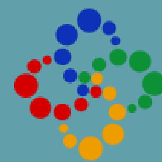
Developing Entrustable Professional Activities for postgraduate Family Medicine training

- Primafamed
- Nairobi, Kenya
- Prof Louis Jenkins
- June 2024



PRIMAFAMED

Primary Care and Family Medicine Network for sub-Saharan Africa

What are EPAs?

- EPAs allow for entrustable decisions regarding competence in a described clinical work context
- They provide the ‘bridge’ between curricula learning outcomes, competency frameworks and everyday professional activities in the clinical workplace
- Units of professional practice (task or responsibility that a registrar can be trusted with)
- Job description of a family physician (What do you do)

Ten Cate O, Scheele F. Competency-based postgrad training: Can we bridge the gap between theory & clinical practice?. Acad Med. 2007;82(6):542–547. https:// doi.org/10.1097/ACM.0b013e31805559c7

Why do we need this?

- Workplace-based assessment (WPBA) in health education - global priority.
- From assessment of learning to assessment for learning (Burch)
- Safeguarding the public & early Id of registrar in difficulty
- Many programs - developing EPAs as part of programmatic assessment. (Ten Cate)

1. Burch V. The Changing Landscape of Workplace-Based Assessment. Journal of Applied Testing Technology, *Vol 20(S2), 37-59, 2019.*
2. Sathekge M. Time to review the contribution of work-based assessment in our high-stakes exams. Transactions 2017;61(1):4-5. https://www.cmsa.co.za/view_document_list.aspx?Keyword=Transactions.
3. Jenkins, L., Mash, R., Motsohi, T., Naidoo, M., Ras, T., Cooke, R., & Brits, H. (2023). Developing entrustable professional activities for family medicine training in South Africa. *South African Family Practice, 65*(1), 6 pages. doi:https://doi.org/10.4102/safp.v65i1.5690

Entrustable?

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Would you trust your loved ones to this trainee? Certification decisions in postgraduate anaesthesia training

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Semi-structured interviews with 26 senior anaesthetists from 21 European countries. Each participant was directly involved in certification decisions, for example as programme director.

Affirmative

- I would absolutely have no qualms about them anesthetizing me or my children
- The exams are particularly challenging. If somebody is not up to the job, they will not get through the exams.
- He has been assessed for five years, so he’s safe. We can put our hands on our heart and say he’s ready, for sure.

Irresolute

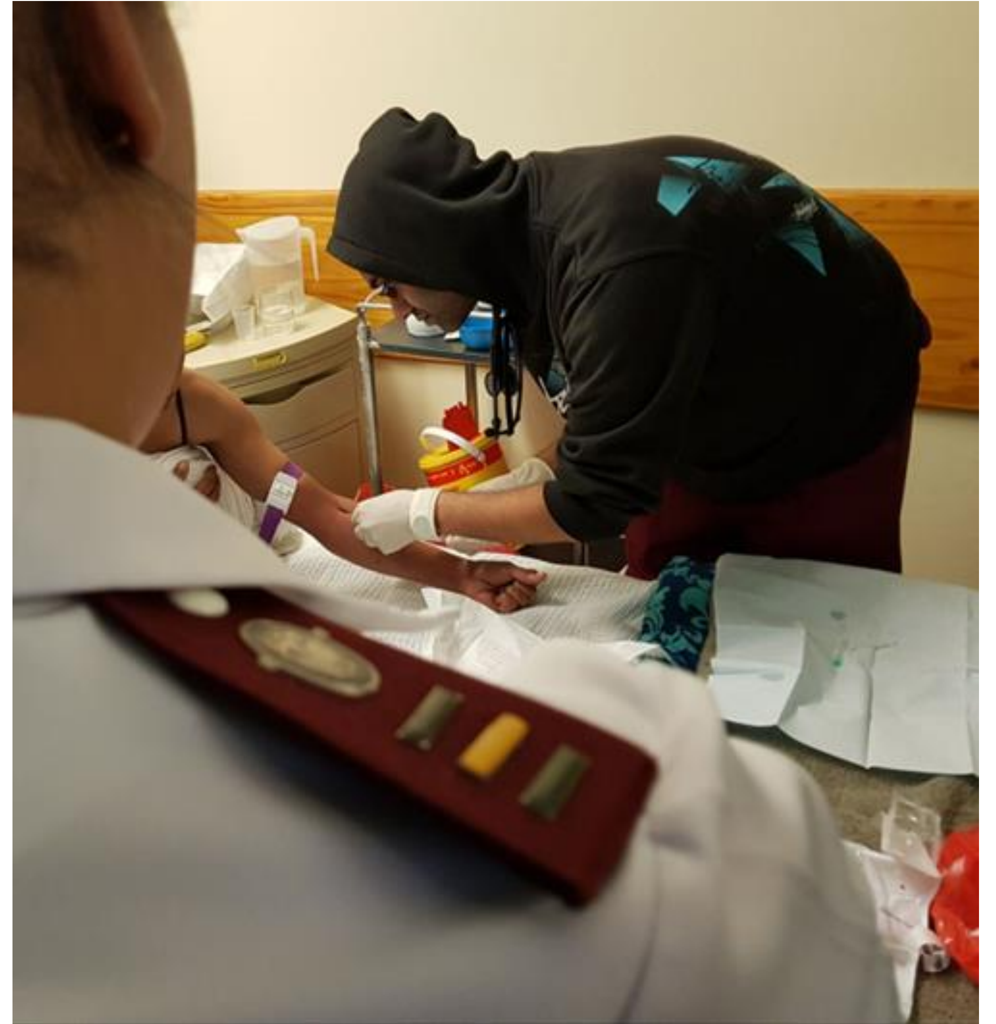
- I cannot guarantee you 100% that everyone who passes this final exam will be 100% in their practice.
- Although we have run nat. courses for supervisors, it might be that we don’t have the same idea of the level needed.
- I think in standard deviations. The certification cut-off is not the mean, but at e2 standard deviations. We always try to bring you to the middle.

