第５章．公開国際シンポジウム

令和６年度と７年度の調査結果を基に、診療参加型臨床実習の充実に貢献するため、国際シンポジウムを開催して、我が国と海外における臨床実習の内容を紹介し、国内外の研究者間で総合討論する機会を設けた。プログラムを下記に示す。各演者の講演発表スライドを、許可を得た上で掲載する。

令和７年度文部科学省委託事業「大学における医療人養成の在り方に関する調査研究」
「診療参加型臨床実習の充実を目的とした指導医養成プログラムの開発と展開」
公開国際シンポジウム（同時通訳付き）
“Clinical clerkship for future medical care providers”

開催期日：　2025 年 11 月 22 日（土）13:00~17:00
開催場所：　東京科学大学（旧：東京医科歯科大学）歯学部特別講堂
〈司会〉冨木裕一（順天堂大学教授）

13:00　開会の辞　奈良信雄　（委託事業責任者）
文部科学省挨拶　日比謙一郎（文部科学省医学教育課長）
厚生労働省挨拶　中田勝己　（厚生労働省医事課長）
Thomas Jefferson 大学挨拶　Said Ibrahim（同大学　医学部長）

13:30　**基調講演**　〈座長〉奈良信雄（日本医学教育評価機構常勤理事）
“A Historical Perspective on Clinical Training in U.S. Medical Education”
Charles Pohl（Thomas Jefferson 学務部統括部長）

調査研究成果発表　〈座長〉鈴木利哉（大学改革支援・学位授与機構特任教授）

14:00　日本における診療参加型臨床実習の現状と課題：とくに指導医養成の在り方
奈良信雄　（日本医学教育評価機構常勤理事）

14:20　臨床実習における臨床現場での学生評価、教員の指導実績評価
Workplace-based assessments in clinical clerkship: from trainees' and trainers' perspective　山脇正永　（東京科学大学教授）

14:40　質疑応答

14:50　休憩

パネルディスカッション　〈司会〉 錦織　宏　（日本医学教育学会理事長）
佐藤隆美　（Thomas Jefferson 大学教授）

15:00　Clinical clerkship curriculum and outcome evaluation in a medical school in the US
Wayne Bond Lau　（Thomas Jefferson 大学教授）

15:20　Faculty development for clinical skill teaching
Dimitrios Papanagnou（Thomas Jefferson 大学教授）

15:40　総合討論・質疑応答

17:00　閉会の辞　奈良信雄　（委託事業責任者）

Thomas Jefferson University

An Overview of Clinical Training in US Medical Education

(Japanese International Symposium supported by the Ministry of Education)

Charles A. Pohl, MD
Senior Vice Provost of Students Affairs and Executive Director of Jefferson Japan Center - Thomas Jefferson University
Vice Dean and Professor of Pediatrics - Sidney Kimmel Medical College at Thomas Jefferson University

Shohei Ohtani
MLB Los Angeles Dodgers

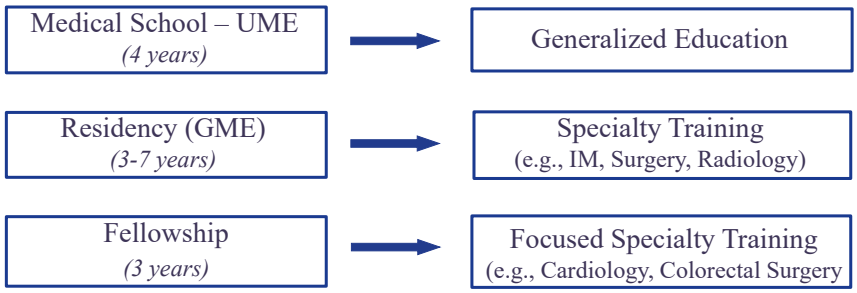
- Passion
- Goal setting/dedication/discipline
- Precision training to master the craft
- Continuous learning & improvement through hands on experience
- Gratitude

The Consummate Physician

The Doctor
Sir Luke Fildes
1891, Oil & Canvas

- Passion
- Goal setting/dedication/discipline
- Precision training to master the craft
- Continuous learning & improvement through hands on experience
- Gratitude

Overview of American Medical Education: How We Educated Future Physician



Thomas Jefferson University

Medical Education Curriculum: Mission & Philosophy

- Teach knowledge, skills and attitudes to become a competent physician & specialist in chosen field
  (i.e., UME; GME – surgery, pediatrics,…)
- Provide broad-base exposure
  (basic and clinical medical sciences; general medicine, critical care, and subspecialty care)
- Promote and cultivate professional behavior
- Instill skills in life-long learning, patient advocacy, cost-effective care, teaching and leadership

Source: Ama-assn.org; LCME

Thomas Jefferson University

Principles of Medical Education: Core Competencies

- Patient Care
- Medical Knowledge
- Professionalism
- Interpersonal and Communication Skills
- Practice Based Learning and Improvement
- Systems Based Practice

- *Now adopted by medical schools, residencies & hospital accreditation*
- *Drives curriculum*
- *Includes Milestones (developmental roadmap) – necessary to achieve to progress*

Source: ACGME Statistics, www.acgme.org

Thomas Jefferson University

Founding Principle of Jefferson medical college: Students Learn by Participating in Care of Patients

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Continuum of Core Competencies

- Initially general exposure & introduction of skills
- Increasing specialty exposure/complexity of problems
- Increasing patient care responsibility & clinical oversight
- Individual variation

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Team Members' Responsibility in Patient Care

- **Medical Student** – *directly supervised*
- **Intern (1st year resident)** – *supervised; manages patient's care and provides education*
- **Senior Resident** – *supervises patient care and educates the team*
- **Faculty Member** – *team manager who is ultimately responsible for patient care and educates all of learners*

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Continuum of Core Competencies & Roles in Medical Education: Example

65-year-old woman with history of hypertension and elevated cholesterol is admitted with progressive dyspnea with exertion, orthopnea, fatigue and weakness. CXR is consistent with congestive heart failure. ECG/ECHO with reduced cardiac function and myocardial ischemia.

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Continuum of Core Competencies & Roles in Medical Education: Example

- Medical Student
- Intern (first-year resident)
- Senior Resident
- Faculty Member

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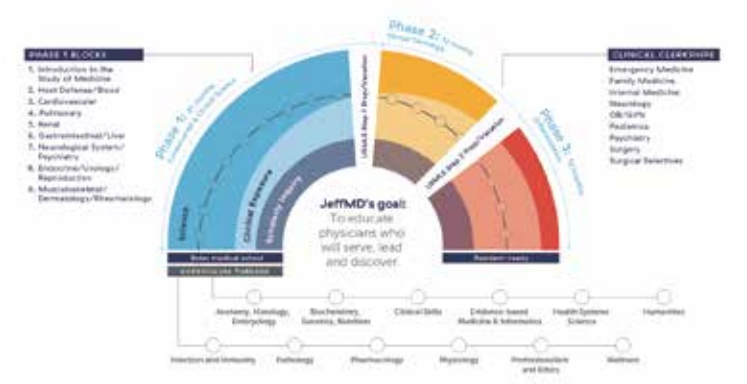
Thomas Jefferson University

Innovating Curricula
Drivers

Thomas Jefferson University | HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

Thomas Jefferson University

Innovating Curricula
JeffMD | Tripartite, Open to Tracks &Threads



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Innovating Curricula
JeffMD | Tripartite, Open to Tracks &Threads

Phase 1

- Shortened 21-month period
- Organ system (normal/abnormal) with interweaving basic science, clinical science and health system
- Self-directive learning/small group
- Early patient contact
- Clinical skill sessions
- Scholarly inquiry projects to cultivate critical thinking

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Thomas Jefferson University

Innovating Curricula
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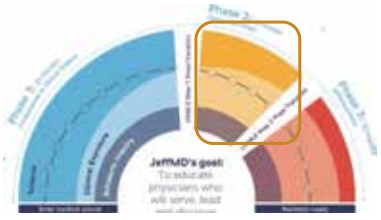
Phase 2



Clerkships: 12-week blocks

- Internal Medicine/Neurology
- Family Medicine/Psychiatry
- Surgery/Surgical Subspecialty/Emergency Medicine
- Obstetrics/Gynecology/Pediatrics

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Phase 3

- Additional 12-weeks for clinical education and research endeavors
- Refining specialty-specific skills
- Residency application

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Clinical Skills Center:
No longer "See One, Do One, Teach One"

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Role of Clinical Skills

Teach & Assess

- Communication skills
- Critical thinking
- Delivery of bad news
- Technical skills (IV, central lines, endoscopy)

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GME Specialty Training

- **Educational Sessions** – *weekly expert lectureship, daily case presentations, daily core teaching conferences, weekly ambulatory lectures, monthly patient safety & ethical discussions, monthly EBM journal clubs)*
- **Clinical Skills Teaching** – *direct observation, mock codes, procedure days, teamwork training, certifications (e.g., ACLS, ATLS)*
- **Direct Patient Care** – *general and subspecialty exposure family-centered team rounds*
- **Evaluation / Feedback** – *multidirectional; resident (program, national boards, ABS), faculty (resident, LCME), program (resident, ACGME, ABS)*
- **Required Graduation Project**

Thomas Jefferson University

Clinical Training in US Medical Education




- **Physicians provide high-quality care for patients**
- **US medical students are fully integrated into the patient-care team > learn, actively apply and refine their skills to master the core competencies of a physician**
- **Close supervision & continual feedback ensures high-quality and safe care**

Thomas Jefferson University

日本における診療参加型臨床実習の現状と課題：とくに指導医養成の在り方

日本医学教育評価機構常勤理事
順天堂大学医学部客員教授
東京医科歯科大学名誉教授
奈良　信雄

1975年　東京医科歯科大学医学部卒、第一内科入局
1976年　横浜赤十字病院内科医師
1983年　カナダトロント大学オンタリオ癌研究所留学
1994年　東京医科歯科大学臨床検査医学講座教授
2002年　全国共同利用医歯学教育システム研究センター教授（兼任）
2006年　同　センター長
2015年　順天堂大学特任教授、東京医科歯科大学名誉・特命教授、
　　大学改革支援・学位授与機構特任教授
2017年～現在　日本医学教育評価機構常勤理事、
　　順天堂大学客員教授、東京医科歯科大学名誉教授
役職等：文科省大学設置医学専門委員会主査、同医学教育モデルコアカリキュラム連絡調整委員、厚労省医師国家試験改善検討部会委員、全国医学部長病院長会議教育カリキュラム調査委員長、同医学教育質保証検討委員長、医学教育カリキュラム検討会委員等歴任
学会：日本血液学会功労会員、日本医学教育学会名誉会員、
　　日本シミュレーション医療教育学会名誉会員等
賞：日本医学教育学会日野原賞受賞

2

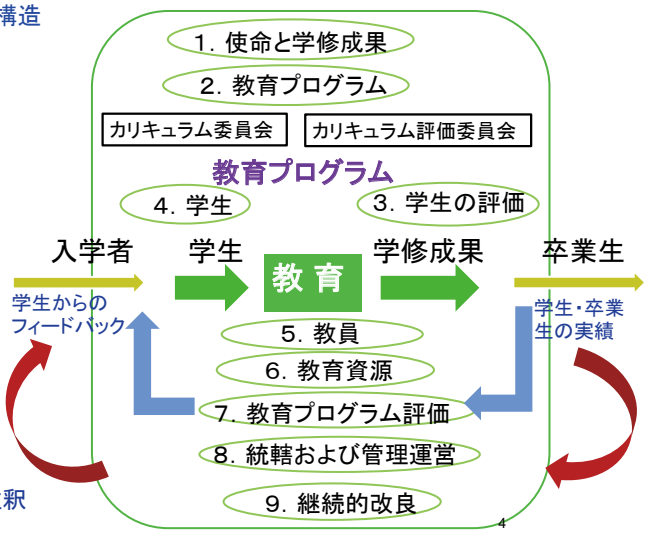
Ⅰ．医学教育評価からみた我が国の医学部における臨床実習での課題

3

評価基準2015年日本版の構造

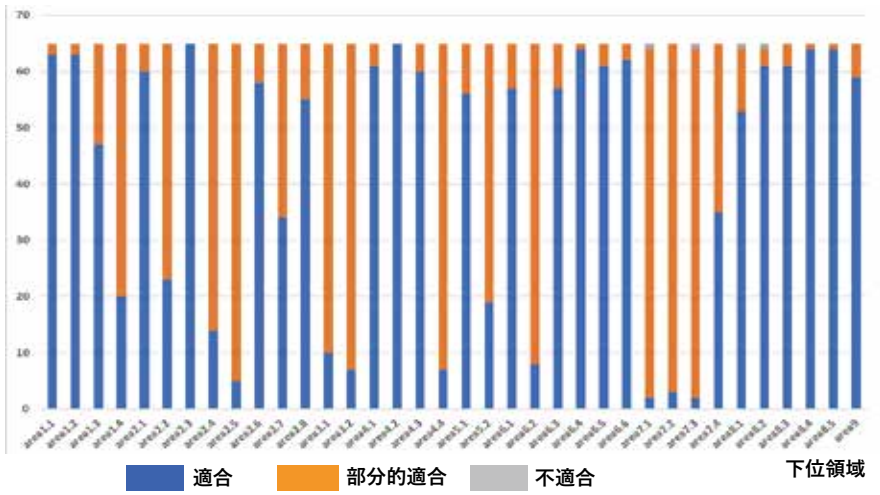
1．使命と学修成果（1.1−1.4）
2．教育プログラム（2.1−2.8）
3．学生の評価（3.1−3.2）
4．学生（4.1−4.4）
5．教員（5.1−5.2）
6．教育資源（6.1−6.6）
7．教育プログラム評価（7.1−7.4）
8．統轄及び管理運営（8.1−8.5）
9．継続的改良

合計：基本的水準　106
質的向上のための水準　90
WFMEによる注釈＋日本版注釈



4

医学部数　　基本的水準の適合判定（１巡目受審65医学部）



１巡目評価で部分的適合判定が多い項目

領域　　指摘内容

（下位領域）

2.2　EBM教育が臨床実習で実践されていない。
2.4　系統立てられた行動科学教育が実施されていない。
2.5　期間・内容共に診療参加型臨床実習が充実していない。
3.1　技能・態度の評価が適切に行われていない。
3.2　学修を促進する学生評価が適切に実施されていない。
4.4　教学に関わる委員会への学生の参加が十分でない。
5.2　教員の能力開発（FD)が十分とはいえない。
7　　教育プログラム評価が実質化されていない。

