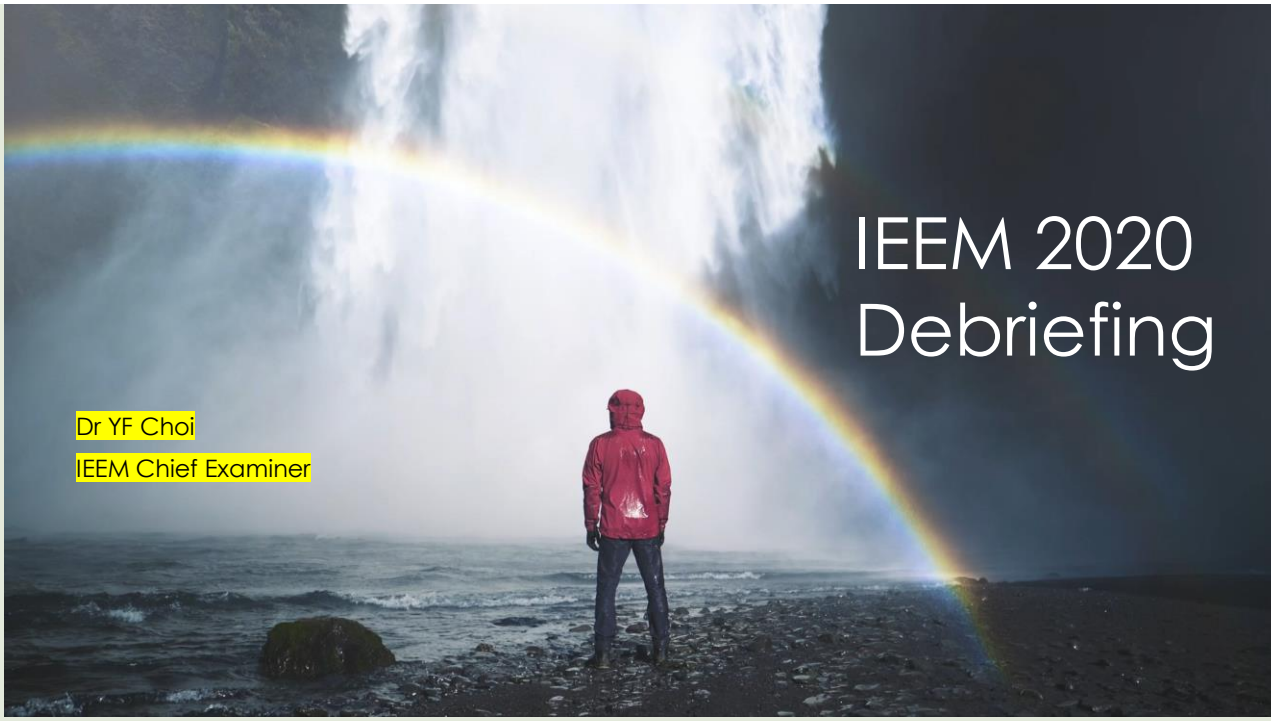

IEEM 2020 Debriefing

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Assessment philosophy for IEEM (1)

- A summative exam for trainees advance from **basic to higher** training.
- Higher training expects trainees to be more independent in managing common and important clinical conditions in A&E Department.
- IEEM focuses on **common** or **important** conditions.

Chest pain, SOB, palpitation, dizziness, pain, injuries, infections, ….all those commonly encountered in A&E

Not that common but quite essential:

- **Life threatening** conditions: aortic dissection, ischemic bowel disease…
- **Not affordable to miss**: fractures, child abuse, ectopic pregnancy…
- **EM specific**: basic toxicology, prehospital resuscitation, environmental medicine
- **Contemporary**: COVID-19, social violence, geriatric EM

Assessment philosophy for IEEM (2)

Under the framework of **competency based medical education** (CBME) curriculum

- It is pointless to examine on rare conditions (such as scurvy) at IEEM level
- But we want candidates to be really good at easy stuff.