Negative

- There are some strict criteria. If they meet those they pass. Even if I would not like to have them treat me.
- We don’t have a bedside evaluation. The examination is just theory. We don’t evaluate formally the way of thinking, the way of doing.
- She’s a problematic person. We know she’ll be a very problematic anaesthesiologist after the exam […], but the only criterion is knowledge.
- I have no right to forbid a trainee to go to the board exam; pass the oral after five years, and then you’re certified.
- The main weakness is the detection of problems with trainees. To ensure that they are ready is very difficult
- My chief advises me to be lenient. Because if I am too strict, my institution will get less money.

Professional?

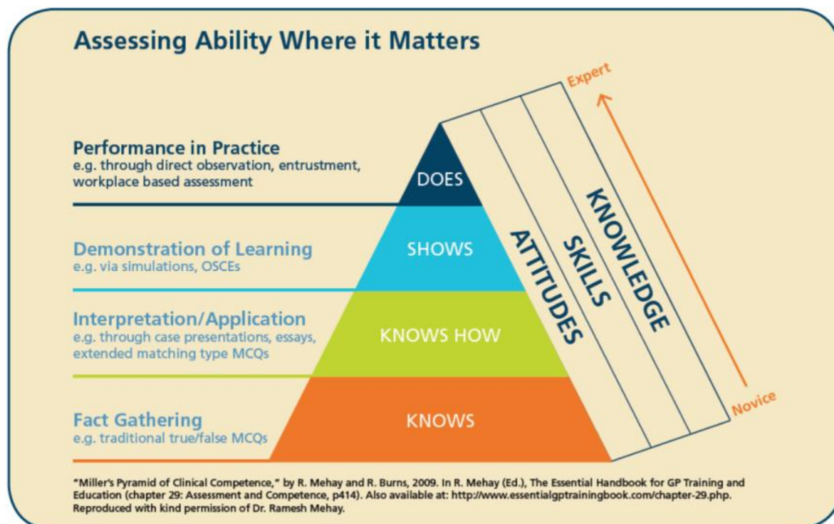
- Evolving landscape
- Difficult to assess with one exit exam
- Value of multiple trainee reflections and different supervisors' feedback
- Tools e.g. MSF
- Captured over time in a portfolio of learning



1. Cooper-Moss N, Hooper H, Choong KA, Chauhan U. Medical professionalism: Navigating modern challenges. InnovAiT. 2022;15(1):7-13. doi:10.1177/17557380211052669
2. Maristany, Daniela MD1; Hauer, Karen E. MD, PhD2; Leep Hunderfund, Andrea N. MD, MHPE3; Elks, Martha L. MD, PhD4; Bullock, Justin L. MD, MPH5; Kumbamu, Ashok PhD6; O'Brien, Bridget C. PhD7. The Problem and Power of Professionalism: A Critical Analysis of Medical Students' and Residents' Perspectives and Experiences of Professionalism. Academic Medicine 98(11S):p S32-S41, November 2023. | DOI: 10.1097/ACM.0000000000005367

Activities?