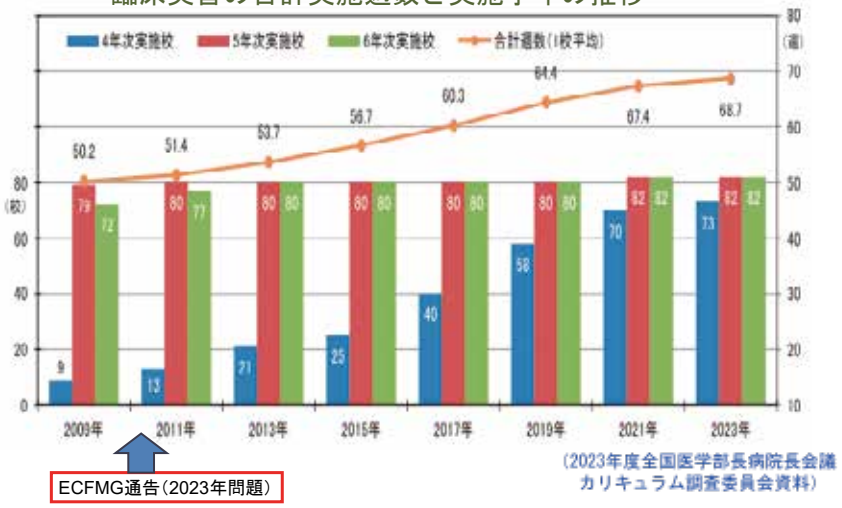
参考文献1）奈良 信雄：日本医学教育評価機構による医学教育評価ー1巡目評価の総括と今後の展開。医学教育2025，56（2）：125〜132
参考文献2）Nobuo Nara：Impact of accreditation on medical education quality improvement in 82 medical schools in Japan: a descriptive study。J Educ Eval Health Prof 2025;22:22 https://doi.org/10.3352/jeehp.2025.22.22

6

Ⅱ. 我が国医学部における臨床実習の現状

7

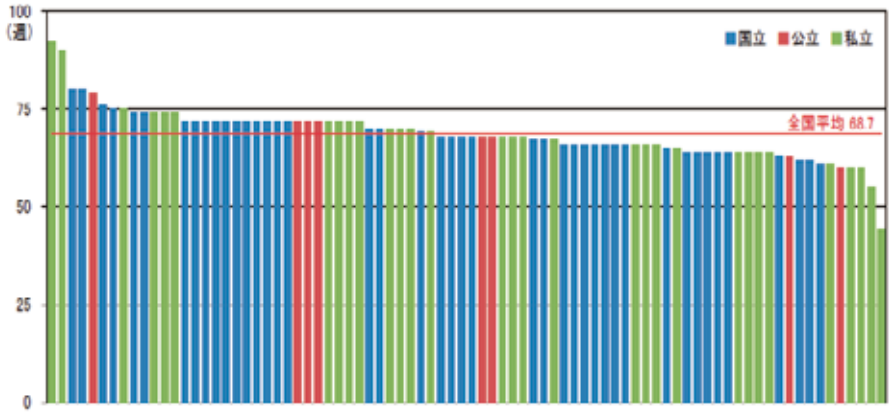
臨床実習の合計実施週数と実施学年の推移



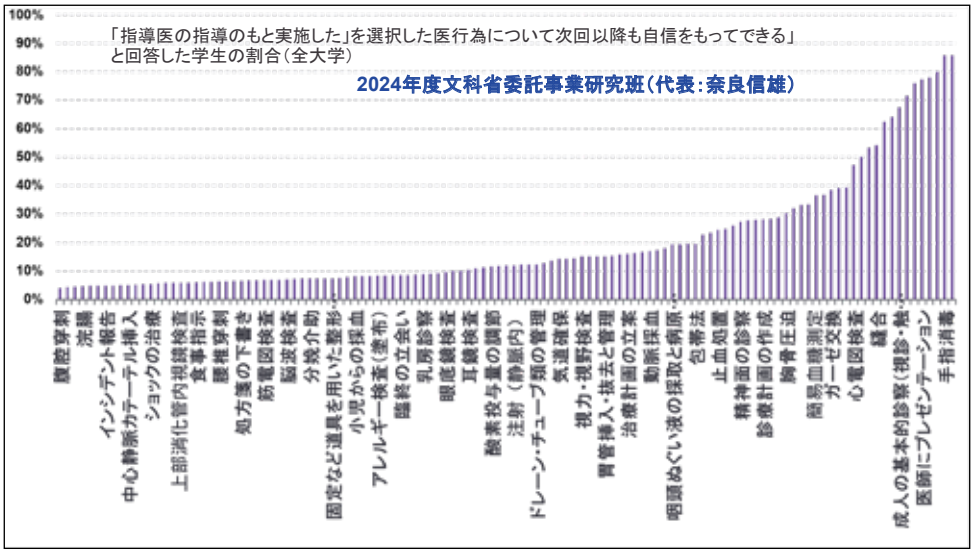
ECFMG通告(2023年問題)

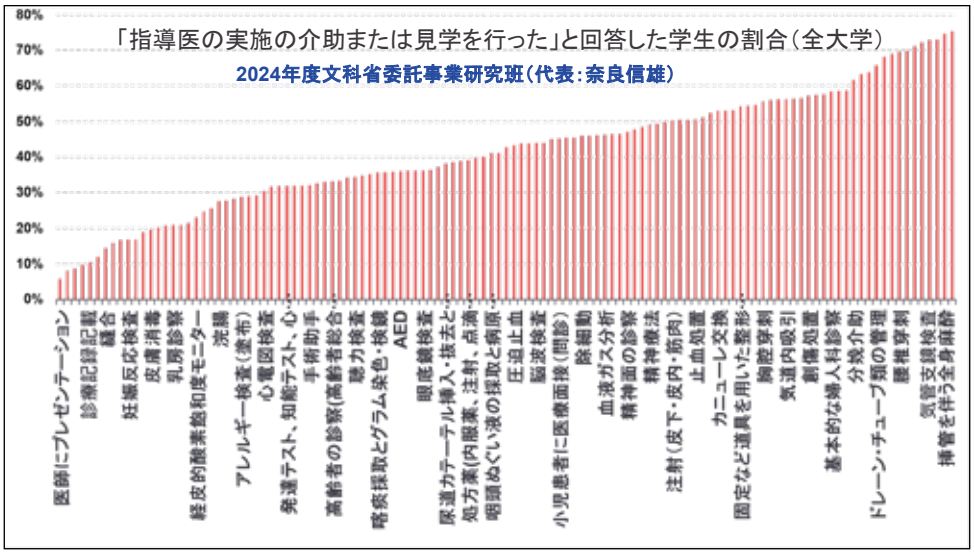
(2023年度全国医学部長病院長会議
カリキュラム調査委員会資料)

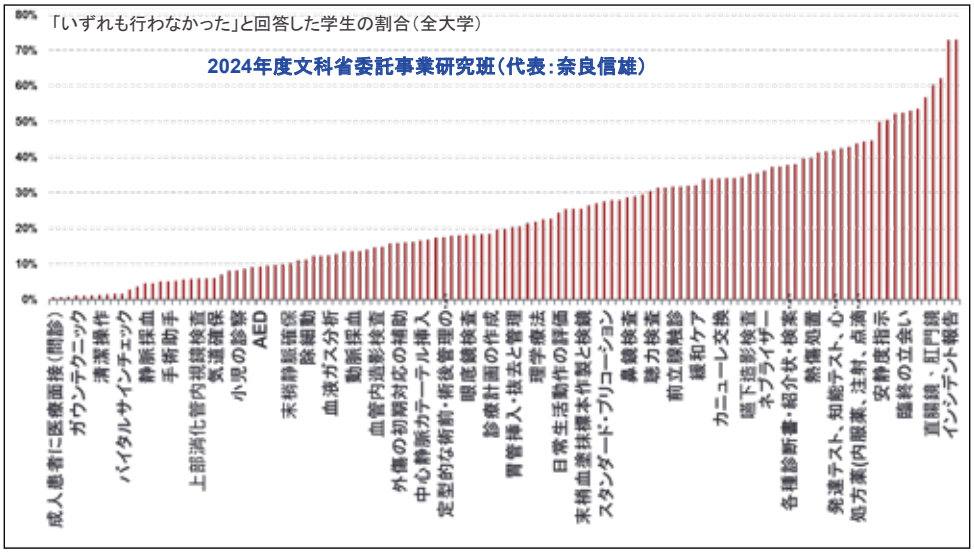
■ 図 9-B-3 大学別 臨床実習 合計実施週数



(2023年度全国医学部長病院長会議
カリキュラム調査委員会資料)


「指導医の指導のもと実施した」を選択した医行為について次回以降も自信をもってできる」と回答した学生の割合（全大学）
2024年度文科省委託事業研究班（代表：奈良信雄）
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
腹腔穿刺
浣腸
インシデント報告
中心静脈カテーテル挿入
ショックの治療
上部消化管内視鏡検査
食事指示
腰椎穿刺
処方箋の下書き
筋電図検査
脳波検査
分娩介助
固定など道具を用いた整形
小児からの採血
アレルギー検査（塗布）
臨終の立会い
乳房診察
眼底鏡検査
耳鏡検査
酸素投与量の調節
注射（静脈内）
ドレーン・チューブ類の管理
気道確保
視力・視野検査
胃管挿入・抜去と管理
治療計画の立案
動脈採血
咽頭ぬぐい液の採取と病原
包帯法
止血処置
精神面の診察
診療計画の作成
胸骨圧迫
簡易血糖測定
ガーゼ交換
心電図検査
縫合
成人の基本的診察（視診・触
医師にプレゼンテーション
手指消毒

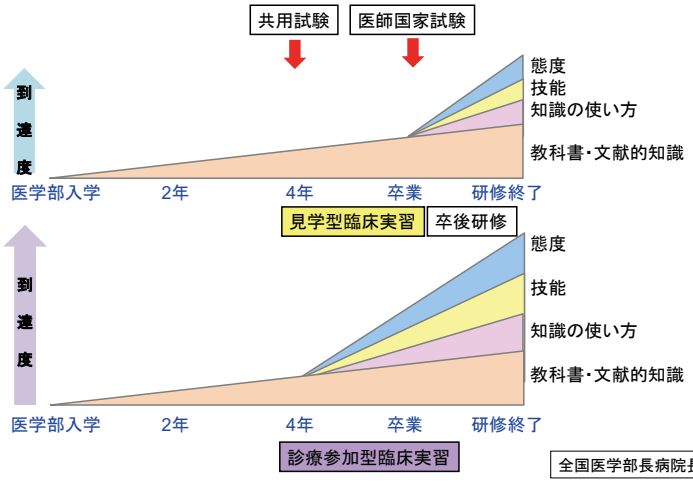

「指導医の実施の介助または見学を行った」と回答した学生の割合（全大学）
2024年度文科省委託事業研究班（代表：奈良信雄）
80%
70%
60%
50%
40%
30%
20%
10%
0%
医師にプレゼンテーション
診療記録記載
縫合
妊娠反応検査
皮膚消毒
乳房診察
経皮的酸素飽和度モニター
浣腸
アレルギー検査（塗布）
心電図検査
発達テスト、知能テスト、心
手術助手
高齢者の診察（高齢者総合
聴力検査
喀痰採取とグラム染色・検鏡
AED
眼底鏡検査
尿道カテーテル挿入・抜去と
処方薬（内服薬、注射、点滴
咽頭ぬぐい液の採取と病原
圧迫止血
脳波検査
小児患者に医療面接（問診）
除細動
血液ガス分析
精神面の診察
精神療法
注射（皮下・皮内・筋肉）
止血処置
カニューレ交換
固定など道具を用いた整形
胸腔穿刺
気道内吸引
創傷処置
基本的な婦人科診察
分娩介助
ドレーン・チューブ類の管理
腰椎穿刺
気管支鏡検査
挿管を伴う全身麻酔


「いずれも行わなかった」と回答した学生の割合（全大学）
2024年度文科省委託事業研究班（代表：奈良信雄）
80%
70%
60%
50%
40%
30%
20%
10%
0%
成人患者に医療面接（問診）
ガウンテクニック
清潔操作
バイタルサインチェック
静脈採血
手術助手
上部消化管内視鏡検査
気道確保
小児の診察
AED
末梢静脈留置
除細動
血液ガス分析
動脈採血
血管内造影検査
外傷の初期対応の補助
中心静脈カテーテル挿入
定型的な術前・術後管理の
眼底鏡検査
診療計画の作成
胃管挿入・抜去と管理
理学療法
日常生活動作の評価
末梢血塗抹標本作製と検鏡
スタンダード・プリコーション
鼻鏡検査
聴力検査
前立腺触診
緩和ケア
カニューレ交換
頭下造影検査
ネブライザー
各種診断書・紹介状・検案
熱傷処置
発達テスト、知能テスト、心
処方薬（内服薬、注射、点滴
安静度指示
臨終の立会い
直腸鏡、肛門鏡
インシデント報告

Ⅲ. 臨床研修にスムーズに移行できる “診療参加型臨床実習”

13

診療参加型臨床実習への移行による学修面でのメリット



全国医学部長病院長会議資料

臨床実習の充実

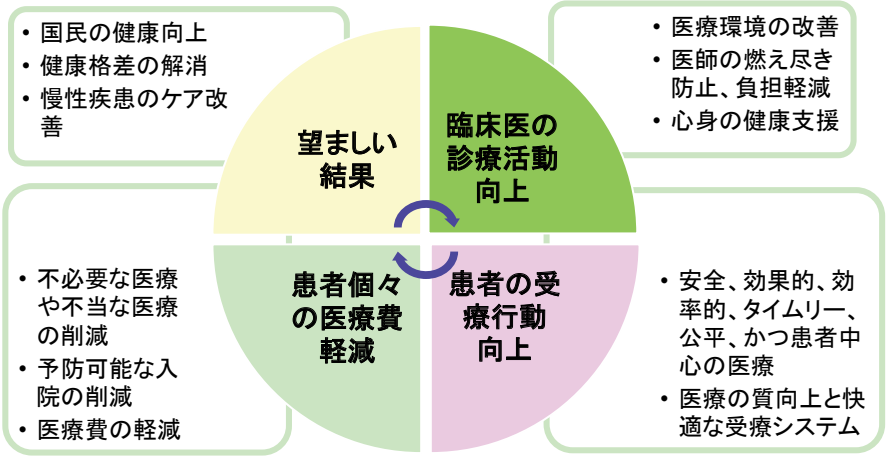
卒前 – 卒後のシームレスな医師養成を推進するには、卒前の臨床実習を充実させ、医学生に基本的診療技能を確実に修得させれば、より効果的な臨床研修、専門医研修につながり、わが国の医療レベル向上が期待できる。

臨床実習の有り様の変革：見学型から診療参加型臨床実習へ

Clinical Clerkship

- 実務を体験していない者には実務を任せられない（USA）：
  医学部だけでなく、法学部なども。
- clerk a patient ＝ 患者から問診記録をとる
- 臨床能力 medical competency
  日本の研修終了時 ≒ USAの医学部卒業時

