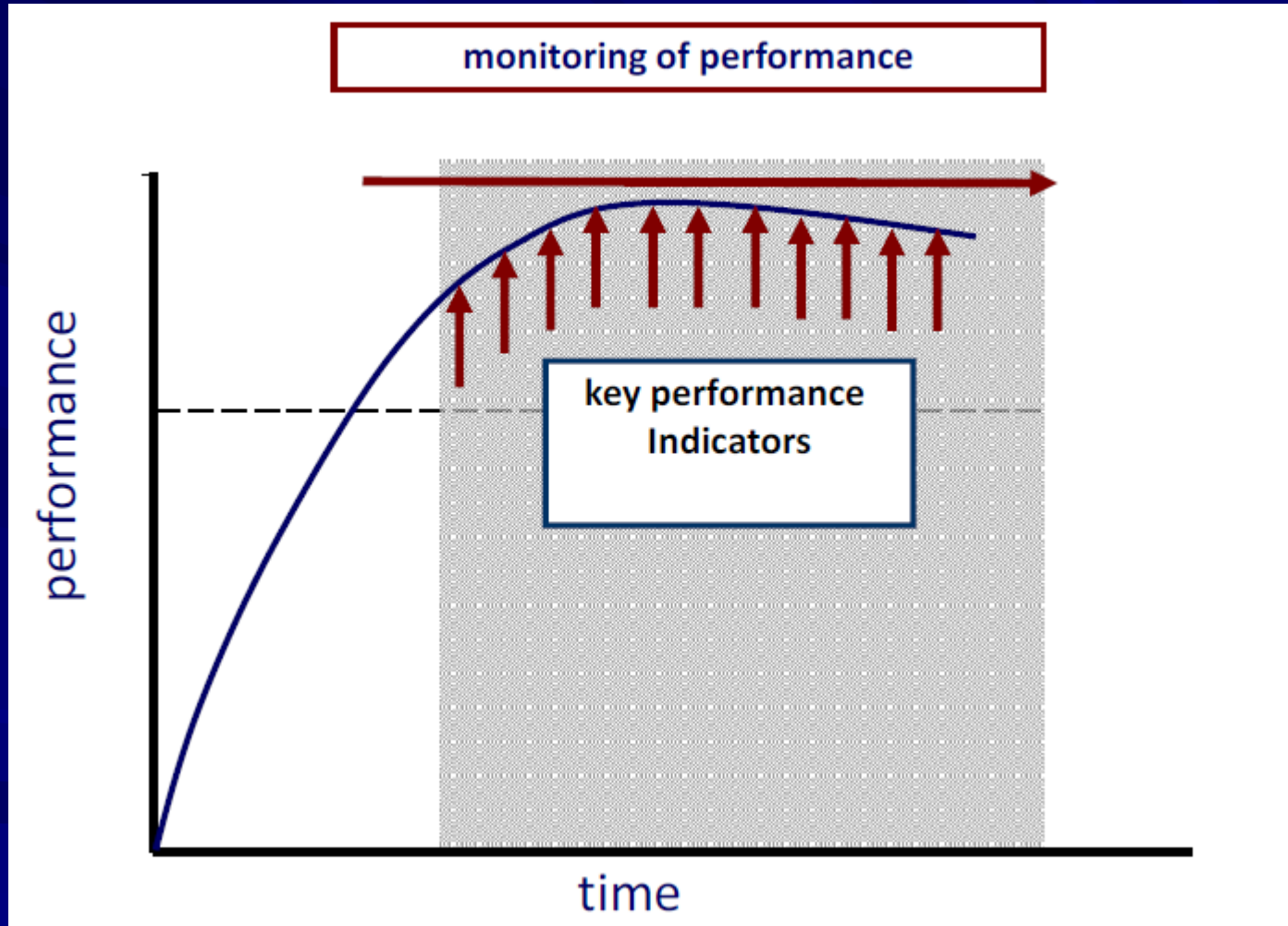
## Role of assessment

# Summative competence assessment





# Independent practice



# Look to UK

The JAG ensures the quality and safety of patient care by defining and maintaining the standards by which endoscopy is practised

## Latest from the JAG

06 Jan 14

Chief Inspector of Hospitals' gives support for accreditation of services

16 Dec 13

JETS trainee questionnaire now open

12 Jun 13

JAG accreditation fee information update published

28 Mar 13

Best Practice Tariff (BPT) unit status

25 Mar 13

National Endoscopy Database

[View the JAG News, Events and Newsletters](#)

## Upcoming Courses



This section enables you to find upcoming JAG Certified courses. Use the drop-down boxes to select your required course/month and the available courses will appear below. Click on the course you are interested in and you will be directed to the JETS website where you can book a place. Please note, these courses are very popular and get booked well in advance.