- Evaluate learning in context – doing and becoming
- Top of Miller's pyramid



When did it start?
Where are we now?

- 2005 ~ Prof Olle ten Cate ~ Netherlands
- 2013 ~ USA ~ 76 EPAs for Fam Meds
- 2019 ~ Scoping review ~ 80 articles. 2010 - 2018.
  - Conclusion: EPAs are an essential means to translate competencies into observable and measurable clinical practice.
  - High-level evidence-based research on the efficacy, development & implementation of EPAs for under- & postgraduates and geographical regions (i.e. Asia and Africa) is still lacking.
- 2023 ~ SA ~ national implementation by 2025

EDUCATIONAL INNOVATION

Entrustable Professional Activities in Family Medicine

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Abstract

Background The Accreditation Council for Graduate Medical Education Outcome Project intended to move residency education toward assessing and documenting resident competence in 6 dimensions of performance important to the practice of medicine. Although the project defined a set of general attributes of a good physician, it did not define the actual activities that a competent physician performs in practice in the given specialty. These descriptions have been called entrustable professional activities (EPAs).

Objective We sought to develop a list of ambulatory practice in family medicine tc curriculum development and resident ass

Methods We developed an initial list of E course of 3 years, and we refined it furthe the opinion of experts using a Delphi Pro experts participating in this study were r

2 groups of family medicine leaders: organizers and participants in the Preparing the Personal Physician for Practice initiative, and members of the Society of Teachers of Family Medicine Task Force on Competency Assessment. The experts participated in 2 rounds of anonymous, Internet-based surveys.

Results A total of 22 experts participated, and 21 experts participated in both rounds of the Delphi Process. The Delphi Process reduced the number of competency areas

SOUTH AFRICAN COMMITTEE OF MEDICAL DEANS

SACOMD/CMSA JOINT TASK TEAM

WBA IMPLEMENTATION IN SOUTH AFRICA

30 November 2023

Dear College President

Subject: Congratulations on Your Appointment and Important Priorities Ahead

I am writing to you on behalf of the South African Committee of Medical Deans (SACOMD) to extend our warmest congratulations on your recent appointment as President of your College. Your leadership and expertise are invaluable assets to our esteemed institution and the medical community at large.

As we look towards the future, one of our key priorities is the implementation of Workplace-Based Assessment (WBA) by 2025. This initiative is critical in enhancing the quality of training and ensuring that our medical professionals are equipped with the necessary skills and competencies to excel in their respective fields.

To facilitate this, we seek your assistance in forming a nationally representative task team (i.e. representation from every training site) within your discipline. This team will play a pivotal role in developing Entrustable Professional Activities (EPAs), which are integral to the WBA framework. Your guidance in selecting members who possess the

1. ten Cate, O. (2005). Entrustability of professional activities and competency-based training. *Medical Education, 39*(12), 1176–1177.
2. Shaughnessy AF, Sparks J, Cohen-Osher M, Goodell KH, Sawin GL, Gravel Jr J. Entrustable professional activities in family medicine. Journal of graduate medical education. 2013 Mar 1;5(1):112-8.
3. Shorey S, Lau TC, Lau ST, Ang E. Entrustable professional activities in health care education: a scoping review. Med Educ. 2019 Aug;53(8):766-777.

Key components of WPBA

Source: Dudek N, Gofton W, Bhanji F. Workplace-based assessment practical implications [homepage on the Internet]. 2017 [cited 2022 Nov 27]. Ottawa: The Royal College of Physicians and Surgeons Canada. Available from: https://med.uottawa.ca/pathology/sites/med.uottawa.ca.pathology/files/work-based-assessment-cbd_part_2.pdf

EPA, entrustable professional activity; WBA, workplace-based assessment.

How did FM in SA develop EPAs?

