Entrustable Professional Activities

The What–So What –Now What

陳祖裕

大綱：EPAs

- The What
- So What
- Now What

https://www.youtube.com/watch?v=HS5BUiAMKW8

以下對EPAs有一些說法...

如果不同意，請舉手！

EPAs-What？

- EPA是學員須學會的重要醫療執業單元

EPAs-What？

- 所有的EPAs都可被訓練

EPAs-What？

- 所有的EPAs都可测量

EPAs-What？

- 只要能達到獨立執行各項被要求的EPAs就應視為符合要求

EPAs-What？

- 只要能達到獨立執行各項被要求的EPAs就一定是個好醫生

EPAs-What？

- EPA的能力可分為5個水平

EPAs-What？

- EPA的能力必須分為5個水平

EPAs-What？

- EPA的能力水平是以監督的程度來劃分

EPAs-What？

- 一個EPA可以包含多個能力領域

EPAs-What？

- 一個EPA可能只是一項能力

EPAs-What？

- EPA、milestone及competencies可串聯在一起

EPAs-What？

- EPA是概念，不是教學方法，也不是新技能

EPAs-What ?

- EPA可被視為課程的框架

EPAs-What？

- EPA可以幫助課程設計

EPAs-What？

- EPA可以幫助教師教學

EPAs-What？

- EPA可以幫助學生學習

EPAs-What？

- 必須使用EPA才能有好的學習

EPAs-What ?

- 臨床課程沒使用EPA將比不上使用EPA

EPAs-What？

- EPA是學員須學會的重要醫療執業單元
- 所有的EPAs都可被訓練
- 所有的EPAs都可測量
- 只要能達到獨立執行各項被要求的EPAs就應視為符合要求
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- 一個EPA可以只有一個能力或包含多個能力領域
- EPA、milestone及competencies可關聯在一起
- EPA可被視為課程的框架
- EPA可以幫助課程設計、教師教學、學生學習

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Entrustability of professional activities and competency-based training

Olle Ten Cate

First published: 25 November 2005 Full publication history

DOI: 10.1111/j.1365-2929.2005.02341.x View/save citation

Cited by (CrossRef): 164 articles Check for updates | Citation tools

Am score 1

View issue TOC
Volume 39, Issue 12
December 2005
Pages 1176–1177

Professor Olle ten Cate, School of Medical Sciences, University Medical Centre Utrecht, 3508 GA, the Netherlands. Tel. +31 30 2507010; Fax: +31 30 2538200;
E-mail: t.j.tencate@umcutrecht.nl

The idea of competency-based training (CBT) seems to have entered medical education with a

什麼是competency ？這competency有何特色？

s. Within

less than 10 years, the CanMEDS competencies in Canada, the ACGME competencies in the United States and similar frameworks in other countries have been introduced for postgraduate medical training countrywide, and examples of competency-based undergraduate medical training have now begun to emerge.[1–3] The growing number and impact of medical education journals and medical education conferences have helped in the spread of what could almost be

文獻建議competencies應該是：
(A) 特定的
(B) 綜合的（包括K、A、S）
(C) 耐久的
(D) 可訓練
(E) 可測量
(F) 與專業活動相關
(G) 連結其他competencies

hat 2000–10 will be remembered as the decade of CBT in
raining could remain in our memories as a lasting
ning. However, if we do not want to end up 10 years
mpetency' was essentially nothing but a label, replacing
tional objective', it will now be necessary to specify its
ice. Signs of confusion about the concept of competency
fields other than medical education.[4,5] The way in which
plement competency-based education and –most
itical.

ade of CBT in medical education

The literature suggests that competencies should be (a) specific, (b) comprehensive (i.e. include knowledge, attitude and skill), (c) durable, (d) trainable, (e) measurable, (f) related to professional activities and (g) connected to other competencies.[6,7] In addition, the dictionary definition of 'competence' has a legal connotation, signifying not only the ability but also the entitlement to act or judge as a professional.

This is where the assessment of competence and competencies connects with the medical profession and where training and professional duty meet. The identification of 'entrustable' professional activities (EPAs) can help programme directors and supervisors in their determination of the competence of their trainees.

識別出EPAs ，可以幫助訓練計畫主持人和督導者確定學員的能力。

responsibility to perform a professional activity, given the level of competence he or she has reached. This serves both education and patient care. In this respect, trust is essential. Every day, supervisors consider whether or not to delegate professional activities to trainees. They must trust them to perform these with reasonable chances of success. The information to guide these decisions is often implicit. New residents 'may be assumed' to have enough knowledge and skill, based on their MD diploma, to begin walking the ward, to carry out full physical examinations and to take systematic histories. In more delicate situations, trust must be earned by demonstrating specific skills and performances with an attending supervisor present. In addition, colleagues or nursing staff may provide information on trainees. Even if competencies are not well documented, conscientious supervisors often sense when they can either trust trainees to make critical decisions or perform critical medical procedures independently, or when close supervision or observation will be necessary.

Entrustable professional activities can help supervisors in their determination of competence of trainees

Performing well could be defined as being trusted to carry out critical EPAs

It is not difficult to think of examples: performing a vena puncture, performing an appendectomy, giving a morning report after a night call, designing a therapy protocol, chairing a multidisciplinary meeting, requesting an organ donation, and so on. In these examples, a

靜脈抽血
闌尾切除
值班晨報
訂出治療方案
主持跨領域會議
器官勸募

interrelated in a matrix. Performing a sternum puncture requires competence in such roles as medical expert, communicator, collaborator and manager. Conversely, being a skilled communicator can be inferred from observing different EPAs, showing communication with patients, family, colleagues, nursing staff, and so on.

We should cease to call objectives 'competencies' if we cannot think of EPAs to observe them

Performing well in a profession could be defined as being entrusted to carry out all its critical EPAs. If this is a logical point of view, and if we cannot think of EPAs to observe these objectives, then we should cease to call training objectives 'competencies'. The thinking in EPAs will foster observation and the deliberate granting of responsibilities. In this way, as training progresses, trainees may be gradually entitled or qualified to perform EPAs and transform from a trainee into a professional.[7]

Performing well could be defined as being trusted to carry out critical EPAs

It is not difficult to think of examples: performing a vena puncture, performing an appendectomy, giving a morning report after a night call, designing a therapy protocol, chairing a multidisciplinary meeting, requesting an organ donation, and so on. In these examples, a supervisor would not trust untrained personnel to take responsibility. EPAs have a holistic nature. They include knowledge, attitude and skill. Performing a sternum puncture requires that a resident has the knowledge and skill to perform the procedure, can explain to a patient why it is necessary, collaborate with a nurse and organise all the required conditions to be met. Current competency frameworks such as the CanMEDS roles or ACGME competencies show distinctions between these abilities. EPAs and competency frameworks, therefore, can be viewed as interrelated in a matrix. Performing a sternun…uch roles as communicator can be inferred from observing…ition with patients, family, colleagues, nursing staff, and…

EPAs與能力框架可搭配成相關的矩陣

We should cease to call objectives 'competenc…erve them

Performing well in a profession could be defir…l its critical EPAs. If this is a logical point of view, and if we…se objectives, then we should cease to call training objective…s will foster observation and the deliberate granting of res…progresses, trainees may be gradually entitled or qualifiec…n a trainee into a professional.[7]

TABLE 1 EXAMPLES OF EPAs RELATED TO THEIR MOST IMPORTANT ACGME COMPETENCY DOMAINS

	ACGME Competencies					
Illustrative EPAs	MK	PC	ISC	P	PBLI	SBP
執行闌尾切除	•	•				
進行病人交班	•	•	•			•
設計治療方案	•				•	
主持跨領域團隊會議		•	•	•		•
徵求器官捐贈			•	•		
慢性疾病治療		•	•	•		•

Medical training could change from fixed-length variable-outcome programmes to fixed-outcome variable-length programmes

醫學訓練可由「長度固定而成效不同」改變為「成效固定而長度不同」的課程。

candidates for critical professional activities, instead of assuming competence at the end of a predetermined training period, a paradigm shift will occur.[8] Medical training could then change from fixed-length variable-outcome programmes to fixed-outcome variable-length programmes.

RIP OUT

Nuts and Bolts of Entrustable Professional Activities

Olle ten Cate, PhD

The Challenge

The entrustable professional activity (EPA) concept allows faculty to make competency-based decisions on the level of supervision required by trainees. Competency-based education targets standardized levels of proficiency to guarantee that all learners have a sufficient level of proficiency at the completion of training.[1–6] Collectively, the competencies (ACGME or CanMEDS) constitute a framework that describes the qualities of professionals. Such a framework provides generalized descriptions to guide learners, their supervisors, and institutions in teaching and assessment. However, these frameworks must translate to the world of medical practice. EPAs were conceived to facilitate this translation, addressing the concern that competency frameworks would otherwise be too theoretical to be useful for training and assessment in daily practice.

What Is Included in a Full EPA Description?

An EPA must be described at a sufficient level of detail to set trainee expectations and guide supervisor's assessment and entrustment decisions (see TABLE 2 for guidelines).

How Do EPAs Relate to Milestones?

Milestones, as defined by the ACGME, are stages in the development of specific competencies. Milestones may link to a supervisor's EPA decisions (eg, direct proactive supervision versus distant supervision). The Pediatrics Milestone Project provides examples of how milestones can be linked to entrustment decisions.[7,8]

What Do Entrustment Decisions Require?

Entrustment decisions involve clinical skills and abilities as well as more general facets of competence, such as understanding one's own limitations and knowing when to

TABLE 2	GUIDELINES FOR FULL ENTRUSTABLE PROFESSIONAL ACTIVITIES DESCRIPTIONS
1. Title	Make it short; avoid words related to proficiency or skill. Ask yourself: Can a trainee be scheduled to do this? Can an entrustment decision for unsupervised practice for this EPA be made and documented?
2. Description	To enhance universal clarity, include everything necessary to specify the following: What is included? What limitations apply? Limit the description to the actual activity. Avoid justifications of why the EPA is important, or references to knowledge and skills.
3. Required Knowledge, Skills, and Attitudes (KSAs)	Which competency domains apply? Which subcompetencies apply? Include only the most relevant ones. These links may serve to build observation and assessment methods.
4. Required KSAs	Which KSAs are necessary to execute the EPA? Formulate this in a way to set expectations. Refer to resources that reflect necessary or helpful standards (books, a skills course, etc).
5. Information to assess progress	Consider observations, products, monitoring of knowledge and skill, multisource feedback.
6. When is unsupervised practice expected?	Estimate when full entrustment for unsupervised practice is expected, acknowledging the flexible nature of this. Expectations of entrustment moments can shape an individual workplace curriculum.
7. Basis for formal entrustment decisions	How many times must the EPA be executed proficiently for unsupervised practice? Who will judge this? What does formal entrustment look like (documented, publicly announced)?

可信賴專業活動的完整描述指引

1. 標題	把它縮短；避免與熟練程度或技能相關的語詞。自問：是否可以安排一名學員做這事？是否可以對這個EPA的無監督執行做出信賴決定並形成紀錄？
2. 描述	為要提升整體的清晰度，每一項必要項目都須如下細述：這EPA包括什麼內容？實務應用上有什麼限制？ 將描述僅侷限於實際活動，避免陳述這EPA為什麼重要的理由，或參考的知識和技能。
3. 所需之知識、技能及態度	涉及使用哪些能力領域？涉及使用哪些子能力？ 只包括最相關的部分。 這些連結將有助於建立觀察和評估的方法。
4. 所需之KSAs	哪些KSA是執行這項EPA所必需的？以以方針來設定期望。參照能反映必要的或有用的標準（書籍，技能課程等）的資源。
5. 評估進程之資訊	考慮觀察、產物、監測知識和技能、多源回饋。
6. 預期何時不需監督	估計預期何時可以完全信賴無監督下執業，並指出此EPA的靈活性。預期期待信賴時刻可以塑造個人的工作場所課程。
7. 正式信賴決定的依據	能熟練地執行此EPA多少次才能在無監督下操作？ 誰來判斷？授予正式信賴的型式為何（紀錄、公開宣布）？

Journal of Graduate Medical Education, March 2013

TABLE 2	GUIDELINES FOR FULL ENTRUSTABLE PROFESSIONAL ACTIVITIES DESCRIPTIONS
1. 標題	盡量縮短；避免與熟練程度或技能相關的語詞。自問：是否可以安排一名學員做這事？是否可以對這個EPA的無監督執行做出信賴決定並形成紀錄？
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標題：

- 盡量縮短，避免與熟練程度或技能相關的語詞
- 自問：
  - 是否可以安排一名學員做這事？
  - 是否可以對這個EPA的無監督執行做出信賴決定並形成紀錄？

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描述：為要提升整體的清晰度，每一項必要項目都須如下細述：

- 這EPA包括什麼內容？
- 實務應用上有什麼限制？
- 將描述僅侷限於實際活動，避免陳述這EPA為什麼重要的理由，或參考的知識和技能

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~~所需之知識、技能及態度：~~ 涉及的能力及次能力

- 涉及使用哪些能力領域？
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所需之KSAs：

- 哪些KSA是執行這項EPA所必需的？
- 以方針來設定期望
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評估進程之資訊：

- ❑ 觀察
- ❑ 產品
- ❑ 監測知識和技能
- ❑ 多源回饋

Journal of Graduate Medical Education, March 2013

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1. 標題	把它縮短；避免與熟練程度或技能相關的語詞。自問：是否可以安排一名學員做這事？是否可以對這個EPA的無監督執行做出信賴決定並形成紀錄？
2. 描述	為要提升整體的清晰度，每一項必要項目都須如下細述：這EPA包括什麼內容？實務應用上有什麼限制？ 將描述僅侷限於實際活動，避免陳述這EPA為什麼重要的理由，或參考的知識和技能。
3. 所需之知識、技能及態度	涉及使用哪些能力領域？涉及使用哪些子能力？ 只包括最相關的部分。 這些連結將有助於建立觀察和評估的方法。
4. 所需之KSAs	哪些KSA是執行這項EPA所必需的？以以方針來設定期望。參照能反映必要的或有用的標準（書籍，技能課程等）的資源。
5. 評估進程之資訊	考慮觀察、產物、監測知識和技能、多源回饋。
6. 預期何時不需監督	估計預期何時可以完全信賴無監督下執業，並指出此EPA的靈活性。預期期待信賴時刻可以塑造個人的工作場所課程。
7. 正式信賴決定的依據	能熟練地執行此EPA多少次才能在無監督下操作？ 誰來判斷？授予正式信賴的型式為何（紀錄、公開宣布）？

預期何時不需監督：

- 估計預期何時可以完全信賴無監督下執業，並指出此EPA的靈活性
- 預期期待信賴時刻可以塑造個人的工作場所課程

Journal of Graduate Medical Education, March 2013

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6. 預期何時不需監督	估計預期何時可以完全信賴無監督下執業，並指出此EPA的靈活性。預期期待信賴時刻可以塑造個人的工作場所課程。
7. 正式信賴決定的依據	能熟練地執行此EPA多少次才能在無監督下操作？ 誰來判斷？授予正式信賴的型式為何（紀錄、公開宣布）？

正式信賴決定的依據：

- 能熟練地執行此EPA多少次才能在無監督下操作？
- 誰來判斷？
- 授予正式信賴的型式為何（紀錄、公開宣布）？

Journal of Graduate Medical Education, March 2013

The 2015 ACGME Annual Educational Conference,
Saturday February 28 – SES094 1:45-3:15 pm

Entrustable Professional Activities as a Framework for the Assessment of Residents

Olle ten Cate, PhD

Center for Research and Development of Education

University Medical Center Utrecht, the Netherlands

Entrustable professional activity

- Executable within a time frame
- Observable and measurable
- Suitable for entrustment decision
- Assessment result framed as permission with designated level of supervision
- Allocated to individuals

五個條件，符合才是EPAs

Olle ten Cate, 2015

Entrustable professional activity

- 可在一段時間框架內便能執行
- 可觀察和可測量
- 適合信賴決定
- 評估結果用以指定監督的級別
- 配置予個別學員

五個條件，符合才是EPAs

Olle ten Cate, 2015

Entrustable professional activity

- 課程中可測量的重要學習項目：
  - 可在特定時間框架內學成
  - 適用於「信賴」決定（監督的級別）

Olle ten Cate, 2015

7-item format of EPA description

1	Title of the EPA
2	Specification and limitations
3	Most relevant domains of competence
4	Required experience, knowledge, skills, attitude and behavior for entrustment
5	Assessment information sources to assess progress and ground a summative entrustment decision
6	Entrustment for which level of supervision is to be reached at which stage of training?
7	Expiration date

Olle ten Cate, 2015

7-item format of EPA description

1	EPA名稱
2	規範與限制
3	最相關的能力領域
4	信賴所需的經驗、知識、技能、態度與行為
5	評估進展和據以作成總結性信賴決定的評估訊息來源
6	在訓練每一階段須達到哪個級別的監督？
7	效期

Olle ten Cate, 2015

Five levels of supervision, reflecting increasing trust in trainee autonomy

"Entrusted"/"Entrustment"

1. presence but no permission to enact EPA
2. practice EPA with direct (pro-active) supervision
3. practice EPA with indirect (re-active) supervision

----------[threshold]---

4. unsupervised practice allowed (distant oversight)
5. EPA may be supervised for junior learners