In the past years, we made some changes in the SAQ and OSCE questions to make the exam easier:

- We ask predictable topics in SAQ and OSCE
- We made the marking scheme more lenient to de-emphasize memory (asking for less than required in the marking scheme)
- Reduce OSCE task complexity to remove time pressure

As a result, the passing mark has become higher for SAQ

Standard Setting in SAQ: Modified Angoff

- A panel of experts (examiners) go through the questions and marking scheme answers of each question.
- Each examiner independently set a passing score for that question
- The median score (to exclude hawk-dove effect) I taken as the passing mark
- It cab be revised after marking

- The passing mark for each question and each exam can be different.
- An internationally well recognized robust standard setting method.

Passing mark for IEEM SAQ in the previous years (full mark 160)

Year	2013	2014	2015	2016	2017	2018	2019	2020
Passing mark	99.5	97.5	97	100.5	100	93.5	103	106
Passing rate	5/9 (56%)	12/18 (67%)	15/18 (83%)	14/21 (67%)	12/24 (50%)	8/29 (28%)	16/33 (48%)	11/36 (31%)

A change in SAQ question style

Traditional book stuff questions

- Based on a problem
- Contain knowledge in a single topic, chapter or section of curriculum
- Ask to list textbook answers with no differentiation
- Answers are standardized with not much variation
- Good memory can score in high mark
- Fail is mainly due to inadequate revision

Clinical oriented questions

- **Based on a patient/scenario**
- **Contain knowledge and application from multiple sections in the curriculum**
- **Ask clinical priority and clinical reason**
- **Best answers vary with patient's age, sex, vitals and presentation**
- **De-emphasize memory but value clinical sense**
- **Apart from under-preparation, fail also may reflects poor clinical exposure**

Debriefing points for IEEM SAQ

Interpretation of X-ray

- Addressed in IEEM 2019 report: many missed pneumothorax and unable to identify a markedly thickened retropharyngeal soft tissue shadow
- EM physician had missed easy CXR that surprised the HAHO management

It remained daunting in IEEM 2020

- 18/36 could not spot an osteolytic lesion over pedicles of spine that run the risk of missing important diagnosis.
- 20/36 could not recognize a C1 Jefferson's fracture.

Recommendations: Train X-ray interpretation in a systemic manner

Debriefing points for IEEM SAQ

Contemporary hot topic: procedural sedation and ETCO2 monitoring

- It was examined in IEEM 2019 as an OSCE station which turned out to be the highest failure rate station.
- In IEEM 2020, it appeared in SAQ:
  - When ETCO2 suddenly dropped to zero, 23/36 only wanted to check equipment but did not check patient's vitals as priority

Recommendations:

- Attend training in procedural sedation
- Know the drugs well and tailor-made to your patients
- Known everything about ETCO2
- Patient safety is the prime concern

Debriefing points for IEEM SAQ

Other minor points

- Hypothermia: 29/36 failed the question despite readjustment of passing score. Recognition, risk factors, treatment and precautions of treatment are important.
- Major trauma resuscitation: concept of permissive hypotension (15/36 wanted to kill a hypotensive patient faster by aggressive IV fluid)
- Arial fibrillation: complications, treatment options, and complications of treatment
- Mallet, boutonniere and swan-neck finger deformity
- Diagnosis and management of acute angle closure glaucoma
- Head injury and interpretation of CT brain has become essential
- Know the acid-base balance physiology
- Toxicology: IEEM examine on basics only

Recent changes in IEEM OSCE

- 16 station → 15 stations (since 2019): still request passing 12 stations
- Station task difficulty has reduced in a few dimensions:
  - Eliminate time pressure in a station
  - Restrict to basic trainee exposure level: reduce rare procedure skills

Debriefing points for OSCE

General comments:

- Despite high passing rate (12/13), examiners expressed a few points on unsatisfactory performance from candidates.
- High failure rate on resuscitation stations
- More satisfactory on history taking

Specific Points

- Management of Colles' fracture:
  - Period of immobilization
  - Rehab following immobilization
  - Newer recommendations of referral