2020
Thinking & reading about EPAs

2021
Nat EPA working group, Dept workshops

2022
2 Face-to-face w/shops: write EPA titles

2023
Write EPAs – 2-3/program

2 online; 1 f-f w/shops unpacking & understanding of specs, KSAE

Finalising EPAs and EQual QA

Incorp into portfolio (WBA) & local assess programs

Launch Nat CCC

2024
Launch EPA-based portfolio

Faculty Dev & local CCCs

Hennus, M. P., Jarrett, J. B., Taylor, D. R., & ten Cate, O. (2023). Twelve tips to develop entrustable professional activities. *Medical Teacher*, *45*(7), 701–707. https://doi.org/10.1080/0142159X.2023.2197137

EPAs for FM in SA

Nr	EPA Title
1	Managing women and newborns in the peri-partum period
2	Managing pregnant women
3	Managing women and babies in the postnatal period
4	Managing children with undifferentiated and more specific problems
5	Managing children requiring inpatient care and procedures
6	Providing anaesthesia in the district hospital operating theatre
7	Providing anaesthesia for minor procedures
8	Managing adult and adolescent patients with chronic conditions
9	Managing adult and adolescent patients with undifferentiated problems
10	Managing patients with infectious diseases
11	Managing adults with conditions that may require surgery or procedures
12	Managing patients with mental health disorders
13	Managing patients with emergency conditions
14	Managing patients with forensic problems
15	Managing adults and children with palliative care needs
16	Managing care for older patients
17	Managing patients with impairments & rehabilitation needs
18	Supporting community-based health services
19	Supporting and providing health promotion and disease prevention services
20	Providing training and continuous professional development
21	Leading a clinical team
22	Leading clinical governance activities

‘Behind the scenes’

- EQual Rubric ~ determined quality of 22 EPAs (14 criteria)
- Standardised framework for EPA descriptions - (Nat Fam Meds Working Group June 2023 adapted AMEE 140 Guide)
- Preamble to EPAs - Transversal issues, e.g. Attitudes (A-RICH)
- Portfolio of learning revised to incorporate EPAs.
- Local and national Clinical Competency Committees started meeting
- EPAs being implemented in all programs
- Curriculum revise ~ required Knowledge / Skills / Attitude(Behaviours) / Experience
- Faculty development - monthly webinars unpacking EPAs in practice (2024)
- Face to face workshop (2 days) ~ 2 people/campus ~ Master trainers’, in 2024.

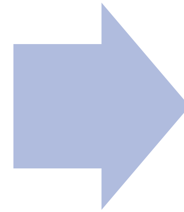
- Taylor DR, Park YS, Egan R, et al. EQual, a novel rubric to evaluate entrustable professional activities for quality and structure. Acad Med. 2017;92(11 Suppl):S110–S117
- Ten Cate O, Chen HC. The ingredients of a rich entrustment decision. Med Teach. 2020 Dec;42(12):1413-1420. doi: 10.1080/0142159X.2020.1817348. Epub 2020 Oct 5. PMID: 33016803.

Practice expectancies re-defined

Competencies as learning outcomes:

>200

Educationally defined



Entrustable professional activities (EPA):

22

Tasks needed in the workplace

Elaborating an EPA – the 8 components

1	Title of the EPA
2	Specification and limitations
3	Potential risks in case of failure
4	Most relevant domains of competence
5	Required knowledge, skills, attitude and experiences
6	Information sources to assess progress and ground a summative entrustment decision
7	Entrustment for which level of supervision at which stage of training?
8	Expiration date

Ten Cate O, Taylor DR. The recommended description of an entrustable professional activity: AMEE Guide No. 140. Med Teach. 2021 Oct;43(10):1106-1114. doi: 10.1080/0142159X.2020.1838465.

EPA 9. Title: Managing adult and adolescent patients with undifferentiated problems

Specifications ~ This EPA includes the following elements:

Evaluate and manage patients with undifferentiated problems in a holistic, cost-effective manner

Activities in the community, in primary care facilities and in district hospitals.

Includes adolescents from 13 years of age

Full patient-centred medical history

Appropriate focussed clinical examination

Appropriate bedside investigations

Clinical reasoning and appropriate clinical, individual and contextual assessments

Ordering and interpretation of specific investigations

Discussing the diagnosis with the patient and agreeing on a common management plan

Outlining and agreeing on appropriate further referrals

Doing minor procedures

Collaborating with the healthcare team

Limitations - A summative entrust decision for this EPA does not apply for:

Managing conditions that require urgent/ emergency care (See EPA 13)

Managing patients requiring more specialised levels of care

Activities related to disease prevention and treatment (see EPA 19)

Capacitating nurse practitioners and junior colleagues (see EPA 20)

Knowledge and Skills

An approach to all of the common undifferentiated problems in primary care settings. (See Addendum for Curriculum.)

