Program for Endoscopy Teachers PET

Trainee assessment and Competency

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- Brasilia, Brazil
- Sunday, Nov 12, 2017
- 8:20-12:15

XVI Semana Brasileira do Aparelho Digestivo

XVI SBAD

11 a 15 de novembro de 2017

CICB | Brasília | DF

WEO World Endoscopy Organization

World Organisation of Digestive Endoscopy

- **Objectives**
- **Competence**
- Self assessment tools and in-service examinations
- Assessment crucial to get the expertise
- Research and Clinical Mentoring*
- Role of trainee in conducting conferences and teaching
- Threshold numbers. What are they and how to use them
- Competency based measurement tools
- Quality indicators
- When to assess competency

What does competency in endoscopy mean?

A person is competent to perform endoscopy if

- He or she has the **knowledge** and **technical skill** to safely and reliably perform a particular intended procedure
- **Without assistance or supervision**

How should this be defined?

- Good enough that you would let them perform the procedure on a close relative of yours?
- Trained sufficiently to perform the procedure at the level of the average practitioner available to perform that procedure in the community in which he or she is going to work?

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- **Competency**
- **Minimal skill, knowledge and experience level obtained from training.**
- **Required capacity to surely and safely performe a procedure.** *Faigel DO, Baron TH, Lewis B et al Ensuring competence in endoscopy. ASGE*
- Not static concept during training or the complete career. *Vargo J. North of 100 and south of 500: where the "seet spot" of colonoscopic competence lie? Gastrointest Endosc Volume 71, No. 2: 2010*

Basic Principles of Competency

- Competency in one procedure, does not imply competency in another procedure
- Competency requires **BOTH** **Cognitive** AND **Technical** competency
- Competent examination criteria defined for each particular procedure by consensus about technical and cognitive performance parameters that must be met to call a single observed case “competent”

Nuts and Bolts of Competency Determination

- **Step 1:**
  - Identify parameters about a particular procedure that are important to successful performance and good outcome.
  - For colonoscopy
    - **Technical factors**

      Cecal intubation without assistance, complete examination of the mucosa on withdrawal, etc.
    - **Cognitive factors**

      Recognition of pathology, proper interpretation of findings, etc.
- **Step 2:**
  - Develop and validate a tool to objectively measure if a trainee performs a given observed examination at a competent level

From Learning Curve to Competency Determination

- **Step 3:**
  - Information about how well independent operators in the community, should be expected to perform on those very parameters, must be derived from studies or benchmarking data
  - When trainees consistently perform examinations to parallel how practitioners in the community rate according to the same parameters, they are deemed to be competent to perform that particular procedure

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- **Incompetency Consequences**

- Diagnosis mistakes
- Higher complication rate
- Incomplete procedures
- Risk of unnecessary iteration of procedures

Assessment

- Judgement about someone's performance, using **defined criteria**

Assessment

- Is a difficult process in GIE
- Knowledge, Performance, Attitudes, Skills, Clinical Criteria, Compassion, Culturalism
- How to assess a new technology
- The objectives and Qualifying Assessment criteria should be clear from the begining
- Log Book/ Quality in Endoscopy
- Direct Mentoring and Assessment Overview
- The threshold numbers

R Sáenz WEO LAGE- TC Santiago Chile

Assessment

- Measures individual competence for comparative purposes
- Different types of assessment
- Depend on robust criteria, useless when not present
- Evaluation based on

  Clinical, Research, Education, Administration and Management performances

Assessment

- Comparison with peers or other quality standards

- “Standards”
  - Lowest ?
  - Average ?
  - Best ?