15



医療システムを最適化するための戦略的フレームワーク(The Quadruple Aim)

Ⅳ. 臨床実習指導医のあり方

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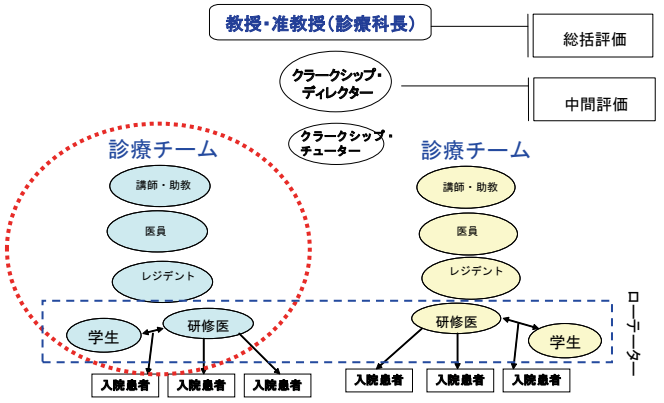
診療参加型臨床実習が充実されていない理由

- 臨床実習のあり方（システム）
  - ・従来の見学型臨床実習システムを踏襲する医学部・臨床実習施設が多い
  - ・医学部として診療参加型臨床実習の意義と必要性についての認識不足
  - ・医学生の医行為実施に対する病院や指導医の法的理解不足
  - ・現在の医療ではチーム医療体制が十分には確立されていない
- 臨床実習指導医
  - ・診療参加型臨床実習のあり方に対する理解不足
  - ・指導医数の不足
  - ・教員・指導医の負担の問題
  - ・教育活動に対する適正な評価が不十分
- 学生
  - ・学生の消極的参加
- 患者
  - ・患者の同意、協力が得られにくい
- 施設・設備
  - ・学生が使用できる電子カルテ端末、実習室などの不足

クラークシップの指導体制



McGill Univ.
Attending 1
Senior resident 2
Junior residents 2～3
Students 2

臨床実習指導体制

診療参加型臨床実習では、学生は研修医とペアになって患者の診療に参加することが重要。指導医からフィードバックを受けること。
日々の診療内容を診療録（電子カルテ）に直接記載し、研修医、指導医のチェック、フィードバックを受ける必要がある。
診療録には、SOAP 形式に則って、病歴、身体所見、検査所見等を的確に記載し、それぞれの所見に対する考察、考察に基づいた鑑別診断、診断、治療計画立案、患者・家族等への指導計画が明確に記述すべきである。診療録の記載内容は指導医のチェック、フィードバックを受け、正確を期すとともに、診療能力を高めるようにする（臨床推論能力の涵養!!）
カンファレンスにも学生は参加し、受け持ち患者の症例プレゼンテーションを行い、診療科責任医師、指導医、研修医、看護師など他職種からのフィードバックを受けることが望まれる。

学生は足手まとい
臨床実習で行うべき医行為 → 学生を手足として使う
〇患者診察、カルテ記載、臨床推論、プレゼン
〇基本手技
×侵襲的医療手技

学生評価

“評価が学修を促進する”: 時宜を得た適切な評価は、学生の学修意欲を刺激し、学修成果を向上させる。
診療参加型臨床実習では、診療現場でのフィードバック、評価が重要。（各場面に応じて形成的評価を駆使し、学生の優れた点は伸ばし、改善するべきことはその都度指摘）。適正な評価、学生の臨床能力が向上する。
臨床実習現場での学生評価(Workplace-based Assessment)：
Mini-CEX(Mini-Clinical Evaluation Exercise)、DOPS(Direct Observation of Procedural Skills)、CbD（Case-based Discussion）、360 度評価などを適宜実施し、学生の学修成果を評価して、学修意欲の促進につなげる。
なお、臨床実習では、学生がプロフェッショナリズムを十分に理解し、遵守すべきである。もしもプロフェッショナリズムに反するような行動を学生がとっていれば、その場で指摘し、改善を促すべきである（医師は社会的責任を負っている!!）。

Ⅴ. 診療参加型臨床実習のGood Practice

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A）内科臨床実習

・学生は研修医とペアになって実診療に参加
・10名／週の患者を担当
・毎日患者を診察し、検査にも立ち会う。
・電子カルテに記載し、指導医のチェックを受けて本カルテになる。
・場合によっては臨終に立ち会ったり、患者への説明にも同席
（夜遅くなることもあり）
・クルズス（ミニレクチャー）は全くない。
・カルテ記載の内容を教授がチェックし、形成的かつ総括的評価を行う。
・学生の満足度は極めて高い。
（患者によっては合併症等もあり、多くの疾患と病態を経験できた）

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B)総合診療科（Longitudinal Integrated Clerkship：LIC）

・提携した関連教育病院で3ヶ月の実習（外来、病棟、救急、在宅）
・指導医の監督の下、実臨床（とくにプライマリ・ケア）に参加
・初期臨床研修医とほぼ同等の学修成果を得られる。
・急性期入院～退院～訪問診療とさまざまphase に参加できる。
・長期間同じ病院に所属することで、多くの患者を診療し、かつ医行為の実施も体験。学生は戦力にもなる!!
・地域包括ケア、終末期医療等にも参加
・学生の満足度は極めて高い（3ヶ月で十分に実力がつく）
・指導医の感想：学生は月日が経つごとにメキメキ実力をつけている。
指導医の負担感は少なく、むしろ学生が役立つことも多い。

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C）外科臨床実習

<table>
<tr><th></th><th>8:00</th><th>8:30</th><th>9:00</th><th>9:30</th><th>10:00</th><th>11:00</th><th>12:00</th><th>13:00</th><th>14:00</th><th>15:00</th><th>16:00</th></tr>
<tr><td>Day 1</td><td rowspan="8">病棟カンファレンス</td><td colspan="3">オリエンテーション・患者診察</td><td colspan="2">看護実習</td><td>休憩</td><td colspan="2">臨床推論演習</td><td colspan="2">カルテ記載演習</td></tr>
<tr><td rowspan="6">Day2 ~ Da13</td><td colspan="3">総回診</td><td colspan="2">PBL</td><td>休憩</td><td colspan="2">病棟実習</td><td colspan="2">外科基本手技実習</td></tr>
<tr><td>患者診察</td><td colspan="3">手術実習</td><td>休憩</td><td colspan="4">手術実習</td></tr>
<tr><td>患者診察</td><td colspan="3">外来実習</td><td>休憩</td><td colspan="2">PBL</td><td colspan="2">画像診断演習</td></tr>
<tr><td>患者診察</td><td colspan="3">病棟実習</td><td>休憩</td><td colspan="2">鏡視下手技実習</td><td colspan="2">ロボットシミュレーション</td></tr>
<tr><td>患者診察</td><td colspan="3">手術実習</td><td>休憩</td><td colspan="2">PBL</td><td colspan="2">プレゼン資料作成</td></tr>
<tr><td>Day14</td><td>患者診察</td><td colspan="2">カンファレンス</td><td colspan="2">手術実習</td><td>休憩</td><td colspan="2">病棟実習</td><td colspan="2">総括</td></tr>
</table>

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D)産婦人科臨床実習

①準備教育としての事前動画視聴とシミュレーション教育の活用

外来診療、手術等のビデオ動画を予め学生が視聴し、実習が効果的に行える工夫をしている。動画視聴の内容は適宜、教員からの質問や小テストによって確認される。

内診、経腟エコー検査、分娩、腹腔鏡手術などのシミュレータが病棟に配置され、学生は担当教員から手厚い指導を受ける。

②臨床実習Ⅰ

・学生が実際の診療チームの一員として、診療活動に参加する。

・産科と婦人科の両分野で、患者の同意を得て、診療（外来、診察、カンファレンス、分娩、帝王切開、手術等）にStudent doctorとして参加する。

・外来実習

初診患者を対象に、専攻医の指導を受けながら、医療面接を行う。

初診外来には学生2名が参加し、一人が医療面接、他の一人が筆記役を務める。

その後、教授外来で、患者の病歴をプレゼンし、教授の追加医療面接、診察（内診、エコー、コルポスコープ、細胞診など）を見学する。随時教授から学生に質問が行われ、学生が答えることで知識の定着を図る。

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・手術実習

学生個々が担当症例を受け持つ。

医局カンファレンスで術前プレゼンを行った後、手術に参加し、助手を務める。各手術に担当学生一人が手洗い・手術助手を務める（手術への参加度を高める）。

手術後には、医局カンファレンスで術後プレゼンを行って報告する。

・学外病院での実習

3週間のうち、1週間は総合周産期母子センターを有する岐阜県総合医療センターで胎児治療などの高度な産科医療を見学し、かつ産科症例も経験できる。

③臨床実習Ⅱ

・選択実習として学生が主体的に参加する。

・医学部附属病院／学外関連病院の産婦人科で4週間の臨床実習が行われる。

・産婦人科チームの一員として実際の産婦人科診療を幅広く経験する。

・臨床実習Ⅰよりも様々な産婦人科診療を多く経験し、産婦人科学に対するより深い知識と技術の習得ができる。

・一人の学生に対して一人の若手産婦人科医がマンツーマンで指導に当たる。

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ま と め

- 国民から信頼される医師の養成では、医学部～臨床研修～専門医～生涯研修にわたってシームレスな教育が重要である。
- そのためには、医師に必要なコンピテンス・コンピテンシーを明確にし、各段階での到達レベルを定め（マイルストーン）、臨床能力を高めるべきである。
- 医学部における実習指導医、臨床研修病院における臨床研修指導医の指導力を高め、学修者のコンピテンス・コンピテンシー達成度を適切に評価（臨床現場での評価とフィードバック）しながら、臨床能力の向上を図るべき。
- 国民の医師養成に対する理解を深め、協力を仰ぎたい。

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ご清聴有り難うございました！

nara.mlab@tmd.ac.jp

国際シンポジウム３

JACME International Symposium
"Clinical clerkship for future medical care providers"
2025.11.22. Tokyo

臨床実習における臨床現場での学生評価、教員の指導実績評価
Workplace-based assessments in clinical clerkship: from trainees' and trainers' perspective

Masanaga Yamawaki , MD, PhD, MMA
Institute of Science Tokyo

『科学の進歩』と『人々の幸せ』とを探求し、
社会とともに新たな価値を創造する
Advancing science and human wellbeing to create value for and with society.
Science Tokyo

令和7年度文部科学省委託事業「大学における医療人養成の在り方に関する調査研究」
「診療参加型臨床実習の充実を目的とした指導医養成プログラムの開発と展開」

1

Masanaga Yamawaki MD, PhD, MMA

1988年　東京医科歯科大学卒業、旭中央病院研修医
1990年　東京医科歯科大学大学院（神経内科学）
1992年　米国バージニア州立大学生化学教室研究員
1998年　東京医科歯科大学医学部講師（神経内科）
2003年　同准教授（臨床教育研修センター、総合診療部）
2011年　京都府立医科大学大学院教授 総合医療・医学教育学
2020年より　東京医科歯科大学大学院教授 臨床医学教育学分
2022年　東京医科歯科大学副理事（臨床医学教育担当）兼任
2024年　東京科学大学副学長（融合教育推進担当）兼任
2025年より　東京科学大学 医学部医学科長 兼任

医学博士（東京医科歯科大学）
医療管理政策学修士 （MMA: Master of Medical Administration、東京医科歯科大学）

日本内科学会 総合内科専門医、指導医
日本神経学会 神経内科専門医、指導医
日本医学教育学会（評議員）国際医学教育学会（AMEE、査読委員）
日本内科学会（専門医制度査読委員）
Editorial Board of BMC Medical Education

1988: Graduated from Tokyo Medical and Dental University
1990: Graduated from Tokyo Medical and Dental University (TMDU) , Graduate School (Neurology).
1992: Research Associate, Dept. of Biochemistry, Virginia State University, USA.
1998: Assistant Professor, Dept. of Neurology, TMDU
2003: Associate Professor, Dept. of Medical Education, TMDU
2011: Professor, Dept. of General Medicine and Medical Education, Kyoto Prefectural University of Medicine.
2020: Professor, Dept. of Clinical Medical Education, TMDU Graduate School.
2022: Vice Executive (Clinical Medical Education) at TMDU
2024: Vice President (Promoting Integrated Education) at Institute of Science Tokyo (Science Tokyo)
2025: Dean of Education, School of Medicine, Science Tokyo.

Contents

Institute of Science Tokyo

Tokyo Institute of Technology (Tokyo Tech) and **Tokyo Medical and Dental University (TMDU)**
have merged into one national university corporation /one university in 2024

Institute of Science Tokyo

4

"Convergence Science" in Science Tokyo

New academic fields created by university integration:

Creation of groundbreaking academic fields through convergence science, including essential fusion of the humanities and sciences.

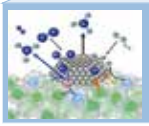
Initial foci
Examples of new academic fields

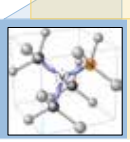
Earth environmental Science
- GX & sustainability
- IScT Initiative: Planetary environment

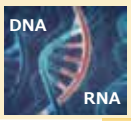
Generative AI Medicine / Dentistry
- Drugs for intractable diseases
- IScT Initiative: Wellbeing

Quantum Medical and Dental Science
- Early detection of diseases by quantum sensors
- IScT Initiative: Total healthcare

Origin
Examples of cutting-edge research







Tokyo Tech TMDU

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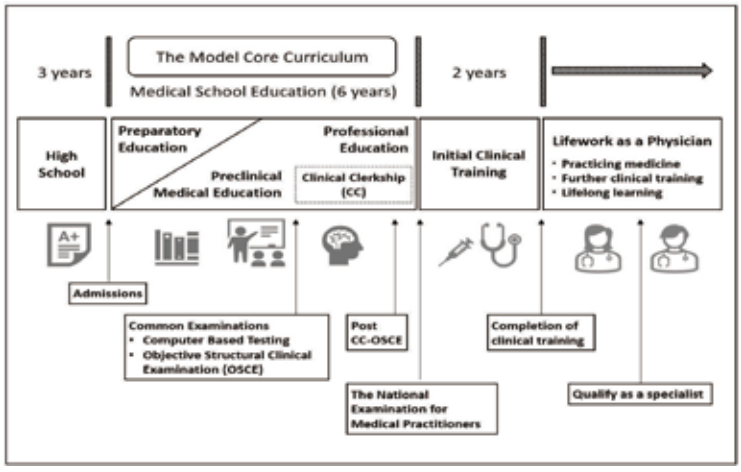
Overview of Japanese Medical Education



Curriculum 2023 (School of Medicine)

	1st year	2nd year	3rd year	4th year	5th year	6th year	
	Liberal Arts & Science	Basic Biomecial Science	Clinical Medicine	Social Science / Project Semester	Prep. for Clinical Clerk-ship / CBT/ Pre-CC OSCE	Clinical Clerkship	Graduation Exam. ・Post-CC OSCE
	Liberal Arts, Academic Writing, Global Communication Skills						
	Social Science, AI/Data Science, ELSI, Behavioral Science						
	Medical Introductory Course, Early Exposure for Clinical Medicine, Interprofessional Education						
	Elective Program: Research Training Program, Healthcare Leadership Course, Antreprenership Course						

Liberal Arts
Basic Medical Science
Social Medicine
Clinical Medicine

全国医学部長病院長会議(AJMC)「わが国の大学医学部・医科大学白書2024」より
臨床実習について（学生アンケート, n=1,616)
The All Japan Conference of Deans and Directors of Medical Schools(AJMC)
"Japan's University Medical Schools: White Paper 2024"
Clinical Training (Student Survey, n=1,616)

臨床実習の指導についてどう考えますか
The quality of instruction during clinical training

30–40% consider partially insufficient

診療参加型の実習は実施されていると考えますか
Participation in medical practice

20–30% consider partially insufficient
（わが国の大学医学部・医科大学 白書2024）

文部科学省委託事業「大学における医療人養成の在り方に関する調査研究」
McGill大学医学部における臨床実習視察について
Report on the clinical training observation at McGill University School of Medicine.