GI/ respiratory/renal/ cardiovascular/ musculoskeletal/neurological /Gynaecological/ urogenital symptoms

Symptoms of sexual dysfunction

Mouth/ENT/ Eye/ Dermatology symptoms

Assess and consult families/couples

Collect routine specimens (blood/urine/stool/ pus swab etc)

Complete sick certificates

Breaking bad news

Interpret barium swallows

Interpret radiographs CXR/AXR/Back/ Joints

Measure peak expiratory flow

Nebulise a patient

Perform a lumbar puncture

Perform a pleural tap

Perform a pregnancy test

Perform fundoscopy

Perform urinalysis

Perform a relevant POCUS

Perform an exercise stress test

Perform electrocardiogram (set up, record and interpretation)

Perform and interpret office spirometry

Perform brief behaviour change counselling

Perform femoral vein puncture

Perform fine and wide needle aspiration biopsy

Perform venepuncture

Perform work assessment and complete disability grant forms

Set up routine intravenous access

Take a sexual history in different contexts

Use a glucometer and haemoglobinometer

Use inhalers and spacers

Write letters for appropriate referrals

Behaviours and Experience

A RICH Entrustment decision: A decision regarding the increase of autonomy of a trainee in medical education that takes into account his or her: Agency (proactive toward work, team, safety, personal development), Reliability (conscientious, predictable, accountable, responsible), Integrity (truthful, benevolent, patient-centered), Capability (specific knowledge, skills, experience, situational awareness), and Humility (recognizes limits, asks for help, receptive to feedback).

- Apply HPCSA ethical rules
- Understand and apply appropriate health legislation
- Attitudes related to the A-RICH acronym (See Preamble)

The registrar will encounter these symptoms during clinical rotations in the PHC clinic, the outpatient departments, the emergency centre and when they are placed in the community. The duration of the rotation may vary from 4 months to one year. Additionally, patients from any clinical domain may present with these symptoms.

ten Cate, O., & Chen, H. C. (2020). The ingredients of a rich entrustment decision. *Medical Teacher*, *42*(12), 1413–1420. https://doi.org/10.1080/0142159X.2020.1817348

Sources of information to support entrustment decisions

At least 10 Direct (or video recorded) observations of consultations by: FP supervisors and other specialists in PHC clinics, hospital OPDs, wards, EC and during home visits. (e.g. mini-CEXs, DOPS, teaching event)

Individual discussions: Educational meetings

Longitudinal monitoring: Multi-source feedback

Periodic supervisor assessment at end of allocation

Learning plans

Registrar reflections

Written assignments

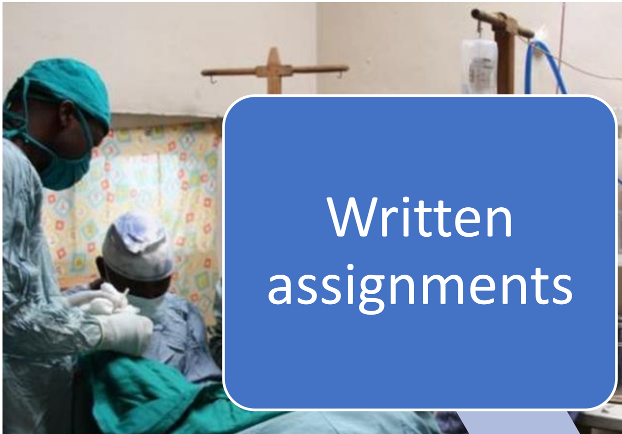
Record of allocations (relevant experience)

Logbook (procedural and other skills)

Products: E.g. letters of performance from managers

Non-WBA type assessments: Patient complaints / compliments, patient-safety incidents, disciplinaries

- All captured in portfolio of learning.
- Appropriate mix of consultations and skills (complexity and multi-morbidity)
- Must cover a diverse range of symptom complexes.



Written assignments

Logbooks of skills

Multi-source feedback

(10-20 people, A-RICH)

Educational meetings
(Entrustment based discussions)

Periodic assessment / reflections/ learning plan

EPAs

Observations

(mini-CEX, DOPS, C-section, Anaesthetics, Teaching)