Basic skills in colonoscopy



Jan 14



No courses available

[View all courses](#)

## My JAG

Saved pages (0)

[Add JAG to your Favourites](#)

## Download Centre



[View all Downloads](#)

# **Specific skills**

## **ERCP**

# Who to train

- Number of ERCPs goes down
  - Number of centers goes down
  - Number needed to be good goes up
  - Quality requirements will be more exquisite
  - ... – so, not for everyone
- 
- Selection by competence, career, interest?

# Components of training

- Basic endoscopy skills, upper/lower endoscopy
- Theory – a forgotten modality?
- Simulator phase
- Master-apprentice skills training
- Procedure component training
  
- Postgraduate CME

# Component training

- Referral centers best equipped for training
  - Expertise
  - Volume
  - Equipment
- But: Special cases poorly adapted to trainees
- Still – parts of the procedure are!

# Simulators



# Role of simulators

- Bridging the difficult gap from theory to painful, time-consuming (and dangerous) procedures in patients during basic skills training
- Add-on training for therapeutic procedures
- Objective credentialling

# Mechanical v. Computer simulators



# Mechanical v. Computer simulators

## Mechanical

- Cheap
- Realistic training of
  - Cannulation
  - Accessory exchange
  - Sphincterotomy
  - Stent placement
- Cumbersome setup
- Host of options – limited marketing

## Electronic

- Expensive
- Realistic training of
  - Hand-eye coordination
  - Scope navigation for intubation and placement
  - Periapillary positioning
- Simple setup
- Solid vendors