調査研究実施者：鈴木利哉（大学改革支援・学位授与機構）、
中村真理子（東京慈恵会医科大学）、山脇正永（東京科学大学）
調査期間：2025年2月17日～2月23日

- 臨床実習を臨床研修への移行時期として位置付け、学生が医療チームの中で学修及び責務（職務）を果たすことが期待されていた。
- 学生に求められている医行為は各科目のシラバスに明示されており、内科系では主として病歴聴取及び身体診察（H&P）、各種検査所見の解釈、臨床推論を含むAssessment & Plan及び診療録記載とpresentationであった。
- 学生の臨床能力の評価はWorkplace-based Assessments (WBAs)を中心として実施されていた。
- 臨床実習及び臨床研修の指導医は同一であり、日本と同様であった。また、いわゆる「屋根瓦式」教育が実施されており、研修医（レジデント）の教育スキルを向上させる講習会も実施されていた。

- The clinical internship was positioned as a transition period to clinical training, and students were expected to learn and fulfill responsibilities (job duties) within the medical team.
- The medical procedures required of students were clearly stated in the syllabus for each subject, and in the internal medicine department these mainly consisted of taking a medical history and physical examination (H&P), interpreting various test findings, making an assessment and plan including clinical reasoning, and writing medical records and making presentations.
- Students' clinical abilities were evaluated primarily through Workplace-based Assessments (WBAs).
- The supervising physicians for both the clinical internship and clinical training were the same, just like in Japan. Furthermore, the so-called "roof-tile style" education was implemented, and seminars were also held to improve the teaching skills of residents.

文部科学省委託事業「大学における医療人養成の在り方に関する調査研究」
Visits to Thomas-Jefferson University, NBME, and Inteleth

調査研究実施者：奈良信雄（JACME）、山脇正永（東京科学大学）
調査期間：2025年10月14日～10月16日

- USMLE Step 2 CSの終了に伴い、WBAsの重要性がクロースアップされている。
- JeffDOTを用いたWBAsについて、リアルタイムのフィードバック/モニタリング方法が導入されていた。
- Programmatic assessment/outcomeの考え方に基づいて、臨床実習においてもWBA及びOSCE等を活用した能力評価が計画的に実施されていた。
- 指導医の教育能力涵養のため各種FDが実施されており、研修医（レジデント）対象のResident-as-Teacher Programも実施されている。

- With the completion of USMLE Step 2 CS, the importance of WBAs has come into sharp focus.
- Real-time feedback/monitoring methods have been introduced for WBAs using JeffDOT.
- Based on the concept of programmatic assessment/outcome, ability assessments using WBAs and OSCEs are being systematically implemented in clinical training.
- Various FDs are being implemented to cultivate the teaching abilities of supervising physicians, and a Resident-as-Teacher Program for residents has also been implemented.

Workplace-based Assessments (WBAs)

実際の臨床現場で、学修者（医学生・研修医）の行動を直接観察し、その場で評価・フィードバックする方法の総称で、「現場での実践能力」を評価するもの。

Workplace-based Assessments are general terms for methods of directly observing learners (medical students and residents) in actual clinical settings and providing on-the-spot evaluation and feedback, assessing their "practical ability in the field."

- 目的
  - 机上・シミュレーションの知識ではなく、リアルな場面での患者対応能力を評価する
  - 学修者へ即時にフィードバックを行い、成長を促す
  - 継続的な評価を通じてコンピテンシーの達成度を可視化する
  - 総括評価もできる
- Purpose
  - Assess learners' ability to interact with patients in real-life situations, rather than relying on theoretical or simulated knowledge.
  - Provide immediate feedback to learners to encourage growth.
  - Visualize competency achievement through continuous evaluation.
  - Summative evaluation is also possible.

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WBA Tools

- Mini-CEX：短時間の診療観察とフィードバック
- DOPS（Direct Observation of Procedural Skills）：手技の直接観察
- CBD（Case-Based Discussion）：症例の意思決定過程の対話
- MSF（Multi-source Feedback / 360° 評価）：多職種・患者からの評価
- Field Notes / Encounter Cards：日々の短い観察記録

Table 1: Overview of salient features of common workplace-based assessment tools

Type of tools	Type of observation	Type of assessment	Temporal context	Type of learning event	Feedback
Mini-CEX	Direct	Structured By assessor	Cross-sectional	Clinical skills	Immediate
DOPS	-do-	-do-	-do-	Procedural skills	-do-
CbD	-do-	-do-	Longitudinal	Case management	On completion
COT	-do-	-do-	Cross-sectional	Face-to-face consultation	Immediate
Audio-COT	-do-	-do-	-do-/	Teleconsultation	-do-
CEPS	-do-	-do-	-do-	Clinical and procedural skill	On completion
CEC	Input based	-do-	-do-	Clinical encounter	-do-
CbD	-do-	-do-	-do-	Holistic case management	-do-
MSF	-do-	Structured By peer, team, patient	longitudinal	Professional conduct and relationship	On completion Anonymized
Leadership MSF	-do-	-do-	-do-	Leadership ability	-do-
QIPAT	-do-	Structured By assessor	longitudinal	Quality improvement or audit	On completion
CSA	Overall	Structured By clinical supervisor	-do-	Various domains of clinical learning	-do-
ESR	-do-	Structured By educational supervisor	-do- Periodic	Overall academic progress	At periodic interval
Learning logs	-do-	Semi-structured By team of faculty	Longitudinal	Record of progress	At regular intervals
Portfolios	-do-	-do-	-do-	Documents pertaining to learning events and reflections	-do-

CEX – Clinical evaluation exercise, DOPS – Direct observation of procedural skill, CWS – Clinical work sampling, COT – Consultation observation tool, CEPS – Clinical examination and procedural skill, CEC – Clinical encounter card, CbD – Case based discussion, MSF – Multisource feedback, QIPAT – Quality improvement project/audit assessment tool, CSR – Clinical supervisor report, ESR – Educational supervisor's review

Workplace-based Assessments

- 特徴とメリット
  - 実践能力の評価に強い（診察、コミュニケーション、意思決定、チームワーク等）
  - 臨床業務と同時に（短時間で）実施可能
  - 複数回・頻回の評価で信頼性が高まる
  - 学修者が自分の強み・課題に気づきやすい
- 課題
  - 評価者間のばらつき（inter-rater variability）
  - 指導医の時間確保とトレーニング
  - 適切な頻度・タイミングでの実施・記録が必要
  - 総括評価に用いる場合

Features and Benefits

- Strong in assessing practical skills (examination, communication, decision-making, teamwork, etc.)
- Can be conducted simultaneously with clinical work (in a short time)
- Reliability is enhanced with multiple and frequent assessments
- Easily identifies learners' strengths and weaknesses

Challenges

- Inter-rater variability
- Securing time and training for supervising physicians
- Requires appropriate frequency of implementation and recording
- When used for summative assessment

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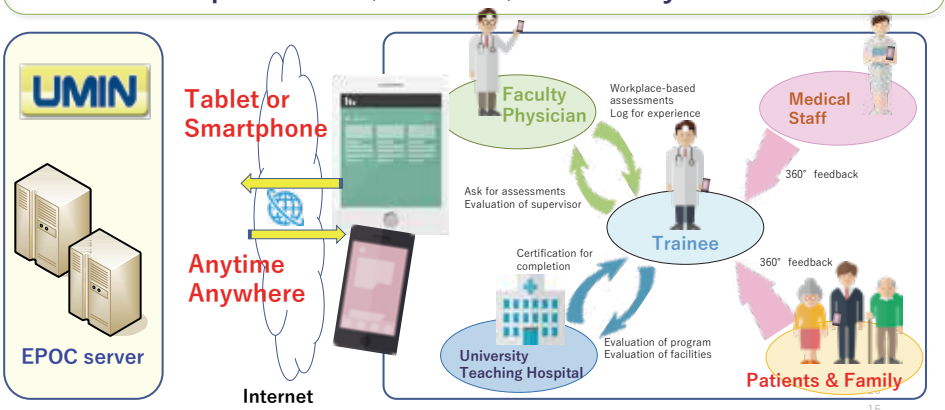
EPOC (E-POrtfolio of Clinical training)

- The importance of seamless evaluation of competencies from undergraduate clinical clerkship to post-graduate clinical training has been pointed out.
- EPOC (E-POrtfolio of Clinical training) is an e-portfolio system developed in Japan, and an evaluation system covered from clinical clerkship to residency period.
- There are two EPOCs currently in operation: PG-EPOC, which is for postgraduate clinical training, and CC-EPOC, which is for undergraduate clinical training.
- The current version of PG-EPOC is used at about 800 facilities and used by more than 8,000 residents, making it possible to obtain and analyze nationwide data on clinical trainees in Japan.
- Currently, approximately 30 schools have registered and begun operation of CC-EPOC.

EPOC (E-POrtfolio of Clinical training)

Nationwide ePortfolio for residents (PG-EPOC) & clerkship students (CC-EPOC) seamlessly



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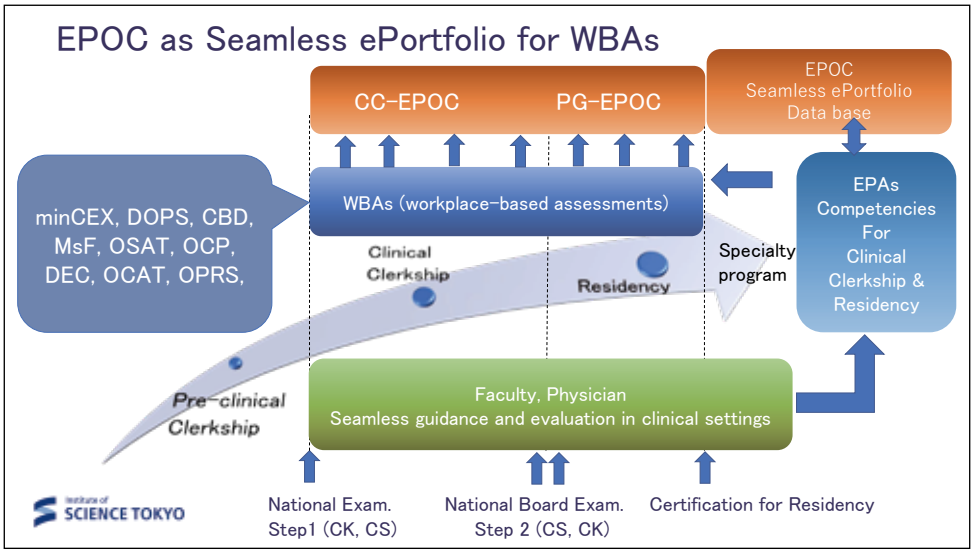

Seamless assessment for trainees from clerkship to residency

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	CC-EPOC (Clerkship Students)	PG-EPOC (Residents)
Competent for Natl Exam Step1	1	
Novice as clerkship student	2	
Advanced beginner as student	3	
Competent for Natl Exam Step2 Novice as resident	4	Level1
Advanced beginner as resident (Proficient as student)	5	Level2
Competent for specialty program		Level3
Proficient as resident		Level4

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Contents of CC-EPOC

- **Competencies for clerkship students**
- **Entrustable professional activities (13 EPAs)**
- **Major diseases that students should experience (37 diseases)**
- **Basic skills (17 general procedures & 12 laboratory skills)**
- **Mini-CEX log**
- **Case-based discussion report (CbD)**
- **Narrative feedback**

What CC-EPOC (for clerkship) looks like : Competencies

CC-EPOC

1. Professionalism
2. Problem solving
3. Clinical skills
4. Communication
5. Interprofessional team
6. Patient safety
7. Systems medicine
8. Medical research

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Evaluation from Supervisor (M6 CC-EPOC)

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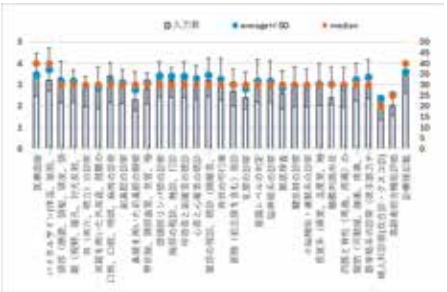
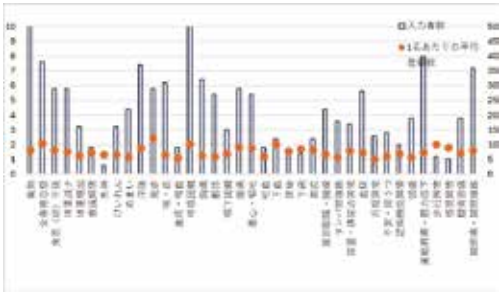
Clinical Skills



Symptoms



Evaluation of each rotation from students (CC-EPOC)

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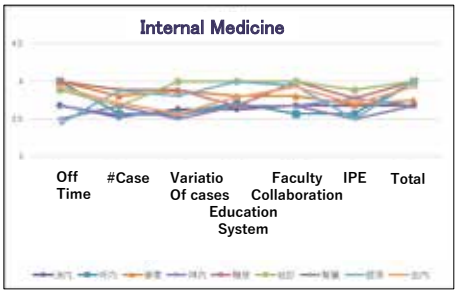
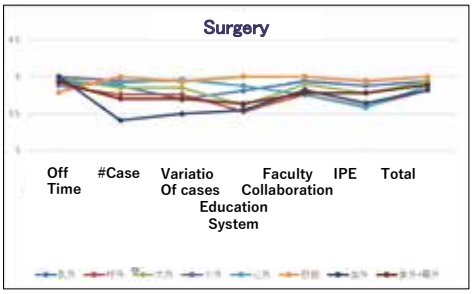
Internal Medicine

