一般醫學教師研習營

主題：如何教六大核心能力

議程表

台灣醫學教育學會

一般醫學教師研習營議程表

主題：如何教六大核心能力

主辦：台灣醫學教育學會
協辦：財團法人醫院評鑑暨醫療品質策進會
贊助及指導：行政院衛生署
時間：97 年 8 月 23 日(六)
地點：台大醫院會議中心 101 廳(台北市中正區徐州路 2 號)

時 間	講 題	主講者	主持人
08:30~08:45	報	到	
08:45~08:50	致歡迎詞	謝博生 理事長	朱宗信 秘書長
08:50~09:40	病人照護 (patient care)	台北榮總 -陳祖裕 主任	
09:40~10:30	醫學知識 (Medical knowledge)	林口長庚 -劉茂森 主任	
10:30~10:50	Break		
10:50~11:40	從工作中學習及成長 (Practice-based learning and improving)	萬芳 -蘇裕謀 主任	
11:40~12:00	綜合討論		
12:00~13:00	午 餐	休	息
13:00~13:50	人際及溝通技能 (Interpersonal and communication skills)	中榮 -黃曉峰 主任	陳祖裕 主任
13:50~14:40	制度下之臨床工作 (Systems-based practice)	台大 -高芷華 醫師	
14:40~15:00	Break		
15:00~15:50	專業素養 (Professionalism)	高醫 -林育志 醫師	
15:50~16:35	Healthcare Matrix 之介紹及實例應用	中國附醫 -林曉娟 醫師	
16:35~17:00	綜 合 討 論		

病人照護
(*patient care*)

陳祖裕 主任

台北榮民總醫院

教研部臨床技術訓練中心

ACGME Competencies
Patient Care

陳祖裕
國立陽明大學

報告大綱

- The ACGME requirements
- Patient Care：如何教學
- Patient Care：如何評估
- OSCE的規劃
- 結語

ACGME

- Accreditation Council for Gradate Medical Education
- 前身：AMA Council on Medical Education
- 會員機構
  - American Board of Medical Specialties (ABMS)
  - American Hospital Association (AHA)
  - American Medical Association (AMA)
  - Association of American Medical Colleges (AAMC)
  - Council of Medical Specialty Societies (CMSS)

The ACGME Outcome Project

- 强調：
  - 能力導向學習及改善對住院醫師表現的評估
  - 評鑑：重視「能力」及「成效」
- 改善：
  - 醫師的養成
  - 病人的照護

Outcome Project Timeline

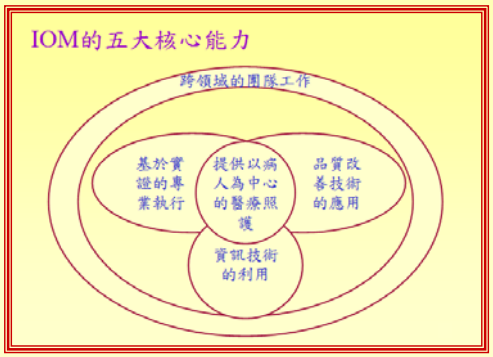
- Phase 1（2001年7月至2002年6月）
  - 蒐集資訊
  - 開始進行
- Phase 2（2002年7月至2006年6月）
  - 提供學習機會
  - 改善評估
  - 應用成果數據

Spread of the Competencies

- Organizations adopting the competencies or related domains
  - American Board of Medical Specialties
  - Accreditation Council for Continuing Medical Education
  - Council of Medical Specialty Societies
  - American Osteopathic Association
  - National Center for Health Care Leadership
  - Institute of Medicine

A Bridge to Quality – IOM

- 應教育所有衛生專業人員成為跨領域工作團隊成員以提供以病人為中心的醫療照護，強調基於實證的執業、品質改善處置及資訊學



Outcomes Project

- General Competencies
  - Patient Care
  - Medical Knowledge
  - Practice-based Learning and Improvement
  - Interpersonal and Communication Skills
  - Professionalism
  - Systems-based Practice
- Minimum Requirements：各專科訓練必須包含
- 除Interpersonal Skills之外，其餘均為多種臨床技能的組合

Patient Care

- 照顧病人的秘訣就在關懷病人

Peabody FW. The Care of the Patient. JAMA 1927;99:877–82.

Patient Care

- Residents must provide patient care that is compassionate, appropriate, and effective
  1. Caring and respectful behaviors when interacting with patients and their families
  2. Interviewing
  3. Informed decision making
  4. Develop and carry out patient management plans
  5. Counsel and educate patients and their families
  6. Use information technology
  7. Perform competently all procedures
  8. Preventive health care services
  9. Work in a team

Patient Care ：病人照護

- 住院醫師應提供具憐憫心（慈悲）、合宜而有效的病人照護
  1. 與病人及家屬互動時呈現關懷與尊重
  2. 面談
  3. 知情後決定
  4. 訂出及執行病人處置計畫
  5. 對病人及家屬進行諮商和衛教
  6. 利用資訊技術
  7. 執行診療程序具備充分能力
  8. 預防性醫療照護
  9. 在團隊中工作

Patient Care ：病人照護

- 住院醫師應提供具憐憫心、合適而有效的病人照護
  1. 與病人及家屬互動時呈現關懷與尊重 (P 1, ICS 1 & 2)
  2. 面談 (ICS 1 & 2)
  3. 知情後決定 (PBLI 2 & 4)
  4. 訂出及執行病人處置計畫 (SBP 4)
  5. 對病人及家屬進行諮商和衛教 (ICS 2, SBP 4)
  6. 利用資訊技術 (PBLI 5)
  7. 執行診療程序具備充分能力
  8. 預防性醫療照護
  9. 在團隊中工作 (ICS 3, SBP 5)

Outcomes Project

- General Competencies
  - Patient Care
  - Medical Knowledge
  - Practice-based Learning and Improvement
  - Interpersonal and Communication Skills
  - Professionalism
  - Systems-based Practice

報告大綱

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Online Courses for Residents

- 住院醫師教學技巧
- 醫療法律議題
- 照護品質、實證醫學、統計學
- 專業素養
- 醫病溝通策略
- 醫療經濟學（系統）
- 個人財務
- 佈告及公文
- 醫學倫理

Orientation Topics

- 不當醫療
- 醫療資訊學
- 疲倦與工作狀況
- 品質改善
- 耗弱的醫師
- 核發執照
- 醫院系統
- 錯誤與安全
- 病人關係

UIC GME Core Curriculum Modules

- 醫療專業素養
- 醫療照護團隊的經營
- 品質、成本及資源管理
- 實證醫學與終身學習
- 教學技巧
- 醫療照護資訊系統
- 研究主題
- 溝通技巧
- 醫學與文化

Teaching and Assessing the ACGME Core Competencies

Rider, Nawotniak, Smith

1. Patient Care	1. What You Do
2. Medical Knowledge	2. What You Know
3. Practice-Based Learning and Improvement	3. How You Get Better
4. Interpersonal and Communication Skills	4. How You Interact with Others
5. Professionalism	5. How You Act
6. Systems-Based Practice	6. How you Work Within the System

Educational Outcomes Service Group, Bridgeport Hospital, CT

Specific Teaching Strategies for Patient Care

Rider, Nawotniak, Smith

Patient Settings

- Day-to-day bedside care of the patient
- Interactions with nursing and ancillary staff regarding patient needs and treatment plans
- Rounds
- Clinics
- Operative procedures

Non-patient Settings

- Skills labs
- Didactic lectures
- Case conferences
- Small group discussions
- Patient sign-out activities
- Journal clubs

Specific Teaching Strategies for Patient Care

Rider, Nawotniak, Smith

1. Rounds and observation
2. Sign out and morning report
3. SBAR and patient safety techniques
4. Self-reflection/assessment
5. Ambulatory care

Sign Out and Morning Report （1/2）

- Education
- Evaluation of residents and services
- Reporting of adverse events
- Non-medical issues
- Social interaction

Sign Out and Morning Report （2/2）

- Junior residents
  - Basic knowledge
  - Proficiency in patient care
- Senior residents
  - Systemic-based practice
  - Patient care decision-making
- Keep a log of all cases over a one-month period

SBAR and Patient Safety Techniques

- SBAR
  - **S**ituation
  - **B**ackground
  - **A**ssessment
  - **R**ecommendation
- Can be used in all patient-related communications
- May consist of a video, reading material, and a short assessment tool

SBAR and Patient Safety Techniques

- Situation – We need a poster for advertising a circus act.
- Background – This is a draft.
- Assessment – I identify a seal, ball, trainer, etc.
- Recommendation – This seems to be an adequate draft.

如何教授 Patient Care

- 基本原則：
  - 儘量依據ACGME的規範
  - 配合可獲取的資源（主、客觀條件）規劃完整可行的課程
  - 傻瓜（才不用的）方法：PDCA
  - 師資培育計畫同時或提早進行

如何教授 Patient Care

- 講授
- PBL、TBL
- 演練
- 實務訓練

如何教授 Patient Care：實務訓練

- 全人醫療：生理、心理、社會
- 照護項目：健康促進、疾病診療、預防策略
- 執行條件：應用基本能力、了解可用資源、熟悉執業環境
- 專業守則：情理法 *vs.* 法理情—醫療倫理

Patient Care
American Board of Internal Medicine

- Compassionate, appropriate, and effective care which encompasses the promotion of health, prevention of illness, treatment of disease, and end of life. At the cornerstone of competent patient care are the abilities to:
  1. Gather accurate, essential information from all sources, including medical interviews, physical examinations, medical records, and diagnostic therapeutic procedures
  2. Make informed recommendations about preventive, diagnostic, and therapeutic options and interventions that are based on clinical judgment, scientific evidence, and patient preference
  3. Develop, negotiate, and implement effective patient management plans and integration of patient care
  4. Competently perform the diagnostic and therapeutic procedures inherent to the practice of internal medicine

Patient Care
American Board of Internal Medicine

- 慈悲、合宜及有效之照護，包括：
  健康促進、病痛預防、疾病醫療、臨終照護
- 具備照護病人的能力必須能做到：
  1. 從各方蒐集精確且必要的資訊，包括問診、理學檢查、病歷紀錄及診療步驟
  2. 基於臨床判斷、科學證據及病人意願作出對預防及診療處置的知情建議
  3. 訂出、商議及執行有效的診療計畫及病人照護的整合
  4. 能勝任各項臨床診療措施的執行

POMR

Problem-oriented Medical Record

Problem-oriented Medical Record

- Lawrence Weed, 1968 (NEJM；278：657)
- 1969再提出SOAP

甚麼是 POMR？

- POMR系統有三個主要成份：
  - 有一明確的Data Base
  - 有一完整的Problem List
  - 皆參照Problem List列舉的問題來記載
    - 所有醫療小組成員均在病歷的同一部位，按時間順序參照Problem List列舉的問題來記載
    - 每筆針對特定問題的紀錄，皆包含Data Base中相關的資料及因應的計畫

甚麼是 POMR？

- Data Base：病史、身體檢查、實驗室、X光及特殊檢查
- Problem List：生物、心理、社會及族群的問題
- Plans：
  - 依問題來編號及命名
  - 診斷性、治療性及衛教性計畫
- Progress Note
  - 依問題來編號及命名
  - 要與Plans相關
- 收集更多數據 ⇒ 依循臨床思路 ⇒ 創立新假說 ⇒ 製訂新計畫

Admission Note 的內容

1. Basic Data
2. Chief Complaints
3. Present Illness
4. Past Medical History
5. Social and Personal History
6. Allergic History
7. Family History
8. Review of Systems
9. Physical Examination
10. Results of Laboratory Tests & Imaging Studies
11. Provisional Diagnosis
12. Plans：Diagnostic、Therapeutic、Educational

Basic Data

1. Name
2. Age
3. Sex
4. Ethnic origin
5. Occupation
6. Marital status
7. Religion
8. Place of residence
9. Referring physician
10. Source of information
11. Date of admission

了解病人的社會背景

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Chief Complaints

- 以病人的口語方式來描述最主要的症狀或狀況，避免使用醫學名詞或診斷：仍未到判斷的時候
- 並敘述經歷的時間：急性 *vs.* 慢性
- 例：diffuse abdominal pain for 10^{+} hours

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Present Illness

- 對主訴作一個完整的敘述，但不作贅述
- 首先在Basic data中選關鍵字並結合主訴和伴有疾病作為開場白，有助於對病情的分析和對病人作整體的考量
- 以時間順序敘述：有助診斷的資料（包括症狀、過去的檢查、治療及療效等）
- 若有已知的診斷：**四項內容**
- 每一種症狀的記述必須包括：“**LQQ OPERA**”或“**OLD CARTS**”
- 寫出住院的理由

已知診斷的四項內容

- 診斷之時、地、依據
- 治療及效果
- 併發症
- 伴隨狀況

LQQ OPERA

- L: location
- Q: quality
- Q: quantity
- O: onset mode
- P: precipitating factors
- E: exaggerating factors
- R: relieving factors
- A: accompanying symptoms

OLD CARTS

- O: onset
- L: location
- D: duration
- C: character
- A: aggravating / associated factors
- R: relieving factors
- T: temporal factors
- S: severity of symptoms

Present Illness

According to the statements of the patient himself and his family. The 77 y/o male is a case of HBV related HCC, liver cirrhosis Child A s/p TAE x 1, and L't RCC. Both RCC and HCC were diagnosed at our hospital by abdominal CT scan 2007/12. After TAE, AFP dropped from 58513 (12/5) to 17089 (1/9).

This time, he suffered from abdominal pain and general weakness after he had few times of diarrhea last night. The pain went on and off especially over periumbilical region and R't flank region. Thus he was sent to our ER where Lab data showed NH3 15, CRP 2.3, Cr 0.93, BUN/Cr 28/1.2, ALT 18, AST 79, ALKP 137, Na 133, K 5.0, Ca 1.10, Hgb 10.2. Under the impression of acute abdominal pain r/o tumor rupture r/o acute pancreatitis, he was admitted for further evaluation and management.

有何不妥？

Present Illness

According to the statements of the patient himself and his family. The 77 y/o male is a case of HBV related HCC, liver cirrhosis Child A s/p TAE x 1, and L't RCC. Both RCC and HCC were diagnosed at our hospital by abdominal CT scan 2007/12. After TAE, AFP dropped from 58513 (12/5) to 17089 (1/9).

已知診斷的四項內容

- 診斷之時、地、依據
- 治療及效果
- 併發症
- 伴隨狀況

Present Illness

This 77-y/o male had a history of chronic hepatitis B for more than 20 years. In 1999, he was told having cirrhosis because ultrasound examination revealed irregular change of the liver surface associated with splenomegaly. His Child-Pugh score was counted around 5 to 6 (Class A) at that time. He did not receive regular follow-up until November 2007 when he noted persistent abdominal fullness for several weeks. Series of examination including ultrasonography and CT scan disclosed a 12-cm tumor at right hepatic lobe. Hepatocellular carcinoma was considered because his serum alpha-fetoprotein was markedly elevated (58513 ng/dL). As the patient and his family refused surgical intervention, we performed transcatheter arterial chemoembolization for palliative treatment to the patient on Dec 7, 2007…….

Pres

需要包括那些描述？

family. The 77 y/o male is a case of HBV r ver
cirrhosis Child A s/p TAE x 1, and L't RC CC and HCC
were diagnosed at our hospital by abdomi T scan 2007/12.
After TAE, AFP dropped from 58513 (12/5) to 17089 (1/9).

This time, he suffered from abdominal pain and general weakness after he had few times of diarrhea last night. The pain went on and off especially over periumb ion and R't flank re
15 P
13
acute abdominal pain, r/o tumor rupture, r/o acute pancreatitis, he was admitted for further evaluation and management.

LQQ OPERA ！

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Past Medical History

- DM for more than 20 years.
- Acute appendicitis, s/p appendectomy, 1996.
- Denied history of hypertension, TB, and other systemic disorders.

可以嗎？

豈有此理！

Past Medical History

- 陳述疾病、傷害、意外、手術及住院史等
- 順序 ：
  - 活動性—依照對身體影響的嚴重度排序
  - 非活動性
- 過敏史（藥物、食物及其他物質）
- 該作的檢查：子宮頸抹片、乳房攝影、糞便潛血
- 四項內容
  - 診斷之時、地、依據
  - 治療及效果
  - 併發症
  - 伴隨狀況

Past Medical History

- Diagnosed having type-2 diabetes mellitus in 1987. The highest blood glucose recorded was 399 mg% (PC).
- He has been receiving oral hypoglycemic agent (XXXX) in the last 2 years. The last HbA1c level (in Mar 2008) was 7.3 %.
- No evidence of “triopathies”, no occurrence of acute complications.
- Normal serum lipid levels…（沒好心的六兄弟）
- Denied having history of hypertension, TB, and other systemic disorders.