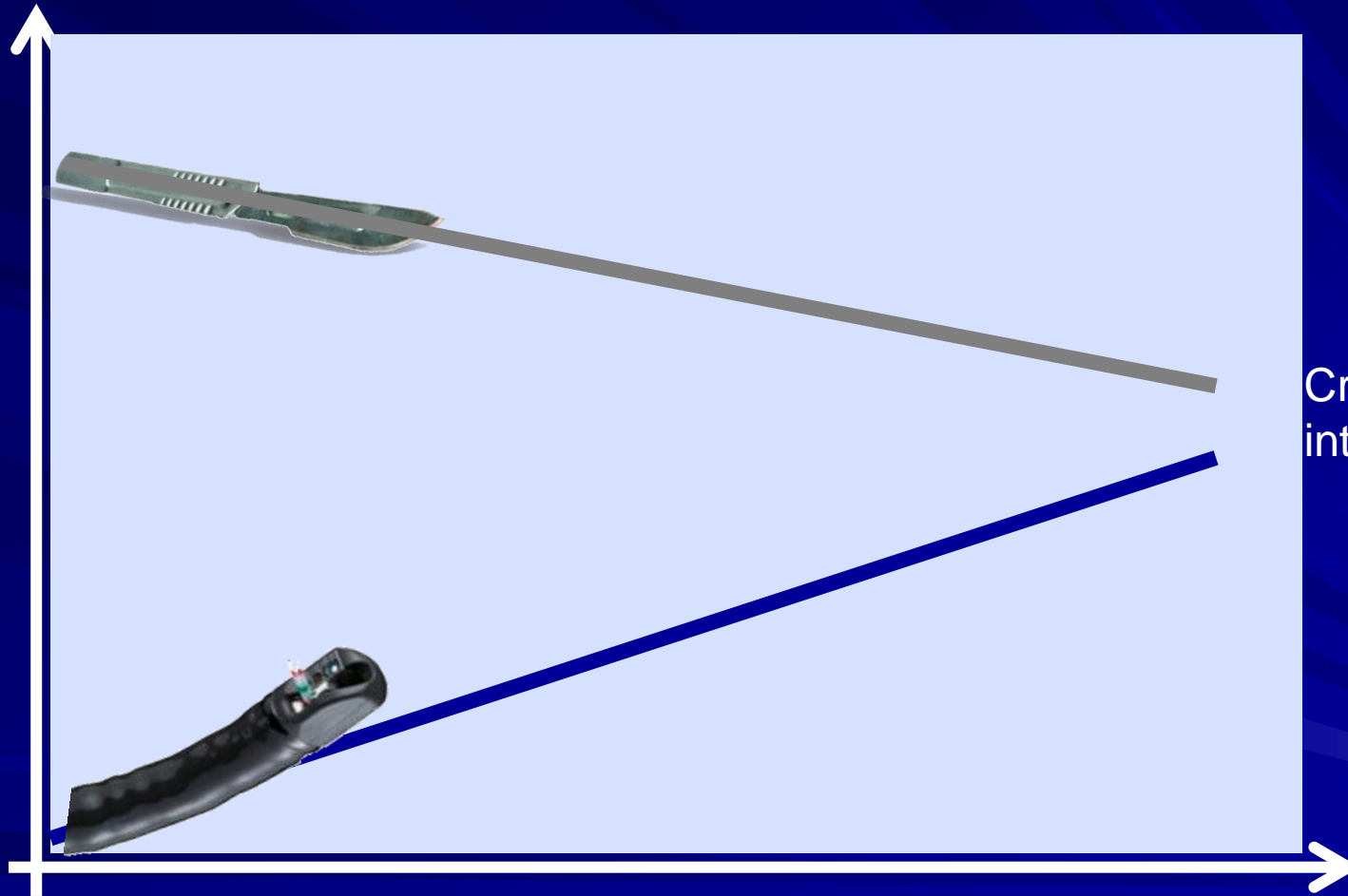
# On quality assessment

- Definition of quality parameters
  - Pre-per-post-procedure components
  - Definition of acceptable levels versus goals
- Defining complexity of procedures
- Robust data collection
- Functional feedback mechanisms

**ESD**

# Surgery/endoscopy convergence

INVASIVENESS



Cross-discipline  
interventionalists

TIME



# Japan v/ Europe







# Japan v/ Europe



- Cultural style
- Disease panorama
- Screening programs
- Endoscopic tradition
- Fundamental skills?

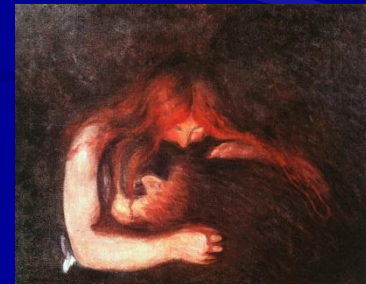
# Japan gastric ESD



Year	2006	2010	2013
Reimb.(Euro)	827	1062	1381
Institutions	1 000	1 100	1 200
Numbers	30 000	32 000	35 000

# European Enquiry 2010

- 58/490 endoscopists responded
- Mean 4 ESD/endoscopist per year
- Mean total experience: 11 cases
- Mean lesion diameter 15mm
- Mean procedure time 108 min
- R0 resection rate 77%
- Major complications 13%