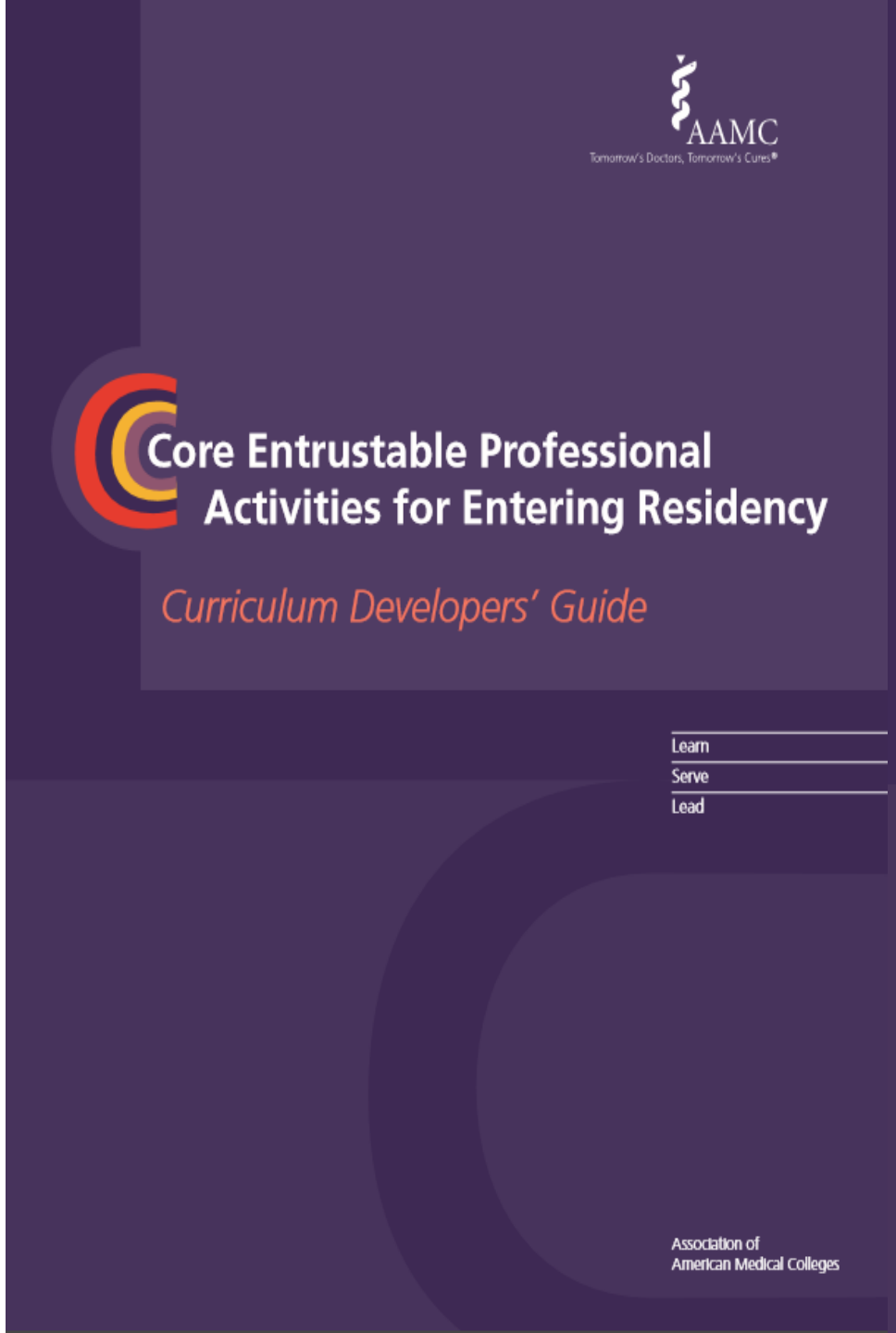
AFMC THE ASSOCIATION OF FACULTIES OF MEDICINE OF CANADA

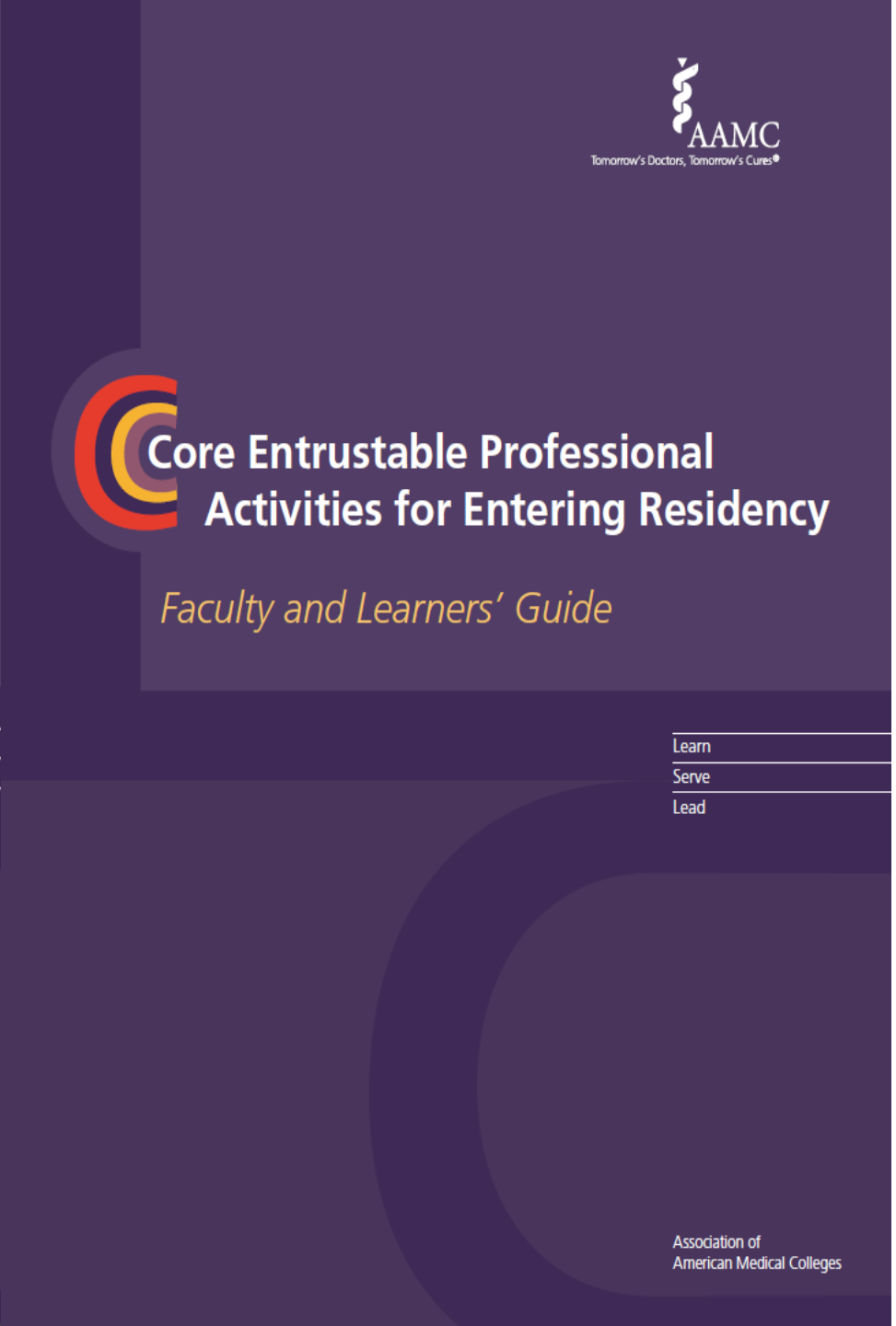
ENTRUSTABLE PROFESSIONAL ACTIVITIES

for the Transition from Medical School to Residency

AFMC EPAs
EPA 1-Obtain a history and perform a physical examination adapted to the patient's clinical situation
EPA 2-Formulate and justify a prioritized differential diagnosis
EPA 3-Formulate an initial plan of investigation based on the diagnostic hypotheses
EPA 4-Interpret and communicate results of common diagnostic and screening tests
EPA 5-Formulate, communicate and implement management plans
EPA 6-Present oral and written reports that document a clinical encounter
EPA 7-Provide and receive the handover in transitions of care
EPA 8-Recognize a patient requiring urgent or emergent care, provide initial management and seek help
EPA 9-Communicate in difficult situations
EPA 10-Participate in health quality improvement initiatives
EPA 11-Perform general procedures of a physician
EPA 12-Educate patients on disease management, health promotion and preventive medicine

AFMC EPAs
EPA 1-根據病人的臨床情況取得病史並進行身體診察
EPA 2-形成及解釋排出優先順序的鑑別診斷
EPA 3-根據診斷假說訂出初步檢查計畫
EPA 4-解讀和溝通常見診斷和篩檢性檢查的結果
EPA 5-制定、溝通和執行治療計畫
EPA 6-對臨床診療紀錄作口頭和書面報告
EPA 7-提供和接受照護換班的交接
EPA 8- 認識病人需要快速或緊急照護，提供初步處理和尋求協助
EPA 9-在困難的情況下進行溝通
EPA 10-參與健康品質改進計畫
EPA 11-執行醫師的一般程序
EPA 12-教育病人的疾病治療、健康促進和預防醫學


AAMC
Tomorrow's Doctors, Tomorrow's Cures®
Core Entrustable Professional Activities for Entering Residency
Curriculum Developers' Guide
Learn
Serve
Lead
Association of American Medical Colleges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Tomorrow's Doctors, Tomorrow's Cures®
Core Entrustable Professional Activities for Entering Residency
Faculty and Learners' Guide
Learn
Serve
Lead
Association of American Medical Colleges

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EPA 1: Gather a history and perform a physical examination
EPA 2: Prioritize a differential diagnosis following a clinical encounter
EPA 3: Recommend and interpret common diagnostic and screening tests
EPA 4: Enter and discuss orders and prescriptions
EPA 5: Document a clinical encounter in the patient record
EPA 6: Provide an oral presentation of a clinical encounter
EPA 7: Form clinical questions and retrieve evidence to advance patient care
EPA 8: Give or receive a patient handover to transition care responsibility
EPA 9: Collaborate as a member of an interprofessional team
EPA 10: Recognize a patient requiring urgent or emergent care and initiate evaluation and management
EPA 11: Obtain informed consent for tests and/or procedures
EPA 12: Perform general procedures of a physician
EPA 13: Identify system failures and contribute to a culture of safety and improvement

進入住院醫師訓練的13項核心EPAs

EPA 1： 蒐集病史及執行身體診察
EPA 2： 以臨床所見的情況排列鑑別診斷的優先順序
EPA 3： 建議及判讀常用的診斷及篩檢性檢驗
EPA 4： 開立醫囑與處方，並能討論
EPA 5： 在病歷上記錄臨床發生的狀況
EPA 6： 口頭報告病人的狀況
EPA 7： 形成問題及獲取證據以促進病人照護
EPA 8： 交接班時能負起責任
EPA 9： 作為跨領域照護團隊的成員
EPA 10：察覺與辨認需要快速或緊急處置的病人，並啟動評估和處理
EPA 11：執行檢驗及醫療程序之知情同意
EPA 12：執行醫師一般性的操作技能
EPA 13：辨識系統失效及參與病人安全及品質改善的文化

EPA 1: Gather a history and perform a physical examination

1. Description of the activity	Day 1 residents should be able to perform an accurate complete or focused history and physical exam in a prioritized, organized manner without supervision and with respect for the patient. The history and physical examination should be tailored to the clinical situation and specific patient encounter. This data gathering and patient interaction activity serves as the basis for clinical work and as the building block for patient evaluation and management. Learners need to integrate the scientific foundations of medicine with clinical reasoning skills to guide their information gathering. **Functions** ***History*** • Obtain a complete and accurate history in an organized fashion. • Demonstrate patient-centered interview skills (attentive to patient verbal and nonverbal cues, patient/family culture, social determinants of health, need for interpretive or adaptive services; seeks conceptual context of illness; approaches the patient holistically and demonstrates active listening skills). • Identify pertinent history elements in common presenting situations, symptoms, complaints, and disease states (acute and chronic). • Obtain focused, pertinent histories in urgent, emergent, and consultative settings. • Consider cultural and other factors that may influence the patient's description of symptoms. • Identify and use alternate sources of information to obtain history when needed, including but not limited to family members, primary care physicians, living facility, and pharmacy staff. • Demonstrate clinical reasoning in gathering focused information relevant to a patient's care. • Demonstrate cultural awareness and humility (for example, by recognizing that one's own cultural models may be different from others) and awareness of potential for bias (conscious and unconscious) in interactions with patients. ***Physical Exam*** • Perform a complete and accurate physical exam in logical and fluid sequence. • Perform a clinically relevant, focused physical exam pertinent to the setting and purpose of the patient visit. • Identify, describe, and document abnormal physical exam findings. • Demonstrate patient-centered examination techniques that reflect respect for patient privacy, comfort, and safety (e.g., explaining physical exam maneuvers, telling the patient what one is doing at each step, keeping patients covered during the examination).

Core Entrustable Professional Activities for Entering Residency

AAMC

2. Most relevant domains of competence	☑ Patient Care ☑ Knowledge for Practice ☐ Practice-Based Learning and Improvement ☑ Interpersonal and Communication Skills	☑ Professionalism ☐ Systems-Based Practice ☐ Interprofessional Collaboration ☐ Personal and Professional Development
3. Competencies within each domain critical to entrustment decisions (See Appendix C)	PC 2 P 1 KP 1 P 3 ICS 1 P 5 ICS 7	

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
PC 2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests	Either gathers too little information or exhaustively gathers information following a template, regardless of the patient's chief complaint, with each piece of information gathered seeming as important as the next. Recalls clinical information in the order elicited. Limited ability to gather, filter, prioritize, and connect pieces of information. Uses analytic reasoning from basic pathophysiology knowledge without ability to link findings to prior clinical encounters. Incorrectly performs and elicits most physical examination maneuvers. May miss key physical exam findings. Does not alter the head-to-toe approach to the physical examination to meet the developmental level or behavioral needs of the patient. Does not seek or is overly reliant on secondary data. (PEDS, IM, PSYCH)	Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients. Still relies primarily on analytic reasoning of basic pathophysiology to gather information, but the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives as well as broad diagnostic categories. Performs basic physical examination maneuvers correctly and recognizes and correctly interprets abnormal findings. Consistently and successfully uses a developmentally appropriate approach to the physical examination. Seeks and obtains data from secondary sources when needed. (PEDS, IM, PSYCH)

Association of American Medical Colleges

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
KP 1: Demonstrate an investigatory and analytic approach to clinical situations	Recalls only discrete, isolated bits of information. Tends toward "intuitive leaps" to conclusions, often unsupported by the data gathered or the evidence, before fully understanding the learning task or the types of information needed; does not follow a systematic procedure for synthesis, comparison, and evaluation of information, which may result in reasoning that is slow and linear; may have stored knowledge of procedures, rules, and formulas, but, due to a lack of integrated mental models of health and disease, fails to recognize what conditions warrant the application of this knowledge or why it is relevant. Has difficulty recognizing recurring patterns of information. (This is a new milestone created for this document)	Is developing an implicit knowledge base that allows more rapid connections, pattern recognition, and clinical reasoning. Can focus cognitive processes to discern relevant information, identify the unknowns, and make connections to solve problems or answer clinical questions via just-in-time-learning. Brings together multiple representations of the problem by comparing, synthesizing, and evaluating. (This is a new milestone created for this document)
ICS 1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds	Communication with patients and families generally unidirectional and based on a template, without the ability to vary the approach based on a patient's unique demographic, cognitive, physical, cultural, socioeconomic, or situational needs. Frequently uses medical jargon. Does not engage patients and families in discussions of care plans (i.e., does not engage in shared decision making). Respects patient preferences when offered by the patient, but does not actively solicit preferences. Defers or avoids difficult or ambiguous conversations. (SURG, IM, PEDS, PSYCH)	Communication with patients and families generally bidirectional. When based on a template, can adapt to the patient's unique demographic, cognitive, physical, cultural, socioeconomic, or situational needs. Avoids medical jargon. Uses a variety of techniques, including nontechnical language, teach back, appropriate pacing, and small pieces of information to ensure that communication with patients and their families is bidirectional and results in shared decision making. Develops scripts to approach most difficult communication scenarios. (SURG, IM, PEDS, PSYCH)

Core Entrustable Professional Activities for Entering Residency

AAMC

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
ICS 7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions	Does not accurately anticipate or read others' emotions in verbal and nonverbal communication. Is unaware of one's own emotional and behavioral cues and may transmit emotions in communication (e.g., anxiety, exuberance, anger) that can precipitate unintended emotional responses in others. Does not effectively manage strong emotions in self or others. (PEDS)	Anticipates, reads, and reacts to emotions in real time with appropriate and professional behavior in typical medical communication scenarios, including those evoking very strong emotions. Uses these abilities to gain and maintain therapeutic alliances with others. Atypical or unanticipated situations may still evoke strong emotions in the learner, resulting in an inability to moderate one's behavior and manage the emotions. (PEDS)
P 1: Demonstrate compassion, integrity, and respect for others	Demonstrates lapses in professional conduct, such as through disrespectful interactions or lack of truth-telling, especially under conditions of stress or fatigue or in complicated or uncommon situations. This puts others in the position to remind, enforce, and resolve conflicts. There may be some insight into behavior, but there is an inability to modify behavior when in stressful situations. (PEDS, EM, PSYCH)	In nearly all circumstances, demonstrates professional conduct, such as through respectful interactions and truth-telling. Has insight into his/her own behavior as well as likely triggers for professionalism lapses and is able to use this information to remain professional. (PEDS, EM, PSYCH)
P 3: Demonstrate respect for patient privacy and autonomy	Inconsistently considers patient privacy and confidentiality (e.g., may discuss patient information in a public area such as an elevator). Unable to articulate the key components of HIPAA. Does not engage patients and families in discussions of care plans (i.e., shared decision making). Respects patient preferences when offered by the patient but does not actively solicit preferences. (PEDS, IM, PSYCH)	Consistently considers patient privacy and confidentiality with rare lapses. Able to articulate the key components of HIPAA. Engages patients and families in discussions of care plans (i.e., shared decision making). Solicits and respects patient preferences. (PEDS, IM, PSYCH)
P 5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation	Sees the world through the eyes of his own background, is ethnocentric, has trouble understanding and accepting the cultures of others. May generalize based on the patients' gender, age, culture, race, religion, disabilities, and sexual orientation. (PEDS, PSYCH, IM)	Elicits and seeks to fully understand each patient's unique characteristics and needs based on gender, age, culture, race, religion, disabilities, and sexual orientation. Includes these concepts in care plans for patients and families. Families recognize this sensitivity. Demonstrates cultural humility. (PEDS, PSYCH, IM)

Pre-Entrustable Learners

Expected behaviors for a pre-entrustable learner

The learner at this level demonstrates underdeveloped skill in history gathering, manifested as errors of omission or commission in gathering information. This learner may also incorrectly perform physical exam maneuvers and may miss key physical exam findings. These gaps in demonstrated skill may be due to a limited ability to filter, prioritize, and connect pieces of information to each other; to prior clinical encounters; or to existing factual knowledge. The pre-entrustable learner may make decisions based on intuition or a limited ability to develop relevant mental models rather than on appropriate information. The learner inconsistently demonstrates use of patient-centered information gathering and physical exam skills and may either generalize based on a patient's background or pay inadequate attention to the patient's individual background.

Vignette for a pre-entrustable learner

Zhongshu is seeing patients in the free clinic as part of a primary care team. Her first patient of the day is Mr. Rodriguez, for whom the nursing triage sheet documents a chief complaint of cough. Mr. Rodriguez is new to the clinic. He is fully clothed and sitting on the examination table when Zhongshu walks into the room. Zhongshu closes the door and stands, leaning against the wall, with a tablet in hand to take notes and document in the chart. Zhongshu starts her history-taking by saying, "The nurses said you have a cough. How long has it been going on?" She follows this with a series of questions regarding the description and progression of the cough. She finds that the patient has a chronic cough that seems to have gotten acutely worse. She asks about associated symptoms and inciting or relieving factors. She asks pertinent questions about history such as smoking, exposure to sick contacts, and known lung disease. She takes a full medical history, including medications, and details a family tree in the chart. Social history points include marital status, current living situation, and substance use history. She does not include occupational or travel history. She does not demonstrate curiosity about Mr. Rodriquez' cultural context or elicit his health beliefs.

After she is done taking the history, Zhongshu says, "OK, Mr. Rodriguez, I am going to take a look at you." She starts by auscultating the lungs in six areas, first under the shirt then moving to over the shirt for the upper lung zones. During the lung exams, she asks the patient to "take some deep breaths." She then listens to the heart in four areas. Next, she grabs the otoscope on the wall and uses it to check pupillary reaction to light and eye movements (asking the patient to look up, to the side, and down), looks inside the oropharynx, and then grabs the ear piece to look at the ear. She does a brief but appropriate examination of the abdomen and checks the skin for rashes and feet for pulses. She does not note the temporal muscle wasting or the bilateral cervical adenopathy that is present.

After the examination, Zhongshu tells the patient that she will be discussing him with the primary care team and will return. As she is leaving the room, Mr. Rodriguez asks timidly, "What do you think is causing my cough?" Zhongshu turns and answers, "I am sure that it is nothing serious, probably an upper respiratory infection or bronchitis. There are some medications that cause coughs, but you are not on them. We will probably get a chest X-ray." She then walks out of the room.

Entrustable Learners

Expected behaviors for an entrustable learner

The learner at this level is routinely able to gather an accurate complete history and can also gather a focused history in an urgent, emergent, or consultation setting. When necessary, the learner identifies and uses alternative sources of information beyond the patients themselves and ensures appropriate communication by using interpreter services when necessary. The entrustable learner can perform an accurate complete physical exam or a focused physical exam pertinent to the patient visit, identify and document abnormal findings, and describe such findings to team members. For the entrustable learner, analytic reasoning and the abilities to activate prior foundational knowledge and prior clinical experience underlie the choice of either a complete or a focused history and physical exam and guide the gathering of information relevant to the patient's care. The learner at this level consistently uses patient-centered interview skills and physical exam techniques that, even under conditions of stress or fatigue, demonstrate respect for patients, insight about patients' emotional responses, sensitivity toward each patient's unique background and needs, and the ability to communicate bidirectionally.

Core Entrustable Professional
Activities for Entering Residency

AAMC

Vignette for an entrustable learner

Zhongshu is seeing patients in the free clinic as part of a primary care team. Her first patient of the day is Mr. Rodriguez, for whom the nursing triage sheet documents a chief complaint of cough. Mr. Rodriguez is new to the clinic. Before entering the room, Zhongshu asks the nurse if an interpreter is needed; she clarifies that the patient's first language is Spanish but that he has full ability to communicate in English. Mr. Rodriquez is fully clothed and sitting on the examination table when Zhongshu walks into the room. Zhongshu closes the door and invites the patient to sit in the chair while they review his history. Zhongshu grabs the stool and wheels it over so that she can sit facing the patient. She asks Mr. Rodriguez if he minds if she jots down a few notes while they are talking. Zhongshu starts her history-taking with: "Mr. Rodriguez, it is great to meet you. My name is Zhongshu Tang. You can call me Dr. Tang. I am working with the primary care team today. What brings you to the clinic today?" Upon eliciting the complaint of a cough, she says, "Tell me a bit more about the cough," and uses several techniques such as repeating back what she has heard, providing summary statements, and asking follow-up questions to elicit the pertinent details of the history. She finds that the patient has a chronic cough that seems to have gotten acutely worse. She asks about associated symptoms and symptoms related to potential diagnoses such as gastroesophageal reflux disease, allergic rhinitis, asthma and malignancy. She also identifies important risk factors for different diagnoses such as occupational history, travel history, and alcohol use. She takes detailed medical history, including the use of prescription, over-the-counter, and other medications and drugs; pertinent family history; social history; and information about allergies (including reactions). She specifically asks Mr. Rodriguez what he believes is causing the cough and if he has seen any healers or other providers. She identifies that he has seen a lay healer and tried some folk remedies including ajo (garlic) and gordolobo (mullein) tea. She concludes by asking, "Mr. Rodriguez, do you think that I have missed anything important in your medical history or about your cough?"

After she is done taking the history, Zhongshu says, "OK, Mr. Rodriguez, I would like to do a full examination at this point. I will step out and let you change into a gown, which is located in this drawer. I will be back in a minute. Is there anything else that you need right now?" Zhongshu steps into the hall briefly, closing the door behind her. She returns to the room and states, "Mr. Rodriguez, I would like to do a full examination from head to toe. I am going to explain to you what I am doing at each point, but please let me know if you have questions." She starts by examining the head, eyes, ears, nose, and throat, telling the patient what she is doing before she touches the patient at each step. She notes that there is temporal wasting and inquires about recent weight loss and a bit about diet. She also notes cervical adenopathy and asks the patient about tenderness and duration. She does a thorough lung examination, removing or moving the gown so that she can auscultate directly at each point. She auscultates, then performs more detailed maneuvers such as listening for egophony and percussion. She moves through the rest of the exam, performing each part thoroughly and continuing to tell the patient what she is doing. Throughout the exam, she pays careful attention to draping and patient modesty and comfort.

After the examination, Zhongshu tells the patient that she will be discussing him with the primary care team and will return. She asks if there is anything else that Mr. Rodriguez has thought of during the exam and if Mr. Rodriguez has any further questions. As she is leaving the room, Mr. Rodriguez asks timidly, "What do you think is causing my cough?" Zhongshu turns, closes the door again, and sits down on the stool to answer the question. She first asks, "Is there something that you are worried about?" Mr. Rodriguez admits that he is worried about cancer. Zhongshu reviews that there are several causes of chronic cough, including upper airway cough syndrome, gastroesophageal reflux disease, asthma, allergies, chronic bronchitis, primary pulmonary diseases, and chronic infections. She explains that that is why she was asking so many questions, looking for clues to the underlying cause. She states that lung cancer can present as a chronic cough. She reassures the patient that she will discuss the symptoms and physical examination with the team and that they will pursue a work-up to find the cause. She asks again if the patient has any further questions and explains that she will be right back. She then walks out of the room.

EPA 1: Gather a history and perform a physical examination

1. Description of the activity	Day 1 residents should be able to perform an accurate complete or focused history and physical exam in a prioritized, organized manner without supervision and with respect for the patient. The history and physical examination should be tailored to the clinical situation and specific patient encounter. This data gathering and patient interaction activity serves as the basis for clinical work and as the building block for patient evaluation and management. Learners need to integrate the scientific foundations of medicine with clinical reasoning skills to guide their information gathering. **Functions** ***History*** • Obtain a complete and accurate history in an organized fashion. • Demonstrate patient-centered interview skills (attentive to patient verbal and nonverbal cues, patient/family culture, social determinants of health, need for interpretive or adaptive services; seeks conceptual context of illness; approaches the patient holistically and demonstrates active listening skills). • Identify pertinent history elements in common presenting situations, symptoms, complaints, and disease states (acute and chronic). • Obtain focused, pertinent histories in urgent, emergent, and consultative settings. • Consider cultural and other factors that may influence the patient's description of symptoms. • Identify and use alternate sources of information to obtain history when needed, including but not limited to family members, primary care physicians, living facility, and pharmacy staff. • Demonstrate clinical reasoning in gathering focused information relevant to a patient's care. • Demonstrate cultural awareness and humility (for example, by recognizing that one's own cultural models may be different from others) and awareness of potential for bias (conscious and unconscious) in interactions with patients. ***Physical Exam*** • Perform a complete and accurate physical exam in logical and fluid sequence. • Perform a clinically relevant, focused physical exam pertinent to the setting and purpose of the patient visit. • Identify, describe, and document abnormal physical exam findings. • Demonstrate patient-centered examination techniques that reflect respect for patient privacy, comfort, and safety (e.g., explaining physical exam maneuvers, telling the patient what one is doing at each step, keeping patients covered during the examination).