Certificates, Diplomas, other

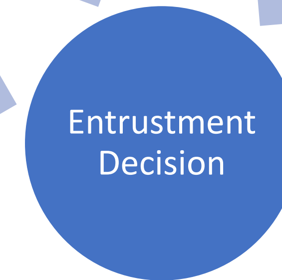
Aggregation
Saturation
Triangulation

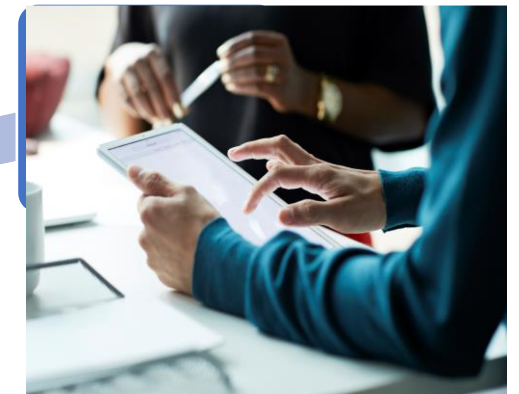
Data Points

EPA	1	2	3	4	5	(interim)	(final)
1. Managing women and newborns in the peri-partum period	0	0	0	1	0		
2. Managing pregnant women	0	0	1	1	0		
3. Managing women and babies in the postnatal period	0	0	0	1	1		
4. Managing children with undifferentiated and more specific problems	0	0	0	3	0		
5. Managing children requiring inpatient care and procedures	0	0	0	2	1		
6. Providing anaesthesia in the district hospital operating theatre	0	0	0	1	0		
7. Providing anaesthesia for minor procedures	0	0	0	1	0		
8. Managing adult and adolescent patients with chronic conditions	0	0	0	2	1		
9. Managing adult and adolescent patients with undifferentiated problems	0	0	0	1	1		
10. Managing patients with infectious diseases	0	0	0	1	2		
11. Managing adults with conditions that may require surgery or procedures	0	0	1	2	2		
12. Managing patients with mental health disorders	0	0	0	2	0		
13. Managing patients with emergency conditions	0	0	0	0	2		
14. Managing patients with forensic problems	0	0	0	0	2		
15. Managing adults and children with palliative care needs	0	0	0	2	0		
16. Managing care for older patients	0	0	0	0	2		
17. Managing patients with impairments & rehabilitation needs	0	0	0	2	0		
18. Supporting community-based health services	0	1	0	0	0		
19. Supporting and providing health promotion and disease prevention services	0	0	1	0	0		
20. Providing training and continuous professional development	0	0	0	3	0		
21. Leading a clinical team	0	0	1	0	0		
22. Leading clinical governance activities	0	0	1	1	0		

Reflections

MSF





Periodic Assessments

Observations and narrative feedback

Schedule at least 1 observation / week

Faculty development…individuals > tools

Feedback (done well, better?)

Action planning

Multiple times, contexts

Embed within usual patient care

Hauer, Holmboe, Kogan. Twelve tips for implementing tools for direct observation of med trainees' clinical skills. Med Teacher 2011;33:27-33

Kogan. Perspect Med Educ (2017) 6:286–305 (Do's and Don'ts of Direct Observations)

Educational meetings / Learning conversations

Encourage registrars to record and reflect on learning conversations and reflect on feedback, revise their approaches and align to EPA specs

Tools:

- Case-based Discussions
- Chart stimulated recall sessions
- Clinical Question analysis
- Significant Event Analysis (could also be a Morbidity and Mortality [M&M] discussion)

The Clinical Teacher's Toolbox

From case-based to entrustment-based discussions

Olle ten Cate[1] and Reinier G Hoff[2]

[1]Centre for Research and Development of Education, University M d
the Netherlands
[2]Department of Anaesthesiology, University Medical Centre Utre t

Specific CBD: Entrustment-Based Discussion

- To evaluate risks before summative entrustment
- 10-15 min oral discussion, after a (critical) activity