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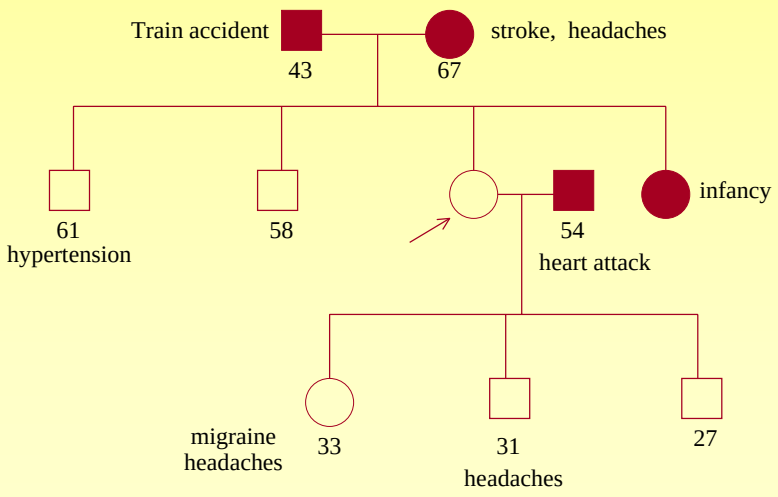
Social and Personal History

- 煙、酒、檳榔或其他嗜好
- 特殊習慣
- 宗教禁忌
- 旅遊史（SARS出沒之後更形重要）

其他 History

- Allergic History：藥物及食品的過敏史—對什麼過敏？怎樣過敏？
- Family History：有血統關係之親屬患病情況，至少三代；如患有遺傳性疾病，宜用族譜圖（pedigree，或genogram, with at least 3 generations）來表示

族譜圖



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Review of Systems

- 以問診方式來回顧全身各器官系統的狀況

1. General constitutional symptoms
2. Diet
3. Skin, hair and nails
4. Head and neck
5. Eyes
6. Ears
7. Nose
8. Throat and mouth
9. Endocrine
10. Breasts
11. Chest and lungs
12. Heart and blood vessels
13. Hematologic
14. Lymphatic
15. Gastrointestinal
16. Genitourinary
17. Musculoskeletal
18. Neurologic
19. Psychiatric

Review of Systems

- 胃口、體重、大小便
- 乳癌、子宮頸癌、大腸癌
- 月經及懷孕
- Positive findings勿以(+)或「✓」表示，必須有描述

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Physical Examination

- 以視診、聽診、敲診及觸診的全身各器官系統的檢查

1. General Statement
2. Mental status
3. Skin
4. Head
5. Eyes
6. Ears
7. Nose
8. Throat and Mouth
9. Neck
10. Chest
11. Breasts
12. Heart
13. Blood Vessels
14. Abdomen
15. Genitalia (male/female)
16. Anus and Rectum
17. Lymphatic System
18. Musculoskeletal System
19. Neurologic System

Physical Examination

- 各系統依檢查順序作紀錄
- Positive findings勿以(+)或「✓」表示，必須有描述

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Lab and Imaging Findings

- Data Sheets: lab data and special examinations
- Problem List

Lab Data Sheet

Item	85/4/12	96/6/18	96/11/18	97/4/28	97/5/1	97/5/10	
Alb	4.2	3.2	3.3	2.2		2.7	
Bil D/T	/0.6	0.3/1.4	0.2/1.5	1.8/3.9		/3.1	
PT		12″	13″	16″	18″	15 ″	
ALT	265	145	78	25		29	
AST	183	67	82	48		51	
ALP	97	59	66	112			
GGT	44			56			
LDH				193			
NH3				166	194	102	
BUN	20	21	30	39	40	31	
Cr	06	0.9	0.7	1.4	1.6	1.2	
Na				121	124	128	
K				5.3	3.8	4.1	
Ca				7.9	7.5	7.8	
Glu	148	112	155	48	80	156	
Chol	190			112			
Hgb	12.5	11.3	10.9	8.9	10.0	10.9	

Imaging and Special Studies

項 目	申請日期	檢查日期	結 果
CXR	97/4/27	97/4/28	No active lung lesion
KUB	97/4/27	97/4/28	Essentially negative
EKG	97/4/27	97/4/27	Atrial fibrillation
Abd sono	97/4/27	97/4/28	HCC, both lobes, ascites
CT	97/4/28	97/4/28	HCC, both lobes, ascites, suspected tumor rupture
Blood culture	97/4/29	0300	No bacterial growth
Blood culture	97/4/29	0330	No bacterial growth
Blood culture	97/4/29	0400	KP, sensitive to …….
CXR	97/4/30	97/4/30	Pneumonic patch, RUL
Blood culture	97/4/30	1210	
Blood culture	97/4/30	1240	

Problem List

The concept of a Problem List is the single most important component of a POMR.

Problem List

Working Problem List
&
Master Problem List

Working Problem List

編 號	開始日期	問題敘述	解決日期
1	1988 1999 2008/2/18	Chronic hepatitis B, with Cirrhosis, splenomegaly HCC, 12 cm, rt lobe, s/p TACE	
2	1987	Type-2 DM	
3	1996/3/20	Acute appendicitiy, s/p	1996/3/21
4	2008/4/27	Abdominal pain, cause to be determined	
5	2008/4/27	Hypotension	

Working Problem List

編 號	開始日期	問題敘述	解決日期
1	1988 1999 2008/2/18	Chronic hepatitis B, with Cirrhosis, splenomegaly HCC, 12 cm, rt lobe, s/p TACE	
2	1987	Type-2 DM	
3	1996/3/20	Acute appendicitiy, s/p	1996/3/21
4	2008/4/27	Abdominal pain, cause to be determined	# 6
5	2008/4/27	Hypotension	# 6
6	2008/4/28	HCC rupture	

Working Problem List

編 號	開始日期	問題敘述	解決日期
1	1988 1999 2008/2/18	Chronic hepatitis B, with Cirrhosis, splenomegaly HCC, 12 cm, rt lobe, s/p TACE	
2	1987	Type-2 DM	
3	1996/3/20	Acute appendicitiy, s/p	1996/3/21
4	2008/4/27	Abdominal pain, cause to be determined	# 6
5	2008/4/27	Hypotension	# 6
6	2008/4/28	HCC rupture	
7	2008/4/29	Fever, cause to be determined	
8	2008/4/29	Productive cough	

Working Problem List

編 號	開始日期	問題敘述	解決日期
1	1988 1999 2008/2/18	Chronic hepatitis B, with Cirrhosis, splenomegaly HCC, 12 cm, rt lobe, s/p TACE	
2	1987	Type-2 DM	
3	1996/3/20	Acute appendicitiy, s/p	1996/3/21
4	2008/4/27	Abdominal pain, cause to be determined	# 6
5	2008/4/27	Hypotension	# 6
6	2008/4/28	HCC rupture	
7	2008/4/29	Fever, cause to be determined	# 9
8	2008/4/29	Productive cough	# 9
9	2008/4/30	Pneumonia	

Working Problem List

編 號	開始日期	問題敘述	解決日期
1	1988 1999 2008/2/18	Chronic hepatitis B, with Cirrhosis, splenomegaly HCC, 12 cm, rt lobe, s/p TACE	
2	1987	Type-2 DM	
3	1996/3/20	Acute appendicitiy, s/p	1996/3/21
4	2008/4/27	Abdominal pain, cause to be determined	# 6
5	2008/4/27	Hypotension	# 6
6	2008/4/28	HCC rupture	2008/5/1
7	2008/4/29	Fever, cause to be determined	# 9
8	2008/4/29	Productive cough	# 9
9	2008/4/30	Pneumonia	2008/5/9

Master Problem List

編 號	開始日期	問題敘述	解決日期
1	1988 1999 2008/2/18 2008/4/27	Chronic hepatitis B, with Cirrhosis, splenomegaly HCC, 12 cm, rt lobe, s/p TACE HCC rupture with internal bleeding	
2	1987	Type-2 DM	
3	1996/3/20	Acute appendicitiy, s/p	1996/3/21
4	2008/4/29	Pneumonia, bacteremia (KP)	2008/5/10

Admission Note 的內容

1. Basic Data
2. Chief Complaints
3. Present Illness
4. Past Medical History
5. Social and Personal History
6. Allergic History
7. Family History
8. Review of Systems
9. Physical Examination
10. Results of Laboratory Tests & Imaging Studies
11. Provisional Diagnosis
12. Plans：Diagnostic、Therapeutic、Educational

Provisional/Tentative Diagnosis

- 評估：Problem List 之上每一個問題
- 敘述診斷及其理由
- 若未成診斷，便須按序列出鑑別診斷
- 評估包括預計可能發生的問題（如併發症、病情惡化、後遺症等）

Admission Note 的內容

1. Basic Data
2. Chief Complaints
3. Present Illness
4. Past Medical History
5. Social and Personal History
6. Allergic History
7. Family History
8. Review of Systems
9. Physical Examination
10. Results of Laboratory Tests & Imaging Studies
11. Provisional Diagnosis
12. Plans：Diagnostic、Therapeutic、Educational

Plans (for each problem on Problem List)

- **Diagnostic tests** performed or ordered
- **Therapeutic treatment plan**, including changes or additions to the established treatment plan with rationale
- **Patient education**: health education provided or planned; materials such as handouts/pamphlets dispensed; evidence of patient's understanding (or lack or understanding); counseling
- **Referrals initiated** (including to whom the patient is referred to and the purpose)
- **Target dates for reevaluating** the results of the plan

Progress Note

- 問題導向病情記錄（problem–oriented medical record, POMR）的精神最容易在記述Progress Note 時發揮
- 在完成Admission Note時已知病人有那些問題，並一一記錄在Problem–oriented Sheet (Problem List) 之上
- 在住院期間，每日得到的新資料 (包括新的症狀及新的檢查發現) 須加以思考與那些問題有關，或是新的問題

Progress Note

- 記錄的方式有二：
  - 將每一個active problem逐一列出，描述其變化及新訂之計畫：較適用於病情較複雜的病人，特別是需要加護照顧者
  - 只針對最近的變化或從得到的新資料整合在一起來討論相關問題：較適用於病情較簡單且穩定的病人
- 皆要按照SOAP（subjective findings、objective findings、assessment及plans）的順序來記載

POMR的Progress Note

- 將problem list上有 “progress” 的 problems 作紀錄
- 問題編號：依照problem list
- SOAP
  - Subjective：病人的感受
  - Objective：檢查發現
  - Analysis / assessment：對problem的分析/評估
  - Plans：診斷⇒治療⇒衛教

問題編號	臨床問題	發生或治療日期/簽署	問題解決日期/簽署
1	Anterior communicating aneurysm with SAH and right frontal lobe infarct s/p clipping & wrapping	SAH: 2005.9.12	Op: 2005.9.20
2	Chronic hepatitis B with cirrhosis and hypoalbuminenia	Unknown !	
3	HCC, bil, with bil adrenal gland, RLQ and retroperitoneal metastases 1st TEA 2nd TEA	2006.5 2006.5.29 2006.10.12	
4	Anemia 1st blood transfusion 2nd blood transfusion Low MCV Stool OB ++++	2006. 5.22 2006.10.12 2006.11.2 2006.10.12 2006.11.3	
5	SOB	2006.10.__	
6	Poor appetite and weakness	2006.10.__	
7	Hypertension	Unknown !	
8	Family history (mother) of colon ca.	2006.7.18	
9	Gallbladder polyp, increasing in size	2006.12.11	
10	CXR: increased soft tissue mass in left apical lung	2005.10	

Progress Note 95.11.3

#3 S： Abdominal fullness with dull pain got worse in the last 2 days.

O： The liver size and consistence are not significantly change. Ultrasonography (95.11.2)：ill-defined tumor masses over posterior segment of the liver. Minimal ascites (+), a 10 x 8-cm heterogenous mass was noted over RLQ and an ill-defined mass, about 6 x 5 cm, over the retroperitoneal region. AFP 154 ng/mL.

A： HCCs with intra-abdominal metastases, progressive deterioration, probably terminal stage.

P: Symptomatic treatment, including adequate pain control. Discuss with the patient/family about DNAR.

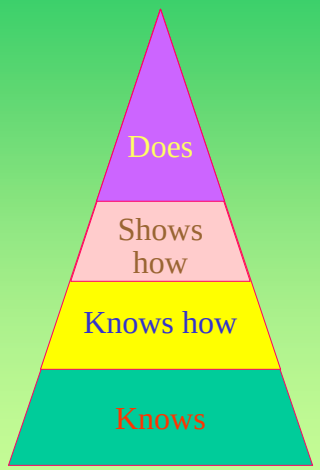
#4 S： General weakness persisted.

O： Conjunctiva is getting paler, Hgb 6.7 gm/dL, MCV 77.4, Stool OB++++ …….

全人醫療照護的病歷

- Data base
- Problem list
- POMR

對學生的評估

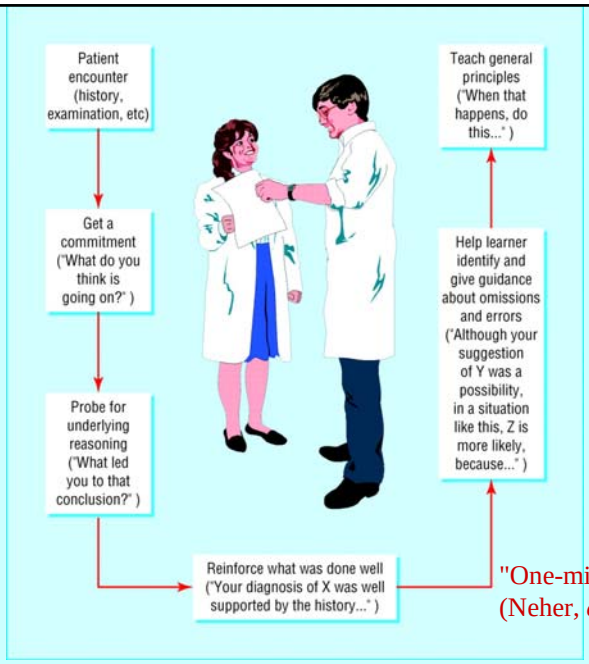


Miller GE, *Acad Med* 1990.
（米勒金字塔）

- Student portfolio
- Medical record audits
- 360º evaluation
- Preceptor rating
- Mini-CEX, DOPS
- OSCE
- Case presentation
- Oral examination, MCQ
- Patient management question
- Essay question
- Multiple-choice question

什麼是mini-CEX？

- CEX = clinical evaluation exercise
  - 冗長的臨床觀察測驗，信度不足
- Mini-CEX
  - 由美國內科學會發展推薦
  - 教師、學員、共同照顧的病人
  - 觀察例行診療行為〔七項〕（15 – 20分鐘）
  - 描述性回饋（5 – 10分鐘）
  - 多次評量



起：主題
承：理由
轉：回饋 –PNP
合：原則、結論

"One-minute preceptor" model
(Neher, *et al*, 1992)

MAHEC Office of Regional Primary Care Education, Asheville, North Carolina.

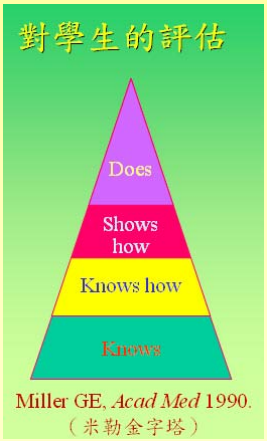
報告大綱

- The ACGME requirements
- Patient Care：如何教學
- Patient Care：如何評估
- OSCE的規劃
- 結語

有關評估

- 評遠易於教
- 常喻教於評
- 米勒金字塔

無論是什麼評估，通常都要比沒有評估好許多！



Project Principle

- **Summative assessment**
  - High-stakes decisions
  - Undertaken at the end of training
- **Formative assessment**
  - Ongoing
  - Developmental

8th Annual International Meeting on Simulation in Healthcare

University of Dundee

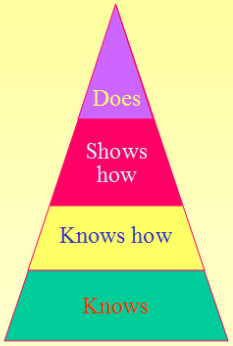
Dr. Ronald M. Harden

Teaching and Learning | Assessment

Formative 與 Summative 的觀念已被拋棄

Evaluation Toolbox

- Record Review
- Chart Stimulated Recall
- Checklist Forms
- Global Ratings
- Standardized Patients
- OSCE
- 360º Assessment
- Portfolios
- Examinations
- Case Logs



- 個人學習檔案
- 病歷抽查
- 學習護照
- 教師評核
- mini-CEX
- DOPS
- OSCE
- 病例報告
- 口試
- 選擇題
- 病人狀況處理問題
- 簡答題
- 選擇題

Miller GE, *Acad Med* 1990.

ACGME Competencies: Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	**Required Skill**	**Record Review**	**Chart Stim. Recall**	**Check-list**	**Global Rating**	**SP**	**OSCE**	**Simula-tions & Models**	**360° Global Rating**	**Port-folios**	**Exam MCQ**	**Exam Oral**	**Procedure or Case Logs**	**Patient Survey**
Patient Care	Caring and respectful behaviors			3		1			2					1
	Interviewing			1		2	1		3					
	Informed decision-making		1	2			2					2		
	Develop & carry out pt. Management plans	2	1	2	3			2	3					
	Counsel & educate pt's. & families			3		1	1		2					1
	Performance of procedures a) Routine physical exam			2		1	1							
	b) Medical procedures			1	3			1	2				3	
	Preventive health services	1				2	1			3			2	
	Work within a team			3	3				1					

Ratings are 1 = the most desirable; 2 = the next best method; and, 3 = a potentially applicable method.

ACGME Competencies: Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	**Required Skill**	**Record Review**	**Chart Stim. Recall**	**Check-list**	**Global Rating**	**SP**	**OSCE**	**Simula-tions & Models**	**360° Global Rating**	**Port-folios**	**Exam MCQ**	**Exam Oral**	**Procedure or Case Logs**	**Patient Survey**
Medical Knowledge	Investigatory & analytic thinking		1					2	3			1		
	Knowledge & application of basic sciences							2	3		1	1		
Practice-Based Learning & Improvement	Analyze own practice for needed improvements	2	2			2	2	3	3	1				2
	Use of evidence from scientific studies	1	1			3	2			1	1	1		
	Application of research and statistical methods		2	3	3					1	3			
	Use of information technology					2	2		1	1			2	
	Facilitate learning of others			2	3				1	3				
Interpersonal & Communication Skills	Creation of therapeutic relationship with patients			3		1	1		2					1
	Listening skills			3		1	1		2					1

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ACGME/ABMS Joint Initiative
Attachment/Toolbox of Assessment Methods©
Version 1.1 September 2000

ACGME Competencies: Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	**Required Skill**	**Record Review**	**Chart Stim. Recall**	**Check-list**	**Global Rating**	**SP**	**OSCE**	**Simula-tions & Models**	**360° Global Rating**	**Port-folios**	**Exam MCQ**	**Exam Oral**	**Procedure or Case Logs**	**Patient Survey**
Professional-ism	Respectful, altruistic			3			1		2					1
	Ethically sound practice		2					2	1	3				2
	Sensitive to cultural, age, gender, disability issues		2	2			1		1	3		2		2
Systems-Based Practice	Understand interaction of their practices with the larger system						2		1	3				
	Knowledge of practice and delivery systems		2				3			2	1			
	Practice cost-effective care	3		1					2					
	Advocate for patients within the health care system			3			2		1	2				1

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Evaluation

由病歷開始

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Version 1.1 September 2000

ACGME Competencies: Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	**Required Skill**	**Record Review**	**Chart Stim. Recall**	**Check-list**	**Global Rating**	**SP**	**OSCE**	**Simula-tions & Models**	**360° Global Rating**	**Port-folios**	**Exam MCQ**	**Exam Oral**	**Procedure or Case Logs**	**Patient Survey**
Patient Care	Caring and respectful behaviors			3		1			2					1
	Interviewing			1		2	1		3					
	Informed decision-making		1	2			2					2		
	Develop & carry out pt. Management plans	2	1	2	3			2	3					
	Counsel & educate pt's. & families			3		1	1		2					1
	Performance of procedures a) Routine physical exam			2		1	1							
	b) Medical procedures			1	3			1	2				3	
	Preventive health services	1				2	1			3			2	
	Work within a team			3	3				1					

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Evaluation

繼以360°評估

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Version 1.1 September 2000

ACGME Competencies: Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	**Required Skill**	**Record Review**	**Chart Stim. Recall**	**Check-list**	**Global Rating**	**SP**	**OSCE**	**Simula-tions & Models**	**360° Global Rating**	**Port-folios**	**Exam MCQ**	**Exam Oral**	**Procedure or Case Logs**	**Patient Survey**
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	Interviewing			1		2	1		3					
	Informed decision-making		1	2			2					2		
	Develop & carry out pt. Management plans	2	1	2	3			2	3					
	Counsel & educate pt's. & families			3		1	1		2					1
	Performance of procedures a) Routine physical exam			2		1	1							
	b) Medical procedures			1	3			1	2				3	
	Preventive health services	1				2	1			3			2	
	Work within a team			3	3				1					

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Evaluation

由OSCE結束

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Version 1.1 September 2000

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		Evaluation Methods												
Competency	Required Skill	Record Review	Chart Stim. Recall	Check-list	Global Rating	SP	OSCE	Simula-tions & Models	360° Global Rating	Port-folios	Exam MCQ	Exam Oral	Procedure or Case Logs	Patient Survey
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	Develop & carry out pt. Management plans	2	1	2	3			2	3					
	Counsel & educate pt's. & families			3		1	1		2					1
	Performance of procedures a) Routine physical exam			2		1	1							
	b) Medical procedures			1	3			1	2				3	
	Preventive health services	1				2	1			3			2	
	Work within a team			3	3				1					

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	Interviewing			1		2	1		3					
	Informed decision-making		1	2			2					2		
	Develop & carry out pt. Management plans	2	1	2	3			2	3					
	Counsel & educate pt's. & families			3		1	1		2					1
	Performance of procedures a) Routine physical exam			2		1	1							
	b) Medical procedures			1	3			1	2				3	
	Preventive health services	1				2	1			3			2	
	Work within a team			3	3				1					

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較適宜以OSCE來評估的項目

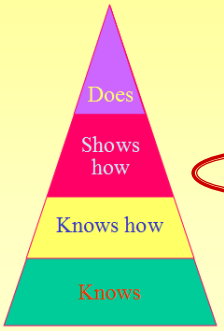
- Caring and respectful behaviors
- Interviewing
- Informed decision-making
- Counsel and educate patients and families
- Physical examination/procedural skills
- Medical procedures
- Preventive health services

ACGME & ABMS

OSCE的規劃

- 教什麼，考什麼
- 怎麼教，怎麼考

- 關懷與尊重的行為
- 面談
- 充分知情的決策過程
- 對病人及家屬進行建議及衛教
- 身體檢查技巧
- 醫療措施技巧
- 預防性健康服務



Miller GE, *Acad Med* 1990.