# SO, what skills are needed?

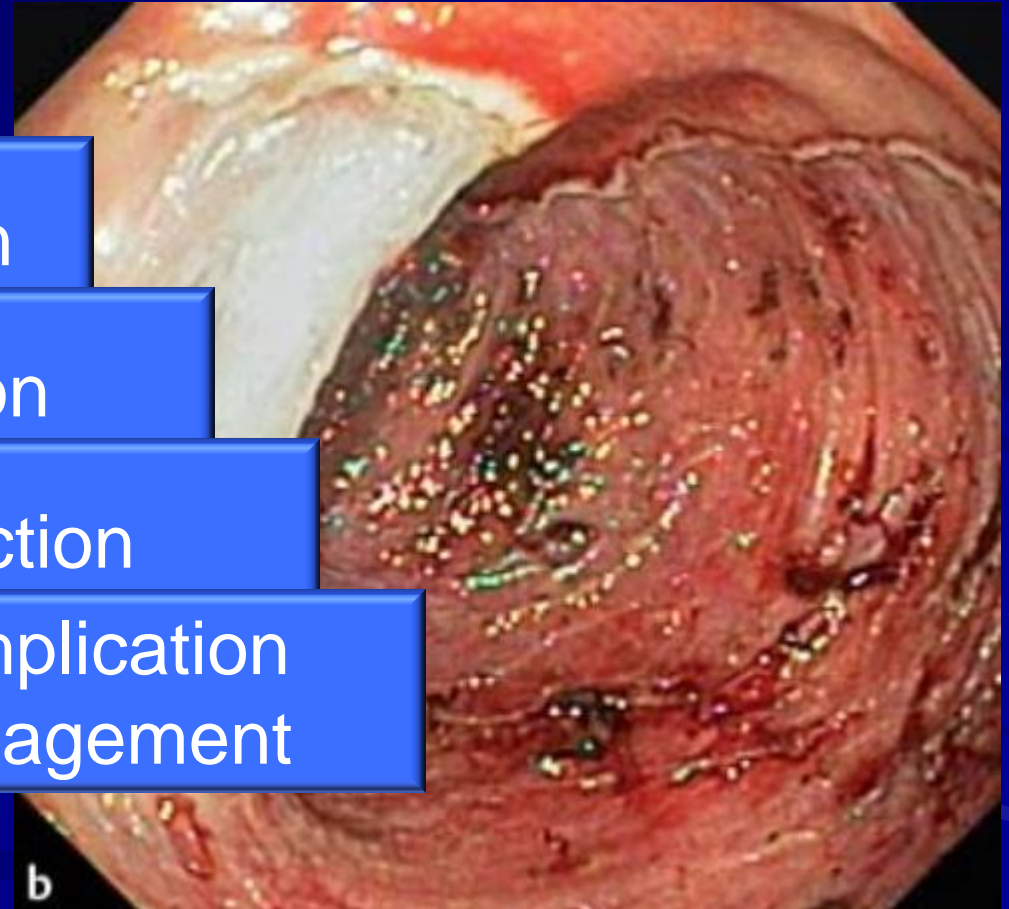
Detection

Characterization

Delineation

Resection

Complication  
management



# ESD improvement strategies

- Go to Japan
- Invite a Japanese
- Establish an interest for scrutiny and detail
- Do courses
- (Have the technology)



# Training sequence

- Theory and expert observation
- Pig stomach model training
- Live pig training
- Supervised practice
- Sequential approach
  - Stomach
  - Rectum
  - Colon
  - Esophagus