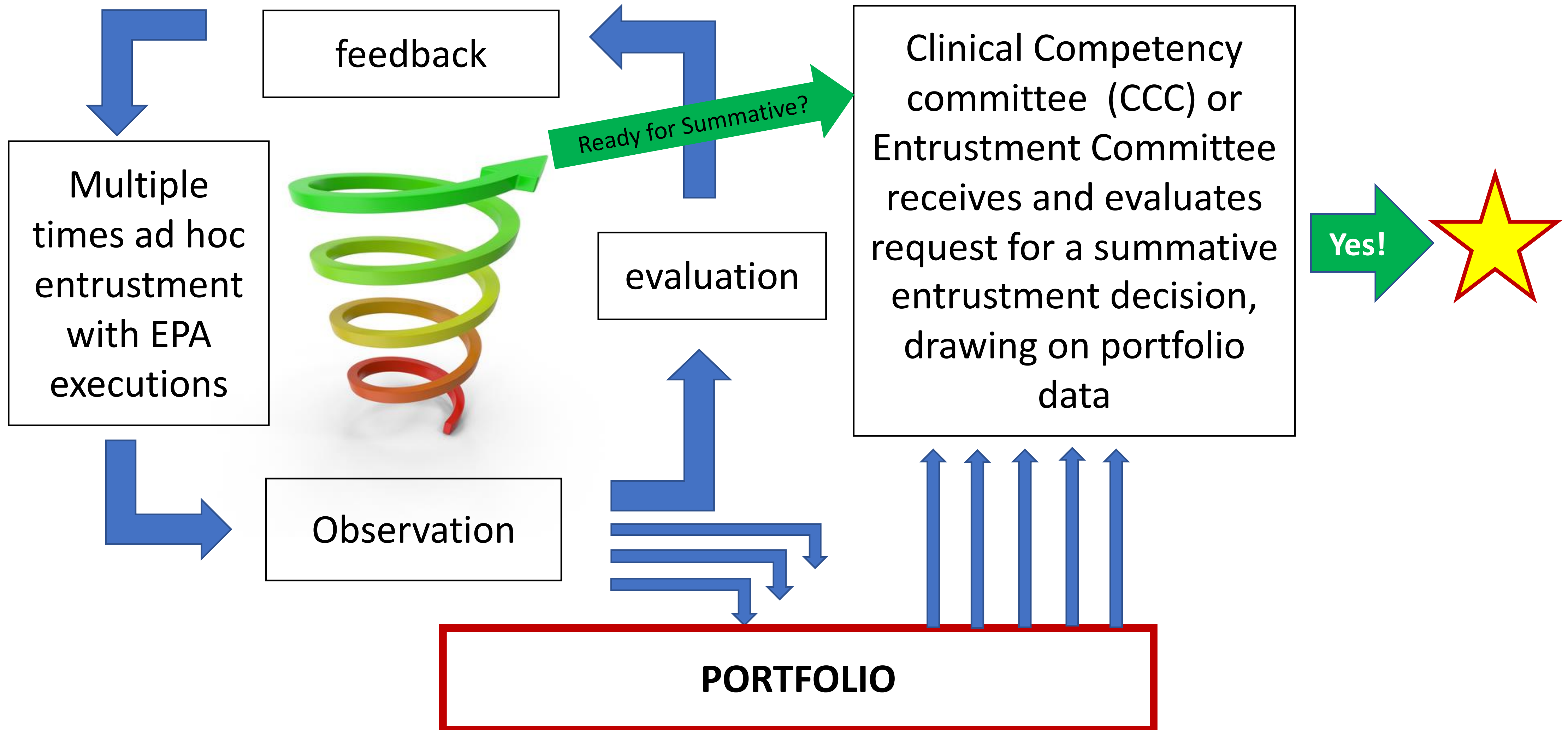
Questions

1. ***What have you done****? (1')*
2. ***Probe for background knowledge and understanding*** *(2')* (anatomy, physiology, tests, treatment)
3. ***Awareness of risks and potential complications*** *(3')*
4. ***What would you have done if.. ?*** *(4')* .. things had been different (unexpected patient, culture, medical history, lab or other findings, (lack of) cooperation, mental, physical abnormality, multimorbidity, etc)?