Trainees

- They are all different. They learn at different rates
- Individual training process differently designed and tailored to his/her attributes
- Competency determined on individual basis based on objective measures of performance
- Trainee logbook records, specifying particular skills completed by the fellow & number of cases done without assistance

Skills & Training

Unconscious Incompetence

Conscious Incompetence

Unconscious Competence

Conscious Competence

ASGE Guidelines Advanced Procedures Endoscopy Training
Minimal Threshold for competency evaluation

Procedures	Required Number
EGDuodenoscopy	130
Upper GI Bleeding	25
Active bleeding	10
Variceal Bleeding	20
Active bleeding	5
Colonoscopy	140
Snare Polypectomy & Hemostasis	30
Esophageal Dilatations (Guidewyre)	20
PEG	15
Capsule endoscopy (Small Bowel)	20

Basic Principles of Competency

- Numbers of procedures performed under supervision do NOT guarantee competency

  Minimum requirements in guidelines mean:
- "Minimum number of cases of a particular procedure that must be completed before competency can even be assessed."

- Below those numbers, the chance of competency is too low to even evaluate.

Numbers are important but….

- Quality Criteries are perhaps of crucial importance
- Getting those numbers, exceds the period of training
- Not all the trainees have similar atributes for different procedures
- Quality Criteries pre, trans and post procedure should be known and practiced.
- They should be the very hart of the assessment

Setting the bar: How good is good enough

- Depends on outcome data for community standards:
  - Cecal intubation rates
  - Perforation rate
  - Post-ERCP pancreatitis
  - Cannulation of desired duct
- Limited data on training learning curves guide how much training it takes on average to reach accepted benchmark levels of performance
- This average # of cases is used to support the minimum threshold #'s recommended for trainees to perform BEFORE competency is formally assessed

Comments

- Trainees are different
- Numbers could vary (Countries)
- Sometimes very difficult to get (ERCP=200)
- Skilled ones vs slow learners
- Not all the procedures needed (EUS-FNA)
- Simulators & Models shortens learning curves
- Less disconfort, complication rate and instrument dammage
- Competence should be obtained for **every procedure**

Some Quality criteries

- **Pre-test**
- Indication
- Informed consent, Pause
- Prophilaxis, Anticoagulation…
- **Test**
- Completeness
- Monitoring
- Adenoma detection rate
- Documentation
- **Post Test**
- Discharge criteries
- Complication rate…

Set

- Trainee present level of knowledge
- What do you want them to learn
- Stablish linkages with their previous knowledge/experience
- Control environmental/ setting issues
- Timing
- Assess process known

When to assess Competency Moments of assessment

- Previous the training Period. Background
- During the training Period. Established goals
- At The end
- Periodically After training. Continous Medical Education
- New procedures and New applications of a known Procedure (POEM, ESD…)
- Endoscopist health condition (Physical and psycological)

Feedback

- Get the timing right
- Give in private
- Establish trust
- Be specific
- Be consistent
- Keep objectives in focus
- Keep objectives achievable (SMART)

Frequent

Constructive

Goals of Assessment

- Optimize the capabilities of learners and practitioners
  - Motivation
  - Direction for future learning
- Provide a basis for choosing applicants for future training
- Protect the public by identifying incompetency