EPA 1: Gather a history and perform a physical examination

2.	**Most relevant domains of competence**	☑ Patient Care ☑ Knowledge for Practice ❒ Practice-Based Learning and Improvement ☑ Interpersonal and Communication Skills	☑ Professionalism ❒ Systems-Based Practice ❒ Interprofessional Collaboration ❒ Personal and Professional Development
3.	**Competencies within each domain critical to entrustment decisions** (See Appendix C)	PC 2 KP 1 ICS 1 ICS 7	P 1 P 3 P 5

EPA 1: Gather a history and perform a physical examination

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
PC 2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests	Either gathers too little information or exhaustively gathers information following a template, regardless of the patient's chief complaint, with each piece of information gathered seeming as important as the next. Recalls clinical information in the order elicited. Limited ability to gather, filter, prioritize, and connect pieces of information. Uses analytic reasoning from basic pathophysiology knowledge without ability to link findings to prior clinical encounters. Incorrectly performs and elicits most physical examination maneuvers. May miss key physical exam findings. Does not alter the head-to-toe approach to the physical examination to meet the developmental level or behavioral needs of the patient. Does not seek or is overly reliant on secondary data. (PEDS, IM, PSYCH)	Clinical experience allows linkage of signs and symptoms of a current patient to those encountered in previous patients. Still relies primarily on analytic reasoning of basic pathophysiology to gather information, but the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives as well as broad diagnostic categories. Performs basic physical examination maneuvers correctly and recognizes and correctly interprets abnormal findings. Consistently and successfully uses a developmentally appropriate approach to the physical examination. Seeks and obtains data from secondary sources when needed. (PEDS, IM, PSYCH)

EPA 1: Gather a history and perform a physical examination

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
KP 1: Demonstrate an investigatory and analytic approach to clinical situations	Recalls only discrete, isolated bits of information. Tends toward "intuitive leaps" to conclusions, often unsupported by the data gathered or the evidence, before fully understanding the learning task or the types of information needed; does not follow a systematic procedure for synthesis, comparison, and evaluation of information, which may result in reasoning that is slow and linear; may have stored knowledge of procedures, rules, and formulas, but, due to a lack of integrated mental models of health and disease, fails to recognize what conditions warrant the application of this knowledge or why it is relevant. Has difficulty recognizing recurring patterns of information. (This is a new milestone created for this document)	Is developing an implicit knowledge base that allows more rapid connections, pattern recognition, and clinical reasoning. Can focus cognitive processes to discern relevant information, identify the unknowns, and make connections to solve problems or answer clinical questions via just-in-time-learning. Brings together multiple representations of the problem by comparing, synthesizing, and evaluating. (This is a new milestone created for this document)
ICS 1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds	Communication with patients and families generally unidirectional and based on a template, without the ability to vary the approach based on a patient's unique demographic, cognitive, physical, cultural, socioeconomic, or situational needs. Frequently uses medical jargon. Does not engage patients and families in discussions of care plans (i.e., does not engage in shared decision making). Respects patient preferences when offered by the patient, but does not actively solicit preferences. Defers or avoids difficult or ambiguous conversations. (SURG, IM, PEDS, PSYCH)	Communication with patients and families generally bidirectional. When based on a template, can adapt to the patient's unique demographic, cognitive, physical, cultural, socioeconomic, or situational needs. Avoids medical jargon. Uses a variety of techniques, including nontechnical language, teach back, appropriate pacing, and small pieces of information to ensure that communication with patients and their families is bidirectional and results in shared decision making. Develops scripts to approach most difficult communication scenarios. (SURG, IM, PEDS, PSYCH)

EPA 1: Gather a history and perform a physical examination

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
ICS 7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions	Does not accurately anticipate or read others' emotions in verbal and nonverbal communication. Is unaware of one's own emotional and behavioral cues and may transmit emotions in communication (e.g., anxiety, exuberance, anger) that can precipitate unintended emotional responses in others. Does not effectively manage strong emotions in self or others. (PEDS)	Anticipates, reads, and reacts to emotions in real time with appropriate and professional behavior in typical medical communication scenarios, including those evoking very strong emotions. Uses these abilities to gain and maintain therapeutic alliances with others. Atypical or unanticipated situations may still evoke strong emotions in the learner, resulting in an inability to moderate one's behavior and manage the emotions. (PEDS)
P 1: Demonstrate compassion, integrity, and respect for others	Demonstrates lapses in professional conduct, such as through disrespectful interactions or lack of truth-telling, especially under conditions of stress or fatigue or in complicated or uncommon situations. This puts others in the position to remind, enforce, and resolve conflicts. There may be some insight into behavior, but there is an inability to modify behavior when in stressful situations. (PEDS, EM, PSYCH)	In nearly all circumstances, demonstrates professional conduct, such as through respectful interactions and truth-telling. Has insight into his/her own behavior as well as likely triggers for professionalism lapses and is able to use this information to remain professional. (PEDS, EM, PSYCH)

EPA 1: Gather a history and perform a physical examination

Critical Competency	Pre-Entrustable Behaviors	Entrustable Behaviors
P 3: Demonstrate respect for patient privacy and autonomy	Inconsistently considers patient privacy and confidentiality (e.g., may discuss patient information in a public area such as an elevator). Unable to articulate the key components of HIPAA. Does not engage patients and families in discussions of care plans (i.e., shared decision making). Respects patient preferences when offered by the patient but does not actively solicit preferences. (PEDS, IM, PSYCH)	Consistently considers patient privacy and confidentiality with rare lapses. Able to articulate the key components of HIPAA. Engages patients and families in discussions of care plans (i.e., shared decision making). Solicits and respects patient preferences. (PEDS, IM, PSYCH)
P 5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation	Sees the world through the eyes of his own background, is ethnocentric, has trouble understanding and accepting the cultures of others. May generalize based on the patients' gender, age, culture, race, religion, disabilities, and sexual orientation. (PEDS, PSYCH, IM)	Elicits and seeks to fully understand each patient's unique characteristics and needs based on gender, age, culture, race, religion, disabilities, and sexual orientation. Includes these concepts in care plans for patients and families. Families recognize this sensitivity. Demonstrates cultural humility. (PEDS, PSYCH, IM)

Pre-Entrustable Learners

Expected behaviors for a pre-entrustable learner

The learner at this level demonstrates underdeveloped skill in history gathering, manifested as errors of omission or commission in gathering information. This learner may also incorrectly perform physical exam maneuvers and may miss key physical exam findings. These gaps in demonstrated skill may be due to a limited ability to filter, prioritize, and connect pieces of information to each other; to prior clinical encounters; or to existing factual knowledge. The pre-entrustable learner may make decisions based on intuition or a limited ability to develop relevant mental models rather than on appropriate information. The learner inconsistently demonstrates use of patient-centered information gathering and physical exam skills and may either generalize based on a patient's background or pay inadequate attention to the patient's individual background.

Vignette for a pre-entrustable learner

Zhongshu is seeing patients in the free clinic as part of a primary care team. Her first patient of the day is Mr. Rodriguez, for whom the nursing triage sheet documents a chief complaint of cough. Mr. Rodriguez is new to the clinic. He is fully clothed and sitting on the examination table when Zhongshu walks into the room. Zhongshu closes the door and stands, leaning against the wall, with a tablet in hand to take notes and document in the chart. Zhongshu starts her history-taking by saying, "The nurses said you have a cough. How long has it been going on?" She follows this with a series of questions regarding the description and progression of the cough. She finds that the patient has a chronic cough that seems to have gotten acutely worse. She asks about associated symptoms and inciting or relieving factors. She asks pertinent questions about history such as smoking, exposure to sick contacts, and known lung disease. She takes a full medical history, including medications, and details a family tree in the chart. Social history points include marital status, current living situation, and substance use history. She does not include occupational or travel history. She does not demonstrate curiosity about Mr. Rodriquez' cultural context or elicit his health beliefs.

After she is done taking the history, Zhongshu says, "OK, Mr. Rodriguez, I am going to take a look at you." She starts by auscultating the lungs in six areas, first under the shirt then moving to over the shirt for the upper lung zones. During the lung exams, she asks the patient to "take some deep breaths." She then listens to the heart in four areas. Next, she grabs the otoscope on the wall and uses it to check pupillary reaction to light and eye movements (asking the patient to look up, to the side, and down), looks inside the oropharynx, and then grabs the ear piece to look at the ear. She does a brief but appropriate examination of the abdomen and checks the skin for rashes and feet for pulses. She does not note the temporal muscle wasting or the bilateral cervical adenopathy that is present.

After the examination, Zhongshu tells the patient that she will be discussing him with the primary care team and will return. As she is leaving the room, Mr. Rodriguez asks timidly, "What do you think is causing my cough?" Zhongshu turns and answers, "I am sure that it is nothing serious, probably an upper respiratory infection or bronchitis. There are some medications that cause coughs, but you are not on them. We will probably get a chest X-ray." She then walks out of the room.

Entrustable Learners

Expected behaviors for an entrustable learner

The learner at this level is routinely able to gather an accurate complete history and can also gather a focused history in an urgent, emergent, or consultation setting. When necessary, the learner identifies and uses alternative sources of information beyond the patients themselves and ensures appropriate communication by using interpreter services when necessary. The entrustable learner can perform an accurate complete physical exam or a focused physical exam pertinent to the patient visit, identify and document abnormal findings, and describe such findings to team members. For the entrustable learner, analytic reasoning and the abilities to activate prior foundational knowledge and prior clinical experience underlie the choice of either a complete or a focused history and physical exam and guide the gathering of information relevant to the patient's care. The learner at this level consistently uses patient-centered interview skills and physical exam techniques that, even under conditions of stress or fatigue, demonstrate respect for patients, insight about patients' emotional responses, sensitivity toward each patient's unique background and needs, and the ability to communicate bidirectionally.

Vignette for an entrustable learner

Zhongshu is seeing patients in the free clinic as part of a primary care team. Her first patient of the day is Mr. Rodriguez, for whom the nursing triage sheet documents a chief complaint of cough. Mr. Rodriguez is new to the clinic. Before entering the room, Zhongshu asks the nurse if an interpreter is needed; she clarifies that the patient's first language is Spanish but that he has full ability to communicate in English. Mr. Rodriquez is fully clothed and sitting on the examination table when Zhongshu walks into the room. Zhongshu closes the door and invites the patient to sit in the chair while they review his history. Zhongshu grabs the stool and wheels it over so that she can sit facing the patient. She asks Mr. Rodriguez if he minds if she jots down a few notes while they are talking. Zhongshu starts her history-taking with: "Mr. Rodriguez, it is great to meet you. My name is Zhongshu Tang. You can call me Dr. Tang. I am working with the primary care team today. What brings you to the clinic today?" Upon eliciting the complaint of a cough, she says, "Tell me a bit more about the cough," and uses several techniques such as repeating back what she has heard, providing summary statements, and asking follow-up questions to elicit the pertinent details of the history. She finds that the patient has a chronic cough that seems to have gotten acutely worse. She asks about associated symptoms and symptoms related to potential diagnoses such as gastro-esophageal reflux disease, allergic rhinitis, asthma and malignancy. She also identifies important risk factors for different diagnoses such as occupational history, travel history, and alcohol use. She takes detailed medical history, including the use of prescription, over-the-counter, and other medications and drugs; pertinent family history; social history; and information about allergies (including reactions). She specifically asks Mr. Rodriguez what he believes is causing the cough and if he has seen any healers or other providers. She identifies that he has seen a lay healer and tried some folk remedies including ajo (garlic) and gordolobo (mullein) tea. She concludes by asking, "Mr. Rodriguez, do you think that I have missed anything important in your medical history or about your cough?"

Entrustable Learners

Vignette for an entrustable learner (Cont.)

After she is done taking the history, Zhongshu says, "OK, Mr. Rodriguez, I would like to do a full examination at this point. I will step out and let you change into a gown, which is located in this drawer. I will be back in a minute. Is there anything else that you need right now?" Zhongshu steps into the hall briefly, closing the door behind her. She returns to the room and states, "Mr. Rodriguez, I would like to do a full examination from head to toe. I am going to explain to you what I am doing at each point, but please let me know if you have questions." She starts by examining the head, eyes, ears, nose, and throat, telling the patient what she is doing before she touches the patient at each step. She notes that there is temporal wasting and inquires about recent weight loss and a bit about diet. She also notes cervical adenopathy and asks the patient about tenderness and duration. She does a thorough lung examination, removing or moving the gown so that she can auscultate directly at each point. She auscultates, then performs more detailed maneuvers such as listening for egophony and percussion. She moves through the rest of the exam, performing each part thoroughly and continuing to tell the patient what she is doing. Throughout the exam, she pays careful attention to draping and patient modesty and comfort.

After the examination, Zhongshu tells the patient that she will be discussing him with the primary care team and will return. She asks if there is anything else that Mr. Rodriguez has thought of during the exam and if Mr. Rodriguez has any further questions. As she is leaving the room, Mr. Rodriguez asks timidly, "What do you think is causing my cough?" Zhongshu turns, closes the door again, and sits down on the stool to answer the question. She first asks, "Is there something that you are worried about?" Mr. Rodriguez admits that he is worried about cancer. Zhongshu reviews that there are several causes of chronic cough, including upper airway cough syndrome, gastroesophageal reflux disease, asthma, allergies, chronic bronchitis, primary pulmonary diseases, and chronic infections. She explains that that is why she was asking so many questions, looking for clues to the underlying cause. She states that lung cancer can present as a chronic cough. She reassures the patient that she will discuss the symptoms and physical examination with the team and that they will pursue a work-up to find the cause. She asks again if the patient has any further questions and explains that she will be right back. She then walks out of the room.

EPAs

- The What
- **So What**
- Now What

ANZ J Surg. 2017 Aug 2. doi: 10.1111/ans.14120. [Epub ahead of print]

Implementing entrustable professional activities: the yellow brick road towards competency-based training?

Moore D[1], Young CJ[1], Hong J[1].

Department of Colorectal Surgery, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia

結論：

1. 實施初期，可以看出EPA模式明顯的好處和問題。
2. 此計畫會增加受訓人員的造就性評估和回饋的數量。
3. 督導者熟悉評估過程可促進課程的實施。
4. 擔心：督導者需要進一步培訓，以確保評估過程的客觀性和信度。
5. EPA計畫可以使病人的照護工作更加透明。
6. 但我們還無法確保評估的公平性。

CONCLUSIONS: There are perceived benefits and problems evident in the EPA model at this early stage of implementation. The programme should result in an increase in the number of formative assessments and feedback opportunities for trainees. The assessment process is familiar to supervisors, which should facilitate implementation of the curriculum. There is concern that supervisors may require further training to ensure the assessment process is objective and reproducible. The EPA programme could make the process of delegating patient care to trainees more transparent, but we have not identified a method of widely disseminating trainee assessment data without the potential to prejudice trainees unfairly.

KEYWORDS: competency; curriculum; entrustable; surgery; work place assessment

Acad Med. 2017 Jun;92(6):765-770. doi: 10.1097/ACM.0000000000001543.

Implementing an Entrustable Professional Activities Framework in Undergraduate Medical Education: Early Lessons From the AAMC Core Entrustable Professional Activities for Entering Residency Pilot.

Lomis K[1], Amiel JM, Ryan MS, Esposito K, Green M, Stagnaro-Green A, Bull J, Mejicano GC; AAMC Core EPAs for Entering Residency Pilot Team.

Author information

Abstract

In 2014, the Association of American Medical Colleges (AAMC) published a list of 13 Core Entrustable Professional Activities for Entering Residency (Core EPAs) that medical school graduates might be expected to perform, without direct supervision, on the first day of residency. Soon after, the AAMC commissioned a five-year pilot with 10 medical schools across the United States, seeking to implement the Core EPA framework to improve the transition from undergraduate to graduate medical education.In this article, the pilot team presents the organizational structure and early results of collaborative efforts to provide guidance to other institutions planning to implement the Core EPA framework. They describe the aims, timeline, and organization of the pilot as well as findings to date regarding the concepts of entrustment, assessment, curriculum development, and faculty development. On the basis of their experiences over the first two years of the pilot, the authors offer a set of guiding principles for institutions intending to implement the Core EPA framework. They also discuss the impact of the pilot, its limitations, and next steps, as well as how the pilot team is engaging the broader medical education community. They encourage ongoing communication across institutions to capitalize on the expertise of educators to tackle challenges related to the implementation of this novel approach and to generate common national standards for entrustment. The Core EPA pilot aims to better prepare medical school graduates for their professional duties at the beginning of residency with the ultimate goal of improving patient care.

List 3

Guiding Principles for Institutions Implementing the Core Entrustable Professional Activities for Entering Residency (Core EPAs) Framework

- Employ a systematic approach to map educational opportunities and assessments for each EPA
- Explicitly measure the attributes of trustworthiness in addition to the specific knowledge, skills, and attitudes required for each EPA
- Create a longitudinal view of each learner's performance via, at minimum, aggregated performance evidence, and consider the added value of longitudinal relationships and formal coaching structures in informing entrustment decisions
- Gather multimodal performance evidence from multiple assessors about each learner for each EPA
- Include global professional judgments about the entrustment of each learner in the body of evidence that supports summative entrustment decisions
- Ensure a process for formative feedback along the trajectory to entrustment to provide opportunities for both remediation and potential acceleration of responsibilities
- Create a process to render and maintain formal entrustment decisions by a trained group (entrustment committee) that reviews performance evidence for each learner
- Ensure that each learner is an active participant in the entrustment process—aware of expectations, engaged in gathering and reviewing performance evidence, and generating individualized learning plans to attain entrustment
- Align formal entrustment decisions regarding individual learners with nationally established performance expectations, as currently described in the Core EPAs Curriculum Developer's Guide

表3. 機構執行核心進入住院醫師訓練之核心可信賴專業活動（核心EPAs）框架指導原則

- 有系統地制訂每個EPA的教育機會和評估方法
- 除了特定的知識、技能和態度之外，每個EPA還需要明確測量可信賴性的屬性
- 至少要以累積的表現證據來創建每個學習者表現的縱向視圖，並考量縱向關係的附加價值和通知信賴決策的正式指導結構
- 從多個評估者收集每個學習者各項EPA的多模式表現證據
- 在證據框架中包含每個學習者的整體專業判斷以支持總結性信賴決策
- 在信賴軌跡上確保有造就性回饋的過程，以提供機會補強和加速養成責任
- 創建一個由受過訓練的團隊（信賴委員會）提供和維護正式信賴決定的程序來審查每個學習者的表現證據
- 確保每個學習者積極參與信賴過程—了解期望、參與蒐集和審查表現證據，並形成個人化學習計畫以實現信賴
- 依照國家建立的表現期待標準來評定個別學習者的信賴決定，如Core EPAs Curriculum Developer's Guide所述

Entrustable Professional Activities for Family Physicians

The Family Medicine for America's Health Board of Directors developed entrustable professional activities for family medicine.

What are Entrustable Professional Activities (EPAs)?

EPAs are the critical activities that constitute a specialty, and the elements that experts and society consider to belong to that specialty. EPAs are observable and measurable, lead to recognized outcomes, require integration of competencies across domains, and map to competencies and their Milestones. EPAs define the knowledge, skills, and attitudes that resident physicians must have before they graduate. EPAs are a way to translate the core competencies into the well-defined activities that physicians are expected to do as part of their practice of medicine.

Entrustable Professional Activities for Family Physicians

EPAs for Family Medicine End of Residency Training

1. 為所有年齡層的人們提供全面、縱向的一般醫療資源。
2. 以多面向方式照護病人和家屬。
3. 提供第一線的健康和醫療問題的照護。
4. 提供預防性照護以改善身體狀況、改變疾病和傷害的危險因素，並在較早期的可治療階段檢測出疾病。
5. 提供加速疾病康復及改善功能的照護。路
6. 評估和處理未被鑑別的症狀和復雜狀況。
7. 診斷和處理慢性疾病狀況和多種病症。
8. 診斷和處理心理健康問題。
9. 診斷和處理急性疾病和外傷。
10. 執行門診或住院的常規診療程序。
11. 處理產前、分娩和產後護理。
12. 處理臨終和安寧照護。
13. 處理住院照護、出院計劃、轉院照護。
14. 急症病人的醫療照護。
15. 建立與病人、家屬和社區的信任關係及持續的夥伴關係。
16. 使用數據來優化個人、家屬和民眾的照護。
17. 在病人和家屬的文化和健康信仰背景下，使用最好的科學來製定照護目標，並提供對病人健康最有助受益的服務。
18. 為病人、家屬和社區發言，以優化醫療照護的公平性，盡量減少醫療照護的差異。
19. 在跨專業醫療照護團隊中提供領導。
20. 在病人狀況有需要時協調照護及評估專科會診。

J Gen Intern Med. 2014 Aug; 29(8): 1177–1182.