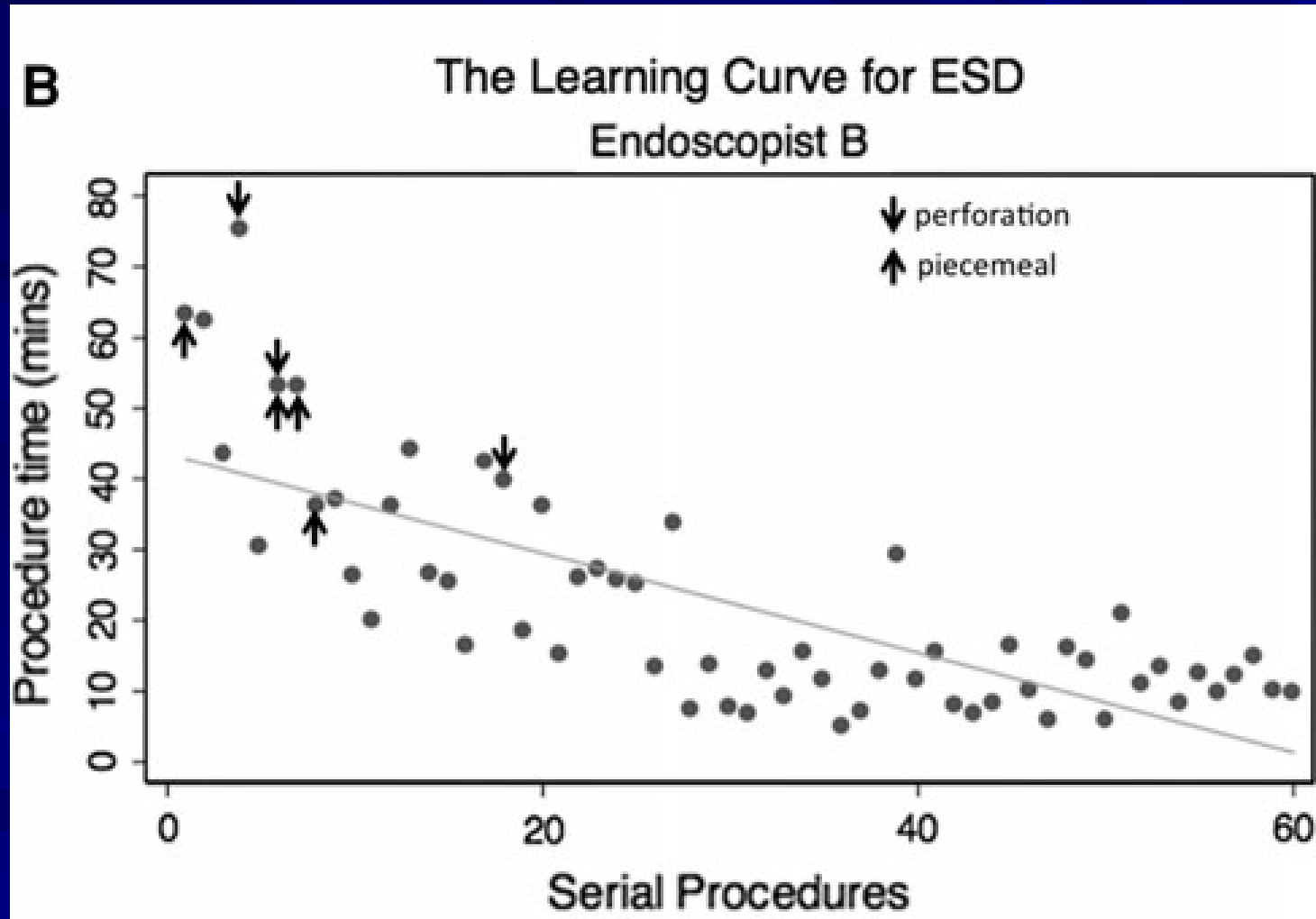


# Pig model training

- 2 novices, 1 expert
- 2x3 hrs didactic lectures
- 6 demarcated lesions in 10 stomachs
- Tracking of time and results