Cox M, Irby DM. NEJM 2007;356:387-396

Commonly Used Methods of Assessment

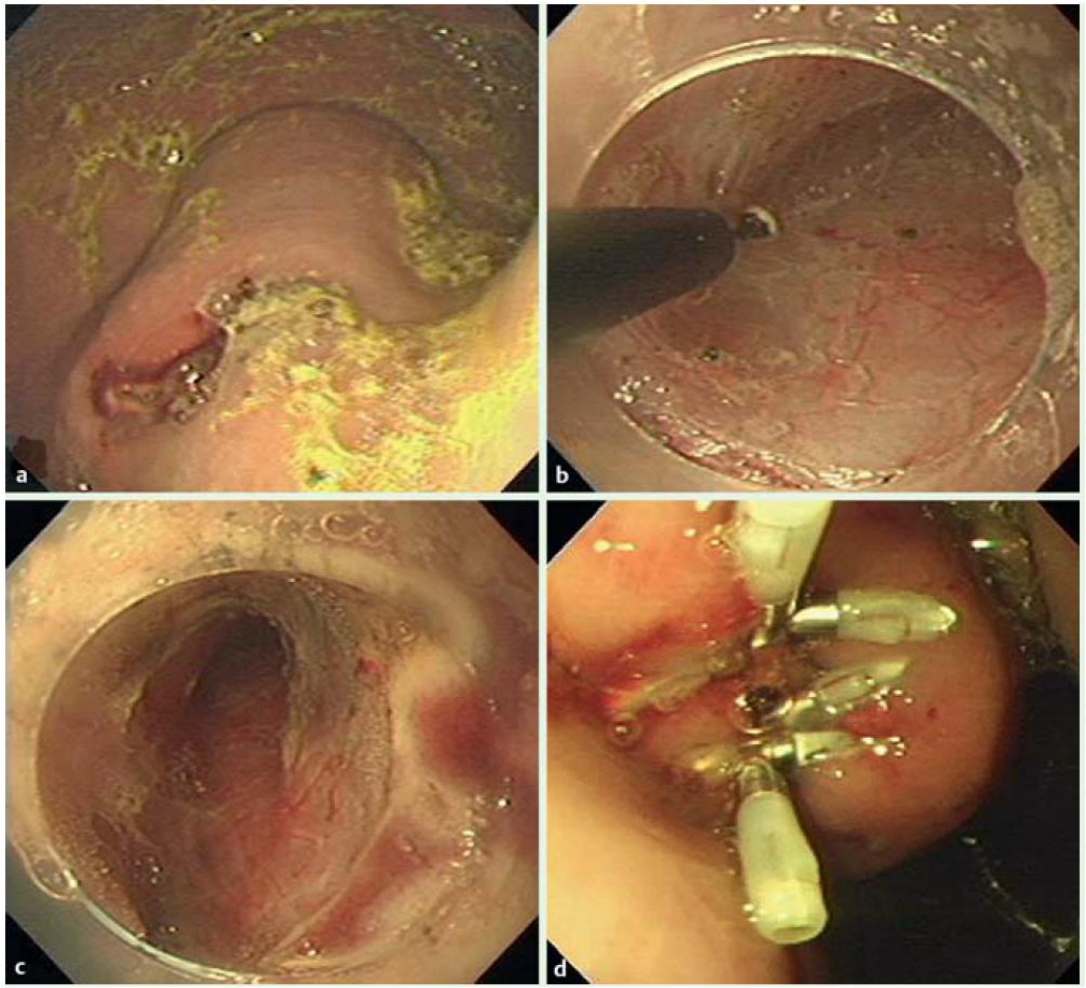
- **Written exercises:**
  - Multiple choice questions
  - Key-feature and script concordance questions
  - Short-answer questions
  - Structured essays

Commonly Used Methods of Assessment

- **Assessments by supervising clinicians**
  - Global ratings
    - With comments at the end of rotation
  - Structured direct observation
    - Checklists for rating
  - Oral examinations