- 個人學習檔案
- 病歷抽查
- 學習護照
- 教師評核
- mini-CEX
- ~~DOPS~~
- OSCE
- 病例報告
- 口試
- 選擇題
- 病人狀況處理問題
- 簡答題
- 選擇題

如何設計及執行OSCE

- Planning（計劃）
- Creating（創建）
- Preparing（準備）
- Running（執行）
- Monitoring and Improving （檢討改進）

Hodges & Hanson, U of Toronto, 2002.

畢業後一般醫學訓練期末 OSCE

Planning for an OSCE

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 編列預算
- 獲得資金
- 召集團隊
- 標準化病人方案

共有12站：
標準化病人： 8站
病人模擬器： 2站
其他方式：2站

Creating

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- OSCE 藍圖
- 建構考站
- 測量工具

藍圖：原則

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 以學習目標為依據
- 訂定藍圖
  - 方針：依特定學習成果訂出測驗項目
  - 確保：學科領域及技能項目有充分的取樣

Boursicot & Roberts, U of Cambridge & Leeds Medical School.

藍圖：思維

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 課程如何建構？
- 想要評估什麼技能？

Boursicot & Roberts, U of Cambridge & Leeds Medical School.

藍圖：內涵

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 科目範圍
- 知識、技能、態度
- 考站型式
- 時間長度

Hodges & Hanson, U of Toronto, 2002.

依據ACGME核心能力之OSCE

- General Competencies
  - Patient Care
  - ~~Medical Knowledge~~
  - ~~Practice-based Learning and Improvement~~
  - Interpersonal and Communication Skills
  - Professionalism
  - ~~Systems-based Practice~~

依據ACGME核心能力之OSCE

- Patient Care
  - 問診
  - 衛教
  - 執行診療程序
- Interpersonal and communication skills
  - 與病人建立醫療關係
  - 聆聽技巧、告知壞消息
- Professionalism
  - 尊重、利他
  - 執業依循倫理
  - 對人的敏感

OSCE 藍圖：依據ACGME核心能力

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

核心能力項目	標準化病人	病人模擬器	其他方式
問診	✓		
衛教	✓		
執行診療程序		✓	✓
與病人建立醫療關係	✓	✓ + skill	
聆聽技巧	✓		
告知壞消息	✓		
尊重、利他	✓		
執業依循倫理	✓		✓
對人的敏感	✓		

Creating

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- OSCE Blueprint
- Creating Stations
  - 教案/考題
  - 考生指引
  - SP指引
  - 評分員指引
  - 評分表
- Measurement Instruments

考題

一位病人因肺炎住院，今早開始發燒，痰愈來愈多，人愈來愈喘。

到了晚上更為難過，你決定要幫病人放置氣管插管。

你的任務：替病人放置氣管插管

注意：

1. 病人意識清楚
2. 十分燥動不安

Creating

- OSCE Blueprint
- Creating Stations
- Measurement Instruments
  - Checklists vs. Global ratings

Characteristic	Checklists	Global ratings
Nature	Binary scale (yes/no)	Continuous (1 to 5)
Interrater agreement	High	Moderate
Inerrater reliability	Moderate	Moderate-high
Ability to measure content	High	Low-moderate
Ability to measure process	Low-moderate	Moderate-high
Validity at higher levels of expertise	Low	Moderate-high

氣管插管評分表

溝通技巧				操作技巧			
評分項目	表 現			評分項目	表 現		
	全	半	無		全	半	無
打招呼及自我介紹				打開呼吸道			
告知程序目的				S：抽痰			
告知整體程序				O：NRM 予 100% O2			
逐步說明				A：airway			
對病人疑問的回應				P： LOAD、 RSI			
表達同理心				ME：monitoring			
關心病人的不適				使用 laryngoscope			
病人抱怨痛楚時會道歉				置入氣管內管			
痛楚時停止或調整程序				空針筒將氣囊打氣			
程序結束能作出回饋				以手固定			
				聽診器 check 位置			
				End tidal CO2 detector			
				Esophageal detector devices (EDD)			
				膠帶固定			

Preparing

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 訓練標準化病人
- 召募及訓練考官
- 尋覓考試地點

Running

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 六個月前：完成OSCE角色、訂場地、召募考官、雇SP訓練員
- 一個月前：通知考生時間地點、訓練SPs、印評分表、訂餐點、準備停車卷、雇工作人員
- 一星期前：與SPs及考官再確認、印表格（回饋單）
- 一天前：佈置考場、準備及檢查計時器及鈴鐘
- 當天：再確認每間考室、對考生、考官及SPs說明

Hodges & Hanson, U of Toronto, 2002.

Monitoring and Improving

- Planning
- Creating
- Preparing
- Running
- Monitoring and Improving

- 考官回饋
- 考生回饋
- SPs回饋
- 考生分數
- OSCE分數與同科的其他考評（如筆試）之比較
- 期末學生代表意見
- 教師代表意見
- OSCE分數與國考/執照考試之關係
- 與其他學科之performance-based assessments比較

報告大綱

- The ACGME requirements
- Patient Care：如何教學
- Patient Care：如何評估
- OSCE的規劃
- 結語

結語：Patient Care

- 全人醫療理念
- 以病人為中心
- 多種能力整合
- 相互交錯重疊
- 多種教學方式
- 多種評估方法
- 實踐重於理論
- 身教遠勝言教

謝謝聆聽
敬請賜教

cychan@ym.edu.tw

醫學知識

(Medical knowledge)

劉茂森 主任

林口長庚醫院

一般內科暨高齡醫學科

示範中心如何教六大核心能力的醫學知識 (Medical Knowledge)

一般內科暨高齡醫學科
劉茂森 主任

中華民國九十七年八月二十三日

大綱

- Contents of medical knowledge
- How to learn, teach and evaluate competency of medical knowledge
- 案例教學
- Feedback

ACGME
(Accreditation Council for Graduate Medical Education)

- The Accreditation Council for Graduate Medical Education (ACGME) is responsible for the accreditation of post-MD medical training programs within the United States.

Outcome Project

The ACGME initiated the Outcome Project in keeping with its mission to ensure and improve the quality of graduate medical education.

The ACGME Outcome Project is changing the focus of GME accreditation.

General Competencies

As the first major activity of the Outcome Project, the ACGME identified six general competencies for residents. Identifying the competencies was stimulated by increased attention to how adequately physicians are prepared to practice medicine in the changing health care delivery system.

Six general competencies

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

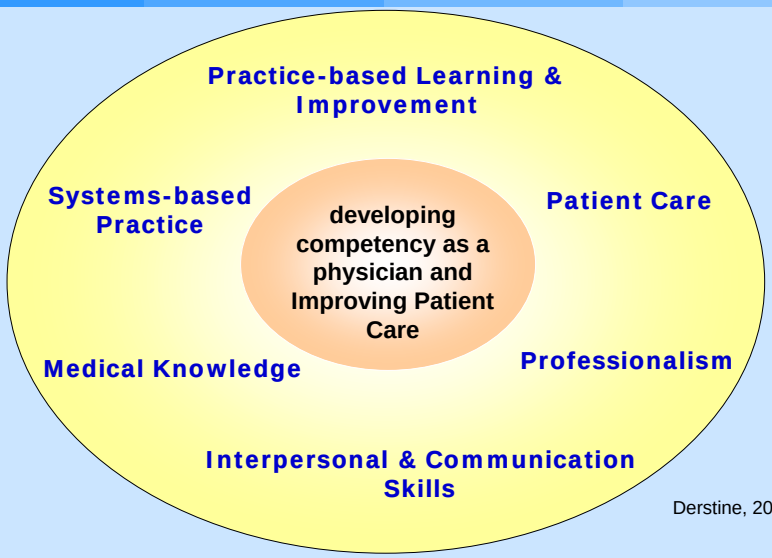
Competency-based Residency Education

Learning ⟷ Teaching

↓

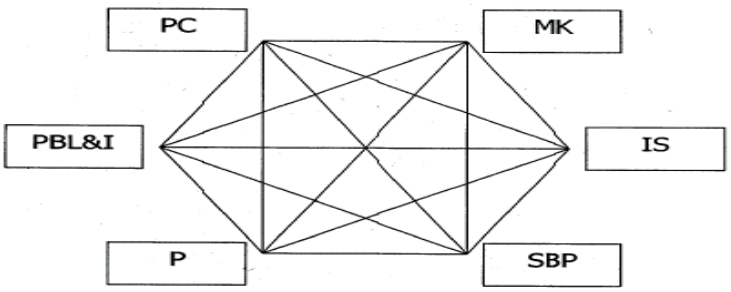
Educational Outcomes
(Learner performance)

Goals of the Outcome Project



Derstine, 2006

Integrated competency



This "integrated competency" diagram speaks to the idea that in any encounter with a patient, a physician can call into play any or all of the competencies. For example, some visits may rely only about medical knowledge and patient care, whereas others may focus on interpersonal skills and professionalism. Still other visits may require all six realms to come into focus.

Medical knowledge

Contents of medical knowledge (I)

- Scientific principles of basic and clinical sciences that will enable residents to competently practice evidence-based medicine
- Determinants of disease-based risk factors, factors for disease prevention and healthy lifestyles
- Principles of patient education
- Principles of epidemiology and population-based medicine

Contents of medical knowledge (II)

- Principles, risks, and possible benefits of complementary and alternative medicine
- Concepts, principles, and application of evidence-based medicine
- Investigatory and analytic thinking approach to clinical situations to be able to translate new and emerging concepts to improve patient care
- Psychological, social, economic and cultural factors pertaining to health
- Legal and ethical concepts relating to health care

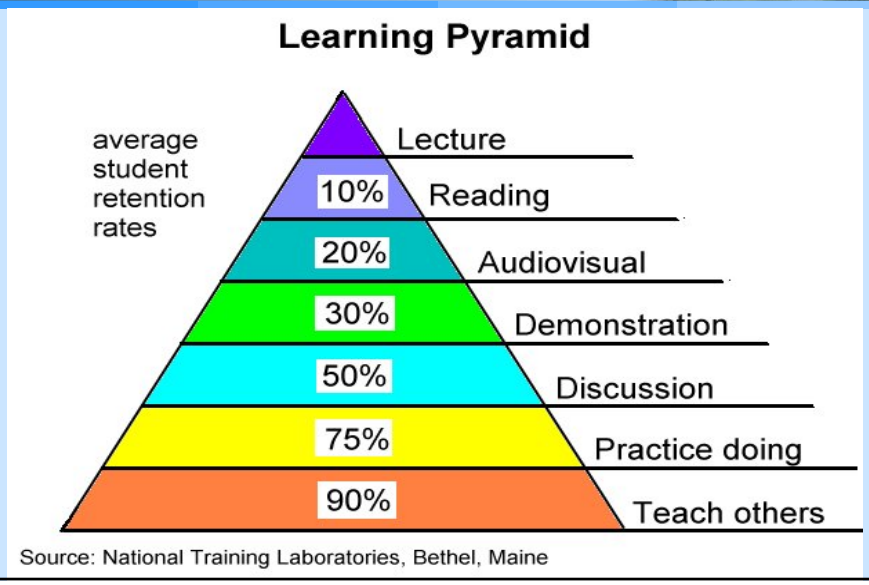
Competency of medical knowledge

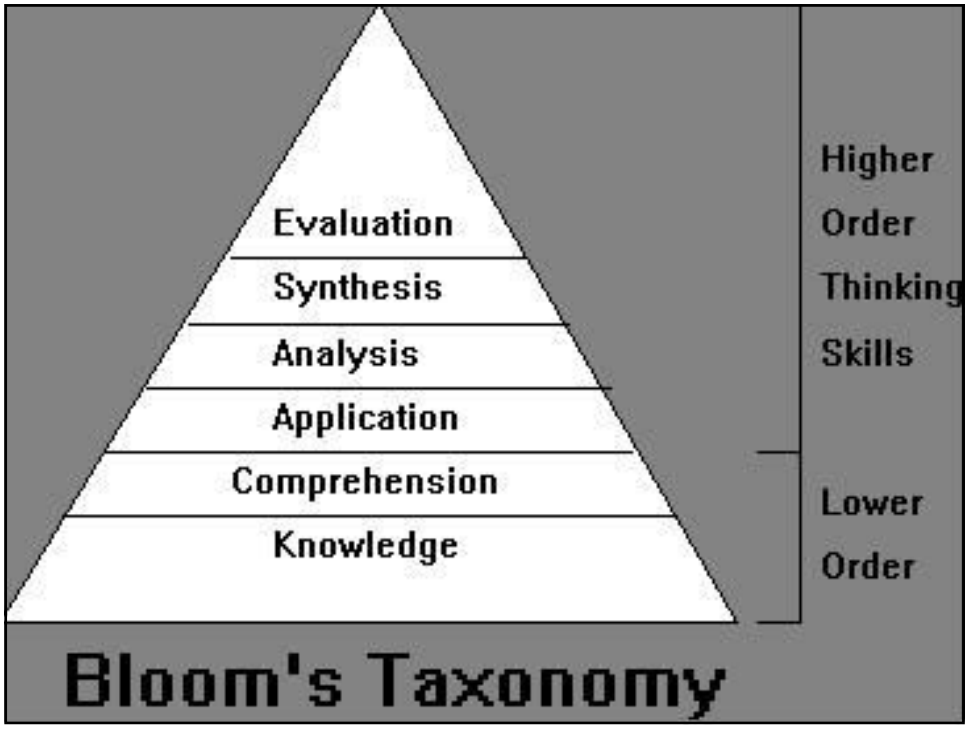
- Residents must demonstrate medical knowledge about established and evolving biomedical, clinical , epidemiological, social and behavioral science and the application of this knowledge to patient care
- Residents are expected to demonstrate an investigatory and analytic thinking approach with medical knowledge to clinical situations

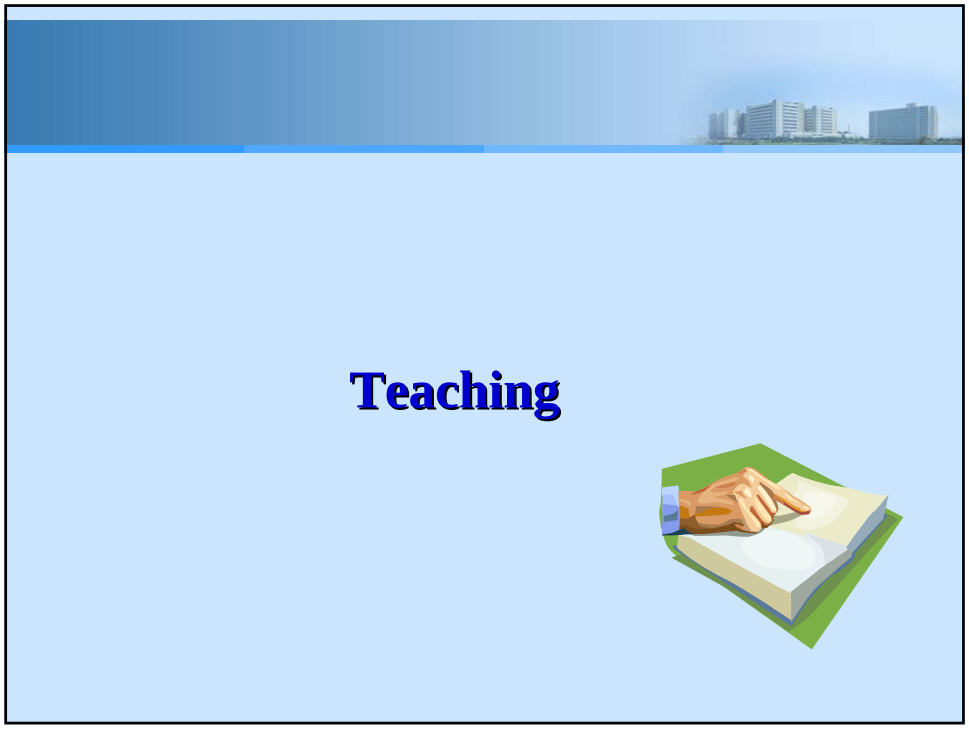
Learning

Methods of learning medical knowledge

- Medical textbooks and journals
- Lectures
- Audiovisual and computerized learning
- Conferences
- Clinical practice
- Case presentation
- Grand rounds
- Clinical teaching rounds