Entrustment and Mapping of Observable Practice Activities for Resident Assessment

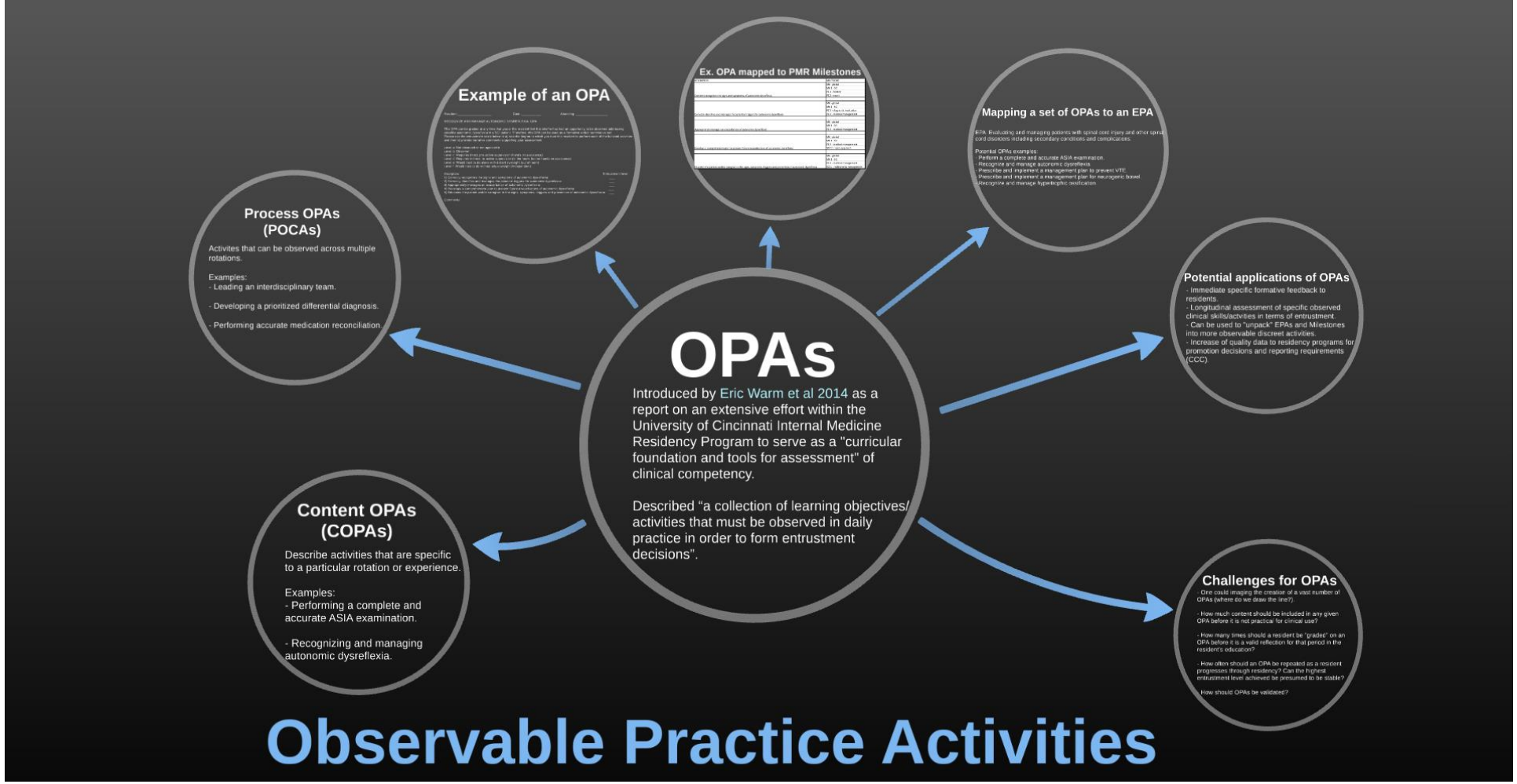
Eric J. Warm, MD, Bradley R. Mathis, MD, Justin D. Held, MD, Savita Pai, MD, Jonathan Tolentino, MD, Lauren Ashbrook, MD, Cheryl K. Lee, MD, David Lee, MD, Sharice Wood, MD, Carl J. Fichtenbaum, MD, Daniel Schauer, MD, Ryan Munyon, MD, and Caroline Mueller, MD

ABSTRACT

Entrustable Professional Activities (EPAs) and the Next Accreditation System reporting milestones reduce general competencies into smaller evaluable parts. However, some EPAs and reporting milestones may be too broad to use as direct assessment tools. We describe our internal medicine residency curriculum and assessment system, which uses entrustment and mapping of observable practice activities (OPAs) for resident assessment. We created discrete OPAs for each resident rotation and learning experience. In combination, these serve as curricular foundation and tools for assessment. OPA performance is measured via a 5-point entrustment scale, and mapped to milestones and EPAs. Entrustment ratings of OPAs provide an opportunity for immediate structured feedback of specific clinical skills, and mapping OPAs to milestones and EPAs can be used for longitudinal assessment, promotion decisions, and reporting. Direct assessment and demonstration of progressive entrustment of trainee skill over time are important goals for all training programs. Systems that use OPAs mapped to milestones and EPAs provide the opportunity for achieving both, but require validation.

KEY WORDS: resident assessment, milestones, entrustable professional activities, medical education

J Gen Intern Med



就是有人愛化簡為繁

EPA examples

UNIVERSITY OF Cincinnati

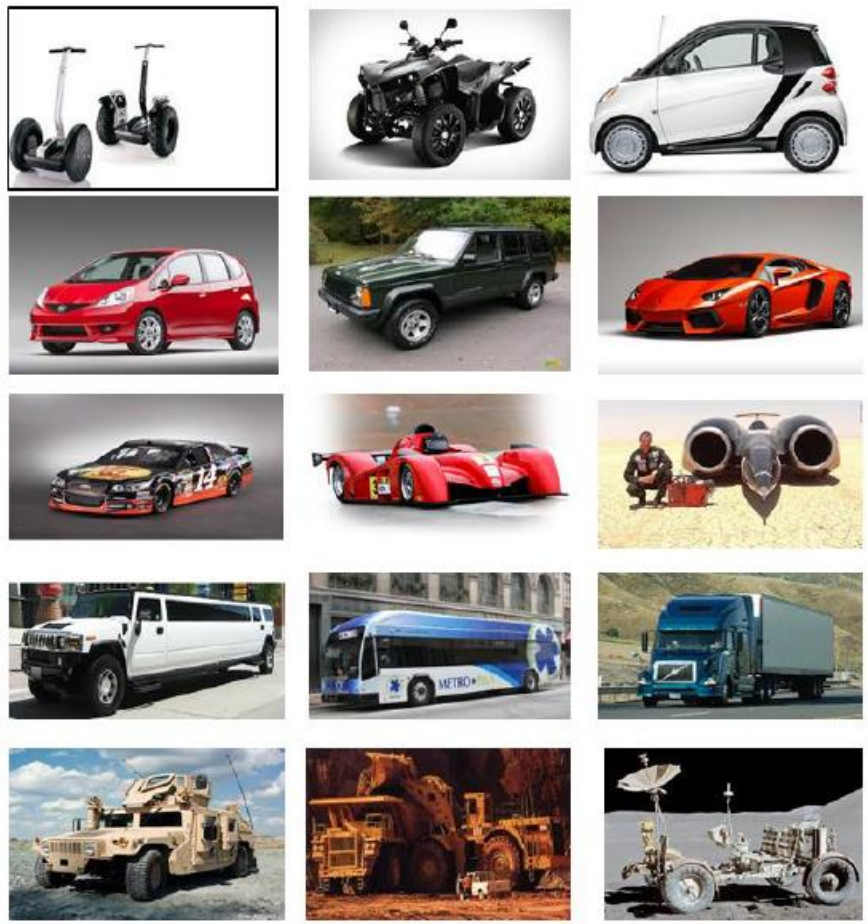
Can Milestones and EPAs help?

- Milestones and EPAs are too broad to use in direct assessment

Can you drive?

What can you drive?

How well can you drive it?



Warm EJ, Mathis BR, Held JD, Pai S, Tolentino J, Ashbrook L, Lee CK, Lee D, Wood S, Fichtenbaum CJ, Schauer D, Munyon R, Mueller C. **Entrustment and Mapping of Observable Practice Activities for Resident Assessment.** J Gen Intern Med. 2014 Feb 21. [Epub ahead of print] PubMed PMID: 24557518

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Curricular Milestones	OPAs	Reporting Milestones/EPAs	Narratives
Can Put On Helmet	Rides in Driveway	Rides Bicycle Safely	Falls off Bike
Feet Reach Pedals	Rides on Sidewalk		Rides 1000 feet without Stopping
Can Balance	Rides on Quiet Street		Rides on Quiet Road
Can Forward Propel	Rides in Traffic		Rides in Rush Hour Traffic
Can Brake	Rides to work on time		
Can Beep Horn	Rides in Triathlon		Rides Tour de France

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Observable Practice Activities	Initiate a cost effective work-up for iron deficiency anemia		
Competencies	Patient Care	Medical Knowledge	Systems Based Practice
Curricular Milestones			
Reporting Milestones	PC-1 - Synthesizes essential information	MK-1 - Clinical knowledge	SBP-3 - Identifies forces that impact the cost of health care
EPAs	**EPA:** Manage care of patients with chronic diseases across multiple care settings		

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Observable Practice Activities	Minimize unfamiliar terms during patient encounters

Competencies	Communication	Professionalism	PBLI
Curricular Milestones			
Reporting Milestones EPAs	ICS-1 - Communicates effectively with patients and caregivers	PROF-3 - Responds to each patient's unique characteristics	**EPA:** 11 Facilitate the learning of patients, families, and members of the interdisciplinary team

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Observable Practice Activities

Initiate a cost effective work-up for iron deficiency anemia 3

Competencies	Patient Care	Medical Knowledge	Systems Based Practice
Curricular Milestones	3 PC-A1 - Acquire accurate and relevant history 3 PC-C1 - Synthesize all available data 3 PC-C2 - Develop prioritized differential diagnoses	3 MK-A1 - Understand the relevant pathophysiology and basic science for common medical conditions 3 MK-B1 - Understand indications for and basic interpretation of common diagnostic testing	3 SBP-E2 - Minimize unnecessary care including tests
Reporting Milestones EPAs	3 PC-1 - Gathers and synthesizes essential and accurate information to define each patient's clinical problem(s) 3 PC-5 - Requests and provides consultative care	3 MK-1 - Clinical knowledge 3 MK-2 - Knowledge of diagnostic testing and procedures	3 SBP-3 - Identifies forces that impact the cost of health care, and advocates for, and practices cost-effective care.
		3 **EPA:** Manage care of patients with chronic diseases across multiple care settings	

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Mapping OPAs to Milestones and EPAs

Rotation 1	Score		Patient Care	Medical Knowledge	Practice Based Learning and Improvement	Interpersonal and Communication Skills	Professionalism	Systems Based Practice
OPA 1	3					A8		
OPA 2	3					A4, A5, A6, A8		
OPA 3	2					A4, A5, D1		
OPA 4	3		A3					
OPA 5	2		F2				F4	
OPA 6	2		C3					
OPA 7	3				A2		E2, E3	
OPA 8	2		C4, E2, F6, F7,	A6,				
Rotation 2			Patient Care	Medical Knowledge	Practice Based Learning and Improvement	Interpersonal and Communication Skills	Professionalism	Systems Based Practice
OPA 9	3		F5, F6,	A4, A6, A8,				
OPA 10	3		F5, F6,	A4, A6, A8,				
OPA 11	3		C2, C3, C4	B1, B2	B1			E2, E3
OPA 12	4		C4	A4, A6, A8, B2				
OPA 13	2		C3, F5, F6	A4, A6, A8, B2				
OPA 14	2		F5, F6,	A4, A6, A8, B2				
OPA 15	3		F5, F6,	A4, A6, A8,				
OPA 16	2		F5, F6,	A4, A6, A8,				

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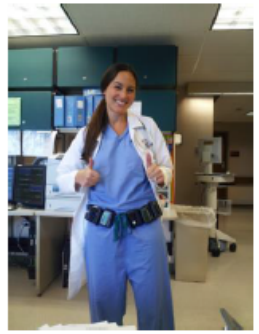


Curricular Milestones

PC F2: With minimal supervision, manage patients with common and complex clinical disorders

PC B4: Routinely identify subtle or unusual physical findings that may influence clinical decision making

PC E1: Make appropriate clinical decisions based upon the results of common diagnostic testing

PC F10: Customize care in the context of the patient's preferences and overall health

OPAs

Level Of Entrustment

1 2 3 4 5

- Titrate cardiac medications
- Manage pancreatitis
- Titrate insulin based on glucose readings
- Adjust short and long acting narcotics for cancer and sickle cell patients
- Manage parathyroid abnormalities in the renal patient
- Deliver appropriate goal-directed therapy for severe sepsis

Reporting Milestones/EPAs

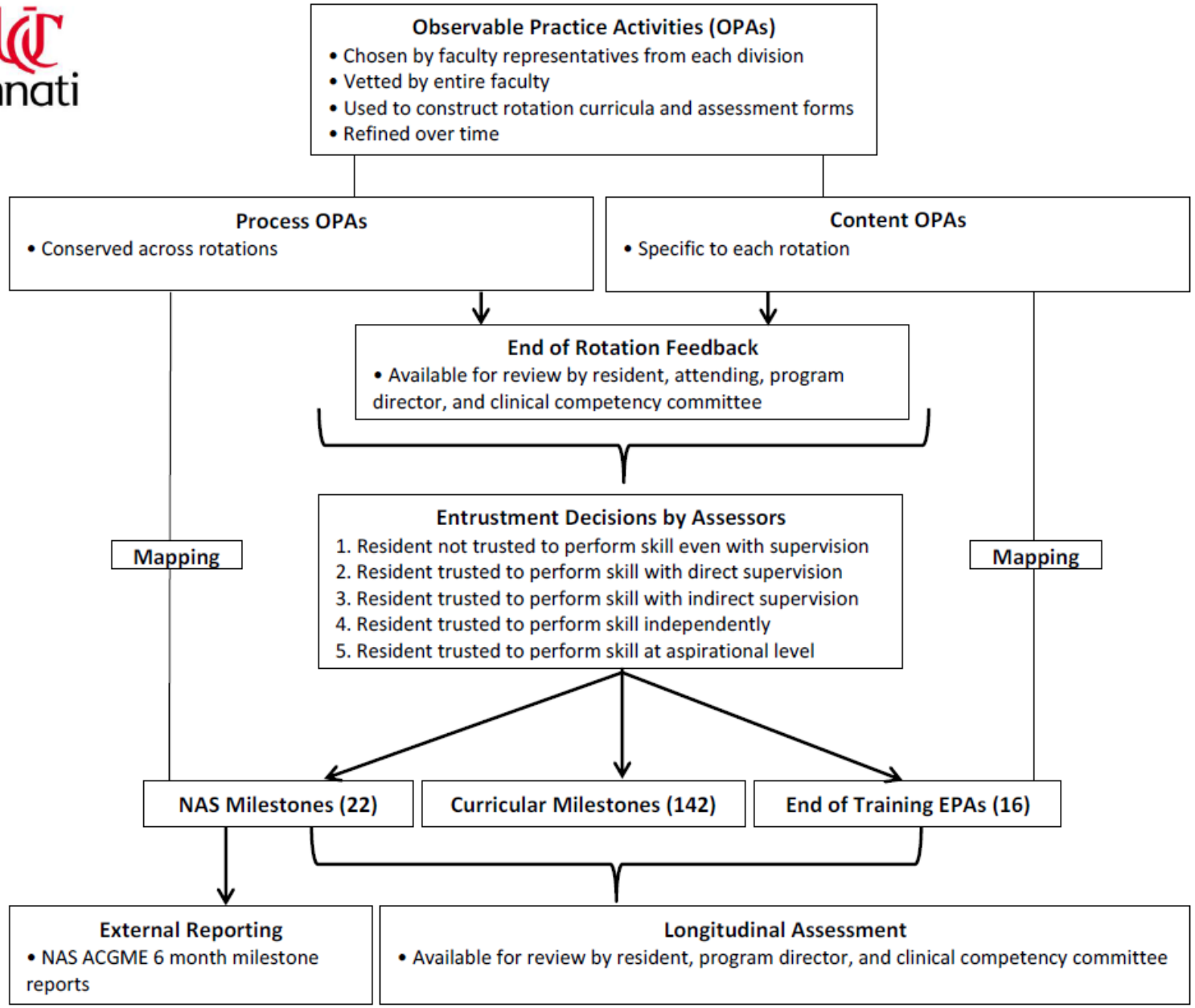
Develops and achieves comprehensive management plan for each patient. (PC2)

Level Of Entrustment

1 2 3 4 5

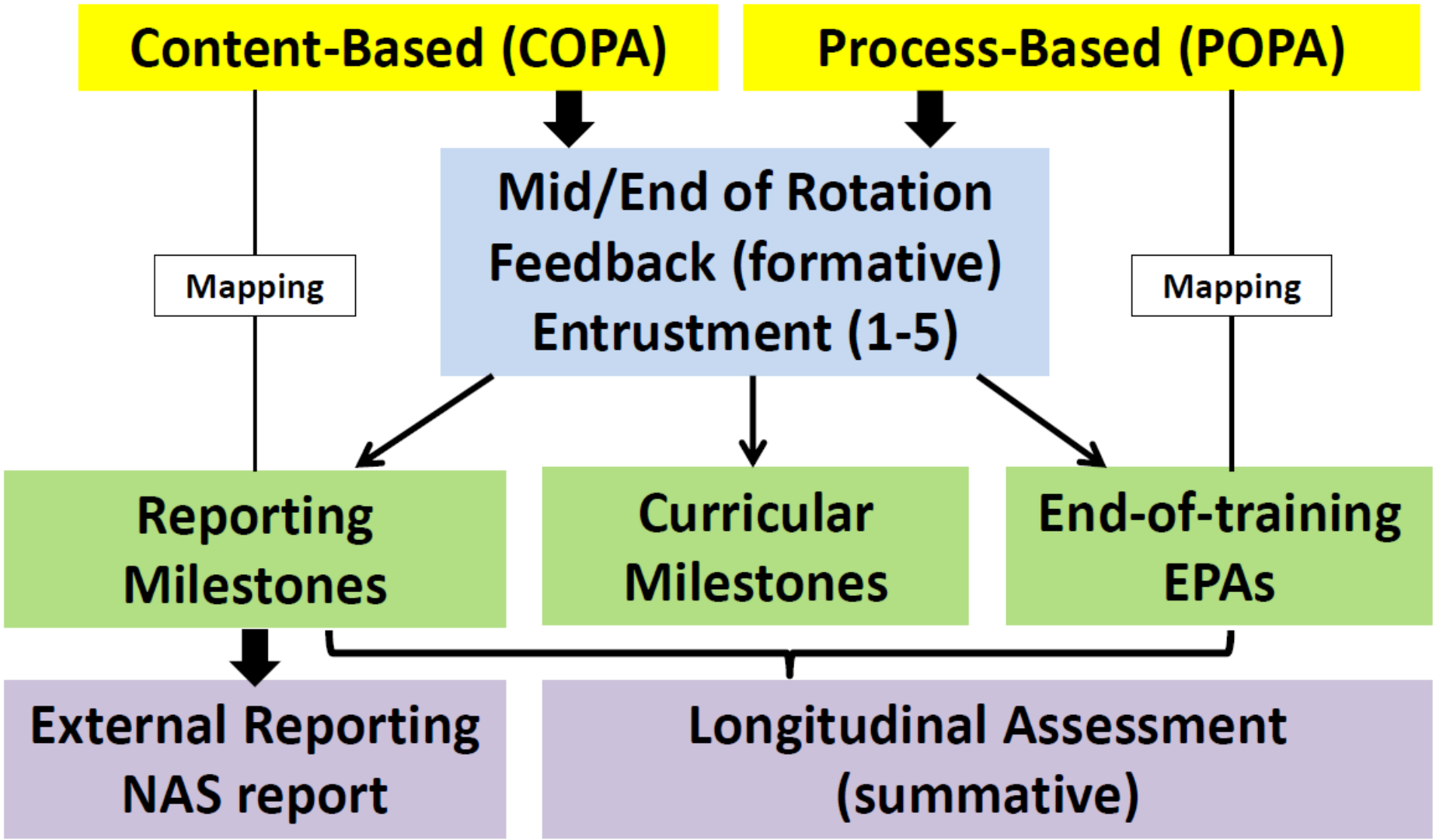
Narratives

- Care plans are consistently inappropriate or inaccurate
- Inconsistently develops an appropriate care plan
- Consistently develops appropriate care plan
- Appropriately modifies care plans based on patient's clinical course, additional data, and patient preferences
- Role models and teaches complex and patient-centered care



Warm EJ, Mathis BR, Held JD, Pai S, Tolentino J, Ashbrook L, Lee CK, Lee D, Wood S, Fichtenbaum CJ, Schauer D, Munyon R, Mueller C. **Entrustment and Mapping of Observable Practice Activities for Resident Assessment**. J Gen Intern Med. 2014 Feb 21. [Epub ahead of print] PubMed PMID: 24557518

Observable Practice Activities (OPAs)



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An Entrustable Professional Activity (EPA) for Handoffs as a Model for EPA Assessment Development

Michael Aylward, MD, James Nixon, MD, and Sophia Gladding, PhD

Abstract

Medical education is moving toward assessment of educational outcomes rather than educational processes. The American Board of Internal Medicine and American Board of Pediatrics milestones and the concept of entrustable professional activities (EPA)—skills essential to the practice of medicine that educators progressively entrust learners to perform—provide new approaches to assessing outcomes. Although some defined EPAs exist for internal medicine and pediatrics, the continued development and implementation of EPAs remains challenging. As residency programs are expected to begin reporting milestone-based performance, however, they will need examples of how to overcome these challenges.

The authors describe a model for the development and implementation of an EPA using the resident handoff as an example. The model includes nine steps: selecting the EPA, determining where skills are practiced and assessed, addressing barriers to assessment, determining components of the EPA, determining needed assessment tools, developing new assessments if needed, determining criteria for advancement through entrustment levels, mapping milestones to the EPA, and faculty development. Following implementation, 78% of interns at the University of Minnesota Medical School were observed giving handoffs and provided feedback. The authors suggest that this model of EPA development—which includes engaging stakeholders, an iterative process to describing the behavioral characteristics of each domain at each level of entrustment, and the development of specific assessment tools that support both formative feedback and summative decisions about entrustment—can serve as a model for EPA development for other clinical skills and specialty areas.