Models /phantoms

- Could be a new scenario for techniques assessment
- Sometimes expensive
- Available?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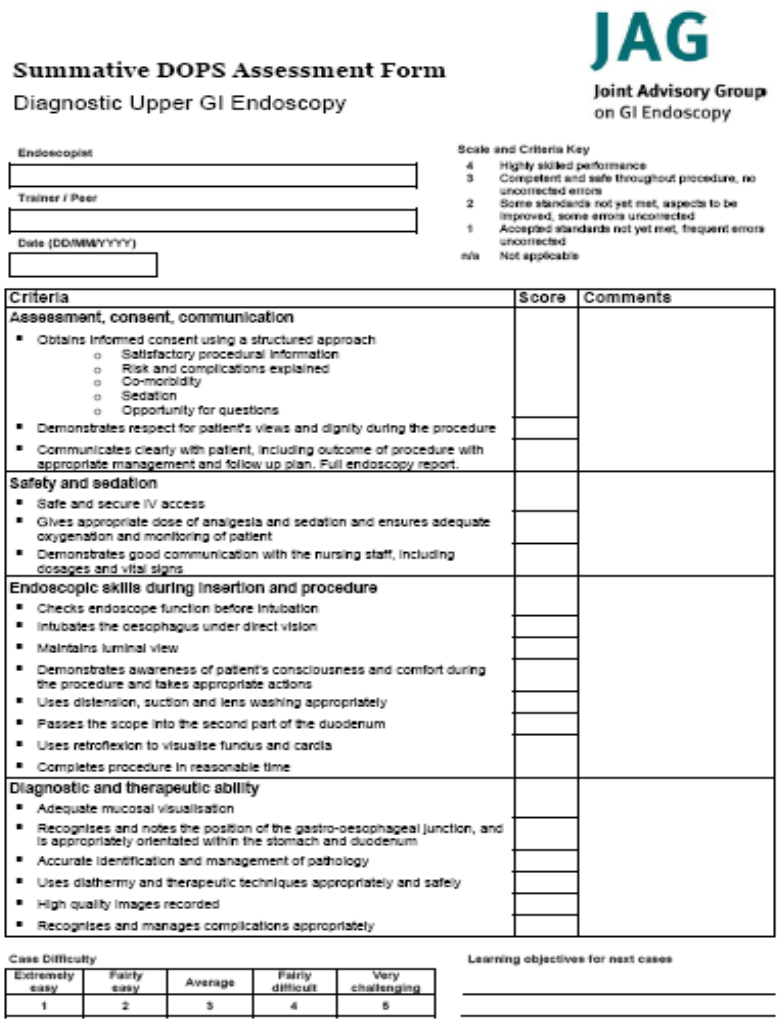
Commonly Used Methods of Assessment

- **Clinical simulations:**
  - Standardized patients and **O**bjective **S**tructured **C**linical **E**xaminations (**OSCE**)
  - Incognito standardized patients
  - High technology simulations

DOPS ASSESSMENT FORM



Summative DOPS Assessment Form

Diagnostic Upper GI Endoscopy

JAG
Joint Advisory Group on GI Endoscopy

Endoscopist

Trainer / Peer

Date (DD/MM/YYYY)

Scale and Criteria Key

4	Highly skilled performance
3	Competent and 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
Assessment, consent, communication		
▪ Obtains informed consent using a structured approach o Satisfactory procedural information o Risk and complications explained o Co-morbidity o Sedation o Opportunity for questions		
▪ Demonstrates respect for patient's views and dignity during the procedure		
▪ Communicates clearly with patient, including outcome of procedure with appropriate management and follow up plan. Full endoscopy report.		
Safety and sedation		
▪ Safe and secure IV access		
▪ Gives appropriate dose of analgesia and sedation and ensures adequate oxygenation and monitoring of patient		
▪ Demonstrates good communication with the nursing staff, including dosages and vital signs		
Endoscopic skills during insertion and procedure		
▪ Checks endoscope function before intubation		
▪ Intubates the oesophagus under direct vision		
▪ Maintains luminal view		
▪ Demonstrates awareness of patient's consciousness and comfort during the procedure and takes appropriate actions		
▪ Uses distension, suction and lens washing appropriately		
▪ Passes the scope into the second part of the duodenum		
▪ Uses retroflexion to visualise fundus and cardia		
▪ Completes procedure in reasonable time		
Diagnostic and therapeutic ability		
▪ Adequate mucosal visualisation		
▪ Recognises and notes the position of the gastro-oesophageal junction, and is appropriately orientated within the stomach and duodenum		
▪ Accurate identification and management of pathology		
▪ Uses diathermy and therapeutic techniques appropriately and safely		
▪ High quality images recorded		
▪ Recognises and manages complications appropriately		

Case Difficulty

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

Learning objectives for next cases

Summative DOPS Assessment Form – Diagnostic Upper GI Endoscopy — Last updated 07 April 2010

Author: JAG Central Office — Page 1 of 2

For further information, please contact the JAG Office · enquiries@thejag.org.uk · 020 3075 1620 · www.thejag.org.uk