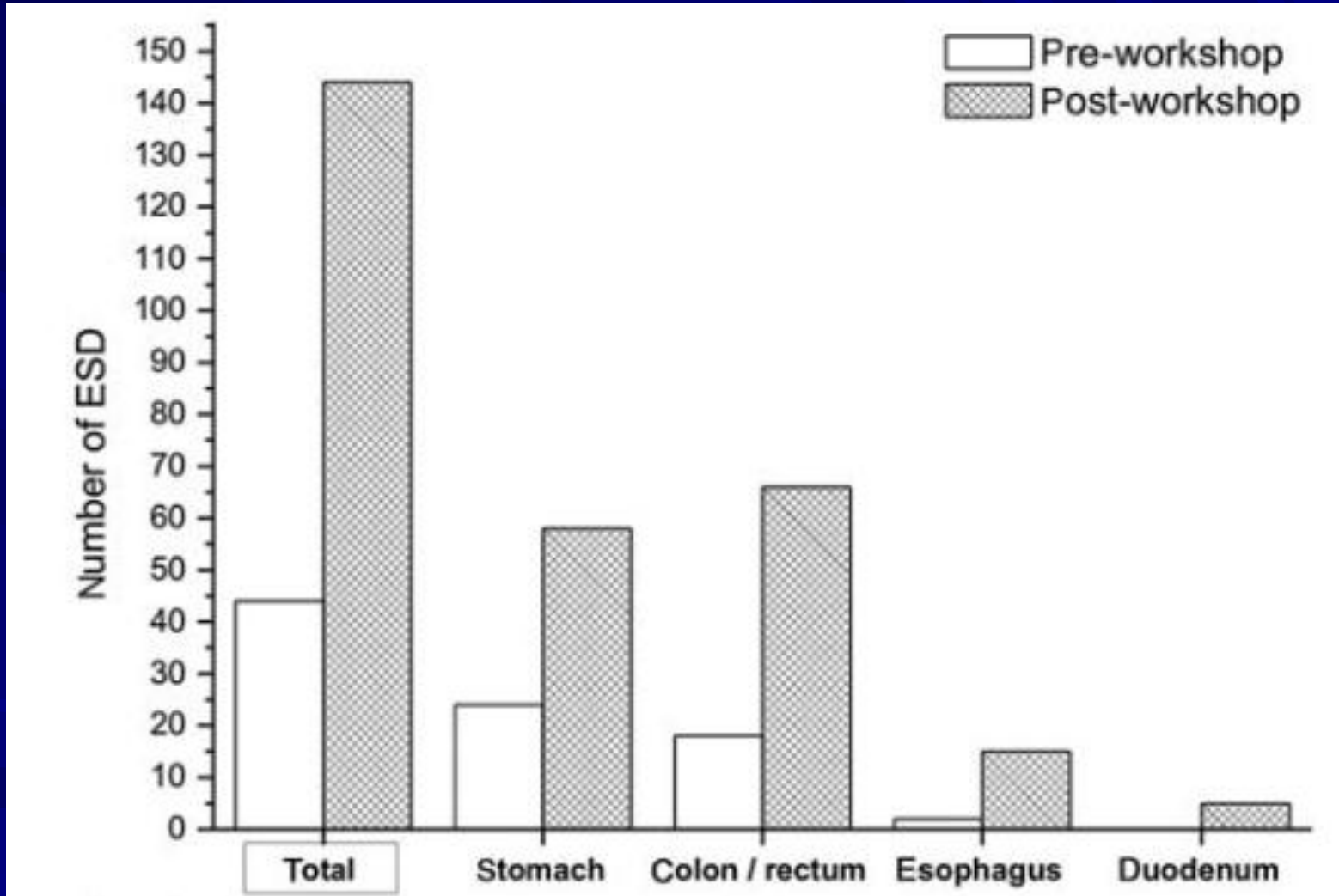
# Pig model training



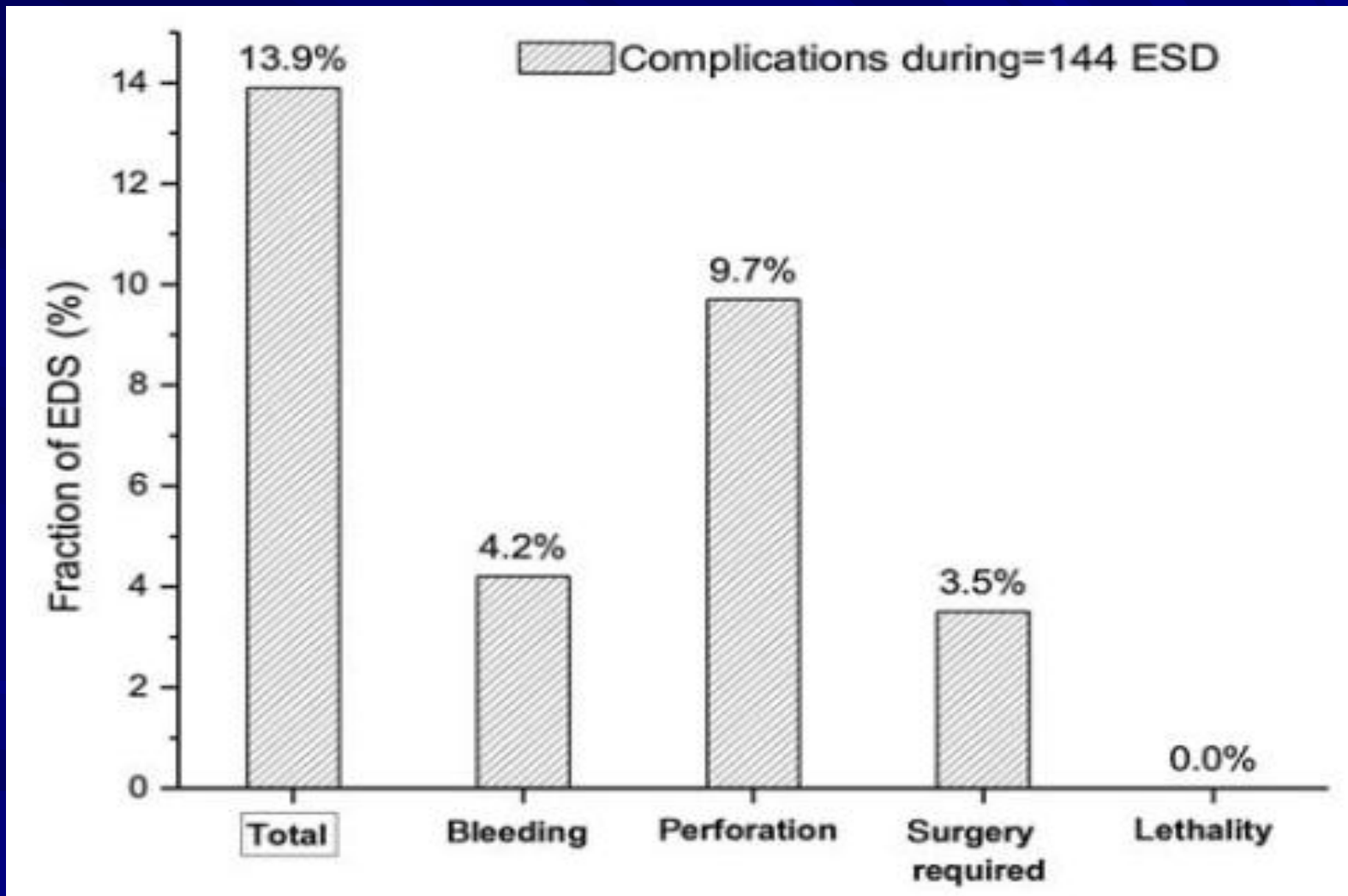
# Live pig training

- 18 experienced endoscopists
- 4 half day training sessions, average 4.1 procedures per participant
- Assessment of clinical practice 1 year later