Academic Medicine, Vol. 89, No. 10 / October 2014

Appendix 1 **Evaluation Tool Form for Assessing Eight Domains of Patient Hand-Offs, Developed at the University of Minnesota Medical School for an Entrustable Professional Activity Assessment, 2012**

Name:
Date:

Hand-Off Evaluation Tool: Third Party Observer

Evaluator:

Overall assessment:	Cannot perform	Can perform under direct supervision	Can perform with indirect supervision	Can perform independently	Can supervise junior trainees
Problem statement	Did not speak coherently.	Communicated information about patient, but it was not succinct, abstracted, or synthesized. "Stuck to the script" of what was written.	Gave an accurate, synthesized, and succinct problem statement including: (name, age, gender, relevant PMH, reason for hospitalization, major events since admission).		Gave an accurate, synthesized problem statement AND a succinct description of the patient's hospital course, the modifying factors of a patient's care, and the nuances that may affect the next 24 hours.
Patient status	Was not sure what happen	Communicated what happened to patient in the last 24 hours.	Communicated what happened in the last 24 hours AND anticipated worsening of main disease or complications from recent procedure.	Discussed what ned AND how ight affect the nt in the next urs. Prioritized or and pated	Discussed interactions between patient's problems, hospital issues, family issues, nursing issues looking forward to next 12 hours. Sees the "big picture."
Patient problem	Un effecti unicat ma hospitalization and outstanding problems.	mun d main for h alizatio prioritizing patient's problems	d p s' ms, l no an ce.	oritize tient roble ND icipated issues with p	iccinc ze elevan ues, i g th ate pat trajecto sy m issu Altered presentation ba ed o
To do list	Did not create "to do" list.	Created incomplete "to do" list, and did not prioritize or use "if...then" statements for those items.	Complete "to do" list BUT incomplete contingency ("if... then") plans in place.	Complete, RELEVANT "to do" list, includes appropriate "if... then" statements with specific recs.	Already "paved the way" for items on the "to do list" -- discussed possible outcomes with nurses, placed conditional orders, contacted appropriate consultants, etc.
Prioritize team	Did not prioritize team	Prioritized "Really Sick" from "Not Sick"	Prioritized patients in terms of acuity and complexity.	Prioritized patient in terms of acuity and complexity. Anticipated which patients may get sick.	
Interactive questioning	Does not engage others in hand-off process.	Provided information, was unable to answer all questions.	Provided information; if unable to answer question indicated they will follow up and get an answer.	Engaged receiver and anticipated their questions in an open and non self-defensive way.	Solicited questions and provided ongoing feedback about hand-off.
Manage time and environment	Distractions cause chaos and time was not appropriate.	Completed hand-off, but minimally managed distractions or time.	Effectively managed time and distractions.		
Transfer	No sense of responsibility.	Was not explicit about a transfer of responsibility.	Made explicit to the receiver the transfer of responsibility.		

Hand-off observed: Primary Team → Long Call Long Call → Night Float **Total Time Spent:**_____ **Number of Patients Handed-Off:**_____

Ridiculous!

Entrustable Professional Activities

An Entrustable Professional Activity (EPA) is a self-contained activity that the typical health professions educator may be expected to perform in the context of his/her professional role. In the MHPE program, with the help of their assigned mentor, learners choose multiple EPAs to develop a learning plan that is relevant to their current educator-leader responsibilities. The EPAs reflect the real world work of an educator. The relevance of learning about the core activities of applied education is central to the purpose of the program. Learners can select whichever EPAs they want as the means for learning core competencies based on the best fit into their current and future professional expectations.

Learners choose from the list of 22 possible EPAs (below) depending on which activities they are required to perform within their job context. Each EPA has references that include a set of readings, examples, subject matter experts, guidelines, demonstrations, and other educational resources for the learner to use in completing a particular EPA. Faculty mentors serve as a key partner in helping the learner decide which resources will be most useful. Often additional resources will be identified that focus on the health profession of interest (i.e. nursing, dentistry, social work) for specific learners.

Each competency within an EPA is associated with one credit, for which the learner must provide appropriate documentation and evidence to the assessment committee for review. Depending on the EPA, the required evidence could be in the form of a paper, video presentation, slide presentation, grant application, portfolio, etc. To graduate, the learner must receive a minimum of 32 credits in total (maximum of 39 credits) and map to each competency at least two times.

List of EPAs

- 選擇和展示一系列教學方法的能力
- 在學習社群中學習、網絡聯繫及有所貢獻
- 創造引人注目的演講，採用各種適當的媒體
- 設計和實施課程介入
- 選擇一項學習成效，針對其設計、選擇和開發一個適當的評估方法
- 為特定的教育介入/課程，設計學習者評估藍圖
- 為選定的評估方法和應用，選擇和實施適當的標準設置方法
- 為現有教育計畫/課程，設計和實施的計畫評估
- 評論課程改變
- 制定組織變革的方案
- 實施組織的變革方案
- 設計和實施研究
- 撰寫學術（非研究）立場的評論或審查出版品
- 嚴格審查研究計畫書
- 創建一個學習計畫
- 創建一個教育者的檔案
- 徵求來自多位觀察者有關領導和教學的回饋，並進行關鍵性反思
- 指導同事或學習者，或諮詢組織
- 調整專業活動（由學習者提出）
- 發展持久的教育資源

何者不是EPAs?

何者不是EPAs?

Core Entrustable Professional Activities for Entering Residency

AAMC

- ☐ EPA 1： 蒐集病史及執行身體診察
- ☐ EPA 2： 以臨床所見的情況排列鑑別診斷的優先順序
- ☐ EPA 3： 建議及判讀常用的診斷及篩檢性檢驗
- ☐ EPA 4： 開立醫囑與處方，並能討論
- ☐ EPA 5： 在病歷上記錄臨床發生的狀況
- ☐ EPA 6： 口頭報告病人的狀況
- ☐ EPA 7： 形成問題及獲取證據以促進病人照護
- ☐ EPA 8： 交接班時能負起責任
- ☐ EPA 9： 作為跨領域照護團隊的成員
- ☐ EPA 10：察覺與辨認需要快速或緊急處置的病人，並啟動評估和處理
- ☐ EPA 11：執行檢驗及醫療程序之知情同意
- ☐ EPA 12：執行醫師一般性的操作技能
- ☐ EPA 13：識別系統失效及參與病人安全及品質改善的文化

MEDICAL TEACHER, 2017
VOL. 39, NO. 3, 232–233
http://dx.doi.org/10.1080/0142159X.2016.1230665

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COMMENTARY

Are all EPAs really *EPAs*?

Ara Tekian

Department of Medical Education, College of Medicine, University of Illinois at Chicago, Chicago, IL, USA

EPA 6: provide an oral presentation of a clinical encounter

This was intended to ensure that the graduating medical students be able to communicate a concise understanding of a clinical encounter to other members of the health care team (Core Entrustable Professional Activities 2016). However, the ambiguity of the term "oral presentation" raises questions regarding the format of the EPA. It is open to multiple interpretations and thus warrants additional clarification on what is expected in the clinical encounter. In addition, the EPA requires at least one member of the health care team to be present for the oral presentation. However, clinical settings have different health care team members that can vary, and this implies that EPA 6 cannot stimulate an entrustable decision; a student may be entrustable for some, but not for others. EPA 6 appears to be more of a professional habit that should be developed throughout the student's UME training. It would also be difficult for the preceptor to determine – in a single point of the student's training – that he or she is fit to provide a presentation on clinical encounters.

EPA 6: provide an oral presentation of a clinical encounter

這是為了確保畢業的醫學生能夠向醫療團隊的其他成員傳達對臨床狀況的簡明理解。然而，「口頭陳述」一詞的含糊不清引發了有關EPA格式的問題。這概念是開放的，因而會出現不同解讀，故有必要進一步澄清在臨床與病人互動中預期什麼。此外，此EPA要求至少有一名醫療團隊成員出席口頭報告。然而，臨床環境有不同的醫療隊成員而差異頗大，這意味著EPA 6不能促使一個可以委託的決定，一個學生也許能達成某一些口頭報告，但其他便不能達成。EPA 6似乎涉及更多範疇，應該是在整個畢業前醫學教育訓練出來的專業習慣。在單一的訓練階段導師也很難作決定學生是否對與病人的臨互動出報告。

EPA 7: form clinical questions and retrieve evidence to advance patient care

This highlights the importance of the graduating medical student's ability to acknowledge their knowledge gaps in identifying clinical evidence that can be applied to patient care (Core Entrustable Professional Activities 2016). However, the ability to formulate clinical questions stems from medical training and is partly attributed to self-directed learning, where the student has to make an effort to identify gaps in his or her knowledge. In addition, the focus of the EPA is on the ability to retrieve evidence from primary and secondary literature. It does not necessarily assess the ability of the student to apply that knowledge to his or her patient population to make clinically relevant decisions. This means that there would be difficulty in assessing this EPA as part of on-the-spot learning and it prevents feasible assessment of the student's ability to advance patient care.

EPA 7: form clinical questions and retrieve evidence to advance patient care

這突顯了畢業的醫學生認知其知識缺口及辨識可用於病人照護的臨床證據的能力的重要性。然而，制定臨床問題的能力源於醫學訓練，部分歸因於自主學習，學生必須努力確定其知識的缺口。此外，EPA的重點是從初級和次級文獻檢索證據的能力。這並不一定會評估學生將這些知識應用於病人的能力，以做出臨床相關的決定。這意味著在評估這種EPA作為現場學習的一部分時會有困難，並且阻礙了對學生提升病人照護能力的可行評估。

EPA 9: collaborate as a member of an interprofessional team

This describes the ability to communicate and remain flexible to assist other team members (Core Entrustable Professional Activities 2016). This EPA does not constitute a discrete unit of work, but rather a competency. Similar to EPA 7, it may be difficult to assess this through direct or on-the-spot learning, particularly at the undergraduate level. Students should have this ability with health professionals at any point of their training to advance patient care. Furthermore, the student may interact differently depending on the setting, context, and the type of health professional he or she is interacting with. How would the supervisor account for the level, amount, frequency, and effectiveness of the collaboration? These variations in collaboration may result in skewed assessments, thereby making this EPA inappropriate in issuing an entrustment decision.

EPA 9: collaborate as a member of an interprofessional team

這描述溝通的能力，並保持彈性以協助其他團隊成員。這個EPA並不構成一個獨立的工作單元，而是一個能力。與EPA 7類似，可能很難經由直接或現場學習來評估，特別是在畢業前的水平。學生在任何訓練階段都應該有這種醫療專業能力來提升病人照護的水平。此外，學生可能因學習場所的背景和類型而與其他醫療專業人員有不同的互動。督導者怎能評估合作的水平、數量、頻率和有效性？這些合作方式的差異可能會導致評估結果出現偏差，從而使得這一EPA不適合發佈信賴決定。

EPA 13: identify systems failures and contribute to a culture of safety and improvement

This emphasizes patient safety and knowledge of the systems supporting it (Core Entrustable Professional Activities 2016). This ability should be embedded in all physicians at the time of entering a postgraduate program, so it can be considered more of an educational objective or a competency, rather than a unit of work that can be entrusted. Moreover, EPA 13 subsumes several entrustment activities and is therefore inseparable from other EPAs.

EPA 13: identify systems failures and contribute to a culture of safety and improvement

這強調了病人安全和支持其系統的知識。這種能力應該訂在畢業後課程使所有醫師均能具備，因此可以將其視為不只單一的教育目標或能力，而不是一個可以信賴的工作單元。此外，EPA 13包含了幾項信賴活動，因此與其他的EPAs是分不開的。

Table 1. Four EPAs (6, 7, 9, and 13) mapped to the ten Cate criteria of problematic EPAs.

Criteria for problematic EPAs (ten Cate et al. 2015)	EPA 6	EPA 7	EPA 9	EPA 13
1) EPAs that are not discrete tasks and unsuitable for focused entrustment decisions			X	X
2) EPAs that are inseparable from other EPAs	X	X	X (?)	X
3) EPA titles and specifications that sound like educational objectives		X	X	X
4) EPA titles that include adjectives that refer to proficiency level			X	X
5) EPAs that are too broad	X	X	X	X
6) EPAs that are discrete tasks, but are not suitable for entrustment decisions	X (?)		X	X

?: might depend on the context in which the EPA is assessed.

MEDICAL TEACHER, 2017
VOL. 39, NO. 3, 232–233
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COMMENTARY

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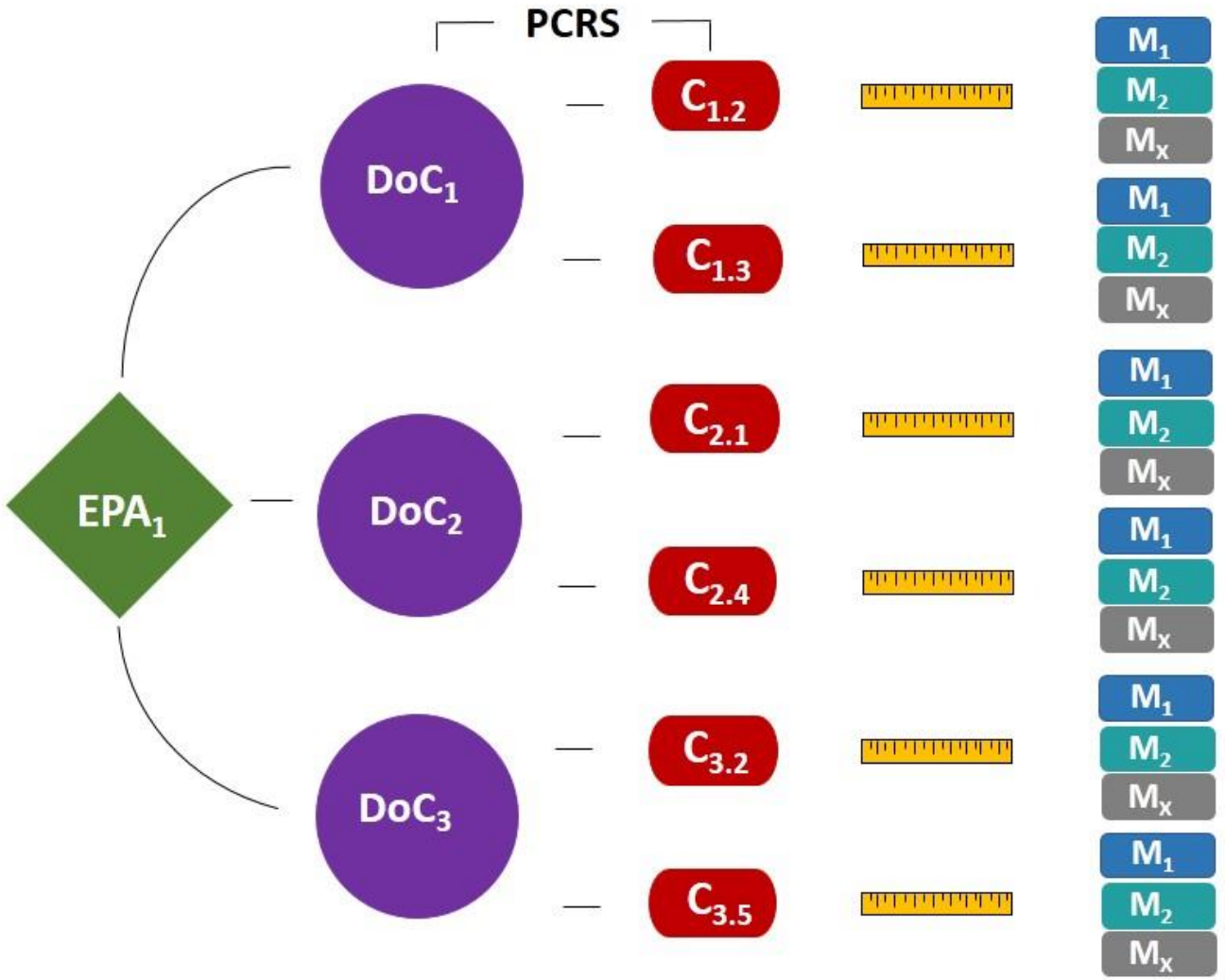
Ara Tekian

Department of Medical Education, College of Medicine, University of Illinois at Chicago, Chicago, IL, USA

Ara Tekian PhD, MHPE, is Professor, Department of Medical Education, and Associate Dean for the Office of International Education at the University of Illinois at Chicago College of Medicine, Chicago, Illinois, USA.

EPAs

- The What
- So What
- **Now What**



有助於：

1. 課程設計
2. 教師教學
3. 學生學習
4. 信賴決定

哪一項要最先做好？

EPA = entrustable professional activities
DoC = domain of competency
PCRS = physician competency reference set
C = competency
M = milestone

以規劃PGY 2.0的課程為例

以AAMC之Core EPAs
幫助PGY Program
課程設計、教學及評估
以不影響原有架構及規劃為原則

EPA 1：蒐集病史及執行身體診察 (1/2)

1. 能展現出以病人為中心的面談技巧（注意病人口語及非口語線索、病人/家屬的文化背景、影響健康狀況的社會因素、對解讀或調適服務的需求，以及展現出主動聆聽技巧）
2. 能有系統地獲取完整且正確的病史
3. 能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素（如症狀須了解LQQ OPERA；已知疾病須知道診斷時間和依據、治療方法和效果、併發症、伴除風險四要項）
4. 在危急、急症和會診等不同情境能依病人狀況獲取相關的焦點性病史
5. 在有需要時，能尋找及使用其他資訊來源來取得病史，包括家屬、基層醫師、生活設施和藥房等

EPA 1：蒐集病史及執行身體診察 (2/2)

1. 能以符合邏輯且流暢的順序執行完整且正確的身體診察
2. 能執行與場合和病人問題相關的焦點性身體診察
3. 能辨識病人身體診察的異常發現且能口述和記錄這些異常
4. 能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧（能解釋身體診察的程序和做法、每一步都有告知病人檢查者要做的是什麼、在檢查過程中能儘量遮蔽身體以免不必要的暴露）

EPA 2：鑑別診斷

1. 能聯結當下的發現和先前的數據一起思考
2. 能從多種來源蒐集資訊提出鑑別診斷，既不太寬，也不太窄
3. 能整合現有的和新獲得的資訊，不斷更新鑑別診斷
4. 了解自己知識的界限、個人的長處和弱點
5. 了解何時照會上級和團隊成員，且勇於向醫療小組的其他成員尋求援助
6. 能提供完整且簡潔的紀錄，以利其他照護人員有充分證據用作臨床推理，以確保醫療服務的連貫性

EPA 3：對常用診斷性和篩選性檢查能建議和解讀

1. 對常見的急性或慢性狀況能開立適當且符合成本效益的檢驗項目
2. 能解釋每項檢查的結果
3. 能提出開立的理由（包括考慮成本和病人資源）
4. 能正確地判讀常用的實驗室和影像學檢查的異常結果
5. 能區別臨床上重要的異常與常見而不具臨床意義的異常

EPA 4：開立醫囑和處方

1. 能認知所面對的問題和有周全的考量，熟知相關的風險和利益
2. 能遵照相關治療指引和流程，但保留彈性
3. 能依據病人身、心和社經狀況的需求而調整（特別需要熟習高齡病人的診斷、治療及其他注意事項）
4. 注意成本效益和病人的意願
5. 能與病人、家屬和醫療團隊溝通
6. 認知自己能力的界限，在需要時能尋求協助，包括能使用電子資源來填補知識的欠缺（如藥物交互作用、治療指引），確保能輸入安全的醫囑
7. 能了解及回應醫療作業系統的安全警訊

EPA 5：將臨床診察狀況記錄於病人病歷

1. 能依時完成紀錄使其他團隊成員可以參閱
2. 病歷內容具全面性，涵蓋應有的資訊，但不含不必要的細節或贅述
3. 內容包括病人在身、心、社會層面的問題
4. 能記載臨床推理，並能正確地判讀實驗室數值
5. 記錄呈現充分的雙向溝通，有考量病人的意願
6. 能包含在制度上需要的元素（如日期、時間和簽名）

EPA 6：臨床案例口頭報告（案例報告）(1/2)

1. 能作出資訊充分、簡要、有組織性和精確的案例報告
2. 能有效率地述說故事，並以論據來支持所訂的診療計畫
3. 不迴避困難或有壓力的議題
4. 對不確定的領域能作出反思，並尋求進一步的資訊
5. 能指出自己在知識或技能上的不足而尋求協助
6. 承認在資訊上的不足，不會因而有防衛心態
7. 能對病人隱私和保密的尊重
8. 熟悉感染症、法定及新興傳染病之基本概念及學識及法定傳染病的通報

EPA 6：臨床案例口頭報告（病情說明及衛教）(2/2)

1. 能依現場狀況及聆聽者的背景來調整說明
2. 能避免醫學術語
3. 說明過程中能主動邀請病人、家屬參與，能做到雙向溝通
4. 遇到困難狀況能運用合宜的溝通技巧，包括應用empathy
5. 能以上述方式向病人及家屬進行常見疾病之飲食指導及衛教

EPA 7：由臨床問題及取得的證據提升病照護 (1/2)

1. 能了解自己知識的欠缺和病人的需要，因而尋求協助或搜尋新的資訊
2. 能提出相關的臨床問題：
   a. 能因應臨床情境和病人照護所需提出優質而聚焦的臨床問題
   b. 展現出好奇心、客觀性和科學推理能力
   c. 能運用認知程序：去除不相關因素、識別未知之處，以及經由即時學習來獲得知識，進而產生解決方法
3. 蒐集及評估證據：……
4. 能應用證據來進行改善：……

EPA 7：由臨床問題及取得的證據提升病照護 (2/2)

3. 蒐集及評估證據：
   a. 認識各種醫療資訊資源，並具有初步的評讀技巧
   b. 能利用資訊科技來蒐集及評估資訊
   c. 所搜尋到的資訊量能足以處理
   d. 能評估資訊的可用性
4. 能應用證據來進行改善：
   a. 搜尋及評讀所得的發現可經由與團隊和病人的溝通來應用，需要時改變病人照護的方式或程序
   b. 能對辨識、解答問題和尋求改善的程序進行反思

EPA 8：負責任地執行交接班

1. 能使用「固定模式」（如：iSBAR、I PASS the BATON或按照醫院制定的交班代表等）進行交班
2. 能注意交班的時間和地點，避免受到干擾
3. 交班內容充分，且經過組織，依重要性排序
4. 參與轉診及出院準備實務，能製作簡明扼要的出院摘要

EPA 9：能稱職地作為一個誇專業團隊的成員

1. 能置團隊目標優先於個人專業目標
2. 能了解其他團隊成員的角色、尋求他們的諮商、主動地聆聽他們的建議，以及將他們融入執業中
3. 能進行雙向溝通，能提供所有團隊成員最新資訊
4. 能參照溝通對象和所處情境來調整溝通的內容和方式
5. 能認知自己和其他人的情緒
6. 能主動地將病人和其他團隊成員融入合作照護，使照護者之間及不同單位間可提供無縫的交接