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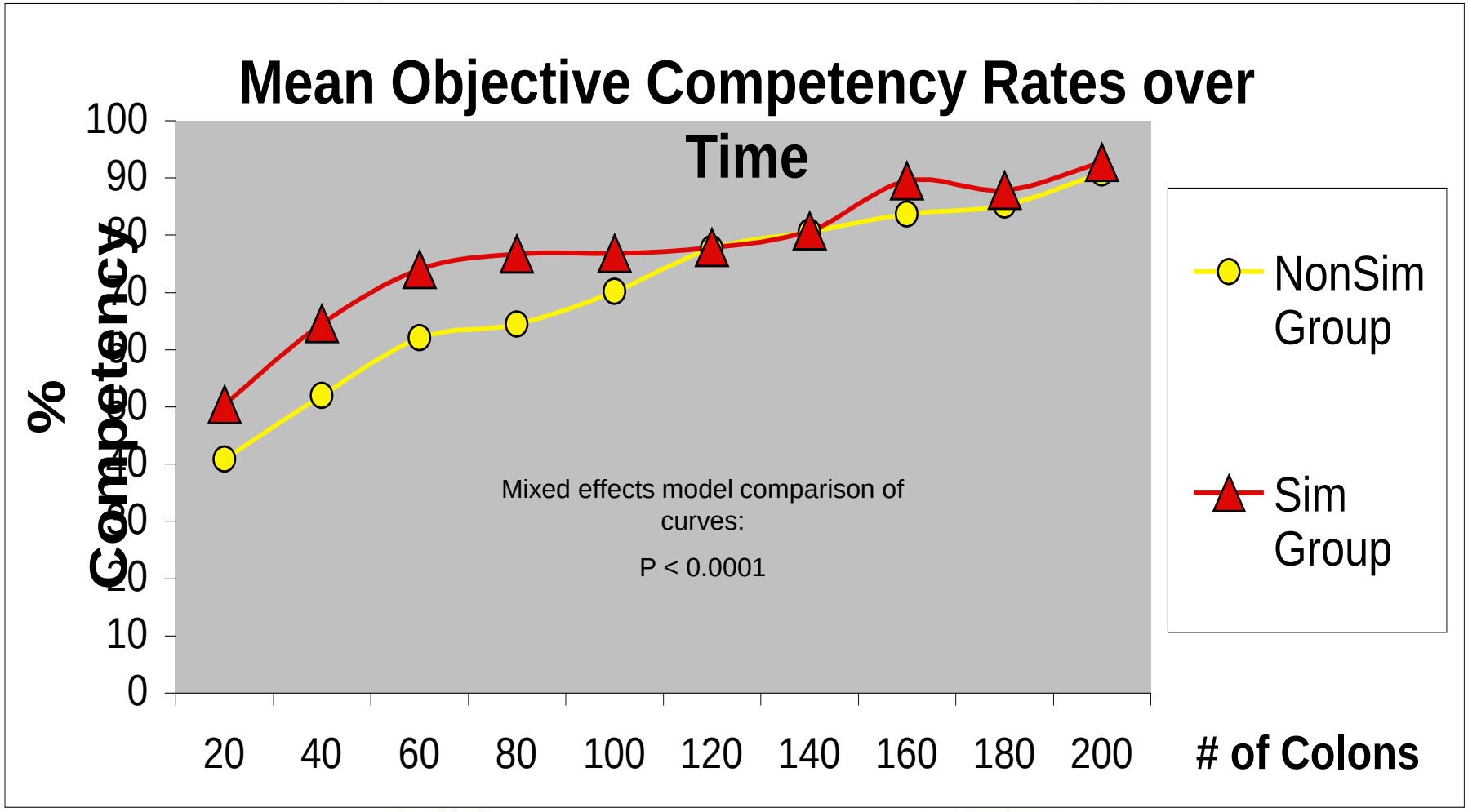
Learning Curves Can Be Derived by Assessing for Frequency of Competent Exams over Time



Graph from RCT of Benefit of Computer Simulator

MCSAT Colon evaluation form

- Validated scoring tool for colonoscopy performance.
- Used to track all trainee cases at the Mayo Clinic
- Could be used periodically during training for assessment and feedback
- Serves as example for objective competency tool