Evaluation
Synthesis
Analysis
Application
Comprehension
Knowledge
Higher
Order
Thinking
Skills
Lower
Order
Bloom's Taxonomy


Teaching

How to teach medical knowledge

- Lecture
- Core curriculum for each specialty
- Audiovisual and computerized teaching
- Clinical practice
- Basic science and clinical case conferences
- Grand rounds
- Specialty conferences
- Journal club
- Seminar
- Teaching rounds
- Evidence based medicine

一般醫學內科示範中心臨床和學術活動

- 病房晨會
- 臨床服務和訓練
- 病房主治醫師巡診
- 病例討論會
- 文獻研讀
- 特別演講
- 醫療團隊聯合討論會
- 資深主治醫師教學迴診
- 特別會診
- 訓練手冊
- 教學門診
- 病歷寫作指導
- 實證醫學討論會
- 醫學法律倫理討論會
- 參與內科部、醫教會和全院性演講、CPC

一般醫學內科示範中心軟硬體教學設備

- 示範中心專屬網頁
- 課程公告和行事曆
- 參與實證醫學、病歷寫作、醫學倫理等醫教會舉辦的訓練課程

主治醫師教學迴診

- 臨床資料的解釋
- 病理生裡變化
- 鑑別診斷
- 病人的特殊處置
- 實證醫學與資訊科技使用

Evaluation

TOOLBOX OF ASSESSMENT METHODS©

A Product of the Joint Initiative

ACGME Outcomes Project
Accreditation Council for Graduate Medical Education

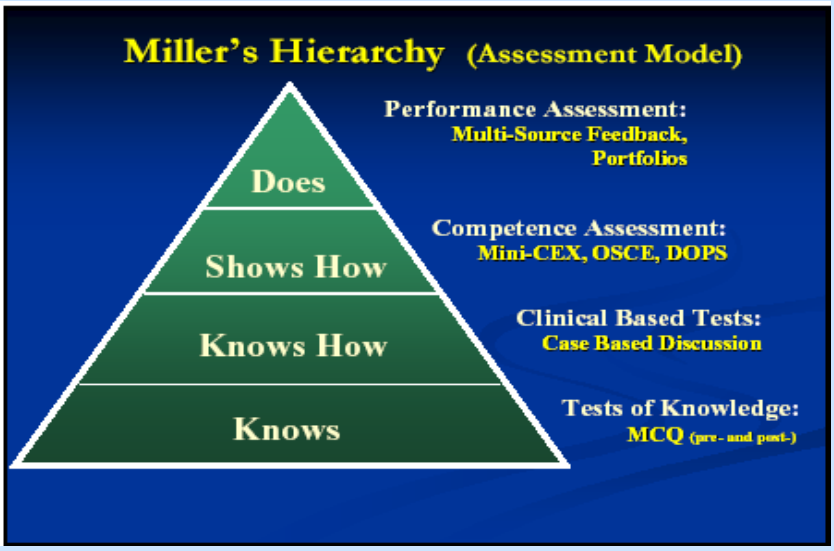
American Board of Medical Specialties (ABMS)

Version 1.1
September 2000

ACGME Assessment Toolbox

- Written exam (MCQ)
- Standardized oral exam
- Chart stimulated recall
- Simulations and models
- Objective Structured Clinical Examination (OSCE)
- Standardized patients
- 360° global evaluation
- Portfolios
- Direct Observation Procedural Skills (DOPS)

教學評量



Evaluation of competency of medical knowledge

ACGME Competencies: Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	**Required Skill**	Record Review	Chart Stim. Recall	Check-list	Global Rating	SP	OSCE	Simula-tions & Models	360° Global Rating	Port-folios	Exam MCQ	Exam Oral	Procedure or Case Logs	Patient Survey
Medical Knowledge	Investigatory & analytic thinking		1					2	3			1		
	Knowledge & application of basic sciences							2	3		1	1		

Ratings are 1 = the most desirable; 2 = the next best method; and, 3 = a potentially applicable method.
Toolbox of Assessment Methods© Accreditation Council for Graduate Medical Education (ACGME) and American Board of Medical Specialties (ABMS). Version 1.1.

Written examination(MCQ)

- A written or computer-based MCQ examination is composed of multiple-choice questions (MCQ) selected to sample medical knowledge and understanding of a defined body of knowledge.

Standardized oral examination

- Examiner presents to the examinee a clinical problem in the form of a patient case scenario.
- Questions probe the reasoning and interpretation of clinical findings and treatment plans.
- The exams assess clinical decision-making and application of medical knowledge.

Chart Stimulated Recall Oral examination (CSR)

- A trained and experienced physician examiners questions the examinee (residents) about the care provided: reason behind work-up, diagnosis, interpretation of clinical findings and treatment plans.
- The exams assess clinical decision-making and the application of medical knowledge with actual patients.

Simulation and models

- Simulation is used for assessment of clinical performance closely resemble reality and attempt to imitate real clinical problems.
- Allow examinees to reason through a clinical problem, no hurting a real patient, instant feedback to correct a mistake action, rate examinees' performance on clinical problems.

OSCE（Objective Structured Clinical Examination）

- Test skills such as communication, clinical examination, medical procedures, prescribing and interpretation of results.
- The stations can be standardized enabling fairer peer comparison and complex procedures can be assessed without endangering patients health.

Mini-OSCE

- Chest PA 判讀
- EKG 判讀
- 心音判讀
- 肺音判讀
- On Foley操作

Outpatient clinic teaching

- Mini-CEX

Mini-CEX評估表

教學門診實況

360-degree evaluation

- Evaluation completing rating forms in a 360-degree evaluation usually are superiors, peers, subordinates and patients and families.
- Use questionnaire to gather information about an individual's performance (eg. Teamwork)

多面向回饋評核表

- 受訓期間：__月__日～__月__日
- 評核對象：□Resident □Intern □Clerk
- 評核人員：□主治醫師□護理人員□醫療團隊成員 □病患及其家屬
- 臨床技巧與專業知識：□很滿意 □滿意 □普通 □還可以 □待加強
- 工作態度及照護責任：□很滿意 □滿意 □普通 □還可以 □待加強
- 溝通技巧與態度：□很滿意 □滿意 □普通 □還可以 □待加強
- 團隊合作與互動關係：□很滿意 □滿意 □普通 □還可以 □待加強
- 醫病關係及互動：□很滿意 □滿意 □普通 □還可以 □待加強
- 醫療團隊互動：□很滿意 □滿意 □普通 □還可以 □待加強對醫師及醫療團隊印象

一般醫學內科訓練評核表

- 對於核心課程的認知與了解？□傑出(10,9) □尚可(8,7) □待改進(6,5)
- 對於病患資料收集、整合、分析、診斷之能力？□傑出(10,9) □尚可(8,7) □待改進(6,5)
- 有關病史詢問、理學檢查、醫療技術之能力？□傑出(10,9) □尚可(8,7) □待改進(6,5)
- 病患病情報告之能力？□傑出(10,9) □尚可(8,7) □待改進(6,5)
- 主動、積極、自我學習精神？□傑出(10,9) □尚可(8,7) □欠缺待改進(6,5)
- 照顧病患責任感？□責任感強烈(10,9) □尚可(8,7) □缺乏責任感(6,5)
- 參與學術活動出席情況？□準時且積極(10,9) □尚可(8,7) □出席情況不佳(6,5)
- 與醫護同仁相處情形？□傑出且融洽(10,9) □尚可(8,7) □關係不佳(6,5)
- 與病患、家屬之間互動？□傑出且富關懷胸懷(10,9) □關係尚可(8,7) □溝通不良，待改進(6,5)
- PBL-EBM之精神與能力？□傑出(10,9) □尚可(8,7) □待改進(6,5)

Portfolios

- Collection of products prepared by the resident that provides evidence of learning and achievement related to a learning plan.
- Written documents but can include video- or audio-recording, photographs, research project reports, plans and other forms of information.

以醫學知識為核心能力的案例教學

以醫學知識為核心能力的案例教學

- Mrs. Lin is a 78-year-old women who fell while walking on the street. No loss of consciousness.
- She was sent to emergency room.
- A laceration wound over right frontal scalp was noted.
- She has had history of COPD , Parkinson's disease, osteoarthritis and hypertension for 10 years.
- She takes multiple medications to manage her medical conditions.
- She has had history of falls twice last year and no injury reported.

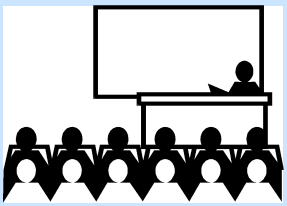
Physical examination

- Vital signs showed afebrile, BP: 135/80 mmHg, Pulse: 80/min on sitting position.
- A suture wound over right frontal scalp. Cranial nerves were intact.
- Lungs showed no wheezing. Hearts showed no murmur. Abdomen showed no mass. There was no edema over bilateral lower leg.
- Postural instability and gait dysfunction with slow walking.
- Bilateral hand resting tremor.
- No decrease in muscle power and sensation. She walked stiffly with unsteady gait.

How to teach students to do history taking and physical examinations of patients with falls?

（如何教導學員對跌倒病人做病史詢問和理學檢查 ?）

教學方式



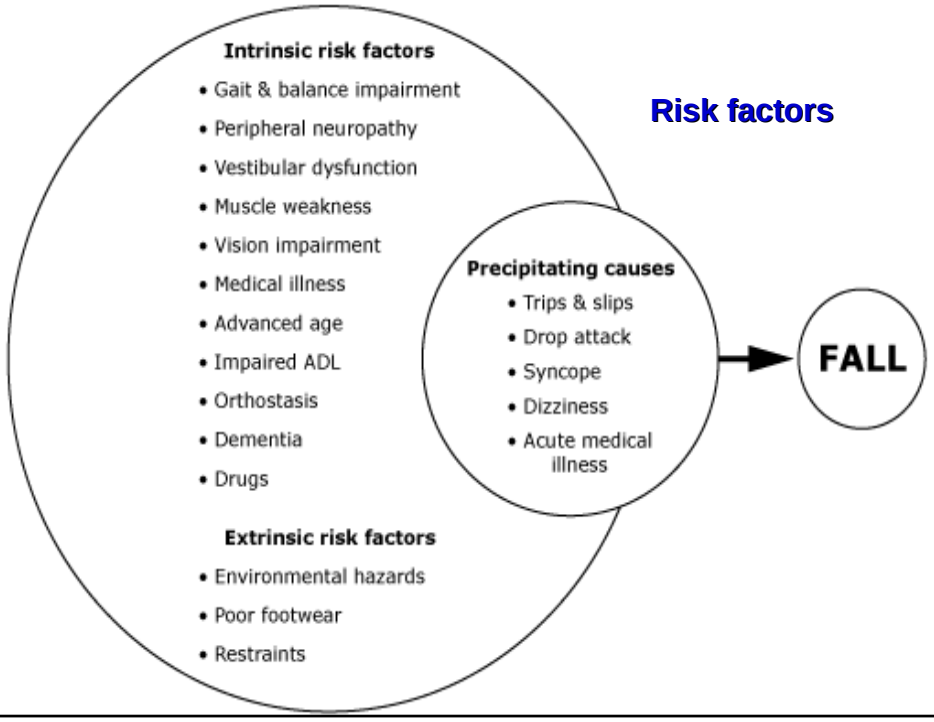
History taking

- Falls---when, where, how, why
- Alcohol
- Medication
- Syncope
- Dizziness
- Medical illness
- Visual impairment
- Hearing impairment
- Pain and mobility
- Environmental hazards
- Consequences of falls

Physical examination

- Postural BP changes
- Visual and hearing functions
- Musculoskeletal system
- Neurological system
- Cardiovascular system
- Location of injury or wound

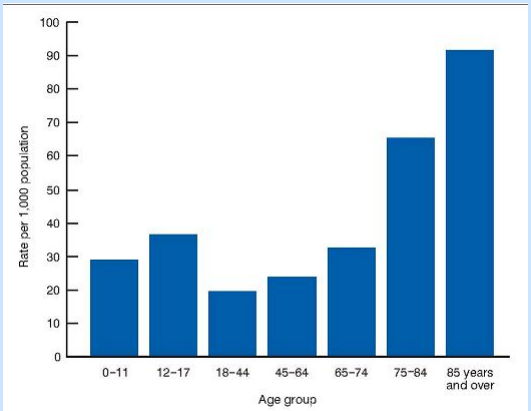
How to teach the student the risk factors of falls ?
（如何教導學員跌倒病人的危險因子?）



How to teach the students the prevalence of falls and its clinical events ?

（ 如何教導學員跌倒的流行病學?）

Epidemiology



DATA SOURCE: National Health Interview Surveys, 2001-2003. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

Clinical events of falls

- Complication of fall: 10-15 % of falls resulting in fracture and other serious injury, such as SDH
- Fall-related injury: 5% fracture, 1% hip fracture
- 95% hip fracture due to fall
- Mortality: 2-5% of falls
- Falls are the leading cause of accidental death in older adults

以醫學知識為核心能力的案例教學 – Falls: lab data

- Brain CT showed no hematoma, no skull fracture.
- Bilateral hip x ray showed no fracture.
- Chest x-ray shows COPD without infiltrate.
- EKG showed sinus rhythm, non-specific ST-T changes.
- BMD by DEXA showed osteoporosis with T score <-2.5
- Functional status was partially dependent
- MMSE and geriatric depression scale were normal.
- Timed Get Up and Go test was 20 seconds.

以醫學知識為核心能力的案例教學 – Falls: hospital course

- Medications were reviewed and modified.
- Rehabilitation program was arranged
- Biphosphonates for treatment of osteoporosis
- Assisted device
- Home safety evaluation
- The patient has no fall after follow up for one year .

Diagnostic tests

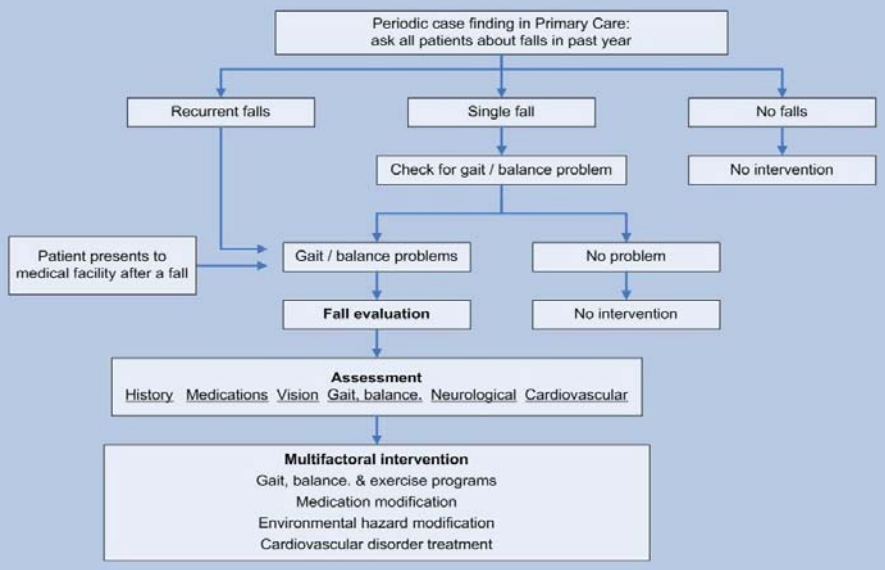
- Complete blood count
- Thyroid function
- Electrolytes, BUN, creatinine, glucose, vitamin B12
- EKG, Holter ECG , Echocardiogram
- Image study: eg. Brain CT
- Mini-mental status examination
- Geriatric depression scale
- Activity of daily living (Barthel index)
- Timed get up and go test
- Tinetti balance and gait evaluation

How to do assessment and intervention of falls?

(如何教導學員對於跌倒的評估和處置?)

(demonstrate an investigatory and analytic thinking about falls)

Assessment of falls



Fall intervention

- Osteoporosis, cognition, cardiac, incontinence, neurological and diabetes investigation
- Multidisciplinary assessment and intervention
- Ophthalmology and hearing evaluation
- Modifying psychotropic therapy
- Modifying antihypertensive therapy
- Assisted devices
- Home safety evaluation and avoid environmental hazards

How to educate patient about falls?
(如何教導學員對跌倒病人的教育?)

Patient education

- Fall prevention
- Multifactorial risk assessment
- Assisted devices
- Exercise
- Physical therapy
- Medication modification and prevent postural hypotension
- Home safety evaluation
- Hip protectors

Evidence-based medicine : prevention of falls
(針對跌倒病人實證醫學的教導)

Evidence-based medicine

Consistent, good-quality, patient-oriented evidence (A):

- Home hazard assessment and modification
- Exercise and Physical therapy
- Multifactorial risk assessment and intervention

EBM-- Tai Chi Chuan and fall prevention

- The aim of this report is to investigate the effects of 8 weeks of intensive Tai Chi Chuan (TCC) training on physiological function and fear of falling (FOF) in the less-robust elderly.
- The TCC group showed significant improvements in balance and flexibility, and a reduced FOF, when compared with the control group after the intervention. However, walking speed did not change significantly.
- The results suggest that a high-frequency, short-term TCC training program can improve balance, flexibility, and increase the confidence of less-robust elderly.
- These suggest the effectiveness of TCC for intervention as a means to prevent falling among high-risk elderly populations.