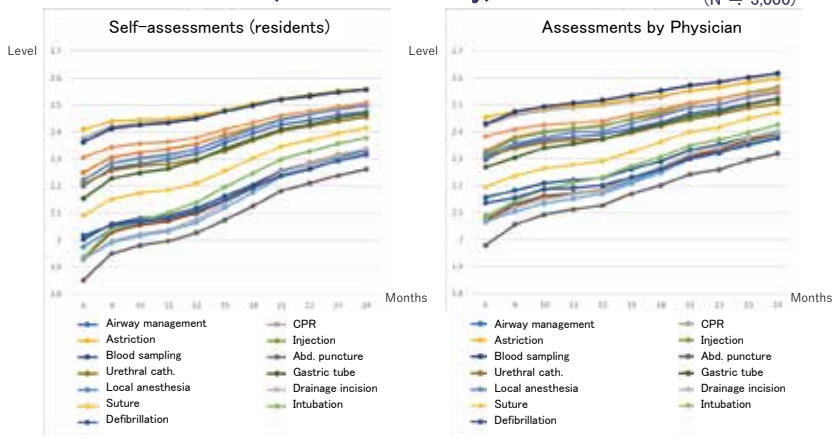


Surgery



Progress of clinical skills of residents in two years (nationwide study)

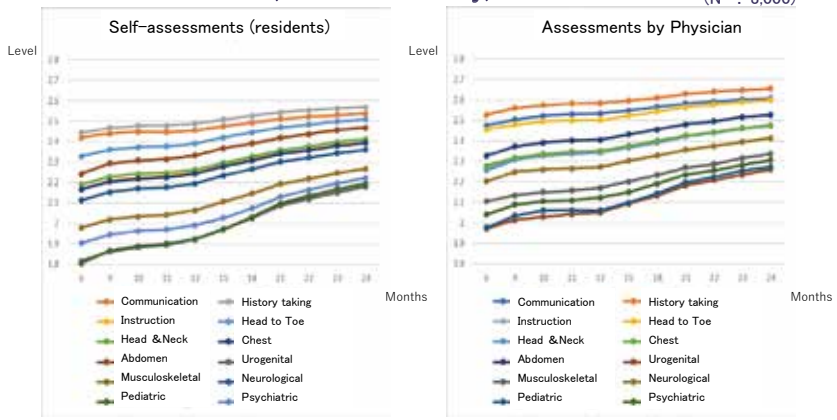
(N ≒ 3,000)



(Supported Health Labour Sciences Research Grant)

Progress of clinical skills （H&P）of residents in two years (nationwide study)

(N ≒ 3,000)



(Supported Health Labour Sciences Research Grant)

Remediation Point

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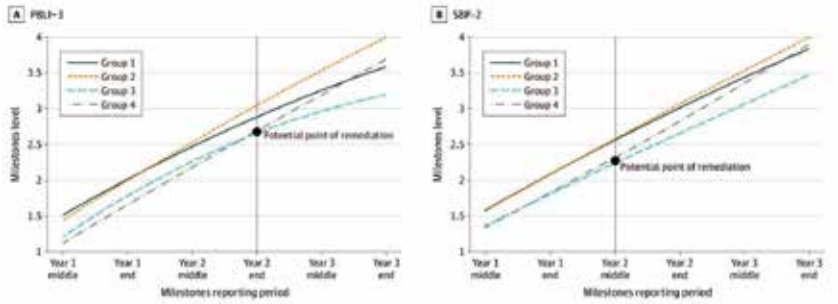


Growth Trajectories for Practice-Based Learning and Improvement-3 (PBLI-3) and Systems-Based Practice-2 (SBP-2)

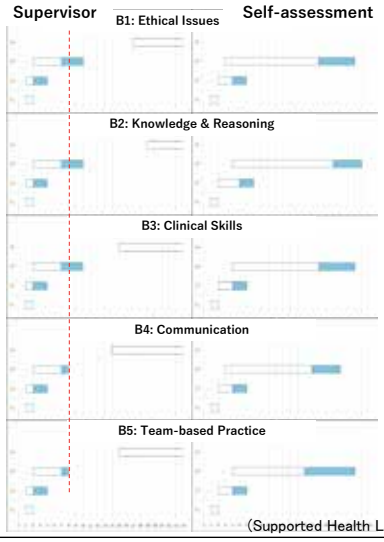
PBLI-3 is improves systems in which the physician provides care; SBP-2, emphasizes patient safety. Learning trajectories reflect uniquely distinct pathways of learners, as identified from the national data. Learners in group 3 did not achieve the level 4 graduation target indicating that they are ready for unsupervised practice.

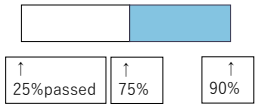
(Park YS. JAMA Netw Open. 2021 Dec; 4(12): e2137179.)

Achievement Progression
(IST residents 2020-2023)

L4: Advanced physician level
L3: End of clinical training level
L2: Mid-way point in clinical training level
L1: Beginning of clinical training level

Supervising physician evaluation:
- 90% achieve a grade of 3 by the second half of their first year.
- Fewer than 75% achieve a grade of 4.
- Communication and teamwork are achieved more quickly than other areas.





Self-assessment: ・Achieved a grade of 3 in the second half of the second year, later than the preceptor's assessment. ・Less than 25% rated themselves as having reached a grade of 4.

(Supported Health Labour Sciences Research Grant)

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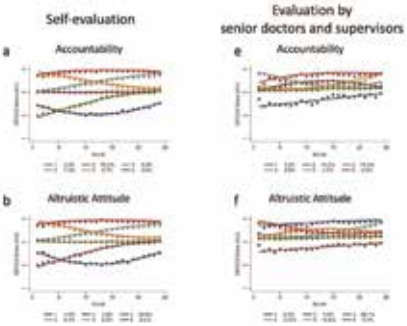
BMJ Open Analysis of the growth trajectories of junior residents in Japan: a longitudinal cohort study using data from a nationwide e-portfolio system (EPOC2)



- Acquisition of clinical skills shows different development for each trainee.
- The developmental patterns of skill acquisition in trainees can be grouped into several groups.
- By trajecting the development of trainees using EPOC, it is possible to understand the progress of trainees
- In addition, it is possible to detect groups of trainees that require intervention and timing of remediation.

(BMJ Open 2025;15:e087625. doi:10.1136/bmjopen-2024-087625)

Discrepancy between self-assessment and supervising physician assessment

Medical Trainees and the Dunning–Kruger Effect: When They Don't Know What They Don't Know

Maryam Rahmani, MD

Dunning–Kruger Curve or the Dunning–Kruger Effect. students who performed poorly often grossly overestimated their performance. students who objectively performed well often subjectively underestimated their performance.

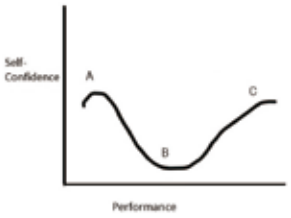


FIGURE
Graphic Depiction of the Dunning–Kruger Effect

(DOI: http://dx.doi.org/10.4300/JGME-D-20-00134.1)

指導医がいかにWBAsを実践するか

忙しい指導医にとっての最大のコツは、WBAを“診療にくっつける”ことであり、WBAのために“別の時間を作らない”こと。

- WBA は “追加の業務” ではなく、“日常診療の中で短時間でやる” と割り切る
- “3分以内に終わるフィードバック型WBA” を習慣化する
- 学生・研修医に「セルフ準備」を徹底させる（指導医の時間を奪わない）
- 評価者トレーニングを“最小限セット”にする
- 複数評価者制（multi-rater）を導入し、負担を分散
- “記録のミニマム化”で 2 分以内で終わるシステムにする
- WBA の頻度を“少なくても適切”にする

Tips for preceptors to practice WBAs

The biggest tip for busy supervising physicians is to "integrate WBA into medical practice" and not "make time for it."

- WBA should not be an "additional task," but rather "short-duty as part of daily clinical practice.“
- Make it a habit to "complete feedback-based WBA within three minutes.
- "Encourage students and trainees to "self-prepare" (so as not to take away from preceptors' time).
- Minimize rater training.
- Introduce a multi-rater system to distribute the burden.
- Minimize recording to create a system that can be completed within two minutes.
- Conduct WBAs "more frequently, even if they are shorter.“
- Make WBAs "infrequent but appropriate."

指導医の教育活動を活性化するための課題
Maximize educational activities of supervising physicians

- 教育活動が正式に評価される仕組み（業績化）
- 教育プログラム、教育手法の共有・理解（Faculty Development）
- 指導医の負担を軽減する構造（働き方改革も踏まえて）
- 職場内の教育文化(仲間・組織の支援)
- 教育を“負担ではなくプラス”に感じられる業務設計
- 学生・研修医からのフィードバックの可視化

- A system for formally evaluating educational activities (achievement evaluation)
- Sharing and understanding educational programs and methods (Faculty Development)
- Structures to reduce the burden on supervising physicians (taking into account work style reform)
- Workplace educational culture (support from colleagues and the organization)
- Workplace design that makes education a "positive experience, not a burden“
- Visualization of feedback from students and trainees

Utilizing EPOC as a portfolio of teaching achievements for supervising physicians

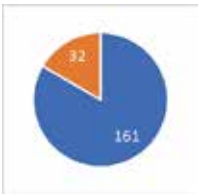
- Visualize the degree of contribution of supervising physicians to education and lead to appropriate faculty evaluations.
- Teaching history can be aggregated across the clinical training curriculum.

A survey of teaching hospitals regarding medical students' clinical training

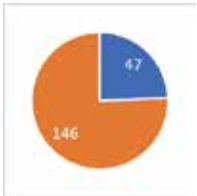
- Conducted in June 2025
- Targeting teaching hospitals for junior residents nationwide(1,038 hospitals)
- Number of responses: 193(Response rate: 18.6%, University hospitals: 31, General hospitals: 162)
- 187 (96.9%) hospitals responded that they accept students

Incorporate WBAs into resident evaluations

Contents of the residency instructor FD will be useful for undergraduate teaching?

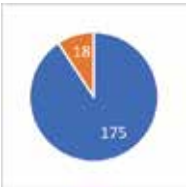


Residents-as-Teacher program



EPOC usage by supervising physicians

Did you know that you can check the history of self-evaluation, supervising physician evaluation, and technique evaluation?



Did you know that EPOC has a function that can aggregate the supervising physician's input history?

Do you think the history can be used to guide trainees?

Do you think that EPOC's preceptor entry log can be used to evaluate preceptor teaching performance?

Take-home messages

- 臨床能力の涵養は臨床現場での実践と評価が必須であり、WBAsは臨床実習・臨床研修の質を高めると考えられる
- 臨床現場でのWBAsの活用
  - 学修者にとって：現場でのフィードバックが得られる、ePortfolioシステム等の活用により自己の到達度と次の目標設定が可能となる
  - 指導医にとって：学修者のレディネス・到達度が把握できる、指導のフィードバックが得られる、自己の教育実践を振り返れる
  - プログラム作成者にとって：介入が必要な群が特定できる、プログラム評価が可能となる、修了認定等の総括的評価に活用できる
- 指導医が臨床現場での教育を実践するための提言
  - 教育業績・実績の適正な評価
  - 臨床実習指導医のためのFD (faculty development)、医師臨床研修指導医講習会との共催
  - 教育に係る負担軽減（WBAsの活用、研修医の活用、教育手法・文化の共有など）
  - Programmatic assessment の活用

Take-home messages

- Cultivating clinical skills requires practical application and evaluation in clinical settings, and WBAs are believed to improve the quality of clinical training.
- Using WBAs in Clinical Settings
  - For learners: Receive feedback from the clinic, and utilize ePortfolio systems to assess their own progress and set future goals.
  - For preceptors: Understand learners' readiness and progress, receive feedback on their instruction, and reflect on their own educational practices.
  - For program designers: Identify groups in need of intervention, enable program evaluation, and utilize WBAs for summative evaluations such as completion certification.
- Recommendations for preceptors to implement education in clinical settings
  - Appropriate evaluation of educational achievements and performance
  - Faculty development (FD) for clinical preceptors for undergraduate trainees, co-hosting for postgraduate trainees
  - Reduce the burden of education (utilizing WBAs, sharing residents, sharing educational methods and culture, etc.)
  - Utilizing programmatic assessment

Ackowledgments

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- 厚生労働科学研究 「ICT を基盤とした卒前卒後のシームレスな医師の臨床教育評価システム構築のための研究」

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- Nihon Pharmaceutical University：Tsuguya Fukui

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- Ministry of Health, Labour and Welfare Scientific Research "Research to build a seamless ICT-based clinical education evaluation system for medical trainees under- and post- graduation"

Report on the clinical training observation at McGill University School of Medicine.
Toshiya Suzuki (National Institution for Academic Degrees and University Reform), Mariko Nakamura (The Jikei University School of Medicine), Masanaga Yamawaki (Tokyo University of Science). Research period: February 17th to 23rd, 2025.

- The clinical internship was positioned as a transition period to clinical training, and students were expected to learn and fulfill responsibilities (job duties) within the medical team.
- The medical procedures required of students were clearly stated in the syllabus for each subject, and in the internal medicine department these mainly consisted of taking a medical history and physical examination (H&P), interpreting various test findings, making an assessment and plan including clinical reasoning, and writing medical records and making presentations.
- Students' clinical abilities were evaluated primarily through Workplace-based Assessments (WBAs).
- The supervising physicians for both the clinical internship and clinical training were the same, just like in Japan. Furthermore, the so-called "roof-tile style" education was implemented, and seminars were also held to improve the teaching skills of residents.

Visits to Thomas-Jefferson University, NBME, and Inteleth
Research conducted by: Nobuo Nara (JACME), Masanaga Yamawaki (Science Tokyo)
Research period: October 14th to 16th, 2025

- With the completion of USMLE Step 2 CS, the importance of WBAs has come into sharp focus.
- Real-time feedback/monitoring methods have been introduced for WBAs using JeffDOT.
- Based on the concept of programmatic assessment/outcome, ability assessments using WBAs and OSCEs are being systematically implemented in clinical training.
- Various FDs are being implemented to cultivate the teaching abilities of supervising physicians, and a Resident-as-Teacher Program for residents has also been implemented.