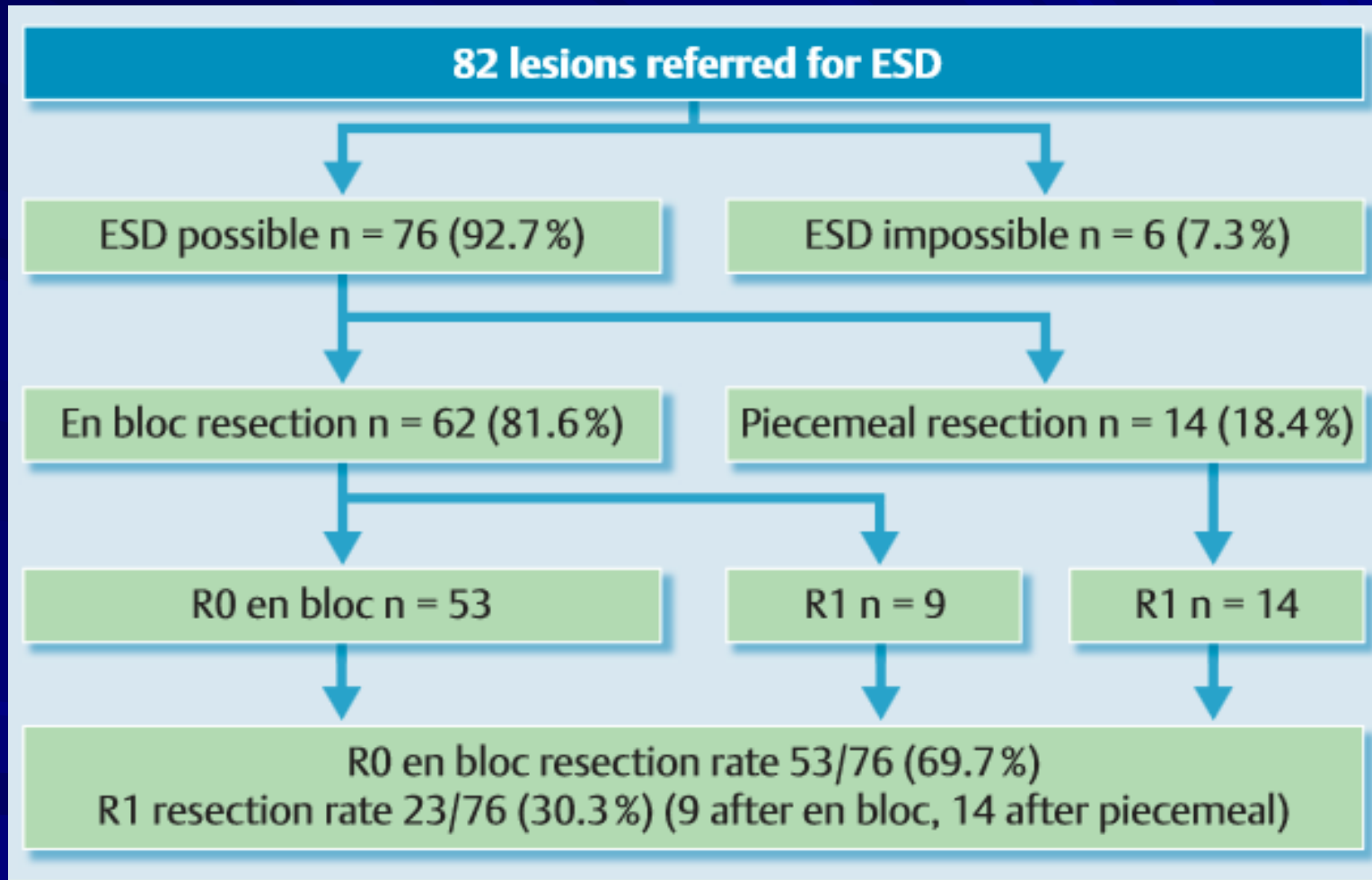
# Increased activity



# Acceptable complications



# European learning curve





# European learning curve

	1st period (resection 1 – 25) (10/2004 – 05/2008)	2nd period (resection 26 – 50) (06/2008 – 08/2010)	3rd period (resection 51 – 76) (08/2010 – 09/2011)
<b>Location</b>			
Rectum	23	20	23
Sigmoid	2	5	3
<b>Lesion characteristics</b>			
Diameter, median, mm	41.2	47.3	49.0
<b>Paris type</b>			
I <sub>s</sub>	3	2	3
I <sub>la</sub>	10	10	9
I <sub>la</sub> + I <sub>s</sub>	12	10	12
I <sub>la</sub> + I <sub>lc</sub>	0	3	2
<b>Histology</b>			
LGIEN	16	13	9
HGIEN	5	7	12
Cancer	4	5	5
<b>Resection rates, %</b>			
En bloc	60.0	88.0	96.2
R0 en bloc	48.0	76.0	84.5
Procedure time, minutes	200	193	136