Feedback

一般醫學內科訓練學員回饋評核表

1.主治醫師具教學熱忱

□非常同意 □同意 □普通 □不同意 □很不同意

2.主治醫師能耐心指導學員

□非常同意 □同意 □普通 □不同意 □很不同意

3.主治醫師會詳盡的指導學員

□非常同意 □同意 □普通 □不同意 □很不同意

4.主治醫師指導學員時，能表達清楚、明白

□非常同意 □同意 □普通 □不同意 □很不同意

5.主治醫師以PBL-EBM之精神教學

□非常同意 □同意 □普通 □不同意 □很不同意

6.您認為在一個月的訓練期中，有否尚待加強的課程？課程為何？

7.您認為臨床指導教師的制度，有否需改善之處？

回饋評核表

1.大致來說，請問您對會議討論的情況是否感到滿意？
(晨間會報、死亡病例討論會、臨床病例討論會、臨床病理討論會等)
□非常滿意 □滿意 □普通 □不滿意 □非常不滿意

2.您對於病房教學的滿意度為何？
□非常滿意 □滿意 □普通 □不滿意 □非常不滿意

3.整體而言，您認為在課程中實際學習到哪些知識與技巧？(可複選)
□一般內科的診斷技巧 □了解一般內科的臨床知識
□與病人及其家屬溝通的能力 □學習建立病患對醫師的信賴感
□醫療團隊的分工合作 □了解病歷的寫作方式
□表達能力的技巧 □主動學習的態度
□將實證醫學融入訓練過程 □處理一般內科常見之疾病
□其他_____

回饋評核表(續)

4.整體而言，您對一般內科所設計的課程內容是否感到滿意？
□非常滿意 □滿意 □普通 □不滿意 □非常不滿意

5.您對於一般內科整體的師資安排是否感到滿意？
□非常滿意 □滿意 □普通 □不滿意 □非常不滿意

6.完成此訓練課程後，您認為對您是否有所助益？
□非常有幫助 □有幫助 □普通 □沒幫助 □非常沒幫助

Conclusion (1)- 多面向的醫學知識內容

- 醫學知識的學習和教學，應該涵蓋實證醫學、流行病學、社會學、經濟學、行為科學、文化因素、輔助和替代醫學的概念。關於疾病的危險因子、疾病的預防、健康的生活型態也要熟習。更要用研究、分析、探討的思考模式，把醫學知識和新知應用在改善病人照護。關於健康照護相關的法律、倫理以及對於病人的健康衛教也要加以重視。

Conclusion (2)—教學和評量

- 一般醫學內科示範中心是以病房晨會、臨床服務和訓練、病房主治醫師巡診、病例討論會、文獻研讀、學術演講、核心課程、醫療團隊聯合討論會、門診教學、實證醫學和資深主治醫師教學迴診來教醫學知識，並以筆試、病歷口頭測驗、OSCE、全方位360度評估及Mini-CEX來評量教導醫學知識的成果。

Conclusion(3)

- 醫學知識在住院醫師的醫學教育非常重要，也需要六大核心能力相互為用，才能培養有能力照護病人的好醫師。

敬 請 指 教

一點一滴・實事求是・追根究底・止於至善

從工作中學習及成長
(Practice-based learning and improving)

蘇裕謀 主任

萬芳醫院

一般內科

ACGME's "Six Competencies"

-Practice-Based Learning and Improvement

-從工作中學習及成長

台北醫學大學助理教授
萬芳醫院一般內科主任
蘇裕謀醫師

Outline

- ✶Introduction
- ✶Definitions of Practice-Based Learning and Improvement (PBLI)
- ✶Teaching and Assessment Strategies for PBLI
- ✶Portfolio
- ✶Evidence-Based Medicine
- ✶OSCE case

Practice Based Learning and Improvement (PBLI)

- “Residents must internalize the value of on-going, self-directed learning and improvement of their practice of medicine.”
- Self Reflective Learning
- Life Long Learning

PBLI Introduction

- Similar to "holding a mirror up to ourselves to document, assess, and improve our practice"

  Ziegelstein RC, Fiebach NH. Acad Med 2004;79:83-8.
- “Setting the stage for the resident to accept responsibility for life-long learning"
- As "how you get better" at medicine

  Gordon P, Tomasa L, Kerwin J. Fam Med 2004;36:164-7.
- The experiential bridge between "continuous learning and good patient care"
- Caring for patients and learning from care

自省

- 子曰：「見賢思齊焉，見不賢而內自省也。」《論語・里仁》
- 曾子曰：「吾日三省吾身：為人謀而不忠乎？與朋友交而不信乎？傳不習乎？」《論語・學而》
- 人必自侮，而後人侮之。（明）劉基《鬱離子》
- 人必自省， 而後人省之。

PBLI-ACGME Expectations (1)

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
- Obtain and use information about their own population of patients and the larger population from which their patients are drawn

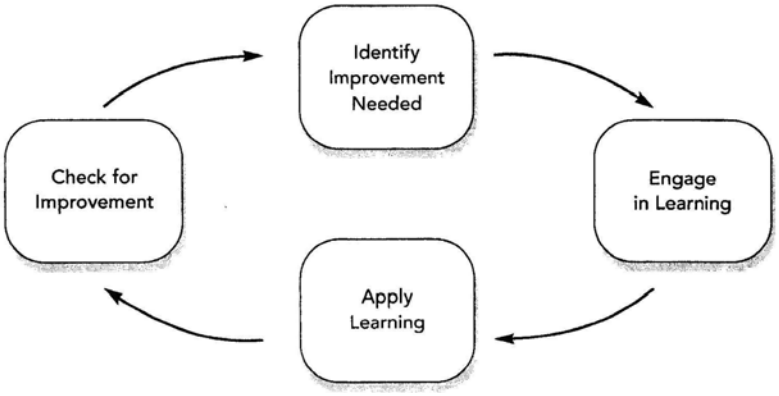
PBLI-ACGME Expectations (2)

- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access on-line medical information; and support their own education
- Facilitate the learning of students and other health care professionals

Definitions of PBLI

- Practice tracking and analysis
  - use of a log, critical incident journal, a chart review summary
- Ongoing learning
  - discuss and apply current literature and best practices, recognizes and tries to address mistakes
- Improvement
  - Positive changes to practice behaviors, application of new skills or knowledge to p't

PBLI Improvement Cycle



Five Steps of PBLI

1. Monitor practice
2. Reflect on or analyze practice to identify learning or improvement needs
3. Engage in learning or plan improvement
4. Apply new learning or improvement
5. Monitor impact of learning or improvement

Lynch DC et al, Teach Learn Med 2004;16:85-92.

Basic Knowledge and Skills Required for PBLI

- ✶ Know how to reflect and self-assess
- ✶ Know EBM databases
- ✶ Know methods for studying populations and how to apply them
- ✶ Know how to do outcome-based measurement
- ✶ Know improvement tools and how to apply them
- ✶ Know reach methodologies, statistics, approaches to guideline and best practice development, and how to apply these

Template for CQI Projects

- ✶ **Problem** (what is the current problem which is why you are choosing this project in the first place?)
- ✶ **Background** (What existing information should you collect?)
- ✶ **What are we trying to accomplish?** (Goal/aim; keep focused)

Template for CQI Projects

- **How will we know that a change is an improvement?** (Measurement; must "link" with goal)
- **What changes can we make that will result in improvement? (What one change might be worth testing?)** (What can you change? An "intervention")

Template for CQI Projects

- **Plan** (Who? What? When? Where?)
- **Do** (The idea implemented)
- **Study** (What happened?)
- **Act** (What's next?)

運用EBM對於醫療品質的促進過程

Approaches to **Teach** PBLI (1)

- Exit rounds
  - In a group session with the attending, each resident reviews a discharged patient for whom he/she was responsible and describes what was learned from caring for that patient. Acad Med 1995;70:684-7.
- Mortality & Morbidity conference
  - An M&M case is assigned to each resident who analyzes the case in terms of his or her own practice behaviors that could be
  - improved. The resident presents these issues during M&M conference. Acad Med 2004;79:83-8.

An Educational Resource from the ACGME Outcome Project

Approaches to **Teach** PBLI (2)

- Practice-based small group learning
  - Residents meet to review current information about a specific clinical problem and to reflect on their experiences and challenges with it. Group discussion is stimulated by prepared material and led by a trained peer facilitator.
- Evidence-Based Medicine
  - Residents rotate as leaders of a group session to discuss the application of EBM to one of their own patients. As preparation, residents develop a focused clinical question, conduct a literature search, critically appraise the evidence, and then apply it to the care of their own patients. J Gen Intern Med 1997;12:742-50.

Approaches to **Teach** PBLI (3)

- Log and learning plan
  - Working with a mentor, residents keep a log of significant events or clinical surprises and develop a plan to address learning needs revealed by these events. Med Educ 2000;34:474-9.
- Improvement project
  - Residents work with a mentor to identify an aspect of their own practice that needs to be improved, implement the improvement, and determine its effectiveness during senior year. Med Educ 2001;35:357-63.

Approaches to **Assess** PBLI

- ✶Improvement project
- ✶Portfolio entry
- ✶Learning plan
- ✶Quality improvement knowledge application tool
- ✶EBM skills test
- ✶Physician achievement review

An Educational Resource from the ACGME Outcome Project

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Other Tools:

- ✶Evidence Based Medicine in Journal Club
- ✶Individual Learning Plans
- ✶Critical Incident Analysis
- ✶Self Reflective Journals
- ✶Self Assessments

A practical guide to teaching and assessing the ACGME core competencies
Elizabeth A Rider *et al* 2007

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ACGME Competencies-PBLI
Suggested Best Methods for Evaluation

		Evaluation Methods												
Competency	Required Skill	Record Review	Chart Stim. Recall	Check-list	Global Rating	SP	OSCE	Simula-tions & Models	360° Global Rating	Port-folios	Exam MCQ	Exam Oral	Procedure or Case Logs	Patient Survey
Practice-Based Learning & Improvement	Analyze own practice for needed improvements	2	2			2	2	3	3	1				2
	Use of evidence from scientific studies	1	1			3	2			1	1	1		
	Application of research and statistical methods		2	3	3					1	3			
	Use of information technology					2	2		1	1			2	
	Facilitate learning of others			2	3				1	3				

Ratings are 1 = the most desirable; 2 = the next best method; and, 3 = a potentially applicable method.
Toolbox of Assessment Methods® Accreditation Council for Graduate Medical Education (ACGME) and American Board of Medical Specialties (ABMS). Version 1.1.

Using M & M Conference Cases to Foster and Assess PBLI

- ✶Goal: To foster learners' abilities to self-monitor and reflect on their own work and initiate their own learning.

2004 Annual ACGME Educational conference & Acad Med 2004;79:83-8.

Learning Objectives

- Self-assess their work
- Check the accuracy of their self-assessments by consulting relevant literature and data and by obtaining feedback from teachers and peers
- Express personal learning points and a learning plan

Learning Activity

- CR or director selects cases / once a week
- Residents prepare a presentation
- Describe the case, reflect on and identify what went wrong
- List resources used to gain a better understanding
- Ask themselves what he would do differently and what he would have to learn (knowledge, skill, attitude/perspective) in order to improve
- Presented then by reviewing faculty
- Open discussion

Assessment

- Completes a brief learning plan that describes what he would need to learn to do things differently.
- Following the M&M conference the resident and program director or mentor review the resident's presentation and learning plan.
- Based on the M&M presentation, the learning plan, and discussion with the resident, the PD or mentor rates the following areas: practice analysis, improvement opportunity, resources to support analysis, and action plan.

How does this address PBLI?

- To reflect on and analyze a sample of own practice
- To seek and use objective information
- Guides the resident toward identifying learning needs related to a specific case

Using an Improvement Project to Foster and Assess PBLI

- Goal: To foster learners' abilities to self-monitor and reflect on their own work and initiate their own learning.

Med Educ 2001;35:357-63.

Objectives

- Conduct a chart review of their patients
- Compare their own practice with best evidence
- Identify an intervention to improve their own practice
- Implement an intervention designed to improve their own practice
- Check the effect of improvement interventions

Learning Activity (1)

- A group facilitator (faculty) prepares information about practice improvement tools and discusses it during group discussions with residents. Sample topics include: plan-do-study-act cycles etc.
- The group facilitator guides discussion so that each resident designs an aim for his or her own improvement project.

Learning Activity (2)

- During the planning phase of projects, each resident presents an evidence-based rationale for planned improvements and receives feedback from the group.
- During the implementation phase of projects, each resident updates the group facilitator or a mentor on progress during one-on-one meetings.
- The discussion group reconvenes after the improvement projects have been implemented and results collected. Residents present the results of their interventions.

Assessment

- The resident documents each step of the improvement project.
- During a group seminar, the resident presents his or her improvement project to other residents and the group facilitator or mentor.
- The group facilitator or mentor rates the written project using the PBLI improvement project checklist.

How does this address PBLI?

- Analyze a sample of his or her own practice.
- Seek current information about the area targeted for improvement.
- Implement an improvement intervention.
- Examine the effects of the intervention on his or her own practice.

個人學習歷程檔案(Portfolios) –學習成果的展現

- 是個人專業生涯學習成長經驗之記錄，它**呈現學習歷程與成果**，可做為**未來專業能力認證之依據**
- 幫助**回顧省思、促進自我成長**，以及計劃未來生活、工作之發展方向
- 呈現出：1.接受訓練經歷與品質 2.個人技能及能力 3.學習的成就

實施目的

- 有目的收集整理學習證據的資料文件，記錄住院醫師的學習歷程，幫助住院醫師做有意義的學習。
- 提升住院醫師與臨床教師、導師間之互動。
- 幫助住院醫師於每日工作中不斷自我反省、思考與改進，達成學習目標並加強學習成效。
- 住院醫師訓練之全面教育成果呈現。

Comparison of Assessment Methods

Testing		Performance assessment	
Selected response (Knows)	Supply response (Knows how)	Restricted performance (Shows how)	Extended performance (Dose)

Low	**Realism of task** ↔	High
Low	**Complexity of tasks** ↔	High
Low	**Assessment time needed** ↔	High
Low	**Judgment in scoring** ↔	High

How Do I Start Creating a Portfolio?

- ✶Step one
  - 收集（ Collect）- decide what you need
- ✶Step two
  - 整理（Organize）- categorize content
- ✶Step three
  - 保存（Store）-review your portfolio
- ✶Step four
  - 持續（ Maintain）- keep information current

個人學習歷程檔案內容

- ✶第一單元：個人發展
- ✶第二單元：學習成長記錄
- ✶第三單元：能力評量
- ✶第四單元：教學經驗記錄
- ✶第五單元：續繼教育記錄
- ✶第六單元：學術研究成果

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Scoring rubrics (global performance assessment)

Logical and coherent structure

Outstandingly clear, logical and coherent structure (3)	Portfolio has introduction that outlines what will be discussed in the body of the text, has subtitling within the body of the text and a conclusion that summarizes key issues. The prose flows clearly within each section. The student has excellent written communication skills (e.g. grammar, spelling).
Very clear and mainly logical and coherent structure (2)	Portfolio has introduction section, subtitling within the body of the text and conclusion but it may not be clear in the introduction what will be discussed in the portfolio and/or the conclusion may not summarise all of the key issues. The prose generally flows clearly within each section. Student has good written communication skills (e.g. grammar, spelling).
Clarity is limited, some evidence of a logical and coherent structure (1)	Portfolio may have an explicit structure and subtitling but may be difficult to follow. The prose may flow poorly in places with the student jumping from one topic to an unrelated topic. The portfolio may not contain a conclusion section. Student has poor written communication skills in places (e.g. grammar, spelling).
Unclear and illogical and incoherent structure (0)	Portfolio has no obvious structure and is difficult to read. Student has poor written communication skills (e.g. grammar, spelling).

Scoring rubrics (global performance assessment)

Level of critical reflection

Outstanding evidence of critical reflection (3)	Students reflect critically on their communication skills and spends time within the portfolio discussing why they experienced the problems they had.
Some evidence of critical reflection (2)	Students reflect critically on their communication skills but do not really spend time within the portfolio discussing why they experienced the problems that they had.
Evidence of reflection but is not critical (1)	Students describe their communication skills but only discuss the aspects of their communication skills that were good. Students do not reflect critically on their communication skills.
No evidence of reflection (0)	Students do not reflect on their communication skills (strengths or weaknesses). Here, the students discuss communication skills theory only and makes no reference to their own communication skills.

常見Portfolio問題

- ✶未用心製做，portfolio內容貧乏
- ✶收集與教學訓練計畫無關之內容
- ✶有具體內容，有收集，但缺少整理
- ✶缺少住院醫師自我反省
- ✶評估考核內容與訓練計畫內容不符合
- ✶缺少教師們之回饋(含考核表)
- ✶缺乏自我改善及學習成長計畫

指導實證醫學的三種模式

- 親身示範實證診療
  - –學員將證據視為良好病患照護的一部份
  - –示範指導：“身教大於言教"
  - –學員看著我們運用判斷力，將證據應用到決策中
- 運用實證教導臨床醫學
  - –學員將證據視為良好臨床學習的一部份
  - –交錯指導：教導其他知識，也教導實證
  - –學員看著我們運用判斷力，將證據與其他知識結合
- 指導特殊的實證醫學技能
  - –學員學習如何充分瞭解及運用證據
  - –訓練指導：學員在學習過程中確實演練
  - –學員看著我們運用判斷力執行實證醫學的五個步驟 (提問、搜尋、評讀、應用、評估)

Straus SE *et al* EBM 2005

實施實證醫學五大步驟

1. 提問：整理出一個可以回答的問題
2. 搜尋：尋找文獻證據
3. 評讀：嚴格評讀文獻
4. 應用：應用於病人身上
5. 評估：對過程進行稽核

將實證醫學運用到住院病人巡診中

巡診型態	目的	最高相關證據	限制	策略
“收治後”或入院巡診(每次值班後， 全院，值班後團隊及顧問醫師)	決定新住院病人的診斷與一開始的治療	臨床檢查與其他診斷性檢查的正確性與精準度；一開始治療的有效性與安全性	時間、動機（不能停住不動），團隊值班後的疲勞	示範實證檢查，取得測前及測後機率；隨身攜帶記載實證精要的PDA或活頁書；寫教育處方；將臨床圖書館員納入團隊中
晨會(每天，坐著， 全體醫療服務團隊)	簡短回顧新病人， 討論其中一個或多個病人的評估及處置過程	臨床檢查與其他診斷性檢查的正確性與精準度； 一開始治療的有效性與安全性	時間	前景問題的教育處方(及背景問題的追蹤)；提出1-2分鐘的嚴格評讀摘要
工作巡診(每天， 一個或數個病房， 受訓者)	檢查每一個病人， 確定他們目前的臨床狀況：審查並(重新)開立審查及治療	診斷性檢查的正確性與精準度；進行中的治療的有效性與安全性，及交互作用	時間與動機	於電子紀錄中建立檢查結果或治療順序與有關證據間的連結

Straus SE *et al* EBM 2005

將實證醫學運用到門診病人巡診中

巡診型態	目的	最高相關證據	限制	策略
診間會議(每個半天之前，小組學員及出席人員)	檢討門診常見疾病的診斷與處置	疾病的表現症狀、鑑別診斷、測前機率、診斷性檢查的正確性與精準度、治療的有效性與安全性	時間、怠惰、別處的工作	前景問題的教育處方(並實際追蹤背景問題)；運用製作或更新簡短的證據摘要如CAT
初診病患教學	確立診斷與治療	臨床檢查與診斷性檢查的正確性與精準度一開始治療的有效性與安全性	時間、資料不齊全	示範實證檢查，估計測前以及測後機率；提供診斷性檢查與初始治療的初步證據大綱；寫下教育處方
複診病患教學	回顧病人目前的狀況，並審核進行中的治療	長期預後；替代治療方案的有效性與安全性；治療的害處	時間及改變病患需求	示範整合病人的價值觀；填寫教育處方
機動性晨間報告	回顧特殊門診病例	任何內容；最常見為診斷性檢查與治療選擇	時間；干擾；不同的經驗	暫停診間活動以取得證據資源；寫下並填寫教育處方；回顧舊的及新的證據摘要；提出一分鐘的嚴格評讀摘要、 NNT等

Straus SE *et al* EBM 2005

OSCE 考題：內容與型式

- ✶考試對象：PGY1
- ✶考試目標：溝通技巧與實證醫學技能
- ✶考試時間：20分鐘
- ✶告示牌
- ✶標準化病人指導說明（標準病人劇本）
- ✶考生任務說明
- ✶考官指引

考生任務說明（1）

- ✶林先生48歲，近來由於下背痛反覆發作而到內科門診求治，但是他提到幾年前曾經有過十二指腸潰瘍出血的病史。
- ✶如果你是照顧他的內科醫師會考慮何種治療(如果不考慮健保給付的問題，或病人願意自費負擔醫師認為必要的處方)。並請你想想看如何運用這些證據資料對病患說明你的治療計畫?