Clinical clerkship curriculum and outcome evaluation in a medical school (SKMC) in the United States

Wayne Bond Lau, MD, FAAEM FACEP FCPP
Professor | Emergency Medicine
Associate Dean | Office of Student Affairs
Director | Jefferson Chinatown Clinic
Associate Director | Jefferson Japan Center
Sidney Kimmel Medical College · Thomas Jefferson University

Jefferson
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With great gratitude

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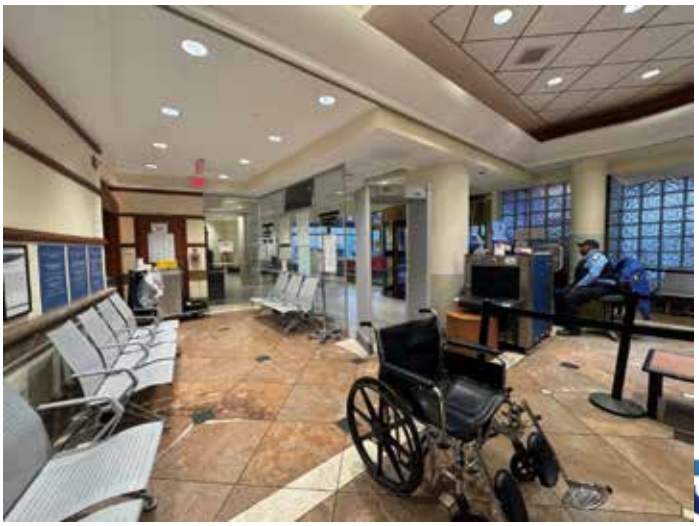
- Japan Society for Medical Education
- Institute of Science Tokyo
- Noguchi Medical Research Institute

- Nobuo Nara, MD, PhD
- Masanaga Yamawaki, MD, PhD, MMA
- Yoshihisa Asano, PhD, DPH

Jefferson
HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

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United States
Narita International Airport
Vietnam
Mexico
Philippines
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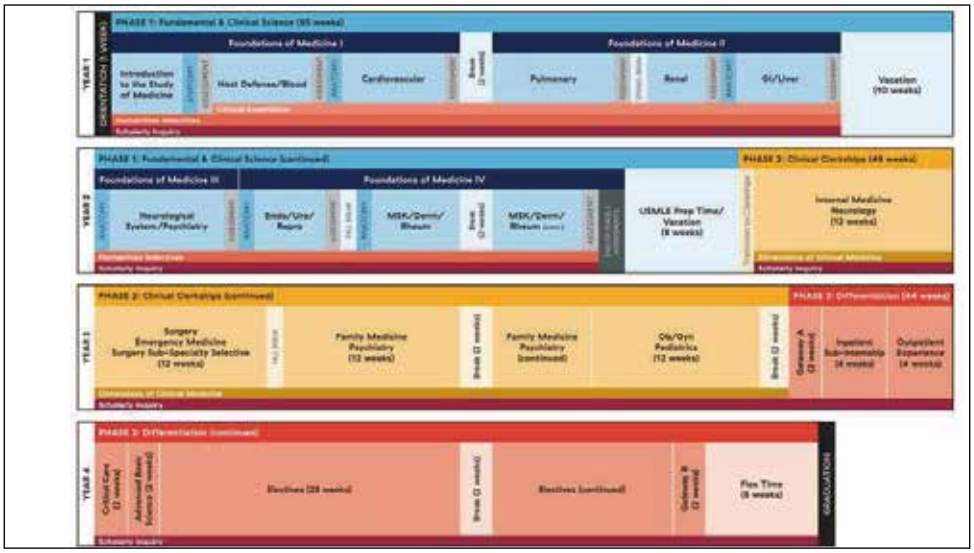
PHASE 1 BLOCKS
CLINICAL CLERKSHIPS
Phase 2:
Phase 3:
JeffMD's goal:
To educate physicians who will serve, lead and discover
Jefferson


YEAR 1
YEAR 2
YEAR 3
YEAR 4
Foundations of Medicine I
Foundations of Medicine II
Foundations of Medicine III
Foundations of Medicine IV
Vacation (10 weeks)
Internal Medicine Neurology (12 weeks)
Surgery Emergency Medicine Surgery Sub-Specialty Selective (12 weeks)
Family Medicine Psychiatry (12 weeks)
Ob/Gyn Pediatrics (12 weeks)
Electives (28 weeks)
Flex Time (8 weeks)
GRADUATION

Phase 2: Clinical Rotations

Rotation	Length
Internal Medicine	8 weeks
Surgery	6 weeks
Obstetrics and Gynecology	6 weeks
Pediatrics	6 weeks
Family Medicine	6 weeks
Psychiatry	6 weeks
Emergency Medicine	3 weeks
Surgical Subspecialty (ENT, Neurosurgery, Ophthalmology, Anesthesia, or Urology)	3 weeks

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Phase 3: Clinical Rotations (mandatory)

Mandatory Rotation	Length
Inpatient Sub-internship	4 weeks
Inpatient Sub-internship	4 weeks
Critical Care	2 weeks

*Phase 3 (*Differentiation*) is highly individualized. Students pursue mostly electives that relate to their field of choice.

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SKMC Phase 2 Clinical Evaluation Form

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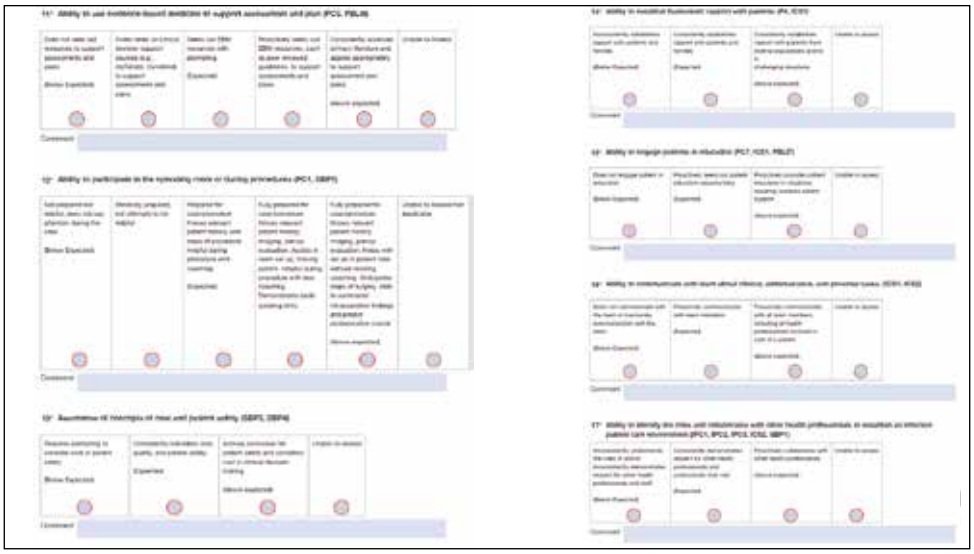
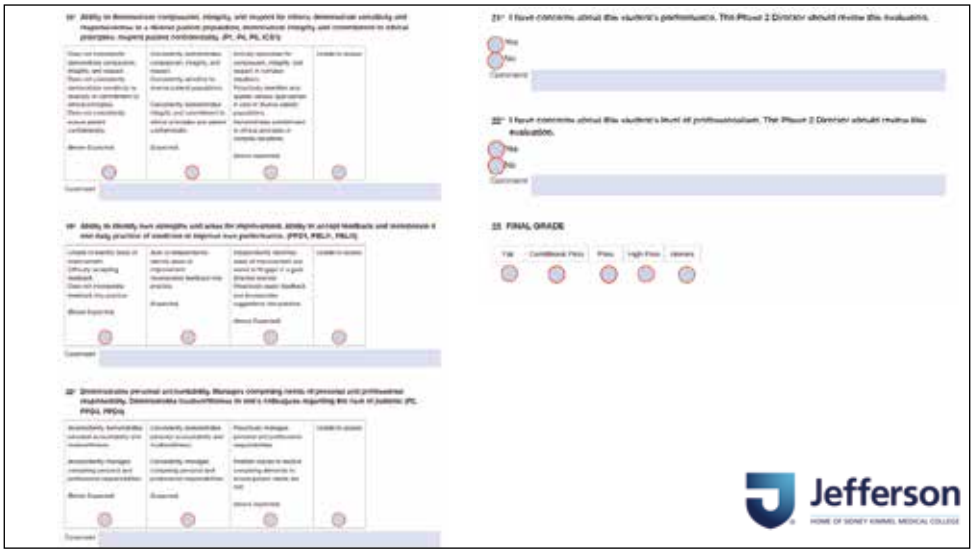
GENERAL
Knowledge For Practice

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Evaluation Summary

- **Summative Feedback** (MSPE)
  - Knowledge, clinical skills, communication, clinical reasoning, patient-centered attitudes, professionalism
- ***Private** Constructive Feedback
- **General** (2 items)
- **Practice knowledge** (14 items)
- *Miscellaneous*:
  - Time spent with student
  - Concerns about performance
  - Concerns about professionalism

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Grades

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Clinical Clerkships

- Honors
- High Pass
- Pass
- Fail
- Conditional Pass (**temporary grade, **remediation*)

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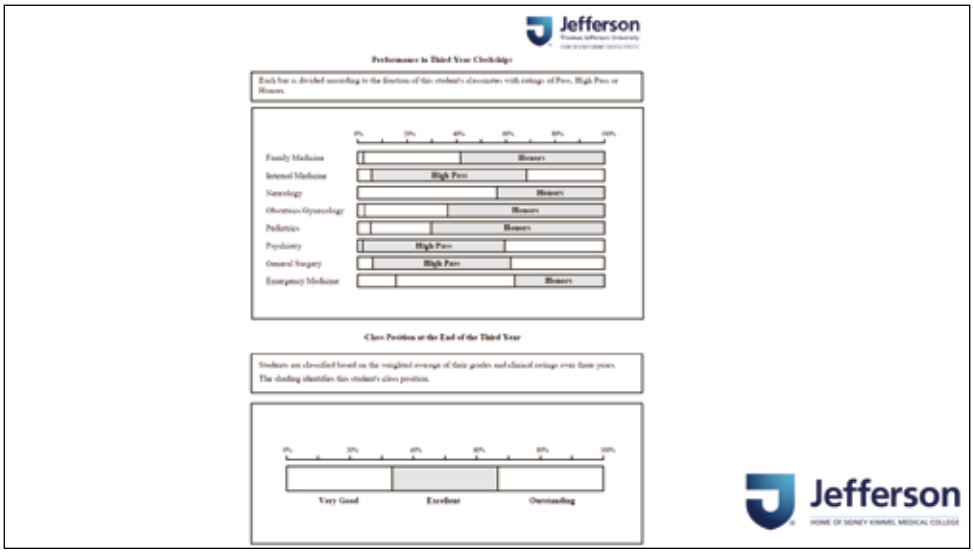

Medical Student Performance Evaluation (MSPE) Letter

- Letter provided by Medical College
- Accompanies the registrar's transcript
- Gives insight beyond numerical grades

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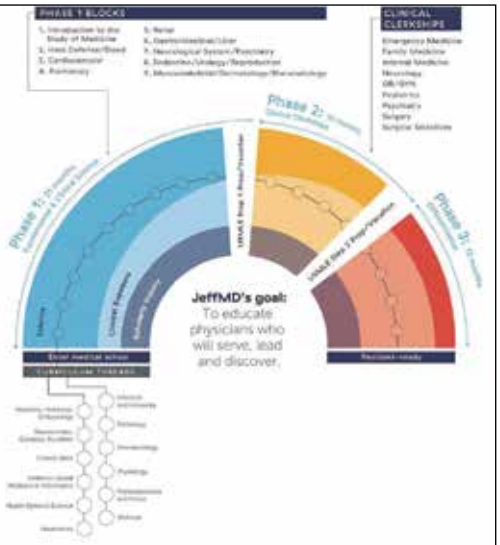
Progression

- Phase 1 _preclinical
- Step 1
- Phase 2 _clinical
- End of Phase 2 OSCE
- Step 2
- Phase 3 _clinical



USMLE Step 2 Clinical Skills (CS)

- Permanently discontinued in January 2021
- No longer a requirement for medical licensure in the United States
- In-person, performance-based assessment that tested **communication** and **patient interaction skills** through simulated encounters with standardized patients
- Components:
  - Obtain history
  - Perform physical examination
  - Create DDx
  - Plan
  - Bedside manner

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Association of Standardized Patient Educators (ASPE)

- Global ASPE members have developed the ASPE Standards of Best Practice (SOBP)
  - Ensure the growth, integrity, and safe application of SP-based education practices
- Jefferson is a proud member of ASPE
  - Mid Atlantic Consortium
  - We share/reciprocate cases with other medical colleges

ASPE
The Global Network for Human Simulation Education

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Phase 2 Evaluation Process

- Clinical Performance (as noted before)
- NBME Standardized Shelf Examinations
- Objective Structured Clinical Examination (OSCEs) utilizing Standardized Patient Encounters
  - Internal Medicine
  - Surgery
  - End of Phase 2 Summative

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How do we know we are doing a good job preparing our students?