EPA 10：緊急情況的處置 (1/2)

1. 能依從機構程序和計畫
2. 能判讀病人的生命徵，且能考量年齡和個人差異等因素
3. 蒐集、過濾、排序和連結片段的資訊（如：生命徵、焦點式身體診察、相關病史、最近的檢查和用藥）來形成病人特定的鑑別診斷、啟動介入措施和引導檢查的決定
4. 能判讀常用檢驗的結果以預知臨床狀況惡化及作出及早處置
5. 以頻密的再評估來啟動介入措施和檢查，藉以決定需要協助的水平和預計後續的步驟
6. 能與醫療照護團隊及家屬作雙向溝通而能達成共享決策
7. 能依據團隊成員的角色和責任來運作，藉以提升工作效率

EPA 10：緊急情況的處置 (2/2)

8. 向醫療照護團隊其他成員提供病人資訊時，能作出焦點式、簡明而精確的報告
9. 了解並認知個人能力界限、情緒和偏見，能在需要時尋求協助
10. 病人情況惡化須作下一步決策時，能主動聆聽團體成員（如：護理人員、家屬）的意見
11. 能在病歷上完整地記錄臨床狀況
12. 在臨床狀況結束後，能尋求上級指引和回饋

EPA 11：知情同意

1. 了解知情同意對醫病關係的建立和共享決策的重要性
2. 了解知情同意的元素（適應症、禁忌、風險、利益、其他替代措施）及能指出哪些程序在取得知情同意時適用這些元素
3. 能提供病人和家屬完整的資訊
4. 與病人和家屬溝通時能避免使用醫學術語
5. 能使用雙向溝通告知病人和家屬以及徵詢他們意見和問題
6. 能徵詢病人/家屬的意願使他們參與共享決策
7. 能認知他人情緒的線索（如：驚恐、憤怒焦慮、）並能即時處理或尋求醫療照護團隊的協助
8. 對於不確定處能尋求上級指導
9. 能按時完成知情同意的紀錄

EPA 12：操作技能

1. 了解操作程序的適應症、禁忌、風險、利益及其他替代措施
2. 了解程序的併發症，並能採取行動來避免
3. 能準備操作程序所需的物品
4. 能執行操作程序所需的無菌技巧、麻醉及止痛
5. 能展現「可信賴」的操作技巧來執行程序
6. 遇到需要協助時會尋求協助
7. 在執行程序時能展現以病人為中心的技巧：避免醫學術語，病人可經由學員口述而了解程序；對於程序的執行，能與病人進行分享決策；具備與知識和技術水平相稱的自信，能令病人寬心；能同時注意程序執行過程和病人的情緒反應
8. 能按時完成所需紀錄

EPA 13：辨識系統問題及參與改善

1. 能辨識已存在或潛在的系統失誤
2. 能履行常規的安全行為（如一般預防措施、洗手）
3. 了解防範失誤對個別病人和系統的重要性
4. 對失誤能盡自己角色上的責任
5. 能於適當時機暫緩步調，對自己的工作進行反思
6. 能依靠外在資訊來源來了解自身的病人族群
7. 在發生已存在或潛在的系統失誤時能使用報告系統進行報告
8. 自願參與系統改善活動
9. 當擔心一項潛在的失誤時，縱使或會引起上級質疑或挑戰，都能明確地表達
10. 能認知自身的疲倦，並能調整工作或尋求協助

EPA 14：分析和決策臨床倫理問題*

1. 熟悉生命倫理原則
2. 能辨識在臨床醫療照護中遭遇到的倫理議題，並提出討論
3. 能使用如four topic approach等方法進行倫理分析和決策
4. 能熟悉行醫相關的法律，應用於臨床醫療和倫理決策
5. 能執行自己所作的倫理決策和行動，並能針對決策和行動進行反思和改進
6. 能熟悉研究倫理，包括研究誠信（research integrity，學術倫理）及人體研究參與者的保護

EPAs能怎麼用到PGY 2.0的規劃

- 課程設計指引
- 教學指引
- 評估指引
- 學習指引

EPAs的限制

- 仍在發展早期
- 做教育研發的人意見不一
- 與某些臨床能力格格不入

採用EPAs的注意事項

- 容易迷失：為了EPA而EPA ⇒ 目標要明確
- 易生爭議：怎樣的EPA才正統 ⇒ 以目標導向
- 故態復萌：化簡為繁 ⇒ 掌握第一原理：KISS
- 發起不易：參考可用先例 ⇒ AAMC
- 水土不服：資源/條件不足致失敗 ⇒ 因地制宜
- 確有風險：課程設計者/教師/學員無法適應 ⇒循序漸進

循序漸進

- Pilot test
- 內科4個月課程試辦

四個月一般醫學內科
課程發展指引

前　言

我們以充滿喜樂和感恩的心向您提供這本畢業後一般醫學內科（四個月）訓練課程發展指引。這本指引係參考美國醫學院協會（Association of American Medical Colleges，AAMC）所出版的"*Core Entrustable Professional Activities for Entering Residency: Curriculum Developers' Guide*"編撰而成的課程發展指引。工作小組耗費近兩年時間，包括研習和發展共識，依據原來畢業後一般醫學內科課程內容，融入 AAMC 這本課程發展指引所介紹的 13 個可信賴專業活動（Entrustable Professional Activities，EPAs；AAMC 稱之為 core EPAs），再加上倫理抉擇，總計有 14 個 EPAs，作為課程設計的標的。

EPAs 是荷蘭人 Olle ten Cate 博士在 2005 年提出的名詞，他給 EPA 的定義為：「專業作業/任務的一個單元，其可委託予有充分能力的學習者（A unit of professional practice/task that can be entrusted to a sufficiently competent learner）」。AAMC 採用的定義則為：「專業實踐的單元，當受訓者已獲得足夠的特定能力而能在沒有被監督的情況下被信任執行的任務或責任」。增加陳述學習 EPAs 的結果是要學習者能獨立執行，為要能做出委託任務或責任的決策，故 EPAs 是可觀察和可評量的。

其實 EPAs 就是指醫療人員的日常醫療作業活動的單元，其中 entrustable 一字是 ten Cate 本人所創。原來英文字 entrust 是委託或信託之意，而在定義中也稍有委託之意。但 ten Cate 在解釋 entrustable 時強調"trust"而不是"entrust"，因此大家逐漸認同 entrustable 就是 trustable 的意思，故中文翻譯成「可信賴的」而不是「可委託的」或「可信託的」，而 EPA 也被譯為「可信賴」專業活動。

AAMC 在 2014 年出版一本課程發展指引，將醫學生畢業後進入住院醫師訓練時所需具備的能力以 13 種核心 EPAs 來呈現，作為課程的核心能力和學習目標的標的。這本指引的呈現方式有許多值得參考的地方，特別是對 13 種核心 EPAs 的「可信賴之學習者的預期行為」的陳述，具體呈現出學習者在完成教育訓練之後可以獨立執行的醫療作業項目。使各訓練醫院的課程負責人更能掌握 AAMC 所期待的課程學習目標。

本課程指引僅係一個初步成果，祈望能得到國內學者專家能的賜教指導，我們將會參考各方意見不斷修正和改進。

畢業後一般醫學二年期 PGY2.0 企劃小組

EPA 1 蒐集病史及執行身體診察

1. 活動描述

受訓學員在完成畢業後一般醫學第一年訓練時，在沒有監督的情況下應能以系統性、符合優先順序和尊重病人的態度來執行精準的完整的或焦點式病史詢問和身體診察。病史詢問和身體診察應依臨床情境和病人特殊的狀況作調整。數據的蒐集以及與病人的互動是臨床醫療作業的基礎，也是評估和處理病人病痛的基石。學習者需要整合醫學科學基礎和臨床推理技巧來引導其資訊的蒐集。

預期行為

蒐集資訊及身體診察

- 能有系統地獲取完整且正確的病史
- 能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素
- 在急症、危急和會診等不同場境能依病人狀況獲取相關的焦點式病史
- 在需要時，能尋找及使用替代資訊來源來取得病史，包括家屬、基層醫師、生活設施和藥房人員等
- 能以符合邏輯且流暢的順序執行完整且正確的身體診察（詳細內容包括「六年制醫學系醫學生畢業基本能力」一、身體診察的技巧第 1 至 29 項）
- 能執行與場合和病人問題相關的焦點式身體診察
- 能辨識出病人身體診察的異常發現且能口述和記錄這些異常

醫學科學的基礎與推理技巧

- 以焦點式蒐集病人照護的資訊時能展現出臨床推理能力
- 能將當下的發現與先前病人的發現相聯結
- 能使用分析性推理和引用先前的知識來引領診療程序

以病人為中心的技巧

- 能展現出以病人為中心的面談技巧（注意病人口語及非口語線索、病人/家屬的文化、影響健康狀況的社會因素、對解讀或通譯服務的需求，以及展現出主動聆聽技巧）
- 能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧（能解釋身體診察的程序和做法、每一步都有告知病人檢查者要做的是什麼、在檢查過程中能儘量遮蔽身體以免不必要的暴露）

2. 最相關之能力領域

- 病人照護及操作程序（Patient Care and Procedural Skills）
- 醫學知識（Medical Knowledge）
- 人際及溝通技巧（Interpersonal and Communication Skills）
- 專業素養（Professionalism）

3. 可信賴前之學習者

可信賴前之學習者的預期行為

此層級的學習者病史蒐集技能不足，蒐集資訊時可能出現遺漏或差異等錯誤。此等學習者亦可能以錯誤方式執行身體診察程序，因此可能錯失關鍵的身體診察發現。其所表現技能的落差可能與其過濾、排序及連結資訊片段的有限能力、先前的臨床經驗或既有的醫學知識有關。可信賴前之學習者可能依據直覺或由有限的能力所建立相關心智模式來作決定，而非依據適當資訊為之。學習者無法恒定地使用以病人為中心的資訊蒐集和身體診察技巧，且可能會根據某一病人的背景予以概化，或者不夠專注病人的個人背景。

可信賴前之學習者的情境

仲舒輪訓到基層醫療團隊提供的免費診所看診。今天她的第一位病人是羅德里奎茲先生，他的護理檢傷分類單上記錄的主訴為咳嗽。羅德里奎茲先生是第一次到該診所就診。仲舒走進檢查室時，他衣著整齊坐在檢查台上，仲舒關門後靠牆站著，手上拿著記事平板，以便作筆記並在病歷上記錄。仲舒開始病史詢問，她用下面這段話作為開場白：「護理師說您有咳嗽，您已經咳多久了？」接著她又問了一連串問題，瞭解咳嗽的特徵與進展。她發現病人長期咳嗽，而且似乎急遽惡化，所以她詢問相關症狀以及引發或緩解的原因；她詢問了吸菸、接觸病患及已知肺部疾病等病史。她完整記錄了病史（包括藥物），並在病歷上繪製詳細的家系圖。她並記錄了婚姻狀態、目前生活情況及物質使用史等社會史項目，但她並未記錄職業史或旅遊史；她未對羅德里奎茲先生的文化背景表達關切，也沒有提及其健康信念。

當仲舒記錄完病史後，她說：「好，羅德里奎茲先生，我現在要為您做一下檢查。」她開始在胸壁上六個位置進行肺部聽診，先在襯衫內聽診，接著移到襯衫外聽上肺部區域。在肺部檢查時，她請病人「深呼吸幾次」，接著她聽心臟的四個區域；然後，她拿牆上的耳鏡檢查瞳孔對光的反應和眼球運動（請病人向上、向旁邊及向下看），她觀察口咽內部，接著裝上耳片（ear piece）觀察耳朵。她對腹部進行了簡短但適當的檢查，也檢查了皮膚是否有皮疹和足部是否有脈搏。她沒有發現顳肌萎縮或雙側頸部淋巴結腫大的情形。

在檢查後，仲舒告訴病人她跟醫療團隊討論完後再回來。當她要離開診療室時，羅德里奎茲先生拘謹地問她：「妳覺得是什麼引起咳嗽？」仲舒轉身回答：「我確定不是太嚴重的病，可能是上呼吸道感染或支氣管炎，也有些藥物會引起咳嗽，但您沒吃這些藥。我們可能會安排胸部X光檢查。」接著她走出診療室。

可信賴前之學習者的情境分析

1. 仲舒開始病史詢問，她用下面這段話作為開場白：「護理師說您有咳嗽，您已經咳多久了？」⇒未能展現出以病人為中心的面談技巧（未展現出主動聆聽技巧）。
2. 她並未記錄職業史或旅遊史。⇒未能有系統地獲取完整且正確的病史。
3. 她未對羅德里奎茲先生的文化背景表達關切，也沒有提及其健康信念。⇒未能有系

統地獲取完整且正確的病史

4. 當仲舒記錄完病史後，她說：「好，羅德里奎茲先生，我現在要為您做一下檢查。」她開始在胸壁上六個位置進行肺部聽診，先在襯衫內聽診，接著移到襯衫外聽上肺部區域。在肺部檢查時，她請病人「深呼吸幾次」，接著她聽心臟的四個區域；然後，她拿牆上的耳鏡檢查瞳孔對光的反應和眼球運動（請病人向上、向旁邊及向下看），她觀察口咽內部，接著裝上耳片（ear piece）觀察耳朵。她對腹部進行了簡短但適當的檢查，也檢查了皮膚是否有皮疹和足部是否有脈搏。⇒未能以符合邏輯且流暢的順序執行完整且正確的身體診察，因此錯失關鍵的身體診察發現。
5. 她沒有發現顳肌萎縮或雙側頸部淋巴結腫大的情形。⇒未能以符合邏輯且流暢的順序執行完整且正確的身體診察，因此錯失關鍵的身體診察發現。
6. 在檢查後，仲舒告訴病人她跟醫療團隊討論完後再回來。當她要離開診療室時，羅德里奎茲先生拘謹地問她：「妳覺得是什麼引起咳嗽？」仲舒轉身回答：「我確定不是太嚴重的病，可能是上呼吸道感染或支氣管炎，也有些藥物會引起咳嗽，但您沒吃這些藥。我們可能會安排胸部X光檢查。」接著她走出診療室。⇒未能使用分析性推理（依據直覺或由有限的能力所建立相關心智模式來作決定，而非依據適當資訊為之）[a1]。

註 1：原 AAMC 所訂 EPA 1 的活動描述中的「功能」含有此項。

可信賴前之學習者的情境教學影片

待製

4. 可信賴之學習者

可信賴之學習者的預期行為

此層級的學習者通常能夠蒐集準確完整的病史，亦可在緊急、危急或會診時蒐集焦點式病史。必要時，此種學習者可找出並利用病人本身以外的替代資訊來源，並視情況利用通譯服務確保充分溝通。可信賴之學習者能夠在病人就診時執行準確完整的身體診察或焦點式身體診察、發現並記錄異常結果，以及向醫療團隊說明此等結果。對可信賴之學習者而言，其可憑藉分析推理及活用先前基礎知識與臨床經驗之能力來決定採用完整或焦點式病史詢問及身體診察，並領導病人照護相關資訊的蒐集。此層級的學習者每次皆會使用以病人為中心的訪談技巧及身體診察技術，即使在承受壓力或疲勞的情況下，仍可對病人表現尊重、洞悉病人的情緒反應、感受每位病人獨特的背景與需求，並且能夠進行雙向溝通。

可信賴之學習者的情境

仲舒輪訓到基層醫療團隊提供的免費診所看診。今天她的第一位病人是羅德里奎茲先生，他的護理檢傷分類單上記錄的主訴為咳嗽。羅德里奎茲先生是第一次到該診所就診。仲舒進入診療室前，她先問護理師是否需要通譯；護理師告知，雖然病人的母語是西班牙語，但他用英語溝通無礙。仲舒走進檢查室時，羅德里奎茲先生衣著整齊地坐在檢查台上，仲舒關上門，並請病人坐在椅子上詢問其病史。仲舒把凳子拖過來，以便坐著面對病人。她詢問羅德里奎茲先生是否介意她在談話時寫一些筆記。接著，仲舒用下面這段話作為開場白，開始詢問病史：「羅德里奎茲先生，很高興見到您，我的名字是唐仲舒，您可以叫我唐醫師，我跟基層醫療團隊一起工作，您今天是為什麼來看診呢？」病人表示是因為咳嗽就診，她說：「請多告訴我一些您咳嗽的情況。」並且利用複誦她聽到的話、彙整要點及詢問後續問題等技巧，引出病史的相關細節。她發現病人長期咳嗽，而且似乎急遽惡化，因此她詢問咳嗽相關症狀和潛在診斷的相關症狀，例如胃食道逆流、過敏性鼻炎、氣喘及惡性腫瘤等；她也發現不同診斷的重要風險因子，例如職業史、旅遊史及酒精使用等。她詳細記錄了病史，包括處方藥/成藥/其他藥品或藥物的使用情形、相關家族病史、社會生活史，以及過敏相關資訊（含過敏反應）。她特地詢問羅德里奎茲先生咳嗽的可能成因，還有他是否看過其他治療師或醫師。她發現，他看過一個非正統的治療師，而且嘗試過蓋和毛蕊花（mullein）茶等民俗療法。她詢問以下問題作為總結：「羅德里奎茲先生，您覺得我在您的病史或咳嗽相關敘述方面有沒有漏了重要的事呢？」當她記錄完病史後，她說：「好，羅德里奎茲先生，我現在要為您做完整的檢查，我現在出去，讓您換上檢查衣，檢查衣就放在這個抽屜裡，我等下就回來，您現在還有需要什麼嗎？」仲舒旋即走到走廊，並關上身後的門。她返回診療室後，說：「羅德里奎茲先生，我要從頭到腳幫您做一次完整的檢查。進行每項檢查時，我會為您解釋我在做什麼，但您有什麼問題也可以問我。」她從檢查頭部、眼睛、耳朵和喉嚨開始，在每個步驟中觸碰病人前，都先告知病人她在做什麼，她注意到病人有顳肌萎縮的情形，並且詢問病人最近體重減輕的情況，也問了些飲食的情況。她還注意到頸部淋巴結腫大，並詢問病人壓痛的情況和症狀持續時間。她執行了完整肺部檢查，她要病人脫掉或移動檢查衣，這樣她才可以在每一個點直接聽診。她在聽診後執行聽羊鳴音（egophony）與叩診等較詳細的檢查。她做完了其餘檢查，每個部分都貫徹執行，而且不斷告訴病人她在做什麼。在檢查過程中，她對覆蓋身體以及病人的羞怯感（modesty）與舒適感相當注意。

在檢查後，仲舒告訴病人她跟醫療團隊討論完後再回來。她問羅德里奎茲先生檢查時是否有想到其他事，以及羅德里奎茲先生是否有任何進一步的問題。當她要離開診療室時，羅德里奎茲先生拘謹地問她：「妳覺得是什麼引起咳嗽？」仲舒回頭，再次關上門，坐在凳子上來回答問題。她先問：「有什麼事讓您擔心嗎？」羅德里奎茲先生承認他擔心得癌症。仲舒向病人再次說明有幾種原因會引起慢性咳嗽，例如上呼吸道咳嗽症候群、胃食道逆流、氣喘、過敏、慢性支氣管炎、原發性肺部疾病及慢性感染等，她向病人解釋，她問那麼多問題的原因，就是要找出潛在病因的蛛絲馬跡，並表示，慢性咳嗽可能是肺癌的表現之一。她向病人保證她會和醫療團隊討論症狀及身體診察結果，且將安排檢查以找出原因。她再次詢問是否有進一步的問題，並表示她馬上就回來。接著她走出診療室。

可信賴之學習者的情境分析

1. 仲舒進入診療室前，她先問護理師是否需要通譯；護理師告知，雖然病人的母語是

西班牙語，但他用英語溝通無礙。⇒能展現出以病人為中心的面談技巧（能注意通譯服務的需求）。

2. 仲舒把凳子拖過來，以便坐著面對病人。她詢問羅德里奎茲先生是否介意她在談話時寫一些筆記。⇒能展現出以病人為中心的面談技巧（展現出主動聆聽技巧）。
3. 接著，仲舒用下面這段話作為開場白，開始詢問病史：「羅德里奎茲先生，很高興見到您，我的名字是唐仲舒，您可以叫我唐醫師，我跟基層醫療團隊一起工作，您今天是為什麼來看診呢？」⇒能展現出以病人為中心的面談技巧（展現出主動聆聽技巧）。
4. 病人表示是因為咳嗽就診，她說：「請多告訴我一些您咳嗽的情況。」並且利用複誦她聽到的話、彙整要點及詢問後續問題等技巧，引出病史的相關細節。能有系統地獲取完整且正確的病史。
5. 她發現病人長期咳嗽，而且似乎急遽惡化，因此她詢問咳嗽相關症狀和潛在診斷的相關症狀，例如胃食道逆流、過敏性鼻炎、氣喘及惡性腫瘤等；她也發現不同診斷的重要風險因子，例如職業史、旅遊史及酒精使用等。⇒能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素。
6. 她詳細記錄了病史，包括處方藥/成藥/其他藥品或藥物的使用情形、相關家族病史、社會生活史，以及過敏相關資訊（含過敏反應）。⇒能有系統地獲取完整且正確的病史。
7. 她特地詢問羅德里奎茲先生咳嗽的可能成因，還有他是否看過其他治療師或醫師。她發現，他看過一個非正統的治療師，而且嘗試過蓽和毛蕊花（mullein）茶等民俗療法。能展現出以病人為中心的面談技巧（注意病人/家屬的文化、影響健康狀況的社會因素）。
8. 她詢問以下問題作為總結：「羅德里奎茲先生，您覺得我在您的病史或咳嗽相關敘述方面有沒有漏了重要的事呢？」⇒能有系統地獲取完整且正確的病史。
9. 她返回診療室後，說：「羅德里奎茲先生，我要從頭到腳幫您做一次完整的檢查。進行每項檢查時，我會為您解釋我在做什麼，但您有什麼問題也可以問我。」⇒能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧（能解釋身體診察的程序和做法、每一步都有告知病人檢查者要做的是什麼、在檢查過程中能儘量遮蔽身體以免不必要的暴露）。
10. 她從檢查頭部、眼睛、耳朵和喉嚨開始，在每個步驟中觸碰病人前，都先告知病人她在做什麼，她注意到病人有顳肌萎縮的情形，並且詢問病人最近體重減輕的情況，也問了些飲食的情況。她還注意到頸部淋巴結腫大，並詢問病人壓痛的情況和症狀持續時間。她執行了完整肺部檢查，她要病人脫掉或移動檢查衣，這樣她才可以在每一個點直接聽診。她在聽診後執行聽羊鳴音（egophony）與叩診等較詳細的檢查。她做完了其餘檢查，每個部分都貫徹執行，而且不斷告訴病人她在做什麼。⇒能以符合邏輯且流暢的順序執行完整且正確的身體診察。能辨識出病人身體診察的異常發現且能口述和記錄這些異常。
11. 在檢查過程中，她對覆蓋身體以及病人的羞怯感（modesty）與舒適感相當注意。⇒能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧（能解釋身體診察的程序和做法、每一步都有告知病人檢查者要做的是什麼、在檢查過程中能儘量遮蔽身體以免不必要的暴露）。
12. 當她要離開診療室時，羅德里奎茲先生拘謹地問她：「妳覺得是什麼引起咳嗽？」仲舒回頭，再次關上門，坐在凳子上來回答問題。她先問：「有什麼事讓您擔心嗎？」羅德里奎茲先生承認他擔心得癌症。⇒能呈現對病人的同理心，用心聆聽和了解病人心中最關注的事。
13. 仲舒向病人再次說明有幾種原因會引起慢性咳嗽，例如上呼吸道咳嗽症候群、胃食道逆流、氣喘、過敏、慢性支氣管炎、原發性肺部疾病及慢性感染等，她向病人解釋，她問那麼多問題的原因，就是要找出潛在病因的蛛絲馬跡，並表示，慢性咳嗽可能是肺癌的表現之一。⇒以焦點式蒐集病人照護的資訊時能展現出臨床推理能力。
14. 她向病人保證她會和醫療團隊討論症狀及身體診察結果，且將安排檢查以找出原因。她再次詢問是否有進一步的問題，並表示她馬上就回來。接著她走出診療室。⇒呈現出文化認知與謙遜（例如：知悉自己的文化模式可能與別人不同）以及認知在病人互動時的潛在偏見（意識的和無意識的）。[註1]