考生任務說明（2）

- ✶時間限制：你有20分鐘的時間。
- ✶請你從此案例中寫下
  - 一個可回答的臨床問題(依照PICO的形式)
  - 進行問題的文獻搜尋(要註明你所查詢的database)
  - 文獻評讀 (屬於EBM哪一種等級的資料)
  - 臨床運用(如何用簡明的說法跟病人解釋你的診斷或治療計畫)

感謝!

- ✶教學副院長 連吉時醫師
- ✶教研部主任 陳志榮醫師
- ✶教研部副主任 蔡淳娟醫師
- ✶醫務部副主任 白冠壬醫師
- ✶實證醫學中心主任 陳杰鋒醫師
- ✶新視野教學研究中心主任 吳明順醫師
- ✶住院醫師訓練計畫負責人 何為斌醫師
- ✶實習醫學生訓練計畫負責人 粟發滿醫師

人際及溝通技能
(Interpersonal and communication skills)

黃曉峰 主任

台中榮民總醫院

緩和醫療中心

PGY 導師研習營
醫病溝通與同理心訓練

臺中榮民總醫院
婦產部主治醫師/緩和醫療中心主任
倫敦大學 緩和療護碩士
黃曉峰 醫師

2008.6

醫病溝通與同理心教學經歷’00~’08-5

主辦單位	計	‘00	‘01	‘02	‘03	‘04	‘05	’06	’07	‘08
國外演講	1							1		
醫學會/醫策會	8						1	4	2	1
安寧研修課程	20						4	7	7	2
院外-專業	27		1	2			4	7	11	2
院外-志工/民眾	10			1	1		2	4	1	1
院外-學校課程	5						1		2	2
院內課程演講	40		1	3	4	5	5	4	9	9
部內課程演講	18			5	2		2	2	3	4
計	129	0	2	11	7	5	19	29	35	21
全部演講	453	15	22	36	61	62	74	72	65	46

醫病溝通教學對象

- 安寧團隊
- 部內同事、住院醫師、實習醫師
- 院內護理單位、醫療單位在職教育
- **安寧研修課程**
- 院外邀請演講：醫師、種子師資
- 自學教材
- UGY、PGY例行課程

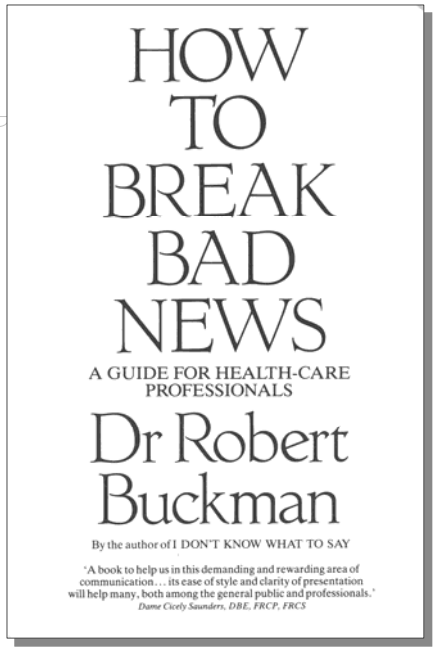
教學材料來源

1. 讀書心得報告
2. 臨床實例
   - 自己經歷的
   - 同事提出討論/經歷
   - 院內倫理討論
3. 剪報資料
4. 演練過程分享

同理心訓練-Knowledge

Knowledge：

- 知道溝通能力不足之處
- 知道溝通不良的後果
- 知道運用**理性說明解釋**(Factual Response)與**同理性回應**(Empathic Response)的不同時機



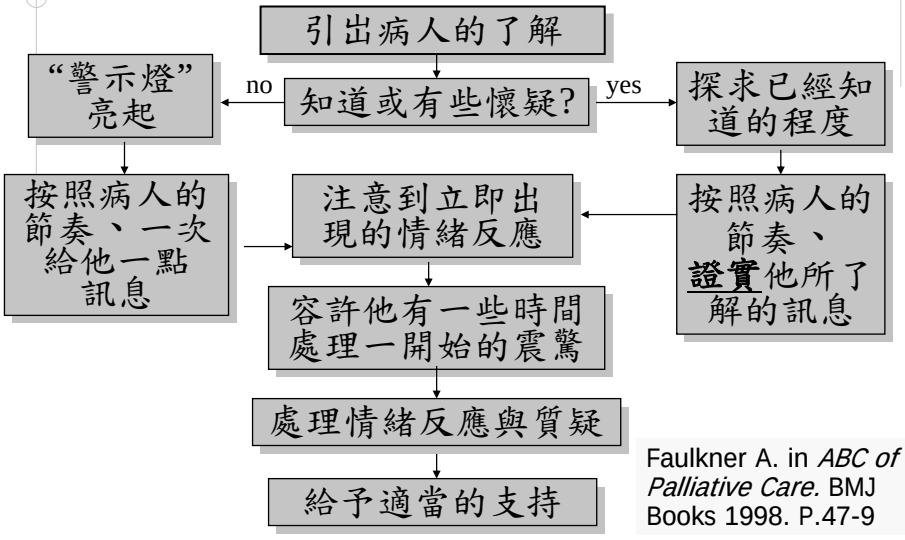
Dr. Robert Buckman

Robert Buckman,
MB,PhD,FRCP,FRCP(C)
Medical Oncologist and
Associate Professor of Medicine,
Toronto-Bayview Regional Cancer
Centre, University of Toronto, Canada
London:Pan books, 1994

SPIKES

- Step 1. **S**etting：準備動作
- Step 2. **P**erception：弄清楚病人已經知道多少
- Step 3. **I**nvitation：弄清楚病人希望知道多少
- Step 4. **K**nowledge：訊息分享
- Step 5. **E**mpathy：對病人的心情做適當的回應
- Step 6. **S**trategy：擬定治療及追蹤計畫

告知壞消息Breaking bad news



Faulkner A. in *ABC of Palliative Care.* BMJ Books 1998. P.47-9

醫病溝通教學內容結構(1)

- 從醫病溝通實例反思問題癥結為何？

你會說什麼

- 一位母親帶著被診斷【一耳嚴重聽力受損】的女兒到醫學中心
- 醫師重做聽力測驗後，看著報告說：這幾乎聽不見、也不用帶助聽器了

  (很簡潔的回答，包含預後和處置)
- 說完報告之後，母親沒有特別問什麼問題，醫師還須要說些什麼?

如果是你

- 還要說些什麼?
  - 以前病患的經驗、曾出現的問題、病友團體、社會資源...
  - 之後照顧要注意的地方、學習上的問題...
  - 造成的病因、是否會影響另一耳...

  → 都是理性的層次：提供訊息

  （可能醫師是說了，但是她「腦中一片空白」所以有聽沒有見）
- 她可能有的情緒：罪惡感、茫然、想要再尋求第三意見（否認）、失落、失望

你會說什麼

- 78歲男性、右腎 TCC, advanced disease
- S/P Radical nephrectomy (不到二個月前)
- 原本計畫術後化療，但因發燒而且病況不佳而一再延遲、終日臥床
- 兒子(第十次)問：可不可以儘快打化療

你如何回應？

- (末期病人問)我的病治得好嗎？
- (末期病人問)我想要好起來
- 可不可以開刀把這個瘤拿掉？
- (乳癌轉移到脊椎致下肢癱瘓病人問)我能不能再起來走?
- (末期病人的媽媽對你說)他還那麼年輕，不應該這樣比我先走了

- 不是只有面對末期病人時才有這種困難的對話

安寧緩和專科醫師口試(95年)

- 標準病人-委員詢答
- 口試委員：請問你剛才會談的目的是
  - 醫師(考生)：我會先跟她談些話，建立好關係，以便**以後**可以談比較深入的話題
- 醫師(考生)：你先聽我說...你先聽我說...
  - 口試委員：請問什麼時候你會換她說？
  - 病人：我覺得你很權威，不敢跟你說話

安寧緩和專科醫師口試(97年)

- 標準病人
- 醫師A：你說的我都知道...
- 醫師B：我知道...我知道...
- 病人OS：你知道個OOOXXX

醫病溝通教學內容結構(2)

- 從醫病溝通實例反思問題癥結為何？
- **難以回答的問題有共通點？**

病人為什麼不高興?

- **病人對醫生溝通技巧拙劣的不滿意, 遠超過對技術能力不足的不滿意** (Ben-Sira,1976; J.Health Soc. Behav)
- 病人不高興是因為:
  - 聽到壞消息
  - 醫生說壞消息的方式
    - 醫生沒有在聽
    - 醫生說一堆專有名詞
    - 醫生像是向下宣布事情

基本的原則

- 溝通的重點在於聆聽，而不只是說話或告知的技巧(Communications are as much about listening as about talking and telling.)。
- 不要以為溝通就是傳遞訊息給另一個人。它還包含聆聽、知道何時該聽而何時該靜默、何時該說多少而何時該保留一些、以及如何根據我們要溝通對象的不同而有所修飾。

-D.Doyle & D.Jeffrey in: *Palliative care in the home*. Oxford U. Press 2000

一般醫學訓練

- Q: 一般內科病房與其他病房有什麼不同？
- A (R3): 這裡重視的是全人醫療！
- Q: 所謂全人醫療指的是什麼？
- A: 從頭到腳、從裡到外，各個器官系統都要注意到。
- Q: 喔，是physical dimension 的total care；那社、心、靈的total care 呢？

溝通的困難

- 他們不知道他們不知道什麼
- 我們不知道他們不知道什麼
- **我們不知道我們不知道什麼**

-JAMA, 2004, 291

-黃勝堅,2006,

醫病溝通教學內容結構(3)

- 從醫病溝通實例反思問題癥結為何？
- 難以回答的問題有共通點？
- **對病人/家人回應：分為理性層次的回答或是理性以外層次的同理**

對病人問題可以採取的反應

- Factual response 提供事實 (∨)
  - 衛教、說明、告知、解釋、建議…
- Aggressive response 攻擊性 (X)
- Judgmental response 批判性 (X)
- Reassuring response 安慰性 (X)
- Empathic response 同理性 (∨)

-Robert Buckman

交談與溝通的層次

溝通的層次	Responding to patients	溝通的內容
寒喧	Reassuring response Aggressive response	直覺的反應 未經深思
談別人的事	Judgmental response	
理性的交談 分析解釋,忠告建議	Factual response	身體生理的問題或知識
感性的交談	Empathic response Questions, Silence	情緒/靈性層面的問題
(蔡佩真:同理心及溝通訓練, 2002)	(Robert Buckmann. *How to break bad news – A guide for healthcare professionals.*, 1994)	

避免這些回應法

- 對發在你身上的怒氣去反擊
- 評斷（尤其負面的批判）他的話或行為
- （輕率、不著邊際地）安慰他的負面情緒

-Robert Buckman

- 有話直說
- 立刻給予有效的建議
- 附和、贊同對方的批評抱怨
- 同情、施捨

–趙可式

錯誤或不當的反應

- At best: 沒有對好頻道 →說了等於沒說→浪費時間
  - 例如:病人需要有人同理其情緒, 卻得到許多(理性層面的)說明或建議…
- At worst: 小的情緒被火上加油→無法繼續溝通&以往的努力一筆勾銷

同理心訓練-Skill

Knowledge：

Skill：

- 醫病會談的 SPIKES結構
- 同理性回應的三明治

會談的本質包括：

- **披露訊息**:
  你把訊息帶給病人.
- **治療性對話**: 傾聽並且瞭解病人對這訊息的反應並給予適當回應

Buckmann R. *How to break bad news – A guide for healthcare professionals*. London:Pan books, 1994

同理心Empathy的過程

- 察覺某種情緒已經出現
(Identify the presence of an emotion)
- 找出情緒的由來
(Identify the source of the emotion)
- 告訴他，你知道他這樣的情緒，**說出他沒說出的隱喻**
(Acknowledge the emotion)

-Robert Buckman

- 三段話：回應內容、回應情緒、絃外之音

同理性回應的結構

- 一句困難問題轉換成三段話同理：
  - 回應內容(重複關鍵字、用自己的話重述一次、描述他的行爲)
  - 回應情緒(下頁)
  - 絃外之音(如果不是這個困境，應該會…)

同理性回應中
常用於描述情緒的語句

- 說出他沒說出的情緒-- Acknowledge the emotion
  - **我看到你的XXX**
  - **我知道你會覺得XXX**
  - **你是不是覺得 XXX**
- **很多 人/家人 都會這樣覺得**
- **我想如果我是你，我也會xxx**

趙, 2004; Robert Buckman, 1994

如果他是我爸爸

- 78歲男性、右腎 TCC, advanced disease
- S/P Radical nephrectomy (不到二個月前)
- 原本計畫術後化療，但因發燒而且病況不佳而延遲、終日臥床ECOG=3~4
- 兒子一再問：可不可以儘快打化療.
- 會診Hema CR, 向病人兒子說明病人病況不佳，不適合化療：‘**如果他是我爸爸**，我會決定不化療’(分析解釋,忠告建議)

如果他是我爸爸

- 同理:
  - 我想你一定很著急想要趕快讓爸爸可以打化療
  - 你說覺得自己不夠警覺，會責怪自己
  - 很想盡兒子保護他的責任幫他做一個最好的決定
  - 真的很捨不得看到爸爸這樣受苦.
- 很多的家人都會像你這樣覺得徬徨，不知怎樣決定最好
- **如果他是我爸爸**，我可能也會像你這樣徬徨

面對難以回答的問題

- 生理層面、理性層面：提供答案 (factual response)
- 情緒層面、靈性層面、不合理的要求或拒絕治療、已經回答了n次的問題：

⇒是否有unspoken question?

- 開放性問句(Open Question)
- 給予同理反應 (Empathic response)

-Robert Buckman，趙可式

實證醫學的地位

- 實證醫學是理性討論的依據
- 醫師依此檢驗所建議或提供的治療是否合理(合乎理性)
- 與病人之間，是‘理性討論’的重要內容，但不應是全部的討論

醫病溝通教學內容結構(4)

- 從醫病溝通實例反思問題癥結為何？
- 難以回答的問題有共通點？
- 對病人/家人回應：分為理性層次的**回答**或是理性以外層次的**同理**
- **同理性的回應：三明治結構**

同理性回應+理性說明的結構

- 三段話同理：
  - 回應內容(重複關鍵字、用自己的話重述一次、描述他的行爲)
  - 回應情緒(你會覺得... ，很多人也會...，如果我是你我也會...)
  - 絃外之音(如果不是這個困境，應該會…)
- 說明
- 再同理(說出他聽完說明的心情)

醫病溝通教學內容結構(5)

- 從醫病溝通實例反思問題癥結為何？
- 難以回答的問題有共通點？
- 對病人/家人回應：分為理性層次的回答或是理性以外層次的同理
- 同理性的回應：三明治結構
- 實例說明

醫生, 她就是不願意配合

- 16 歲女生，陰道閉鎖，二年內接受三次手術，近六個月因為不願回診、不願繼續使用擴張器具，傷口重新閉鎖、上端陰道蓄膿、發燒
- 爸爸陳述：跟她說一定要有恆心、要配合回診、以後才能好。 她就是怕痛，每次都找一些理由不願回去看醫生。結果你看，果然就後合起來了！她就是不願意好好配合、怎麼說也說不聽。

醫生, 她就是不願意配合

- 理性要說明或建議的事，是什麼？
- 同理的內容是什麼
  - 回應她的內容(行為的內容) ？
  - 她的情緒？
  - 她沒說出來的話是？

醫生, 她就是不願意配合

- 理性要說明或建議的：持續、回診、否則功虧一簣
- 同理的內容
  - 不想回去看、很痛不舒服
  - 想到要回診就害怕、不喜歡被這樣檢查、覺得丟臉、很麻煩
  - 爲什麼我不能像朋友一樣月經正常！
- 說明
- 再同理: 我希望你將來能有和你朋友一樣的生活，現在你要辛苦一點

醫病溝通教學內容結構(6)

- 從醫病溝通實例反思問題癥結為何？
- 難以回答的問題有共通點？
- 對病人/家人回應：分為理性層次的**回答**或是理性以外層次的**同理**
- **同理性的回應：三明治結構**
- **實例說明**
- **狀況演練**

醫病溝通教學方法

- 課堂說明理論
- 實例說明
- **狀況口頭演練**
- **小團體演練(依照大綱)**
  - 一組一題
  - **二組一題PK**
- **演練(擬具不同角色的社心議題)**

演練：再次插管治療？

- 76歲男性，抽菸五十多年，COPD病史15年，近二年尤其嚴重，曾有二次因為急性發作併發肺炎及呼吸衰竭，住到ICU，插管治療後改善而出院。
- 三天前因為喘送到急診，診斷COPD 併急性發作，肺炎.
- 醫師給與治療後，症狀並未改善，喘的更嚴重，醫師考慮應該再次插管治療。
- 醫生問病人：是否願意再插管。病人勉強回答說：我不知道，問我兒子...
- 兒子說：醫生，他插管就會好嗎？

演練：再次插管治療？

- 醫生認為病人肺炎情形並非不可治癒，在插管治療後仍然有可能如同以往一樣病癒出院。
- 但是當然無法保證一定能拔管。醫生意見偏向鼓勵病人及家人接受插管治療。

演練：再次插管治療？(兒子的劇本)

- 兒子的一位好友的父親也一樣因COPD而反覆急性發作，最近一次發作時插管治療，結果存活下來但是無法拔管，作氣切後，在呼吸照顧病房長期住院，家庭經濟平添許多負擔
  - 好友對插管感到後悔，曾向案子表示懊悔當初決定。
- 兒子(反覆問)：醫生，你可以保證會好嗎？
- 兒子(底限)：我也希望我爸好起來，但是我不要我爸爸再插管了！我要簽不急救同意書

演練：再次插管治療？(Dr.A的劇本)

- 一再(耐心地)說明或解釋插管必要性：
- 我怎麼可能保證

(底限)：

- 如果家屬堅持不要插管，要請家人在病歷上簽名表示醫師有告訴他們不插管可能會死亡。
- 如果不願插管那麼要請他們辦自動出院。

演練：再次插管治療？(Dr.B的劇本)

不立刻解釋病情：先說下列的話：

- 你很不希望爸爸再一次被插管喔！
  - 你每次看爸爸插管一定覺得很心疼。
  - 如果有其他好的治療方法而不用插管，你一定會馬上讓他去做對不對？
- 你可以告訴我會什麼這麼擔心嗎？
- (再解釋需要插管的理由 ...)
- 你一定很想盡兒子的責任為你爸爸做一個最好的決定。

演練：再次插管治療？
(兒子的回饋)

- 原不想和Dr.B坐下，因為與Dr. A談完感到頗為激動，覺得站的比較能活動，(因為已經想打人)
- 覺得解除武裝：
  - 坐下時
  - 被直視入眼中
  - 聽到：每次看爸爸插管一定覺得很心疼

有用的技巧

1.不要急著回答…
想一想：這是什麼層次的問題?