*beyond Step 2 data

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Jefferson Direct Observation Tool (JeffDOT)

- JeffDOT is a mobile app (iOS and Android)
- Encourages frequent microassessments (<5 min) in real time
- Checklists are signed off by faculty observing students
- Four realms:
  - history taking
  - physical exam
  - oral presentation
  - counseling/discharge

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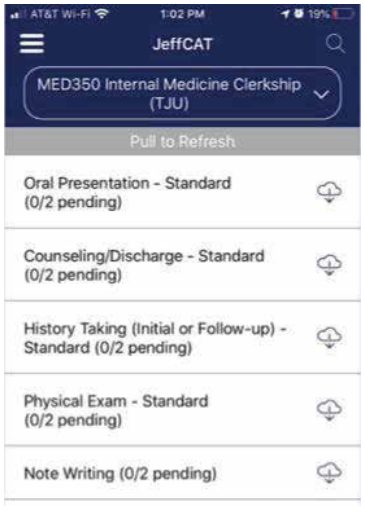

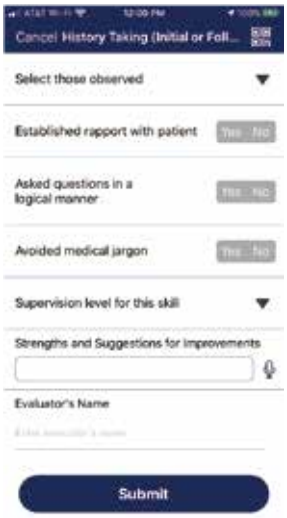

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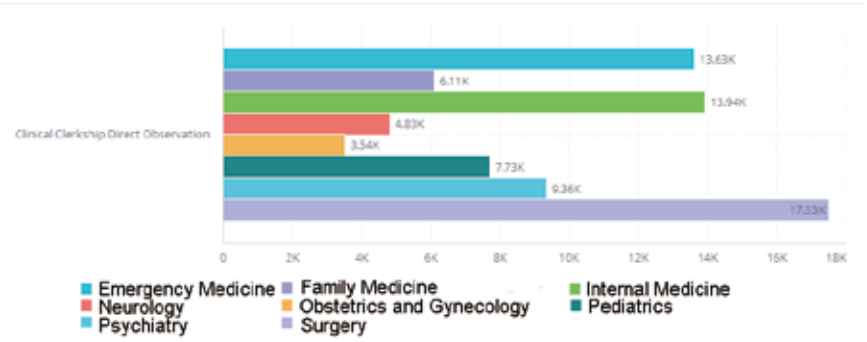
JeffDOTs per Clerkship



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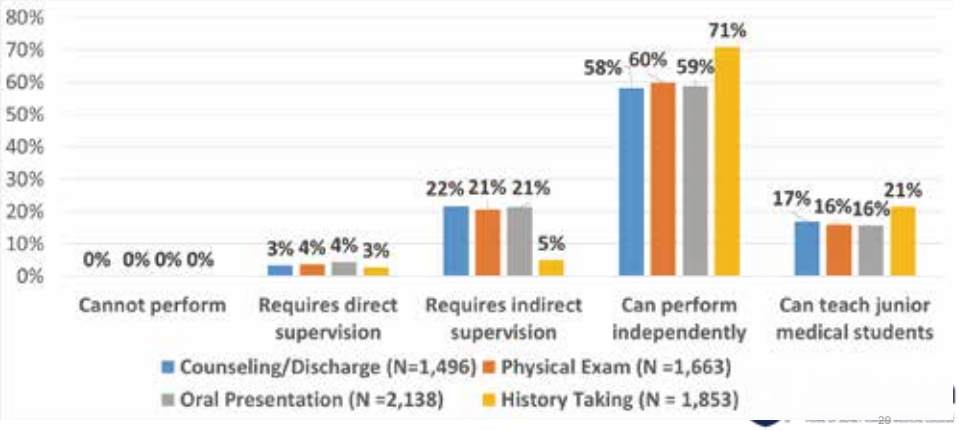
Core Skill Checklist – M3 Performance



JeffDOT impact

- >62% students are competent to perform history taking, physical exam, oral presentation, and counseling/discharge **independently**
- Students can self-track progress across the medical school curriculum
- Skill checklists **standardizes** bedside formative assessments
- JeffDOTS has shifted institutional culture from static faculty-centered to **learner-centered** "in the moment" assessment

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AAMC Resident Readiness Survey/ ACGME Harmonized Milestones (HM) Data

- Association of American Medical Colleges (AAMC) and Accreditation Council for Graduate Medical Education (ACGME) surveys program directors
- AAMCand ACGME shares data comparing our performance with national norms

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Thomas Jefferson University

Subcommittee on Programmatic Outcomes and Competencies (SPOC)

SKMC Outcomes

Competency 4: Interpersonal and Communication Skills

Sidney Kimmel Medical College (SKMC)
Undergraduate Medical Education
Office of Assessment
October 2025

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SKMC [AAMC] Competency #4

- Competency #4-Interpersonal and communication skills: Physicians should demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
  - Medical Educational Program Objectives(MEPOs): -Graduates will:
    - ICS1 Communicate effectively with patients, families, peers, and other team members of diverse backgrounds, languages, cultures, and communities using strategies to build therapeutic alliances, promote inclusion and equity, and ensure understanding
    - ICS2 Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health-related agencies
    - ICS3 Maintain comprehensive, timely, and clear medical records
    - ICS4 Demonstrate sensitivity, honesty, and compassion in difficult conversations
    - ICS5 Demonstrate empathy and an understanding about human emotions that allow one to develop and manage interpersonal interactions

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Methods of Assessment: Undergraduate Outcomes

- **Each phase director:**
  - **Reviewed the national assessments**
  - **Determined the alignment with MEPOs (Medical Education Program Objectives).**
- **Undergraduate Medical Education Program**
  - Multiple Choice
    - Block Exams, Quizzes, Anatomy Practicum, Scholarly Inquiry, USMLE Step 1, and USMLE Step 2CK
  - Clinical performance
    - Block Clinical Skills Assessments, OSCE: End of Year 1, End of Phase 1, End of Clerkship, End of Phase 2, and End of Phase 3, Direct Observations, Standardized Patient Encounters
  - Rubric
    - Clinical Skills Small Group, Wellness Week Reflection Essay, Health Mentors, and Clinical Experience, Scholarly Inquiry
  - Formative assignments
    - Clerkship/Course specific assignments

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Post Graduation Outcomes

- **Survey of Program Directors -**
  - **American Association of Medical Colleges (AAMC) Resident Readiness Survey (Pilot project)**

Pilot Year	Academic Year	Response Rate	Number of graduates	Number submitted ERAS*	Number in ERAS and GME Track**
2	2021 – 2022	59.0%	271	250	148
3	2022 – 2023	61.6%	258	242	149
4	2023 - 2024	64.2%	274	257	165
5	2024 - 2025	65.0%	257	223	145

*Number of graduates who submitted an ERAS application and were reported in GME Track as a resident in training
**Number of graduates in ERAS and GME Track for whom Program Directors participated in a Resident Readiness Survey

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Methods of Assessment: Post Graduation Outcomes

- **Clinical Performance Assessment Tool**
  - **Accreditation Council for Graduate Medical Education (ACGME) Harmonized Milestones (HM)**
    - **Completed by program director at the end of Intern year**

Cohort	Percentage of Interns Participating	All Interns*	Interns from Participating Schools
Class of 2021	27%	35,729	9,688
Class of 2022	39%	36,628	14,461
Class of 2023	39%	37,757	14,760
Class of 2024	Not yet available	Not yet available	15,417

**Source: ACGME Data Resource Books AY2021 – 2022, AY2022 – 2023, AY2023 – 2024 https://www.acgme.org/about/publications-and-resources/graduate-medical-e

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Dates of longitudinal data included in summary

Graduating Class of:	2021	2022	2023	2024	2025
UME Outcomes					
Overall passing rate for assessments	✓	✓	✓	✓	✓
Post Graduation Outcomes:					
Resident Readiness Survey Results	✓	✓	✓	✓	
ACGME Harmonized Milestone Ratings	✓	✓	✓		

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Questions that need to be answered for each MEPO

1. Is the MEPO measurable by outcomes using our current assessment tools?
2. Were there sufficient assessments across all three phases for the MEPO?
3. Did the cohort demonstrate successful accomplishment of the MEPO?

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MEPO ICS1

- "Communicate effectively with patients, families, peers, and other team members of diverse backgrounds, languages, cultures, and communities using strategies to build therapeutic alliances, promote inclusion and equity, and ensure understanding"

This MEPO was evaluated using the following assessment methods:

Phase 1	Phase 2	Phase 3
Clinical Skills Assessment	Clerkship Clinical Evaluation form (Rubric)	Direct observations at bedside
Clinical Skills Small Group (Mid-year Feedback, End-of-Year Reflection, Patient Narrative, Wellness Week Reflection)	Direct observations at bedside	Course Clinical Evaluation form (Rubric)
End-of-Year 1 Clinical Skills Assessment	End-of-Clerkship OSCE (FMED, MED, PSYH, SURG, OBGYN, DCM)	Standardized Patient Encounter
End of Phase 1 OSCE	End-of-Phase 2 OSCE	End-of-Phase 3 OSCE
		USMLE Step 2 CS (Discontinued exam 2022)

Outcome:
Class of 2021: At least 97% of students passed each of these assessments.
Class of 2022: At least 97% of students passed each of these assessments.
Class of 2023: At least 96% of students passed each of these assessments.
Class of 2024: At least 97% of students passed each of these assessments.
Class of 2025: At least 97% of students passed each of these assessments.
Class of 2026: At least 97% of students passed each of these assessments (Phase 1 and 2 only)
Class of 2027: At least 100% of students passed each of these assessments (Phase 1 only)

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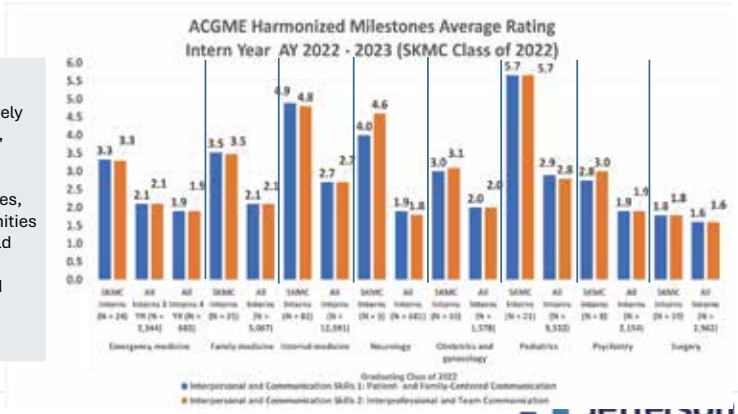
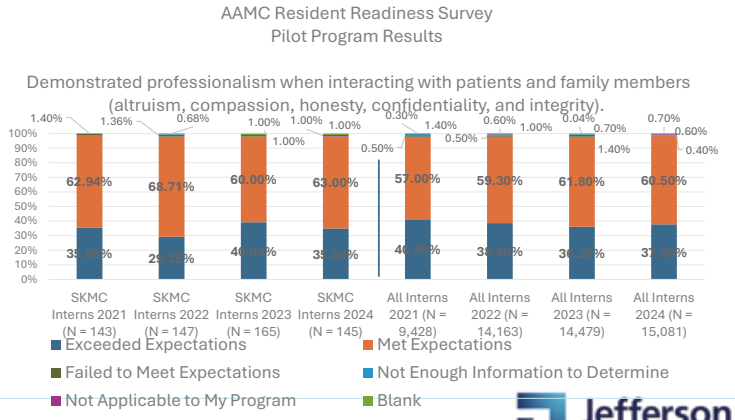
ACGME Harmonized Milestones: ICS 1 and ICS 2

Aligns with:
UME MEPO ICS1
Communicate effectively with patients, families, peers, and other team members of diverse backgrounds, languages, cultures, and communities using strategies to build therapeutic alliances, promote inclusion and equity, and ensure understanding



AAMC Resident Readiness Survey

Aligns with:
UME MEPO ICS1
Communicate effectively with patients, families, peers, and other team members of diverse backgrounds, languages, cultures, and communities using strategies to build therapeutic alliances, promote inclusion and equity, and ensure understanding



AAMC Resident Readiness Survey/ ACGME Harmonized Milestones (HM) Data Conclusion

- For data available (Class of 2021-2023);
- SKMC students are performing at (or above the national norm) for most competencies assessed in these AAMC/ACGME surveys
- A thorough review is ongoing of all the data provided by the AAMC/ACGME

Conclusions

- Our curriculum is constantly improving
- Dynamic > Static
  - Content
  - Feedback and Evaluation
- Philosophical debate regarding grades
  - Step 1 lessons

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Forest from the Trees

With great gratitude

- Japan Accreditation Council for Medical Education
- Japan Society for Medical Education
- Institute of Science Tokyo
- Noguchi Medical Research Institute

- Nobuo Nara, MD, PhD
- Masanaga Yamawaki, MD, PhD, MMA
- Yoshihisa Asano, PhD, DPH

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With great gratitude

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- Joseph Gonnella, MD – Dean Emeritus, Jefferson Medical College
- Takami Sato, MD PhD – Director of Jefferson Japan Center
- Said Ibrahim, MD – Dean of SKMC
- Dimitri Papanagnou, MD – Associate Dean, Faculty Affairs

- Yumiko Radi, Director of Operations, Jefferson Japan Center
- Vincent Gleizer, Project Coordinator, Jefferson Japan Center

Faculty Development for Clinical Skills Teaching

International Symposium supported by the Ministry of Education
Tokyo, Japan
Saturday, November 22, 2025

Dimitrios Papanagnou, MD, EdD, MPH
Professor and Vice Chair for Education
Department of Emergency Medicine

Senior Associate Dean, Faculty Development
Director of Health Systems Science Curriculum
Director, Medical Education Scholarly Inquiry Track

Sidney Kimmel Medical College
Thomas Jefferson University

Associate Provost for Faculty Development
Health Professions Education and Scholarship
Thomas Jefferson University

Goal:

To refine our understanding of faculty development with regards to teaching medical students clinical skills

1. Define Clinical Skills
2. Convey that Faculty Are Essential
3. Discuss Faculty Development
4. Provide Examples in Practice
5. Share Best Practices from Jefferson

Clinical Skills | 01

What do we mean by clinical skills?

Domain	Examples	How to teach this skill?
Technical	Physical exam, procedural skills, use of diagnostic instruments	Step-by-step demonstration, deliberate practice, safe technique
Cognitive	Clinical reasoning, prioritizing a differential diagnosis	Making thinking visible, prompting reflection, coaching reasoning
Interpersonal	Communication, empathy, teamwork, professionalism	Modeling behaviors, guided reflection, feedback on micro-skills

Clinical skills instruction occurs across multiple settings.

At the bedside in the clinical environment

Simulation and skills laboratory settings

Classroom-based settings (e.g., small group learning sessions, case- and team-based learning)

Why does effective clinical skills instruction matter?

- Clinical skills are foundational to professional identify formation.
- Clinical encounters remain the primary context where learners build competence, confidence, and compassion.
- Teaching these skills effectively does not just shape ***what*** learners do, but ***who*** they become as clinicians.

Faculty | 02

Faculty are essential.

Faculty are the lifeblood of the medical school.

Essentially, clinical faculty are living, breathing extenders of the curriculum in the clinical environment.

Faculty roles have evolved to be coaches of learning – not just evaluators of medical students.

Medical students eventually model their approaches to communication, empathy, and decision-making after the faculty they observe.

"Faculty are extenders of the curriculum."

Why the need to focus on faculty development?

- Faculty skills decay over time
- Being clinically excellent does not mean being a skilled teacher of clinical skills
- Faculty vary in comfort and confidence when teaching clinical skills
- Faculty feedback to learners is inconsistent
- Faculty struggle with giving feedback – for both verbal and narrative feedback
- There is limited time for learner observations given time pressures in the clinical setting

What about resident as teachers?

The Good

- Tend to be more available
- Procedural muscle memory
- Narrow hierarchy makes them more approachable
- Psychological safety

The Not So Good

- No formal teaching experience
- Significant variation in knowledge and skills
- Concerns their ability to assess learners

Residents vs. Faculty in the Clinical Environment

- In the setting of increasing work, supervision, and teaching demands, faculty have often relied on resident physicians to assist with medical student training.
- In some cases, residents are asked to complete student evaluations on their clinical skills performance.
- This can be problematic with regards to grade inflation.