註1：原 AAMC 所訂 EPA 1 的活動描述中的「功能」含有此項。

可信賴之學習者的情境教學影片

待製

5. 教學活動

臨床照護

在臨床照護的過程中，教師須言教和身教並行，講授、示範和實踐本項 EPA 所述的可信賴之學習者的預期行為，並把握每個臨床案例的教學機會與學員討論和思辨。

教學門診

教學門診在傳統上採用「Brief」－「Huddle」－「Debrief」的三部曲模式：(1) 教師向學生說明學習目標、程序和注意事項；(2) 學生先行看診，教師全程監督看診過程，必要時予以提示，並於學生看診後再作補充，使病人的診療不受任何影響；(3) 看診後進行討論，包括反思和回饋。

教學門診是教導 EPAs 和 ACGME 六大核心能力的重要教學活動，在教學過程中除了醫學知識和病人照護不用刻意安排即會教到之外，其他四項必須了解其中限制並先行規劃。本 EPA 兩個項目－病史詢問及身體診察是必要的學習項目，只需教師能掌握各個學習目標即不難執行。惟若教師要教導學生某些特定的溝通技巧，如聆聽技巧、同理心的運用、解釋病情及衛教、知情同意、與病人共享決策等，教師須先與學生討論看診時將會使用到哪些溝通技巧，以及施展這些技巧時須注意的事項，並在指導學生看診時徵得病人同意示範給學生看，然後再作討論。如可能的話邀請病人參與討論並述說他的感受則效果更佳。若教師要教導學生人際技巧，如教師與學生、病人以及陪診護理人員

之間的互動，須以身教來展現出關懷、體恤、熱情、友善、誠懇、謙卑、尊重、有禮、包容、合群，以及積極進取和正向思維的態度，並在反思與回饋的時間再作出討論。

所有學習在結束前應儘可能留下一些時間給學生反思然後教師給予回饋，教學門診也不例外。在教學門診看完最後一個病人並完成該案例的討論之後，教師請學員用十至十五分鐘的時間撰寫一百至二百字的學習心得，內容是對此次學習反思的收穫，然後輪流發表。教師和同組其他學生須用心聆聽，再由學生對同學作簡短的回饋，最後由教師向每一個學生進行回饋，包括學習過程的表現、反思的內容及對其他同學回饋的深度等，學生須將教師對自己的回饋記錄在學習護照或相關表單之中，教師確認內容後簽名，若須給予評分亦在此時完成。

教學住診

傳統的教學住診常以「教室」—「床邊」—「教室」三個部驟為架構，但卻可有多重變異，並非一成不變，在此提供的僅為其中一個例子。

進行教學住診之前，教師須先詳閱病歷，訂出學習目標及準備給學生課後閱讀的參考資料。

在進行第一回「教室」部分時負責照護病人的學生或學員報告病史，教師宜事前訂出報告內容，可節省時間及減少因當場指正引發之防衛心。在報告完之後，教師可參照 case-based discussion（CbD）的方式，以"Why"和"How"來提問，藉以說明和討論本 EPA 的可信賴之學習者的預期行為。並由教師或學生/學員引領，針對有爭議性或有興趣的地方作更進一步的討論，並訂出到「床邊」看病人的目的、過程及注意事項，並稍作沙盤推演（包括分配任務及訂出各項目的順序），當然包括本 EPA 的可信賴之學習者的預期行為。

到「床邊」詢問及檢查病人時，須注意尊重、隱私和衛生（洗手、檢查器具消毒），以及自我介紹及教學的知情同意。依先前訂出「床邊」學習的目標進行與病人互動和學習，並時刻注意病人的感受及呈現同理心。此過程常是住診教學留下最深回憶的部份。

最後是重返「教室」作最後討論。首先由教師回顧各學習議題（包括本 EPA 的可信賴之學習者的預期行為），再由學員針對學習議題及學習過程進行反思及分享（記錄於 portfolio 的學習心得內容中），最後由教師作出回饋及總結。

6. 評估方式

常用於評估「蒐集病史及執行身體診察」的評估方法包括 Mini-CEX、CbD 和 OSCE，其執行重點分述如下：

Mini-CEX 評估「蒐集病史及執行身體診察」

由美國內科學會發展出來的 mini-CEX 除了諮商技巧和整體能力之外，其餘五個評分項目均針對本項 EPA 進行評量。本 EPA 活動描述的項目應列入評估參考，評估者藉由觀察學習者是否做到這些行為而可對本項 EPA 作出「信賴決定」。

1. 面談技巧：
   a. 能展現出以病人為中心的面談技巧
   b. 能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素
   c. 在急症、危急和會診等不同場境能依病人狀況獲取相關的焦點式病史
   d. 考量文化及其他影響病人描述其症狀的因素[註1]
2. 身體診察：
   a. 能執行與場合和病人問題相關的焦點式身體診察
   b. 能辨識出病人身體診察的異常發現且能口述和記錄這些異常
3. 臨床判斷：
   a. 以焦點式蒐集病人照護的資訊時能展現出臨床推理能力
   b. 能使用分析性推理和引用先前的知識來引領診療程序
   c. 能將當下的發現與先前病人的發現相聯結
4. 組織效能：
   a. 能有系統地獲取完整且正確的病史
   b. 能以符合邏輯且流暢的順序執行完整且正確的身體診察
5. 人道專業：
   a. 能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧
   b. 呈現出文化認知與謙遜以及認知在病人互動時的潛在偏見[註1]

註 1：原 AAMC 所訂 EPA 1 的活動描述中的「功能」含有這些項。

CbD 評估「蒐集病史及執行身體診察」

依據英國 NHS 為 Foundation Programme 設計的 CbD，第二個評估項目為「臨床評估」（clinical assessment）的兩個評估要點為：（1）能討論如何了解病人的故事；（2）能討論如何經由進一步的提問及合適的身體診察作出臨床評估，並以此訂出進一步的計畫。評估者以"Why"和"How"的提問來了解學習者是否做到活動描述的項目而可對本項 EPA 作出「信賴決定」。

OSCE 評估「蒐集病史及執行身體診察」

病史詢問及身體診察是 OSCE 主要的測驗內容，在一場 12 至 15 題的 OSCE 當中這兩個項目可能涉及近半的題目。各教學醫院在設計畢業後一般醫學訓練的 OSCE 時，可選擇本項 EPA 的可信賴之學習者的期待行為列為評分項目，在規劃 OSCE 藍圖應包括考量將相關期待行為的評分項目分配到不同的考題中。

在可信賴之學習者的期待行為的項目中，以下每一項都應予特別規劃列入考題：

1. 能有系統地獲取完整且正確的病史：安排較長站的病史詢問考題，而病人病情複雜。
2. 能展現出以病人為中心的面談技巧：案例為外國人、外籍配偶、身心障礙或特殊身分的病人。

3. 能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素：案例為鑑別診斷眾多的常見狀況，如不明熱、體重減輕、譫妄/意識障礙、腹痛等。
4. 在急症、危急和會診等不同場境能依病人狀況獲取相關的焦點式病史：案例為急症、病危及照會等情況，任務包括焦點性病史詢問。
5. 能將當下的發現與先前病人的發現相聯結：將重要線索隱藏在過去病史，需經由病史詢問或資料閱讀及分析，再加上當時病況發展才能作出正確的鑑別診斷。
6. 以焦點式蒐集病人照護的資訊時能展現出臨床推理能力：除主訴之症狀之外，案例有第二甚至第三症狀或狀況，考生任務為使考生在焦點式病史詢問，若非臨床推理得宜，便不會發現第二、三症狀或狀況。

身體診察方面，每題相關考題的評分項目，都應考量下列各項：

1. 能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧。
2. 能以符合邏輯且流暢的順序執行完整且正確的身體診察。
3. 能執行與場合和病人問題相關的焦點式身體診察。
4. 能辨識出病人身體診察的異常發現且能口述和記錄這些異常。

附件一、四個月一般醫學內科課程剛要

一、訓練內容及目標

1. 一般醫學基本能力

(1) 病史詢問、身體診察、鑑別診斷之技巧（EPA 1 & EPA 2）

病史詢問：

1. 能展現出以病人為中心的面談技巧（注意病人口語及非口語線索、病人/家屬的文化背景、影響健康狀況的社會因素、對解讀或調適服務的需求，以及展現出主動聆聽技巧）
2. 能有系統地獲取完整且正確的病史
3. 能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素（如症狀須了解 LQQ OPERA；已知疾病須知道診斷時間和依據、治療方法和效果、併發症、伴隨風險四要項）
4. 在危急、急症和會診等不同情境能依病人狀況獲取相關的焦點性病史
5. 在有需要時，能尋找及使用其他資訊來源來取得病史，包括家屬、基層醫師、生活設施和藥房人員等

身體診察：

1. 能以符合邏輯且流暢的順序執行完整且正確的身體診察
2. 能執行與場合和病人問題相關的焦點性身體診察
3. 能辨識病人身體診察的異常發現且能口述和記錄這些異常
4. 能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧（能解釋身體診察的程序和做法、每一步都有告知病人檢查者要做的是什麼、在檢查過程中能儘量遮蔽身體以免不必要的暴露）

鑑別診斷：

1. 能聯結當下的發現和先前的數據一起思考
2. 能從多種來源蒐集資訊提出鑑別診斷，既不太寬，也不太窄
3. 能整合現有的和新獲得的資訊，不斷更新鑑別診斷
4. 了解自己知識的界限、個人的長處和弱點
5. 了解何時照會上級和團隊成員，且勇於向醫療小組的其他成員尋求援助
6. 能提供完整且簡潔的紀錄，以利其他照護人員有充分證據用作臨床推理，以確保醫療服務的連貫性

此外，能對下列症狀或徵候進行鑑別診斷：

發燒、呼吸困難、胸痛、頭痛、排便異常、體重減輕、關節痛、下背痛、貧血、全身倦怠、心悸、寡尿、黃疸、食慾不振、皮疹、焦慮、憂鬱、頭暈、睡眠障礙等。

(2) 熟習與病人、家屬及醫療團隊成員之溝通技巧及人際關係，且能稱職地作為一個跨專業團隊的成員（EPA 9）

1. 能置團隊目標優先於個人專業目標
2. 能了解其他團隊成員的角色、尋求他們的諮商、主動地聆聽他們的建議，以及將他們融入執業中
3. 能進行雙向溝通，能提供所有團隊成員最新資訊
4. 能參照溝通對象和所處情境來調整溝通的內容和方式
5. 能認知自己和其他人的情緒
6. 能主動地將病人和其他團隊成員融入合作照護，使照護者之間及不同單位間可提供無縫的交接

註：特別著重應用 empathy 的訓練

(3) 落實醫學倫理與醫療法規訓練於臨床照護，能針對常見之臨床倫理問題進行分析和決策（EPA 14）

1. 熟悉生命倫理原則
2. 熟悉研究倫理，包括研究誠信（research integrity，學術倫理）及人體研究參與者的保護
3. 熟悉行醫相關的法律，應用於臨床醫療和倫理決策
4. 能辨識在臨床醫療照護中遭遇到的倫理議題，並提出討論
5. 能使用如 four topic approach 等方法進行倫理分析和決策
6. 能執行自己所作的倫理決策和行動，並能針對決策和行動進行反思和改進

(4) 落實實證醫學訓練於臨床照護，能由臨床問題及取得的證據提升病照護（EPA 7）

1. 能了解自己知識的欠缺和病人的需要，因而尋求協助或搜尋新的資訊
2. 能提出相關的臨床問題：
   (1) 能因應臨床情境和病人照護所需提出優質而聚焦的臨床問題
   (2) 展現出好奇心、客觀性和科學推理能力
   (3) 能運用認知程序：去除不相關因素、識別未知之處，以及經由即時學習來獲得知識，進而產生解決方法
3. 蒐集及評估證據：
   (1) 認識各種醫療資訊資源，並具有初步的評讀技巧
   (2) 能利用資訊科技來蒐集及評估資訊
   (3) 所搜尋到的資訊量能足以處理
   (4) 能評估資訊的可用性
4. 能應用證據來進行改善：
   (1) 搜尋及評讀所得的發現可經由與團隊和病人的溝通來應用，需要時改變病人照護的方式或程序
   (2) 能對辨識、解答問題和尋求改善的程序進行反思

註：學習方式必須包括小組案例討論及病房迴診教學。

(5) 學習分析醫療品質之良窳及改進之道，能辨識系統問題及參與改善（EPA 13）

1. 能辨識已存在或潛在的系統失誤
2. 能履行常規的安全行為（如一般預防措施、洗手）
3. 了解防範失誤對個別病人和系統的重要性
4. 對失誤能盡自己角色上的責任
5. 能於適當時機暫緩步調，對自己的工作進行反思
6. 能依靠外在資訊來源來了解自身的病人族群
7. 在發生已存在或潛在的系統失誤時能使用報告系統進行報告
8. 自願參與系統改善活動
9. 當擔心一項潛在的失誤時，縱使或會引起上級質疑或挑戰，都能明確地表達
10. 能認知自身的疲倦，並能調整工作或尋求協助

註：安排專家介紹醫療品質之相關內容，必須包括如何達成各項「病人安全」及「工

作安全」目標及跌倒之預防處置與衛教。

(6) 負責任地執行交接班（EPA 8）
1. 能使用「固定模式」(如：iSBAR、I PASS the BATON或按照醫院制定的交班代表等）進行交班
2. 能注意交班的時間和地點，避免受到干擾
3. 交班內容充分，且經過組織，依重要性排序
4. 參與轉診及出院準備實務，能製作簡明扼要的出院摘要

2. 病人照護

(1) 開立醫囑和處方（EPA 4）
1. 能認知所面對的問題和有周全的考量，熟知相關的風險和利益
2. 能遵照相關治療指引和流程，但保留彈性
3. 能依據病人身、心和社經狀況的需求而調整（特別需要熟習高齡病人的診斷、治療及其他注意事項）
4. 注意成本效益和病人的意願
5. 能與病人、家屬和醫療團隊溝通
6. 認知自己能力的界限，在需要時能尋求協助，包括能使用電子資源來填補知識的欠缺（如藥物交互作用、治療指引），確保能輸入安全的醫囑
7. 能了解及回應醫療作業系統的安全警訊

(2) 病歷記錄（EPA 5）
1. 能依時完成紀錄使其他團隊成員可以參閱
2. 病歷內容具全面性，涵蓋應有的資訊，但不含不必要的細節或贅述
3. 內容包括病人在身、心、社會層面的問題
4. 能記載臨床推理，並能正確地判讀實驗室數值
5. 記錄呈現充分的雙向溝通，有考量病人的意願
6. 能包含在制度上需要的元素（如日期、時間和簽名）

(3) 案例報告和病情說明（EPA 6）
A. 案例報告
1. 能作出資訊充分、簡要、有組織性和精確的案例報告
2. 能有效率地述說故事，並以論據來支持所訂的診療計畫
3. 不迴避困難或有壓力的議題
4. 對不確定的領域能作出反思，並尋求進一步的資訊
5. 能指出自己在知識或技能上的不足而尋求協助
6. 承認在資訊上的不足，不會因而有防衛心態
7. 能對病人隱私和保密的尊重
8. 熟悉感染症、法定及新興傳染病之基本概念及學識及法定傳染病的通報

B. 病情說明及衛教
1. 能依現場狀況及聆聽者的背景來調整說明
2. 能避免醫學術語
3. 說明過程中能主動邀請病人、家屬參與，能做到雙向溝通
4. 遇到困難狀況能運用合宜的溝通技巧，包括應用empathy
5. 能以上述方式向病人及家屬進行常見疾病之飲食指導及衛教

(4) 知情同意（EPA 11）
1. 了解知情同意對醫病關係的建立和共享決策的重要性
2. 了解知情同意的元素（適應症、禁忌、風險、利益、其他替代措施）及能指出哪些程序在取得知情同意時適用這些元素
3. 能提供病人和家屬完整的資訊
4. 與病人和家屬溝通時能避免使用醫學術語
5. 能使用雙向溝通告知病人和家屬以及徵詢他們意見和問題
6. 能徵詢病人/家屬的意願使他們參與共享決策
7. 能認知他人情緒的線索（如：驚恐、憤怒焦慮、）並能即時處理或尋求醫療照護團隊的協助
8. 對於不確定處能尋求上級指導
9. 能按時完成知情同意的紀錄

(5) 緊急情況的處置（EPA 10）
1. 能依從機構程序和計畫
2. 能判讀病人的生命徵，且能考量年齡和個人差異等因素
3. 蒐集、過濾、排序和連結片段的資訊（如：生命徵、焦點式身體診察、相關病史、最近的檢查和用藥）來形成病人特定的鑑別診斷、啟動介入措施和引導檢查的決定
4. 能判讀常用檢驗的結果以預知臨床狀況惡化及作出及早處置
5. 以頻密的再評估來啟動介入措施和檢查，藉以決定需要協助的水平和預計後續的步驟
6. 能與醫療照護團隊及家屬作雙向溝通而能達成共享決策
7. 能依據團隊成員的角色和責任來運作，藉以提升工作效率
8. 向醫療照護團隊其他成員提供病人資訊時，能作出焦點式、簡明而精確的報告
9. 了解並認知個人能力界限、情緒和偏見，能在需要時尋求協助
10. 病人情況惡化須作下一步決策時，能主動聆聽團體成員（如：護理人員、家屬）的意見
11. 能在病歷上完整地記錄臨床狀況
12. 在臨床狀況結束後，能尋求上級指引和回饋

註：於訓練完畢時應熟悉下列病態或疾病的處理：
敗血症、意識障礙/譫妄症、腦血管疾病、慢性阻塞肺病、下呼吸道感染、糖尿病、高血壓、冠狀動脈心臟病、瓣膜性心臟病、心臟衰竭、肝炎、肝硬化、消化道出血、血尿、呼吸衰竭、氣喘、尿路感染、腎衰竭、結核病、蜂窩組織炎/丹毒、褥瘡、安寧照護（含生死學、臨終照護）等。

3.臨床技能
(1) 常用診斷性和篩選性檢查的開立和判讀（EPA 3）
1. 對常見的急性或慢性狀況能開立適當且符合成本效益的檢驗項目
2. 能解釋每項檢查的結果
3. 能提出開立的理由（包括考慮成本和病人資源）
4. 能正確地判讀常用的實驗室和影像學檢查的異常結果
5. 能區別臨床上重要的異常與常見而不具臨床意義的異常

註：能判讀下列各項：

a. 全血球計數、血尿糞常規檢查、酸鹼及電解質異常、生化檢查、動脈血血液氣體分析、心臟酶檢查、肝炎標記、體液檢查。
b. 靜態心電圖、心電圖監測、胸部 X-光、腹部 X-光、骨骼關節 X-光、腦部電腦斷層。

(2) 特殊檢查及操作技能（EPA 12）

1. 了解操作程序的適應症、禁忌、風險、利益及其他替代措施
2. 了解程序的併發症，並能採取行動來避免
3. 能準備操作程序所需的物品
4. 能執行操作程序所需的無菌技巧、麻醉及止痛
5. 能展現「可信賴」的操作技巧來執行程序
6. 遇到需要協助時會尋求協助
7. 在執行程序時能展現以病人為中心的技巧：避免醫學術語，病人可經由學員口述而了解程序；對於程序的執行，能與病人進行分享決策；具備與知識和技術水平相稱的自信，能令病人寬心；能同時注意程序執行過程和病人的情緒反應
8. 能按時完成所需紀錄

註：下列各項為必備之技能

1. 輸血反應之判讀與處置
2. 呼吸道照護（含氣管內管插入及照護）
3. 各類感染標本採集、運送及檢查方法
4. 其他技能：高級心肺復甦術、腰椎穿刺、中央靜脈導管置入與照護等、腹水抽吸。