- 閒聊
- 理性：給information、討論、分析
- 情緒：同理情緒、理性討論、再同理
- 靈性、難以回答的問題：發問、同理、靜默、不強給答案（以表現全知全能）

2. 他已經了解的是什麼?
3. 他想知道什麼?

溝通不是一直說,而有很多聽的工作.

溝通與同理心的應用

- 病情告知：告知與同理並行
- 醫療決策，與病人/家人/家庭討論
- 倫理困境的討論後，與病人/家人溝通
- 情緒的處理：無端的怒氣、哭泣
- 安樂死的要求

同理心訓練-Attitude

Knowledge：

Skill：

Attitude：

- 自我訓練
- 向病人學習
- 藉由同理心的表達，維持病人的希望

同理心的(自我)訓練

- 自我訓練
- 第一步：不要有問必答，不要有話就說 (病患或家人不是專科口試委員!)；先同理看看
- 從病人身上學：在cancer journey 的某點，詢問病人
  - 醫師告訴你得了這個病，你一定很不好受吧? (psychological impact)；
  - 這個病讓你有什麼喜歡做的事情不能再去做了? 什麼角色不能再扮演了?(social impact)；
  - 這段期間會不會讓你有時會想要怨天尤人的想法? (spiritual impact)
- 用以前病人的話同理以後的病人

住院醫師訓練的目標

- 美國內科醫學會

住院醫師訓練的目標是養成有豐富知識的,有足夠能力的,<u>具有憐憫心的</u>醫師,並且符合高的倫理道德標準 .

- Am Board of Internal Medicine:

The goal of residency training is to produce knowledgeable, competent, and **<u>compassionate</u>** physicians with high ethical and moral standards .

一位好醫師的標準-賴其萬教授

- Sensitivity to human suffering
  對人們受苦的敏感度

- 如何增進[對人們受苦的敏感度]
  - 隨著資歷增加自然學得?
  - 當自己成為病人或經歷過失落的苦之後就能體會?

TAKE HOME MESSAGES

- 溝通從聽開始
- 了解對話的層次, 尤其應試著了解靈性層次的困擾(spiritual distress)
- 不要陷在Physical dimension 的理性說明
- 同理心的訓練

制度下之臨床工作
(System-based practice)

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腎臟科

Systems-Based Practice
制度下之臨床工作

臺大醫院
高芷華醫師
2008.8.23

Contents

- ACGME expectations
- Foci of Competency
- Definitions of systems-based practice
- Systems
- Curriculum development
- Example of OSCE
- Conclusion

ACGME Expectations

Residents must demonstrate

-- an awareness of and responsiveness to the large context and system of health care (知)

-- the ability to effectively call on system resources to provide care that is of optimal value (行)

知而後行也!

Foci of Competency (1)

- Understanding of

-- how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society

-- how these elements of the system affect their own practice

例如: 邱小妹事件

Foci of Competency (2)

- Knowing

  -- how types of medical practice and delivery systems differ, including methods of controlling healthcare costs and allocating resources

例如: **DRG**

Foci of Competency (3)

- Practicing

  -- cost-effective healthcare and resource allocation that do not compromise quality of care

例如: 急診檢傷分類
癌末照顧

Foci of Competency (4)

- Advocating for
  - -- quality patient care
  - -- assisting patients in dealing with system complexities

例如: 保險、福利

Foci of Competency (5)

- Knowing
  - -- how to partner with healthcare managers and healthcare providers to assess, coordinate, and improve healthcare
  - -- how these activities can affect system performance

例如: 團隊照護

Definitions of Systems-Based Practice

Knowing the use of healthcare services for patient care, and how the costs of providing those services can affect the delivery of care.

Systems

- Healthcare services
- Healthcare needs
- Patient-related concerns
- Cost of doing business

Healthcare Services

- In hospital services and systems
- Patient safety concerns
- Discharge planning
- Home healthcare services
- Rehabilitation services
- Therapy services
- Nursing home services
- Assisted living services

Healthcare Services
In Hospital Services and Systems

- In-patient department
- Out-patient department
- Emergency department
- International medical center
- Education center
- Laboratory studies
- Imaging studies

Healthcare Services
Patient Safety Concerns

- Quality control center
- Infection control center
- 9595 CPR calling system
- Clinical alarm system (CAS)
- Adverse drug reaction report system

Healthcare Needs

- Medications (P.O./I.V./S.C./I.M., etc)
- Equipment
- Transportation
- Nutrition
  - -- Dietician
  - -- Home TPN

Patient-Related Concerns

- Economics and ethnic makeup of the community served
- Living will requirements
- Patient-family relationships and responsibility issues

Cost of Doing Business

- Insurance providers (例如: 健保、勞保)
- Physician contracts (例如: 薪資)
- Coding (例如: 健保規定 / ICD編碼)
- Office expenses (花費)
  - -- equipment
  - -- personnel

Curriculum Development

- Faculty development
- Goals of training
- Foci of training
- Design of training programs
- Implementation of the training programs
- Assessment of the training programs

Goals of Training

- The residents should realize that they are a part of a larger healthcare system.
- The residents should understand the system within which they work.
- The residents may become an advocate for quality care for their patients.

Foci of Training

- **Not process-oriented measures**
  - *e.g. How many procedures a resident completed?*
- **But outcome-oriented measures**
  - *i.e. How well a resident completed the procedure?*

Design of Training Programs

- Materials available
- Program director / Teachers
- Strategies
  - -- didactic lectures
  - -- small group discussions
  - -- grand rounds
  - -- project report and presentation
  - -- improvement forms
- ACGME Web site (*www.acgme.org*)

Strategies of Training Programs
Didactic Lectures

- The hospital experience
- Healthcare structure
- Current procedural terminology
- Evaluation and management codes
- Governance
- Job search
- Patient safety

Strategies of Training Programs
Small Group Discussions

- Mortality and morbidity conferences
- Discharge planning sessions
- Patient relations sessions
- Quality improvement
  / patient safety committee
- Risk management
  / root cause analysis committee
- Hospital outreach programs

Strategies of Training Programs
Project Report

- For example:
  - -- Patient safety projects
  - -- Risk management projects

Strategies of Training Programs
Improvement Forms

- The forms guide the residents
  to describe
  - -- the complication
  - -- its active and latent causes

  to indicate
  - -- system changes
  - -- personal practice changes that could avert such errors in the future

Strategies of Training Programs
Multi-Disciplinary Team Rounds

- Attending physician
- Consulting physician(s)
- Resident(s)
- Ward manager
- Head nurse / Nurse(s)
- Dietician
- Physical therapist
- Social worker

Strategies of Training Programs
Others

- Discussions during clinical teaching times
- Using an actual patient bill to analyze the impact of their decisions on the patient and/or the system **(例如: 健保核刪)**
- Analyzing prescription patterns from pharmacy printouts as opportunities for teaching

Implementation of The Training Programs

- Program director
- Associate program director(s)
- Teaching physicians
- Implementation plans

Assessment of The Training Programs

- Feedback from the residents
- Evaluation of the residents
- Assessment tools
- Improvement plans

Assessment Tools (1)

- Multiple choice questions examination
- Chart-stimulated recall
- Checklist
- Record review
- Project report

Assessment Tools (2)

- Clinical Performance Rating tool
- Focused Observation
- Portfolio
- 360° global rating
- Objective structural clinical examination (OSCE) / Mini-CEX

Assessment Tools (3)

- Pre- and post-tests: a longitudinal assessment to monitor the growth of understanding
  - Pre-test – at the beginning
  - Post-test – mid-cycle and at the end

主治醫師對住院醫師的評量

15B、13B 病房一般醫學內科訓練-醫師養成的專業素養評估表

一、住院醫師：R7 李　　量日期：96 年 9 月 28 日

原單位：　　工作病房：5B

工作期間：96 年 9 月 1 日至 96 年 9 月 30 日

評量人：CR＿＿＿＿　護理長＿＿＿＿ VS＿＿＿＿

二、綜合表現評分（請填打實際分數）

	等級	傑出	極優	優	中等	稍差	差	極差
	給分範圍	> 90	86-90	81-85	80	79-70	69-60	< 60
病患照顧 Patient Care	1.醫療技能		86					
	2.病歷記錄		85					
醫學知識 Medical Knowledge	3.一般內科		85					
	4.資料搜尋及報告			83				
臨床工作中的學習及改善 Practice Based Learning	5.主動學習		85					
	6.錯誤改進			83				
人際關係和溝通技巧 Interpersonal and Communication Skills	7.團隊精神		85					
	8.醫病關係			83				
醫療專業精神 Professionalism	9.不遲到早退		85					
	10.誠實可靠		85					
	11.認真負責		86					
	12.端莊整潔		86					
制度下的臨床工作 Systems Based Practice	13.配合院方政策		85					
	14.配合醫療制度		85					

總分平均：(1+2+3+4+5+6+7+8+9+10+11+12+13+14) / 14 = ＿＿＿＿

三、病房 ☑主治醫師 ・ □總醫師 ・ □護理長 評語（評分完請交回當月病房 CR）

認真負責，能主動學習及處理病人問題

Nurse Leader / Care Coordinator Evaluation of Resident (1)

- System-Based Practice:

  1) The resident participated effectively as a member of the multi-disciplinary team.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Nurse Leader / Care Coordinator Evaluation of Resident (2)

- System-Based Practice:

  2) The resident demonstrated understanding and respect for the role and opinions of the multi-disciplinary team members.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Example of OSCE

Evaluation of Systems-Based Practice (1)

▲ A 45 y/o woman was admitted to the hospital due to severe azotemia. End-stage renal disease (ESRD) was diagnosed after a series of examination.

▼ Please explain to the patient about the options of renal replacement therapy available in Taiwan.

Renal Replacement Therapy in Taiwan

★ The residents have to know about the healthcare services / resources available for ESRD patients in Taiwan.

Hemodialysis: home or in-center

Peritoneal dialysis: APD or CAPD

Transplantation: living or cadaveric donor

Example of OSCE
Evaluation of Systems-Based Practice (2)

▲ The patient then asked about the cost of different treatments.

▼ Please explain to the patient about the cost of different treatments in Taiwan.

Cost of Different Treatments in Taiwan

★ The residents have to know about the cost of doing business in Taiwan.

National Health Insurance (全民健保)

Catastrophic illness card (重大傷病卡)

Co-payment not required (免部分負擔)

Example of OSCE
Evaluation of Systems-Based Practice (3)

▲ The patient wondered if she could use the catastrophic illness card for all medical expenditures.

▼ Please explain to the patient about the usage of catastrophic illness card in Taiwan.

Usage of Catastrophic Illness Card

★ The residents have to know about the cost of doing business in Taiwan.

Catastrophic Illness Card

-- for expenditures of dialysis & expenditures related to dialysis

-- not for other diseases

Example of OSCE

Evaluation of systems-based Practice (4)

▲ The patient was worried that she would not have enough money to pay for the medical expenditures other than those related to dialysis because she was poor.

▼ Please inform the patient about other financial resources / social welfares provided by the hospital, Government or other insurance agencies in Taiwan.

Financial Resources & Social Welfares

★ The residents have to know about the in hospital services and subsidization provided by the Government and Insurance agencies.

Social worker

Disability subsidization

Insurance payment

Conclusions

- **Teaching**
  - What to teach ?
  - When to teach ?
  - How to teach ?
- **Assessment**
  - What to assess ?
  - When to assess ?
  - How to assess ?

References

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- ACGME Web site (*www.acgme.org*)
- OSCE 臨床技術手冊 (中文版)，2007年

敬請指教
並
願上帝賜您智慧與能力!

專業素養
(Professionalism)

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一般內科

醫學倫理與修養

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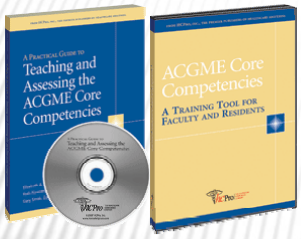
方啓志醫師

資料出處



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綱要

- 簡介「醫師專業素養」
- 「醫師專業素養」的定義
- 組織文化、潛在課程、 與「醫師專業素養」
- 一些關於「醫師專業素養」的教學策略
- 「醫師專業素養」的評估與考核

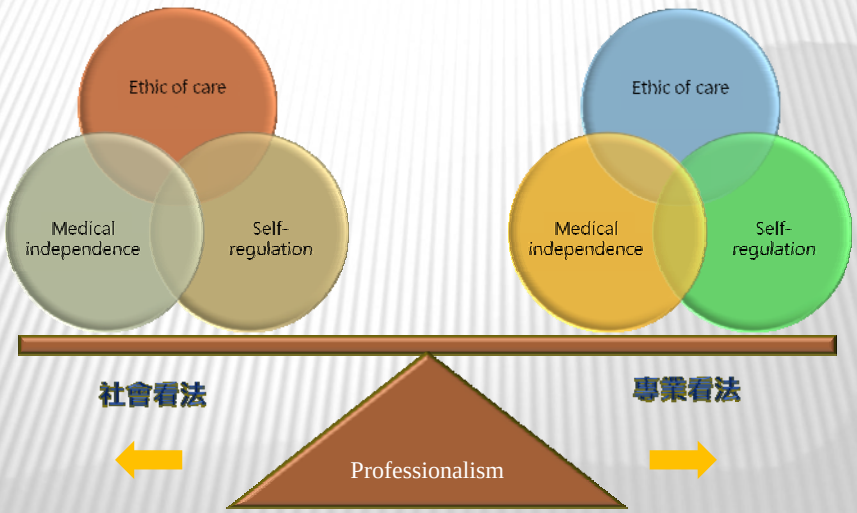
簡介「醫師專業素養」

何謂專業?

用來區分專業與業餘的「顧客主義」:

- 專業：不論什麼狀況都能維持服務與工作的水準，不管願意或不願意
- 業餘：不一定要持續一個服務或工作

醫師專業素養在談甚麼？



「醫師專業素養」逐漸被重視

ABIM:
Project Humanism(1980s)

ABIM
Project Professionalism(1990)

ACGME:
outcome project (1999)

ABIM, ACP-ASIM, EFIM
Physician Charter (2002)

•The American Board of Internal Medicine :(ABIM)
•The acrreditation Council for Graduate Medical Education: (ACGME)

工作、職業、專業與專業素養

專業素養的成長

強調社會責任

獲取個人的好處

工作（Job）
作事
something done for private advantage

職業（Occupation）
個人所擔任的職務工作
the principal business of one's life

專業（Profession）
研究某種學業或從事某種事業
The conduct, aims, or qualities that characterize or mark a profession or a professional person

Merriam -Webster Dictionary 及教育部國語辭典修訂本

專業與專業素養

- 在自由主義及個人主義的西方社會，某些行業及從業人員被賦予高度的權威性及獨立性。這些行業被稱為專業、這些從業人員因此被稱為專業人員。
- 「專業」是社會對特定職業團體與所屬個體的認可與授權。

專業素養：一種社會與特定職業間的契約

- 當一個人決定要投身於一個專業時，除了付出心力學習專業知識與技能並獲取有形及無形利益之外，也會接受社會有形及無形中的期待與要求。
- 符合這些期待與要求，社會就會予以認可及授權，這就是社會契約。
- 專業人士抱持著一種態度與行為，持續讓自己符合社會對專業的期待與要求，就是專業素養的表現。

醫師在社會上的兩種角色

醫療者 + 專業者 = 醫師

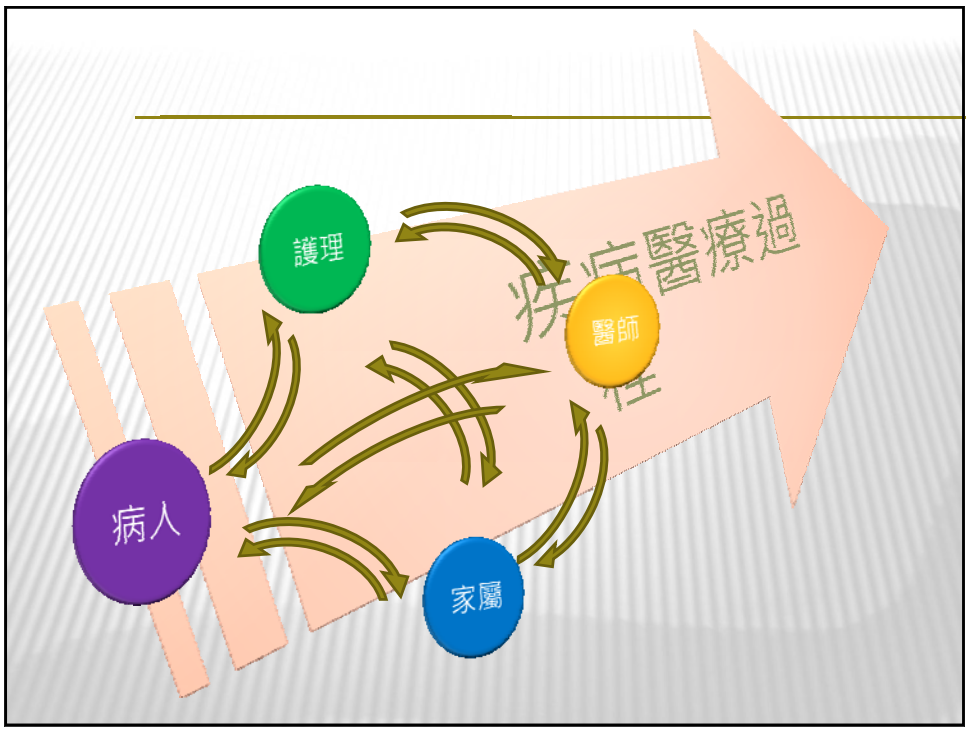
社會上的一種角色，具有使用各種醫療方法的知識與能力，能夠改善人們的生病狀態

某些行業及從業人員被賦予高度的權威性及獨立性。這些行業被稱為專業、這些從業人員因此被稱為專業人員

由古老的醫療者角色開始隨著人類社會發展而成長，醫師專業的內涵已經遠遠超過了一個單純的醫療者角色

「醫師專業素養」概念的形成

- 西方社會，特別是美國，政府及商業團體在1960及1970年代開始積極介入國家醫療制度。
- 當醫病關係不再直接，整個社會也開始嚴厲檢視醫師專業人員是否仍以利他主義為志業，或是開始只知謀求自身利益。
- 「醫師專業素養」這個名詞於是在社會學家不斷的討論研究下逐漸成形。而醫界一開始對此當然是相當反彈。