# ESD – in summary

- Despite Japanese/European differences, ESD can be trained by European endoscopists
- Special training programs must be developed, no of trainees limited
- Improving tools will facilitate dissemination

# **Formal training programs in Europe**





# Europe



Map not to scale  
Copyright © worldatlasbook.com

# Norwegian model

- Required number of procedures
  - No requirements for quality
  - No specific requirements for institution/tutor qualifications
- 
- Annual course in basic endoscopy
  - Annual hands-on Scandinavian course (SADE)
  - Singular separate initiatives (simulator training)



# Austrian model

## Norwegian model

- Required number of procedures
- No requirements for quality
- No specific requirements for institution/tutor qualifications
  
- Annual course in basic endoscopy
- Annual hands-on Scandinavian course (SADE)
- Singular separate initiatives (simulator training)

## Austrian model

- ...

# Cross-national resources

- UEG (for gastroenterology)
- ESGE (for endoscopy)
- UEMS (for accreditation)
- E-learning resources

# ESGE

- UEGW activities
  - Post graduate course
  - Learning area
- Other
  - Live demo courses
  - Video demo courses
- Others

# UEGW postgraduate training

- Live demos moving from show-case demonstrations to basic skills (80%)
- Learning area with hands-on biologic models and topic-oriented skills stations
- Small-scale lectures/discussions
- Didactic DVD stations



European Society of Gastrointestinal Endoscopy

UNITED EUROPEAN  
GASTROENTEROLOGY

uegweek





# ESGE

- Website resources([www.esge.com](http://www.esge.com))
- Image atlas
- Guidelines
- eLibrary




# www.esge.com



**ESGE**

European Society of Gastrointestinal Endoscopy

Contact Us

Search website... 

About Us

Membership

Events

Education

Publications

Research



## ESGE Fellowship grants

Fellowship grants are being offered by ESGE to fully trained endoscopists wishing to undertake further training in highly specialised endoscopic techniques at an officially recognised ESGE training centre...

[Learn more »](#)

## Individual Members please login here:

Username:

Password:

[LOGIN »](#)

[Forget Password?](#)

## About the ESGE

The European Society of Gastrointestinal Endoscopy (ESGE) is dedicated to the advance of skilled endoscopic practice through workshops, publication of guidelines, and research. It represents national societies of endoscopy in Europe, the Mediterranean and North Africa with one society from any of these countries eligible for membership...



Follow us on Facebook



## Upcoming Events

4th Sudanese Society of Gastroenterology Conference 2014 in collaboration with ESGE

January 11-12, 2014 - Khartoum, Sudan



# www.ueg.eu/education

UNITED EUROPEAN  
GASTROENTEROLOGY

# ueg education



Receive Newsletter

Sign in myUEG

Search



[About UEG](#) [Week](#) [Education](#) [Journal](#) [EU Affairs](#) [Research](#) [Awards & Grants](#) [News & Press](#) [Contact Us](#) [myUEG](#)

[Courses](#) | [e-learning](#) | [Training Support](#) | [CME Accreditation](#)

## Training Support



### Can we help fund your training?

A critical part of our work is helping to fund innovative training and educational programmes, as well as international scientific and professional co-operation.

**Application is closed. Application for Training Support 2015 opens February 17, 2014.**



HTML5 Video Player by VideoJS

Watch the new video and find out about UEG training activities!

### About UEG Education

Education is critical to UEG's mission and vision. The organisation was formed to advance standards of gastroenterological care and knowledge across Europe and the world. Today, we offer a wide range of courses and training, as well as [e-learning](#) – a unique, universal resource for information and education.

## Education News

[UEG Week Berlin recordings are out](#)

[Apply for the UEG Practice Course](#)

[Research Course Report 2013](#)

[EBM practice for young gastroenterologists](#)

[Brand new Case of the month online](#)

## Who to contact

UEG Education Committee  
Julia Kasper

T +43 (0) 1 997 16 39

F +43 (0) 1 997 16 39 10

[j.kasper@medadvice.co.at](mailto:j.kasper@medadvice.co.at)



# CME justification

- Initial training insufficient to support entire professional career
- Rapid progress in medical research and changes in practice
- Pressure from public, governments and medical profession for professional development to be a life-long process.



# Summary

- Training is vital for European endoscopists
- Ideal principles lack adherence in the majority of European countries
- Teaching principles, resources and experience *are available*
- Improvement is achievable everywhere.



ERC  
-DEVELOPING YOUR  
SIDEVIEWING TALENT