Debriefing points for OSCE

- Management of a hand laceration
  - High failure rate
  - Poor knowledge of management of delayed wound
  - No concept on wound exploration for underlying tissue injury
  - Poor knowledge on anatomy

- Comment from previous IEEM
  - Management of wound is bread and butter stuff for A&E doctors and it was surprised to see some candidates have poor knowledge and skill on wound management

Debriefing points for OSCE

Skill Station: Modified Valsalva Maneuver for SVT

- Few candidate know exactly the skill
- Marking scheme still allow a pass for traditional Valsalva.
- Vagal maneuver must be performed for stable SVT before drug treatment

Skill Station: teaching cold intubation

- "Cold" means no drug given before intubation
- Many candidate asked for videoscope
- Very few candidate taught pre-intubation assessment of difficult airway (LEMON rules)

Debriefing points for OSCE

Critical decision making stations in OSCE

- Usually a skill station
- Require a critical decision to pass
- Might have a high failure rate
- Examples:
  - 2019: intubated patient with ETCO2 = 0. All those who did not reintubate failed
  - 2020: Escort a P2 pregnant lady for interhospital transfer: All those who want to delay delivery failed

Debriefing points for OSCE

Geriatrics

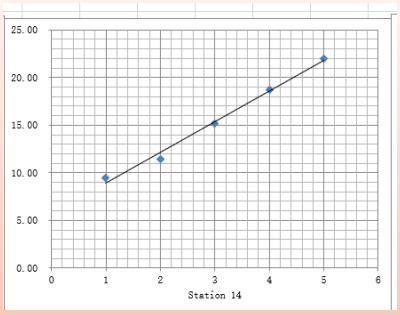
- In IEEM 2020, we have a OSCE history station on an elderly presented with "wandering in street".
- Although high passing rate, station examiners commented that
  - Specific geriatric history are poorly taken, such as details of ADL.

Geriatric EM is becoming more and more important

- The college will develop a set of training materials for geriatric EM

Standard Setting in OSCE

- By borderline regression



Examiners' Impression→

Candidates' performance→

Global mark

Check list mark

Regression to a final passing park

Appeals

- According to IEEM rules and regulations, an appeal can be considered if a failed decision was alleged to
  - Misadministration of the exam process (example: given 100 minutes to answer in a 120 minute exam)
  - Unfairness with solid evidence (my examiner was answering a phone call during OSCE exam while I was performing my task)
  - Bias (sexism, racism)
  - Others (example in EEEM 2018, the marking scheme had changed but examiners were not formally informed)

The ways we conduct IEEM are strongly resistant, if not immune to appeals

An appeal will not be considered if alleging:

- My answers are technically correct but marked as wrong because they might not be the answers wanted by the examiners.

(There is no argument against model answer as they have been approved by a number of experts in IEEM)

(There is no argument against an examiner's decision on candidate. A failed decision in OSCE is not made by a single examiner)

- I wrote my answers out of order but I wrote all the correct answers
- I wrote my answers not on the line provided but at somewhere else

Please discuss with your training supervisors before appeal.

Recommendations to trainees

- Clinical exposure is important: see more cases
- Active participation in college training activities
  - no matter compulsory or not and
  - do that even you have earned enough TP
- Pay attention to the contemporary hot topics
- Pay attention to the future development of EM
  - Geriatric EM: history and assessment
  - Prehospital EM: recent advances

Easy missed areas in preparing for exam

- **Environmental Emergency Medicine** (EM): considered unique for EM curriculum
- **Ethics and Professionalism**: An essential knowledge and attitude for doctors
- **Aftercare** of common A&E problems: discharge and FU fractures, Admit medical and surgical presentations
- **(Civil and special disasters medicine:** May be more appropriate at EEEM level)

Others Tips

Thank You

- Attend as many JCM as possible and stay till quiz
- Attend as many college tutorials as possible
- Apart from IEEM compulsory training courses, attend other compulsory courses earlier
- Attend SSEM, COC A&E workshops
- Attend grand round by subcommittee
- Read local EM papers on HKMJ and HKJEM
- Last but not least: see more patients with