Levels of entrustability

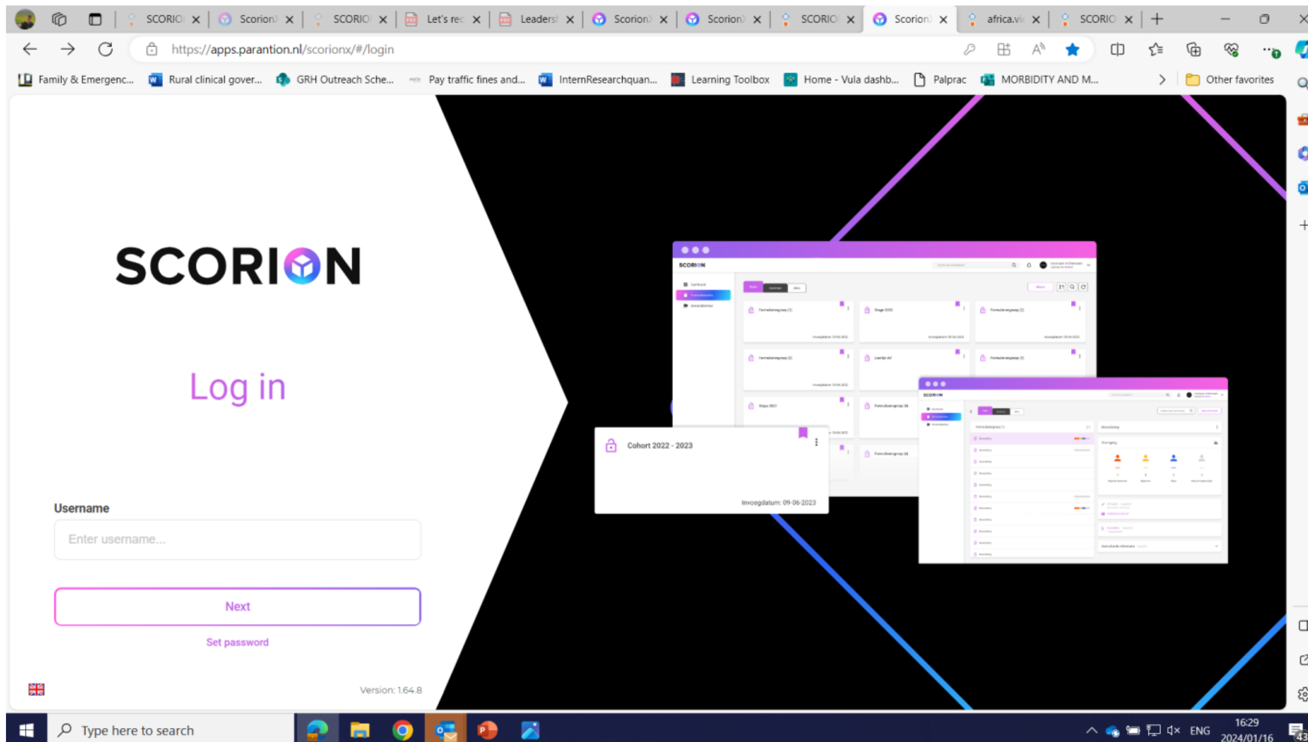
1. Observe only
2. Perform with supervision in same room
3. Perform with supervision in same building
4. Perform independently (supervisor off-site)
5. Supervise others

The flow of workplace-based assessment data



Electronic portfolio

- Easier to assess and keep track over 4 years
- Universal (across programmes)
- Easier external exam (9 FM departments)
- ↑ Utility by registrars
- Mapping to EPAs (track development)
- Quick view registrar/supervisor activity
- Programmatic assess - multiple assessment points



Clinical Competence committee

- Panel of assessors
- High-stakes summative assessment-of-learning in portfolio
- Diversity of evidence
- Quality of reflections
- Number of assessors
- Amount+quality of narrative feedback
- Collateral Information from CCC Member
- Local and national CCC – meet 2x/year

Conclusion

- Change management and logistical issues
  - Very new
  - +++ clinical and academic workload
  - Agreement ~ WPBA needed to improve assessment authenticity
- Understanding theory and practice of EPAs relevant to family medicine
  - From writing EPAs for specific clinical skills → less granular EPAs (Max 20-30 EPAs)
  - Started with curriculum initially. Rewrote EPAs from the workplace perspective.
  - Explicit about context ~ PHC, district health and hospitals.
  - Intentional about datapoints (saturation), different sources (triangulation), link to EPAs (aggregation)
- Unmasking workplace learning and assessment challenges
  - Educational value (reflections). Not just compliance. observations > assessments.
  - Supervision observation with feedback is NB (detailed narratives that is useful)
  - Faculty training (in-house, Training the clinical trainer, national workshops) - accredit competency
  - Other supervisors – innovative, pragmatic
  - Be intentional in learning plan and subsequent allocation regarding chosen EPAs.
  - Work Context - District hospital, PHC
  - Number and weighting of data points needed to sign off on an EPA? To recommend progression to next year.
  - How to calculate a portfolio score for the university year mark?
  - Cost-effective digital technology

1. Jenkins LS, Mash R, Motsohi T, et al. Developing entrustable professional activities for family medicine training in South Africa. S Afr Fam Pract. 2023;65(1), a5690. https://doi.org/10.4102/safp.v65i1.5690
2. Mash R, Jenkins L, Naidoo M. Development of entrustable professional activities for family medicine in South Africa. Afr J Prm Health Care Fam Med. 2024;16(1), a4483. https://doi.org/10.4102/ phcfm.v16i1.4483

Thank you for listening…