- **DOES NOT SET THE BAR**
  FOR WHAT LEVEL OF SKILL MEANS COMPETENT

Mayo Colonoscopy Skills Assessment Tool

Date: **Fellow's Name:** **Staff:**

Time of Intubation:

Time at Maximal Insertion (Cecum or maximal Extent of procedure):

Time of Extubation:

. . . . . One sample question:

What is the farthest landmark the fellow reached **without** any hands-on **assistance**:

*N/A - fellow observed only **or** Procedure terminated before completion.*

1- Rectum,

2- Sigmoid,

3- Splenic flexure,

4- Hepatic flexure,

*5- Cecum **No TI attempt** (completed cecal intubation without hands-on assistance and **no attempt at TI**)*

*5- Cecum **Failed TI attempt** (completed cecal intubation without hands-on assistance and **Failed attempt at TI**)*

6- Terminal Ileum (Successful intubation of TI)

9- Other-Post surgical anatomy encountered, fellow reached maximal intubation.

Accreditation Council for Graduate Medical Education

Competencies

1. Patient care

Assessment of relevant history, imaging, physical examination, recommendations for diagnostic and/or therapeutic endoscopic options, development of management plan, and performance of essential procedures with special attention to assessment of competent performance of diagnostic/therapeutic endoscopy

2. Medical knowledge

Assessment of clinically applicable cognitive skills that underlie the practice of GI endoscopy and the ability to apply this knowledge in clinical decision making regarding endoscopic procedures

3. Interpersonal and communication skills

Assessment of skills required for effective interactions with other health care providers and patients and their families

4. Professionalism

Assessment of

Sensitivity and responsiveness to patients, staff, and colleagues while performing endoscopy

5. Practice-based learning and improvement

Assessment of

Ability to analyze and evaluate their endoscopic experiences and implement strategies to continually improve the quality of endoscopic practice

Ability to apply knowledge of study design and statistical methods to the appraisal of endoscopic studies

6. System-based practice

Assessment of

Timely and accurate reporting of procedure results

Use of standard terminology

Ability to understand, access, and use resources and providers such as surgeons, oncologists, pathologists, and radiologists to provide optimal endoscopic care

Ability to apply evidence-based, cost-conscious strategies to prevention, diagnosis, and management of GI diseases

360 Degree Assessment

- Peers, members of the clinical team, endoscopy staff, junior staff, medical students and managers
- At least 12 respondents for reliability
- 9 point scale from unsatisfactory to as expected to exceptional
- 23 points to include clinical abilities, communication skills, empathetic behaviour, teaching, health and probity

Remember!

Unexpected critical feedback can be devastating

Specially if given in the wrong way and without proper support

It may do more harm than good!

Take Home Message

Assessment complex and several aspects to deal with

Its basis should be known at the beginning of the training period by the trainee

Quality criteria could be a framework for the process

Overall trainer impression and 360 degrees assessing is desirable

Permanent Feedback is a crucial part of the successful assessment

Role of trainee in conducting conferences, research and teaching

- Teaching others is the best instrument to learn
- To be involved in research from the very begining is encouraging and open minds
- Publishing and presenting results to Congresses is also a devoted goal of training

Mentoring…

- Need to know where we are, where do we want to go and where do we come from..
- We do plann our pathway, objectives and goals
- Someone could signal us, the best route, probable risks and difficulties, way out and success alternatives…
- Imprescindible in Endoscopy Training

Sherpas and K2

"Tips for mentoring"

- To Assure Positive learning endeavor
- To understand "mentee's" perspective
- To identify common problems
- To conduct the "mentee" toward learning resources
- To estimulate reflection
- To teach with Mentor overall behaviour
- To give frequent "feed-back" opportunities
- "Mentee's" commentaries should be searched for

Conclussions

- Mentor helps to reassure mentee's future success
- Endoscopy, ideal area for mentoring
- Crucial relationship in the professional career

- **"Best you can do for others is not only to share your richness, but to reveal their own"**

Benjamin Disraeli

¡¡Mentors!!