	AY23-24			AY24-25		
	Faculty Evaluations	Resident Evaluations	T-Test	Attending Evaluations	Resident Evaluations	T-Test
Lower Quartile Mean	69.49%	79.54%	1.53248E-08	65.78%	77.14%	3.06491E-11
Upper Quartile Mean	93.50%	94.82%	0.053312028	92.38%	93.02%	0.260217664

Faculty Development | 03

What is Faculty Development?

- Activities that **prepare educators** for their respective roles.
- Training that helps faculty **acquire skills** relevant to their position.
- Instruction focused on **teaching effectiveness** and **professional development**.
- **Societal expectation** to ensure physicians-in-training are prepared to work.
- Essential, as most clinicians have had little to no training on how to teach.

The stakes are high!

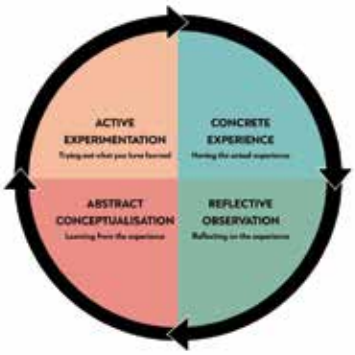
Poorly taught or inconsistently assessed clinical skills can lead to diagnostic and patient safety errors

What does faculty development look like?

What are typical educational formats for delivery of faculty development?

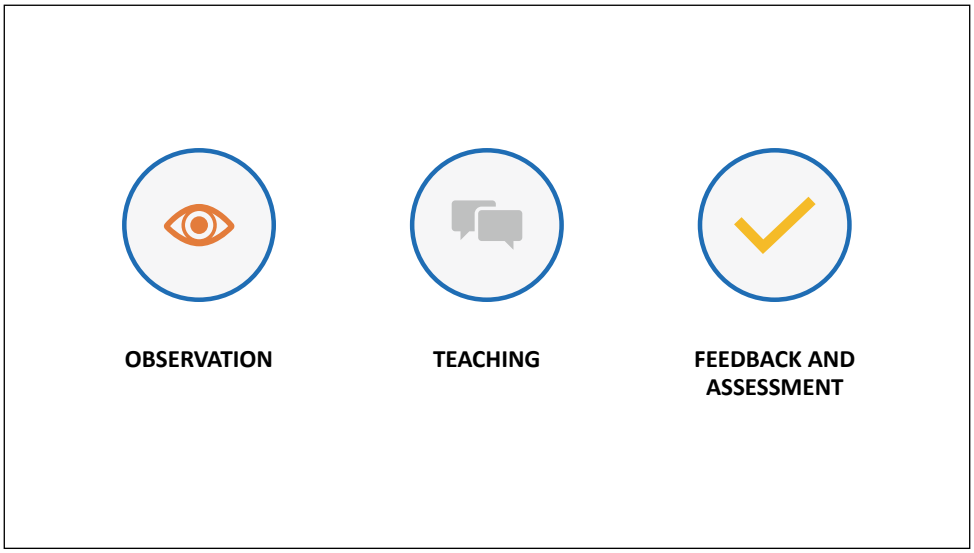
- Workshops
- Teaching modules or microlearning experiences
- Simulation-based training
- Peer observation
- Feedback rounds
- Video-based review for calibration
- Communities of practice for teaching excellence

Clinical Skills Teaching: What Does Theory Tell Us?



What It Means for Faculty Educators?
Build time for reflection after skills sessions
Think aloud while demonstrating a skill
Let learners repeat a skill with specific goals and feedback
Model how you handle uncertainty and recalibrate performance

Foci of Faculty Development Training | 04



Observation

Direct observation is underutilized.

Faculty can be trained in focused observation techniques (e.g., using behavioral anchors, milestones, or entrustable professional activities).

Easy opportunity to use structured tools, like validated checklists.

Example in Practice #1

Looking for specific behaviors from the ACGME Milestones

Adapted from the Emergency Medicine Milestone Project (2021)
Patient Care 4: Diagnosis

Patient Care 4: Diagnosis				
Level 1	Level 2	Level 3	Level 4	Level 5
Constructs a list of potential diagnoses based on the patient's chief complaint and initial assessment	Provides a prioritized differential diagnosis	Provides a diagnosis for common medical conditions and demonstrates the ability to modify a diagnosis based on a patient's clinical course and additional data	Provides a diagnosis for patients with multiple comorbidities or uncommon medical conditions, recognizing errors in clinical reasoning	Serves as a role model and educator to other learners for deriving diagnoses and recognizing errors in clinical reasoning
☐	☐	☐	☐	☐
Comments:			Not Yet Completed Level 1 ☐ Not Yet Assessable ☐	

Teaching

Practice in-the-moment, just-in-time teaching strategies.

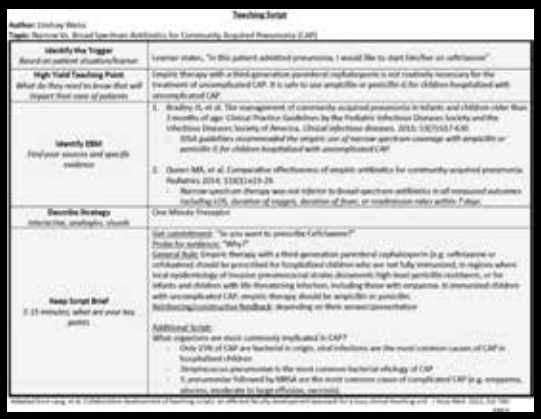
Emphasize the importance of teaching scripts.

Reflect on the use of questions as a teaching tool.

Example in Practice #3

Teaching Scripts

- Exemplary clinical teachers have been shown to use teaching scripts
- Way of organizing content and instructional approach for commonly encountered teaching moments



Example in Practice #3

The One-Minute Preceptor Model for Teaching

Example in Practice #4

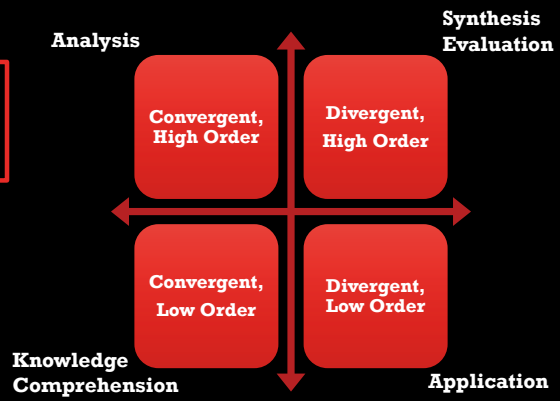
How to Construct a Question?

Bloom's Taxonomy

- Creating:
- Evaluating:
- Analyzing:
- Applying:
- Understanding:
- Remembering:

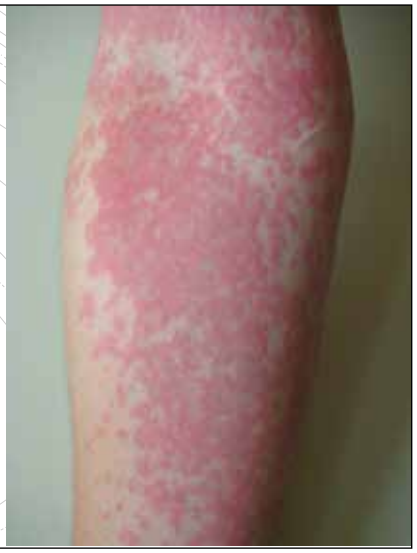
Example in Practice #4

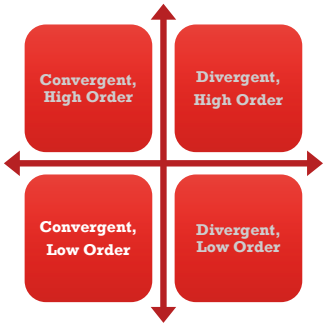
How to Construct a Question?



Consider a student presentation of a patient who presented with an allergic reaction . . .

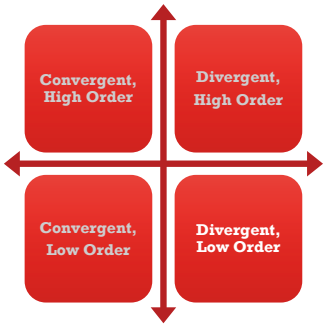
Faculty Member Medical Student





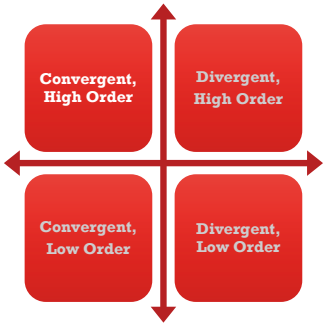
So, what sort of allergic reaction is urticaria?

Knowledge Comprehension



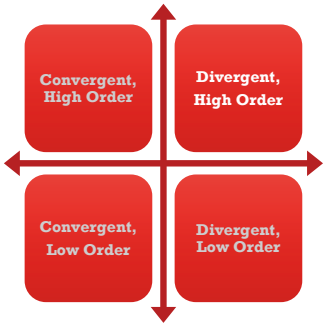
What red flags would you look for on history and physical examination?

Application



How would your management change if she recently started a new antibiotic?

Analysis



How would you justify the use of steroids in anaphylaxis given the evidence?

Synthesis Evaluation

Feedback and Assessment

Shift from "feedback as evaluation" to "feedback as dialogue."

Standardize methods to provide feedback to learners.

Emphasize a growth mindset.

Example in Practice #5

The Pendelton Model for Feedback Delivery

1. The learner states what was good about his or her performance	2. The teacher states areas of agreement and elaborates on good performance
3. The learner states what could have been improved	4. The teacher states what he or she thinks could have been improved

Example in Practice #6

Looking for specific behaviors from the ACGME Milestones

Adapted from the Emergency Medicine Milestone Project (2021)
Patient Care 4: Diagnosis

Patient Care 4: Diagnosis

Level 1	Level 2	Level 3	Level 4	Level 5
Constructs a list of potential diagnoses based on the patient's chief complaint and initial assessment	Provides a prioritized differential diagnosis	Provides a diagnosis for common medical conditions and demonstrates the ability to modify a diagnosis based on a patient's clinical course and additional data	Provides a diagnosis for patients with multiple comorbidities or uncommon medical conditions, recognizing errors in clinical reasoning	Serves as a role model and educator to other learners for deriving diagnoses and recognizing errors in clinical reasoning

Comments:

Not Yet Completed Level 1
Not Yet Assessable

Quality Narrative Evaluations

- Adherence to a more standard framework will result in more accurate, transparent, and less biased evaluations of performance
- Include examples as evidence of student performance
- Examples should include <u>both</u> strengths and areas in need of improvement

Specificity of Comments

Good — **Qualifiers:** *"hard worker"*

Better — **Evidence:** *"great team member, always helping out with tasks that needed to get done"*

Best — **Examples"** *"student took the time to make a phone call to an outside hospital to obtain much needed records for the team"*

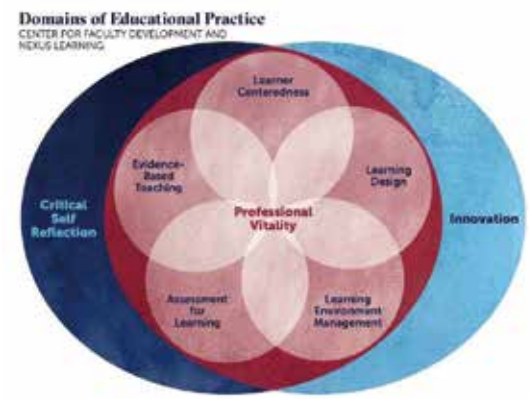
Best Practices to Inform Critical Steps

05

(informed by our experiences at Thomas Jefferson University)

Develop a conceptual framework for faculty development.

The Jefferson Educator

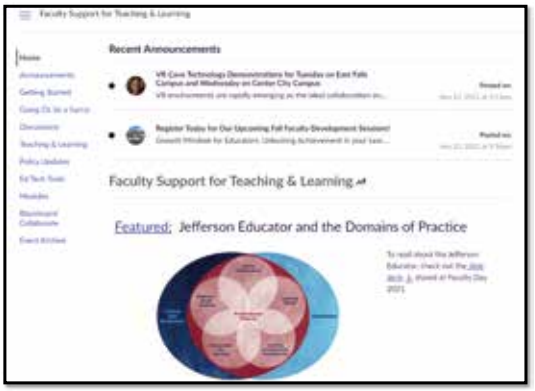


Meet faculty where they are. Employ accessible methods for participation.

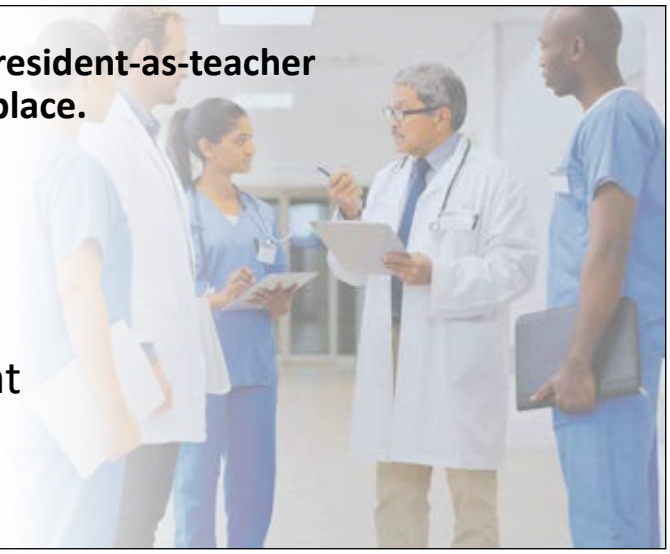
Meet faculty where they are. Employ accessible methods for participation.

Learning Management System for:

- **Announcements**
- **Resources**
- **Archived Sessions Recordings**
- **Discussion Boards**



Ensure a robust resident-as-teacher curriculum is in place.



- ✓ Precepting
- ✓ Teaching
- ✓ Assessment

Work closely with Department Chairs.

Identify local faculty champions

Identify local faculty needs

Ensure faculty clinical competence

Reward faculty for participation.

1. Support faculty attendance for live, in-person, and synchronous sessions
2. Embed faculty development (e.g., micro-training) into monthly faculty meetings
3. Ensure participation is included in one's portfolio and taken into consideration for promotion milestones

1. Identify the medical education program objectives of the curriculum
2. Identify clerkship specific goals
3. Review essential policies and procedures when precepting students
4. Access resources that can assist with student instruction

Develop a one-stop resource for faculty when it comes to clinical skills instruction.

Thank You!

Dimitrios.Papanagnou@Jefferson.edu

1. Defined Clinical Skills
2. Conveyed that Faculty Are Essential
3. Discussed Faculty Development
4. Provided Examples in Practice
5. Shared Best Practices from Jefferson