二、教學活動

EPAs	教學活動
1. 病史詢問與身體診察	臨床照護、教學門診、教學住診
2. 鑑別診斷	案例討論、臨床照護、教學門診、教學住診
3. 檢查的開立和判讀	案例討論、臨床照護、教學門診、教學住診
4. 開立醫囑和處方	案例討論、臨床照護、教學門診、教學住診
5. 病歷記錄	授課、案例討論、臨床照護、教學門診、教學住診
6. 案例報告和病情說明	授課、案例討論、臨床照護、教學門診、教學住診
7. 應用實證醫學	授課、案例討論、臨床照護、健康照護矩陣的應用
8. 執行交接班	臨床照護
9. 團隊合作	授課、演練、臨床照護
10. 緊急情況的處置	授課、演練、臨床照護
11. 知情同意	授課、臨床照護
12. 檢查及操作技能	授課、演練、臨床照護
13. 辨識系統問題及參與改善	授課、演練、臨床照護
14. 應用醫學倫理與醫療法規	授課、演練、臨床照護、教學住診

1. 授課：病歷寫作、案例報告和病情說明、實證醫學、團隊合作、緊急情況的處置、知情同意、檢查及操作技能、辨識系統問題及參與改善、醫學倫理與醫療法規
2. 演練：團隊合作、緊急情況的處置、檢查及操作技能、辨識系統問題及參與改善、醫學倫理與醫療法規
3. 案例討論（含 M & M conference 及 CPC）：鑑別診斷、檢查的開立和判讀、開立醫囑和處方、病歷記錄、案例報告和病情說明、實證醫學
4. 教學門診：病史詢問與身體診察、鑑別診斷、檢查的開立和判讀、開立醫囑和處方、病歷記錄、案例報告和病情說明
5. 教學住診：病史詢問與身體診察、鑑別診斷、檢查的開立和判讀、開立醫囑和處方、病歷記錄、案例報告和病情說明、醫學倫理與醫療法規
6. 健康照護矩陣的應用：會議討論案例、團隊內討論案例、個人反思案例（導師輔導）
7. 臨床照護：14 種 EPAs

三、評估方式

EPAs	評估方式
1. 病史詢問與身體診察	Mini-CEX、CbD、OSCE
2. 鑑別診斷	筆試、Mini-CEX、CbD、OSCE
3. 檢查的開立和判讀	CbD
4. 開立醫囑和處方	CbD
5. 病歷記錄	CbD、病歷抽審
6. 案例報告和病情說明	CbD、教學活動觀察
7. 應用實證醫學	筆試（Fresno test）、教學活動觀察
8. 執行交接班	CbD、360 度評估
9. 團隊合作	CbD、360 度評估
10. 緊急情況的處置	OSCE
11. 知情同意	CbD、OSCE、360 度評估
12. 檢查及操作技能	DOPS、OSCE
13. 辨識系統問題及參與改善	CbD、OSCE、360 度評估
14. 應用醫學倫理與醫療法規	筆試、CbD、OSCE

1. 筆試：鑑別診斷、實證醫學（Fresno test）、醫學倫理與醫療法規
2. Mini-CEX：病史詢問與身體診察、鑑別診斷
3. DOPS：檢查及操作技能
4. CbD：病史詢問與身體診察、鑑別診斷、檢查的開立和判讀、開立醫囑和處方、病歷記錄、案例報告和病情說明、執行交接班、團隊合作、知情同意、辨識系統問題及參與改善、醫學倫理與醫療法規
5. OSCE：病史詢問與身體診察、鑑別診斷、緊急情況的處置、知情同意、檢查及操作技能、辨識系統問題及參與改善、醫學倫理與醫療法規
6. 360 度評估：執行交接班、團隊合作、知情同意、辨識系統問題及參與改善
7. 病歷抽審：病歷記錄
8. 教學活動觀察：案例報告和病情說明、應用實證醫學

基本要求

1. 每月至少 1 例相關醫學倫理討論、實證醫學應用、醫療品質或感染管制討論事項。
2. 病人照顧以每日平均照顧 6～14 例為原則。
3. 安排課程有 60%以上係實際操作或病人照顧。
4. 值班訓練應兼顧病人安全且值勤時數安排適當，並符合衛生福利部「住院醫師勞動權益保障參考指引」之規範。
5. 訓練單位對於學員值班接新病人數應有規範或相關管理機制。

備註：

受訓學員需參加內科學術活動包括：晨會、Grand round、住診教學（teaching round）、文獻研讀會、病例討論會、併發症及死亡病例討論會（mortality and morbidity meeting）、跨科（外科、病理科、放射線科等）討論會

（由各訓練單位依本身條件自行規劃，學員之出席情形應列入評核）

各訓練課程結束時必要評估項目如下：

評估方式 / 訓練課程	Mini-CEX	CbD	DOPS	360 度評量	其他
3 個月一般醫學內科	至少 3 次	至少 1 個	—	至少 1 次 (註 1)	—
2 個月一般醫學外科	—	至少 1 個	至少 2 次	至少 1 次 (註 1)	—
1 個月急診醫學科	至少 1 次	—	—	—	至少 1 次(註 3)
1 個月一般醫學兒科	至少 1 次	至少 1 個	—	至少 1 次 (註 2)	—
1 個月一般醫學婦產科	—	—	至少 1 次	至少 1 次 (註 2)	—
2 個月社區醫學科	—	—	—	—	口試 (註 4)
1 個月一般醫學內科	至少 1 次	至少 1 個	—	至少 1 次 (註 2)	—
1 個月選修科：外科、婦產科、骨科、神經外科、泌尿科、整形外科、急診醫學科	—	—	至少 1 次	至少 1 次 (註 2)	—
1 個月選修科：耳鼻喉科、眼科、麻醉科、內科、兒科、皮膚科、神經科、精神科、復健科、家庭醫學科、職業醫學科、放射診斷科、放射腫瘤科、解剖病理科、臨床病理科、核子醫學科	至少 1 次 (註 5)	至少 1 個 (註 5)	—	至少 1 次 (註 2)	—

註1： 註 1：360 度評量至少應包含同儕、護理人員、臨床教師、病人等對象對受訓學員之評估。

註2： 360 度評量至少應包含臨床教老師、護理人員/其他醫事人員、同儕等對象對受訓學員之評估。

註3： 臨床指導老師對受訓學員之評估。

註4： 每位受訓學員必須在社區導師的指導下，選擇一項以訓練所在社區為基礎之「社區健康議題」，進行資料蒐集與議題瞭解，並提出及報告此議題的解決建議方向。

註5： 訓練醫院於 1 個月選修科：放射診斷科、放射腫瘤科、解剖病理科、臨床病理科、核子醫學科之評估，若無法執行 Mini-CEX 或 CbD 評估，則可以 DOPS 或其他之評估方式代替。

附件二、EPA 的內容（為協助課程發展而設計）

我們參考AAMC的格式來展示每一項EPA：

除EPA名稱之外[註1]，包括下列幾項：

1. **活動描述**：包括簡短的理由和列出可信賴之學習者在該EPA所呈現的預期行為。[註2]
2. **最相關的能力領域**：我們選用ACGME的六大核心能力。[註3、4]
   - 病人照護及操作程序（Patient Care and Procedural Skills）
   - 醫學知識（Medical Knowledge）
   - 執業中的學習與改進（Practice-based Learning and Improvement）
   - 人際及溝通技巧（Interpersonal and Communication Skills）
   - 制度下執業（Systems-based Practice）
3. **可信賴前之學習者的介紹**：可信賴前之學習者的預期行為、可信賴前之學習者的情境、可信賴前之學習者的情境分析、可信賴前之學習者的情境教學影片。[註5]
4. **可信賴之學習者的介紹**：可信賴之學習者的預期行為、可信賴之學習者的情境、可信賴之學習者的情境分析、可信賴之學習者的情境教學影片。[註5]
5. **教學活動**[註6]
6. **評估方式**[註6]

註1：為符合KISS精神，EPA內容項目不必贅述EPA的名稱（EPA Title）。

註2：AAMC在每項EPA的活動描述中所述的功能（functions）與課程發展指引附件的可信賴之學習者的預期行為內容相近卻不完全相同，且頗嫌不足。為避免讀者混淆，我們在EPA的活動描述採用可信賴之學習者的預期行為而不用所謂的功能。

註3：最相關的能力領域：由於國內臨床醫學教師已熟悉ACGME的六大核心能力，而AAMC採用的八大核心能力的差別僅為將個人及專業發展及團隊合作獨立出來，並沒有獨特之處，故我們選用ACGME的六大核心能力作為最相關的能力領域的選項。此外，AAMC於各核心領域之下設立多項次能力，其描述與各EPAs的可信賴之學習者的預期行為相近卻不完全相同，使課程發展指引編幅大增卻毫無助益，徒增課程設計者之困擾，故予以刪除。

註4：「課程發展」（學員對某一EPA得到信賴在知識、技能和態度等需要哪些標桿？該EPA在課程中何時教導？該EPA如何評估？）及「信賴決定」（由何人決定？如何決定？）兩項AAMC參考Olle ten Cate的做法將其列入每個EPA之下，並不實用。因為一項課程通常包括多項EPAs，而每項練EPA可經由不同的或綜合性的過程來進行所謂的「信賴決定」，故難以在每項EPA之下獨立列出。故此兩項不在各EPA之下多作陳述。

註5：可信賴前及可信賴之學習者的介紹在AAMC的課程發展指引中佔有很大的篇幅，卻沒有列出於EPA的內容項目中。

註6：本工作小組研擬增加之項目。

附件三、可信賴之學習者的預期行為

EPA 1 蒐集病史及執行身體診察

1. 蒐集資訊及身體診察
   - 能有系統地獲取完整且正確的病史
   - 能針對常見的狀況、症狀、主訴、疾病狀態（急性和慢性）辨識出相關的病史元素
   - 在急症、危急和會診等不同場境能依病人狀況獲取相關的焦點式病史
   - 在需要時，能尋找及使用替代資訊來源來取得病史，包括家屬、基層醫師、生活設施和藥房人員等
   - 能以符合邏輯且流暢的順序執行完整且正確的身體診察（詳細內容包括「六年制醫學系醫學生畢業基本能力」一、身體診察的技巧第 1 至 29 項）
   - 能執行與場合和病人問題相關的焦點式身體診察
   - 能辨識出病人身體診察的異常發現且能口述和記錄這些異常
2. 醫學科學的基礎與推理技巧
   - 以焦點式蒐集病人照護的資訊時能展現出臨床推理能力
   - 能將當下的發現與先前病人的發現相聯結
   - 能使用分析性推理和引用先前的知識來引領診療程序
3. 以病人為中心的技巧
   - 能展現出以病人為中心的面談技巧（注意病人口語及非口語線索、病人/家屬的文化、影響健康狀況的社會因素、對解讀或通譯服務的需求，以及展現出主動聆聽技巧）
   - 能以尊重病人的隱私、舒適和安全來展現出以病人為中心的身體診察技巧（能解釋身體診察的程序和做法、每一步都有告知病人檢查者要做的是什麼、在檢查過程中能儘量遮蔽身體以免不必要的暴露）

EPA 2 依臨床蒐集的資訊訂出鑑別診斷的優先順序

- 評估病人時能聯結當下的發現和先前的數據
- 能從多種來源蒐集資訊，並提出了相關的鑑別診斷，既不太廣泛，也不太狹隘
- 能恆常地整合現有的和新獲得的資訊，不斷更新鑑別診斷
- 了解自己知識的界限、個人的長處和弱點
- 了解何時須照會上級和團隊成員，藉以支持和驗證一項進行中的診斷以及發展出為病人量身定制的處置計畫
- 處置計畫通常是依據經過充分推理的鑑別診斷
- 自知能力有限而願意接受自己對病人狀況尚有不清楚的地方
  - ✧ 能回應病人和團隊成員提出的問題和挑戰
  - ✧ 能勇於向醫療小組的其他成員尋求援助
- 能提供完整且簡潔的紀錄，以利其他照護人員有充分資訊用作臨床推理，以確保醫療服務的連貫性

EPA 3 建議和判讀常用診斷性和篩選性檢查

- 能建議可靠、符合成本效益的檢驗項目來篩檢或評估病人常見的急性或慢性狀況
- 能解釋每項檢查的結果如何影響診斷、處置和健康風險分層及後續評估
- 建議檢查時能整合對敏感性和特異性、前測和後測概率等知識以及病人的危險因素
- 持續與病人討論診斷方案，且提供證據顯示病人的意願已被徵詢並納入決策中
- 提出建議的理由中，有包括考慮成本和病人的資源
- 能正確地判讀常用的實驗室和影像學檢查的異常結果（詳細內容包括「六年制醫學系醫學生畢業基本能力」二、心電圖及影像學的判讀第 1 至 6 項）
- 能以下列方式來辨識危險值，並正確地及依迫切性做出合宜的回應：
  - ✧ 提出驗證或糾正措施，或
  - ✧ 在認知自己能力有限時通報醫療小組尋求協助
- 能區別臨床上重要的異常與常見而不具臨床意義的異常

EPA 4 開立和討論醫囑及處方

- 能將病史、徵候、症狀等資訊過濾和整合，並據以開立醫囑或處方
- 在開立醫囑時能認知所面對的問題，並作出周全的考量
- 開立醫囑時有考量病人的意願
- 所作的建議都能與病人、家屬和健康照護團隊溝通（詳細內容包括「六年制醫學系醫學生畢業基本能力」六-1、溝通能力第 1 至 3 項）
- 具備置病人需求於個人自主之上的態度，並認知自己能力的界限和尋求協助
- 在思考上能呈現彈性，認同「問題」是學習的機會，並能考量其他可能性
- 開立醫囑能注意避免浪費（如在進一步申請檢查前先等待即將得到的檢驗結果）
- 能例行性反思一項檢查的結果將如何影響臨床決策，相反地，也能想到不執行一項檢查的可能後果
- 能熟知所開立醫囑（如藥物、檢驗）的風險和利益
- 能考量所開立醫囑的費用和病人對支付診療計畫的能力和意願；能依據病人獨特的人口學、認知、身體、文化、社經或狀況的需求而調整計畫
- 能與病人、家屬、醫療團隊成員進行雙向溝通
- 能恆定地使用治療指引和流程；但在病人狀況需要偏離時能認知或尋求協助
- 能回應電子病歷之安全警訊，並了解其理由
- 能使用電子資源來填補知識的欠缺，並能輸入安全的醫囑（藥物交互作用、治療指引）

EPA 5 將臨床診察狀況記錄於病人病歷

- 依據說明對象、當時環境或目的來調整溝通並對作成紀錄
- 所作紀錄乃全面而涵蓋重要資訊，而不含不必要的細節或贅述
- 所作紀錄包含制度上要求的元素（如日期、時間和簽名）
- 製作清晰的手寫紀錄（如適用）
- 能依時完成紀錄使其他團隊成員可以參閱
- 能雙向溝通，容許病人的意願得以表達，並記錄於病歷中
- 病歷中有記載臨床推理，並能正確地判讀實驗室數值
- 為填補知識、技能和經驗的不足而尋求協助；亦能依循病人的需求制定及記錄處置計畫
- 能展現對病歷系統有一般的了解，亦能與其他人共同參與此系統的改善
- 能依據自己的角色在病歷中記錄照護團隊活動

EPA 6 臨床案例口頭報告

- 能過濾、整合和將資訊排出優先順序，並能作出簡要、有組織性和精確的報告
- 在報告中能做到雙向溝通，確使報告的資訊能充分分享
- 避免醫學術語（如對象是病人/家屬）
- 能依對象所需資訊（如教師、病人/家屬、團隊成員）及報告的場景（如急症或門診）來調整報告
- 在報告中能主動邀請病人、家屬、團隊成員參與
- 在獲取或報告資訊時，不迴避困難或有壓力的議題
- 能有效率地述說故事，並以論據來支持所訂的診療計畫
- 報告病例或狀況時能指出自己在知識或技能上的不足而尋求協助
- 對不確定的領域能作出反思，並尋求進一步的資訊
- 承認在資訊上的不足，不會因而有防衛心態，也不會將資訊過度鋪陳
- 當討論病人時能展現出現對環境的認知，並顯示對病人隱私和保密的尊重
- 因具備知識和技能而展現出充分的自信

EPA 7 提出臨床問題及取得證據以提升病人照護

- 能了解自己知識的欠缺和病人的需要而尋求協助或搜尋新的資訊
- 維持充分的生物物理、臨床、流病及社會行科學知識，並能應用在病人照護
- 能提出相關的臨床問題：
  - ✧ 能因應臨床情境和病人照護所需提出優質而焦點性的臨床問題
  - ✧ 展現出好奇心、客觀性和科學推理能力
  - ✧ 能運用認知程序：去除不相關因素、識別未知之處，以及經由即時學習來獲得知識，進而產生解決方法
- 蒐集及評估證據：
  - ✧ 認識各種醫療資訊資源，並具有初步的評讀技巧
  - ✧ 能利用資訊科技來蒐集及評估資訊
  - ✧ 所搜尋到的資訊量能足以處理
  - ✧ 能評估資訊的可用性
- 能應用證據來進行改變或改善：
  - ✧ 搜尋及評讀所得的發現，經由與團隊和病人的溝通來應用，需要時改變病人照護的方式或程序
  - ✧ 能對辨別和解答問題，以及尋求改善的程序進行反思

EPA 8 轉移照護責任的交接班

- 能使用固定模式進行交班的溝通，亦能基於病人狀況、接班者背景、交接班場合而調整
- 沒有遺漏且充分地記述病人的資料
- 傳達資訊時均能注意內容、準確性、效率和整合
- 交班的溝通內容有經過組織且依重要性排序
- 能提供交班的各主要層面，包括口述病人病況的嚴重度及提供行動/應急計畫
- 能展現出了解團隊工作的總負荷及接班者的個人狀況
- 注意交班的時間和地點，了解影響交班溝通的因素（如中斷和扭曲）

EPA 9 在跨專業團隊中以成員身分共同合作

- 表現積極且融入，能置團隊目標優先於個人專業目標
- 能了解其他團隊成員的角色、尋求他們的諮商、主動地聆聽他們的建議，以及將他們融入醫療作業中
- 能進行雙向溝通，能提供所有團隊成員最新資訊
- 能參照對象、會場、接受者意願或訊息的類型來變更及調整溝通的內容和方式
- 能解讀自身情緒，並能解讀其他人的情緒
- 在一般情況下能維持專業風度
- 能主動地將病人和其他團隊成員融入合作照護，使照護者之間及不同單位之間可提供無縫的交接

EPA 10 認知病人需要緊急照護，並發動評估與處置

- 能判讀病人的生命徵，且能考量年齡和個人差異等因素
- 病人情況惡化須作下一步決策時，能主動聆聽團體成員（如：護理人員、家屬）的意見
- 提供病人升級照護時，能依從機構程序和計畫
- 處理病人的危急/緊急狀況時，能依據團隊成員的角色和責任來運作，藉以提升工作效率
- 蒐集、過濾、排序和連結片段的資訊（如：生命徵、焦點式身體診察、相關病史、最近的檢查和用藥）來形成病人特定的鑑別診斷、啟動介入措施和引導檢查的決定

- 以頻密的再評估來啟動介入措施和檢查，藉以決定需要協助的水平和預計後續的步驟
- 能判讀常用檢驗的結果以預知臨床狀況惡化及作出及早處置
- 了解並認知個人能力界限、情緒和偏見而能在需要時尋求協助
- 針對照護目的和治療計畫，與醫療照護團隊及家屬作雙向溝通而能達成共享決策
- 向醫療照護團隊其他成員提供病人資訊時，能作出焦點式、簡明而精確的報告
- 能在病歷上完整地記錄臨床狀況
- 在臨床狀況結束後，能尋求上級指引和回饋

EPA 11 執行知情同意

- 了解知情同意對醫病關係的建立和共享決策的重要性
- 了解知情同意的元素（適應症、禁忌、風險、利益、其他替代措施）及能指出哪些程序在取得知情同意時適用這些元素
- 能提供病人和家屬完整的資訊
- 與病人和家屬溝通時能避免使用醫學術語
- 能使用雙向溝通告知病人和家屬以及徵詢他們的意見和問題
- 能徵詢病人/家屬的意願使他們參與共享決策
- 能認知他人情緒的線索（如：驚恐、憤怒、焦慮）並能即時處理，或尋求醫療照護團隊的協助
- 能展現出與技巧相稱的自信
- 對於不確定處能尋求上級指導
- 能按時完成知情同意的紀錄

EPA 12 執行一般操作技能

- 能做好對執行程序所需要的準備
- 能展現及應用對執行程序所需了解的關鍵議題，例如：
  - ✧ 病人的特定因素
  - ✧ 適應症
  - ✧ 禁忌
  - ✧ 風險
  - ✧ 利益
  - ✧ 其他替代措施
- 了解程序的併發症並採取行動來避免
- 能展現出可信賴的操作技巧來執行程序，並知道在程序或狀況超過自己的能力時尋求協助

  （詳細項目包括「六年制醫學系醫學生畢業基本能力」三、實驗診斷的技巧第1至8項、四、操作型技巧第1至16項及五、治療的技巧第1至13項）
- 能恆常地使用一般預防措施和無菌技巧
- 在執行程序時能展現以病人為中心的技巧：
  - ✧ 避免醫學術語，病人可經由學員口述而了解程序
  - ✧ 對於程序的執行，能與病人進行共享決策
  - ✧ 具備與知識和技術水平相稱的自信，能令病人寬心
  - ✧ 能同時注意程序執行過程和病人的情緒反應
- 能按時完成所需紀錄

EPA 13 辨識系統問題及參與改善

- 能辨識已存在或潛在的系統失誤
- 能履行常規的安全行為（如一般預防措施、洗手）
- 了解防範失誤對個別病人和系統的重要性
- 對失誤能盡自己角色上的責任
- 能於適當時機暫緩步調，對自己的工作進行反思
- 能依靠外在資訊來源來了解自身的病人族群
- 發生已存在或潛在的系統失誤時，能使用報告系統進行報告
- 自願參與系統改善活動
- 當擔心一項潛在的失誤時，縱使或會引起上級質疑或挑戰，都能明確地表達
- 能認知自身的疲倦，並能調整工作或尋求協助

EPA 14 針對常見之臨床倫理問題進行分析和決策

- 熟悉生命倫理原則
- 熟悉研究倫理，包括研究誠信（research integrity，學術倫理）及人體研究參與者的保護
- 熟悉行醫相關的法律，應用於臨床醫療和倫理決策
- 能辨識在臨床醫療照護中遭遇到的倫理議題，並提出討論
- 能使用如 four topic approach 等方法進行倫理分析和決策
- 能執行自己所作的倫理決策和行動，並能針對決策和行動進行反思和改進


謝謝聆聽
敬請用心
cychanfly@gmail.com