醫界對「醫師專業素養」概念的接受

- 在1980年代，社會學家開始發現許多醫療問題是源自於不健全的健康照護體系
- 社會學家及輿論於是將社會醫療問題的焦點轉向政府、醫療商業團體及健康政策的缺失。
- 此時「醫師專業素養」才逐漸被認定為一種可敬而高尚的特質。醫界也開始重新思考在這個變遷的社會中，「醫師專業素養」的真正意涵是甚麼。

「醫師專業素養」：社會與醫師專業的公約

- 在將不滿轉向政府、制度及商業化現象後，社會仍對醫師的科學家與利他者角色有相當的期待。
- 醫學專業有悠久的發展歷史，也有自己的專業文化。
- 因此，社會與醫師專業必須在「醫師專業素養」的意涵上產生共同的語言， 彼此才能有共識。

SOCIETY'S EXPECTATIONS OF MEDICINE

- Services of the healer
- Assured competence
- Altruistic service
- Morality and integrity
- Accountability
- Transparency
- Source of objective advice
- Promotion of the public good

MEDICINE'S EXPECTATIONS OF SOCIETY

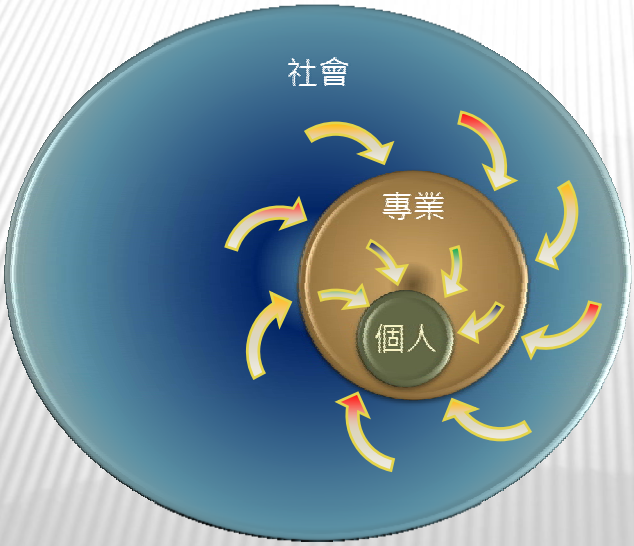
- Trust
- Autonomy
- Self-regulation
- Value-driven and adequately funded health care system
- Participation in public policy
- Shared (patient and society) responsibility for health
- Monopoly
- Status and rewards
  - Non-financial: respect and status
  - Financial

醫學專業與社會之間的相互期待是不同的

醫師專業與社會之間的契約

- Cruess 於西元1999年提出醫師專業素養其實是一種社會契約的觀念的觀點。
- 他認為醫師在社會上被賦予了醫療者與專業者的角色。要被社會認定為醫師，就要符合及履行社會與這個專業之間的約定。
- 這個約定，或是無形契約，就是要具備醫師專業素養。

醫師個人、整個醫師專業、整個社會



社會與專業的關係

- 授予專業特權
- 要求社會責任

團體與個人的關係

- 授予專業資格
- 要求專業紀律

…

如何定義「醫師專業素養」

醫師專業素養要怎麼去定義

醫療者傳統角色

政治社會制度

醫界的共識

健康保健制度

文化與社會價值

訂出符合社會及醫界期待的定義

醫師專業團體及醫學教育主管單位主動進行研究

參考不同國家對醫師專業素養的看法

	美國	英國	加拿大
核心觀念	專業素養是建立在自省與自覺之上	以病人為中心	專業素養是專業與社會的一種契約
重要特質	自律、自覺與自我監督 同情憐憫之心、技術能力、利他主義、洞察力、風采與氣度	專門的知識與技能 倫理素養 服務病人	服務、利他、正直誠實 醫師必須同時扮演兩個角色：醫療者、專業人士
觀點	醫師藉由自省可已精進知識技能、釐清真正價值、察覺錯誤、並回應承擔病人的痛苦	不論什麼時候，每一位醫師都要落實以病人為中心的醫療服務	專業素養所討論的層次不只是個人的倫理道德水準，更進一步討論到醫師與病人、醫學生、及整體社會的互動關係

ACGME 對醫師專業素養的定義

Residents must demonstrate a commitment to carrying our professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

1. Demonstrate respect , compassion, and integrity; a responsiveness to the needs of patients and society that supercedes self-interest; accountability to patients, society and the profession; and a commitment to excellence and ongoing professional development
2. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices
3. Demonstrate sensitivity and responsiveness to patient’s culture, age, gender, and disabilities

A Physician Charter (ABIM, ACP-ASIM, EFIM)

Fundamental principles:

- Principle of primacy of patient welfare
- Principle of patient autonomy
- Principle of social justice

The charter outlines 10 professional responsibilities, which include a commitment to:

1. Professional competence
2. Honesty with patients
3. Patient confidentiality
4. Maintaining appropriate relations with patients
5. Improving quality of care
6. Improving access to care
7. Just distribution of finite resources
8. Scientific knowledge
9. Maintaining trust by managing conflicts of interest
10. Professional responsibilities

董氏基金會《醫師的異想世界》座談暨新書發表會

- 於2004年12月18日舉辦，會中用影帶呈現採訪街頭民眾對醫師的意見看法時，多數民眾想到醫師就聯想到是多金、代表權威、尊敬、很難考上，甚至帶著些冷漠的印象，而多數小朋友對醫師的感覺是害怕、尊敬，但又認為醫師很偉大，希望長大也有機會當醫師。

商業週刊2008年5月5日

- 百大良醫-好醫師推薦的好醫師

由醫學專家來看待自己專業的好特質

- 以病人為中心」的醫療理念

1. 擁有正確的價值觀
2. 良好的溝通技巧
3. 與時俱進的技術
4. 清楚醫學和自己的限度
5. 團隊作戰能力

了解組織文化及「潛在課程」對「專業素養」的影響

組織文化

- 群體在解決其外在適應(external adaptation)與內部整合(internal integration)的問題時，學得的一組共享的基本假定（理所當然、潛意識），因為它們運作的很好，而被視為有效，因此傳授給新成員，做為當遇到這些問題時，如何去知覺、思考及感覺的正確方法。

王思峰、林于荻與陳禹辰，2003年6月，組織文化如何影響知識分享之探索性研究，台大管理論叢，13(2): 59-99 。

什麼是潛在課程？

- 「課程」指的是經過規劃、設計、認可而被教師在課堂上教導、傳授、並要求學生學習的。
- 潛在課程則是指學生因為身處提供正式課程學校或非學校單位，而學習到原本課程沒有意圖教導的知識、行為或價值。
- 一般來說，潛在課程多被用來代表組織文化對個人的塑型作用。

Martin, Jane. “What Should We Do with a Hidden Curriculum When We Find One?” The Hidden Curriculum and Moral Education. Ed. Giroux, Henry and David Purpel. Berkeley, California: McCutchan Publishing Corporation, 1983. 122-139.

「潛在課程」及組織文化對年輕醫師的影響

- 學習並適應醫療場所組織文化。
- 藉由典範學習，讓自己融入組織，並被接受。
- 若典範是不好的，在內心掙扎與妥協後，可能會模仿這些行為，以求成為團隊的一份子。
- 不同的模仿與內化結果會產生不同型態的專業認同

醫師專業認同：我是怎樣的醫師呢？

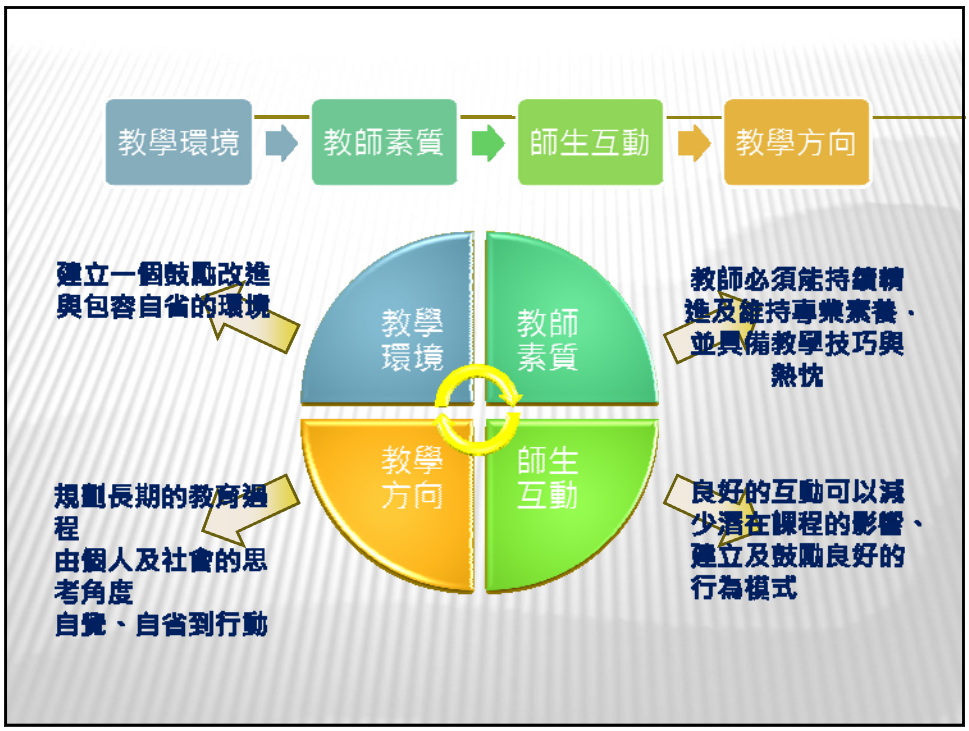
Coulhan 提出3種不同的醫師自我專業認同：

- Technical professional identity：
  - 茫然遵照醫院規條，只會進行醫學技術服務
- Nonreflective professional identify ：
  - 知道自己所為與傳統醫師專業價值有衝突，但對這些問題並不在意或無能為力
- Compassionate and responsive professional：
  - 富同情心並有責任感，並已克服組織文化與專業素養之間的衝突

學員在錯誤組織文化與正確專業素養間的掙扎

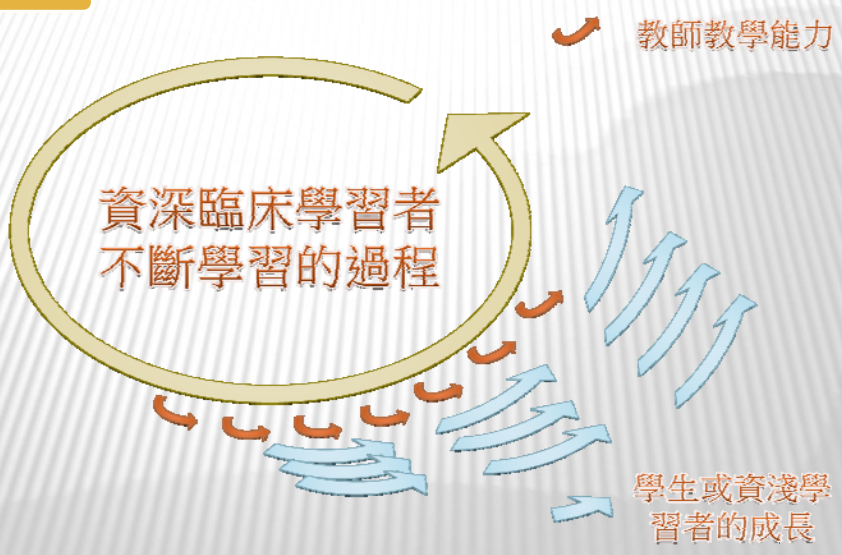
- Coulhan的研究顯示大多數的新進醫師在自我的專業認同上是屬於第二種，也就是有能力察覺到衝突，但卻無力去面對及改變。
- 這個現象其實是專業素養教育一個很好的契機：這現象代表年輕醫師大多能夠自覺自省並體察到正確的方向，教育者要相信他們並鼓勵他們勇於分享經驗、思考對錯及愛護保護病人。

一些關於「教師專業素養」的教學重點



核心價值

臨床教學模式



教學環境

培養專業素養必須從整體組織的角度來進行

組織文化的特性（鄭伯勳，民79 ）

- 組織文化並不像一般的文化（註：如社會文化）具有無所不包的特性，而是有一定範圍的
- 組織文化是可以被管理、被改變的

對於組織文化所造成對專業素養教育的障礙，組織領導者的遠見、決心與行動是破除障礙的關鍵。

教學環境

如何由藉由群體組織的力量來強化專業素養

- 領導者要有遠見
- 建立並加強彼此的溝通以促進合作
- 強力要求每個人去思考如何讓行為改變，並確實產生改變
- 尊重不同的文化，找出共同的價值
- 尊重彼此（主體為人）而不互相攻訐
- 在「組織是由大家共有」的理念上，建立讓大家共同提供意見以促成組織進步的機制
- 聆聽並互相學習
- 公平、公正
- 建立強而有力的執行團隊

教師素質

教師成長訓練

- 許多醫師在專業知識及經驗相當豐富，但是對於教學卻是捉襟見肘。
- 專業素養的教學技巧必須經過設當的訓練，因此必須在各種教師成長訓練活動中加入適當的教學技巧訓練。
- 其中，專業素養的教學技巧必須特別去強調。

教師素質

教師的倫理道德發展必須同時進行

- 教師能持續在醫學倫理道德上精進，是學員學習成功與否的重要因素。
- 年輕醫師都是已成年，都已經歷過相當的個人道德發展過程。若沒有持續的刺激與協助，學員很容易屈就於既成觀念及環境，而無法發展出專業素養。

教師素質

教師的倫理道德發展必須同時進行

- 教師必須自認自己也是學習者，有困難但也有心得。以同是學習者的心態主動協助年輕醫師一起面對問題，一起探索醫師專業素養的困境。
- 整個組織也要建立一個同時鼓勵教師與學員在道德與專業素養上改進學習的環境。
- 教導及示範如何自我成長，比只是告訴對方是非對錯，來得有效多了

師生互動

師生互動的重要性

- 教師與學生的互動關係是「潛在課程」中的重要元素。
- 教師對待這些年輕醫師的方式、 態度，會直接的影響到他們未來與病人及同事互動的關係
- 師生互動的關係更會影響到年輕醫師的自我認同，專業行為及價值判斷。

教學方向

專業素養的塑造是一種持續的發展過程

專業素養的塑造是一個連續漸進的過程。醫師藉由不斷自省而在專業素養的層次上不斷提升。

Stage	Characteristics	Central Question	Educational level
Novice	Rigid adherence to rules Little situational perception	What are the rules?	Medical student
Advanced Beginner	Rule-focused but has begun to rely on previous experience	How do I apply them?	Medical student resident
Competent	More organized Has a plan and has become more efficient Sees actions at least partially in terms of longer term goals	How do I develop a plan for this particular patient?	Resident
Proficient	Able to learn from previous experiences and can modify responses in a given situation	How do I become more efficient?	Physician early in practice
Expert	Sees the significant and meaning within a contextual whole and is fluid and flexible in performing skills Intuitive grasp of situations based on deep tacit understanding	What complex cases do you have for me	Mid-career physician
Master	Develop style Values surprise Continuous learning	What did I learn from this situation	

教學方向

由個人及社會的角度去思考

- 專業素養是專業與社會之間的一種約定。
- 成為醫師專業的一員，就可以享有社會賦予的醫療特權、地位、財富及一個難得的好職業。
- 然而，好處的背後則是對醫師專業人員所要求的高社會責任及高道德標準。
- 要不要加入這個專業，是個人的自由。要加入或不要加入都是選項。
- 如果想好了，有決心同時承擔權利與義務。

教學方向

醫師專業素養與自省能力的關係

- 自省與自覺對於專業素養的學習是一個關鍵的能力。
- 如果能有外在的輔助及誘導，學生比較能建立自省的能力。
- 教學主管必須審慎的挑選適合的教師來進行這個輔導與共同學習的過程。
- 這些教師要能尊重學員的價值觀，也要具備自省及自覺的能力

教學方向

典範學習與自省

- 年輕醫師在「潛在課程」的學習中，會藉由典範學習學到好的與不好的態度、行為與價值。
- 完美的典範並不存在。學員可能會從一位被敬重的醫師典範身上學到不好的行為。
- 自省自覺與改進是醫師專業素養的重要元素。
- 單靠典範教學，而不協助學員學習自省改進，專業素養教育便會出問題。

教學方向

如何促成基於自省的典範學習經驗

- 建立一個安心、安全的自省學習環境。
- 要廣泛的讓組織中成員共同參與。
- 積極尋求共同自省、討論及回饋的機會。

醫師專業素養的評估考核

目前還沒有統一的標準

- 雖然ACGME要求各學習機構自行提出有效可靠的評估制度與結果，對專業素養的評估目前仍沒有共識與標準。
- 專業素養是一個大的綜合體，包含了技能、態度、行為與維持的策略的。單一評估工具，甚至綜合數個評估工具也無法完全涵蓋。
- 所以，基本的評估原則就是要多面向，長時間、同時要有質性與量性的評估。

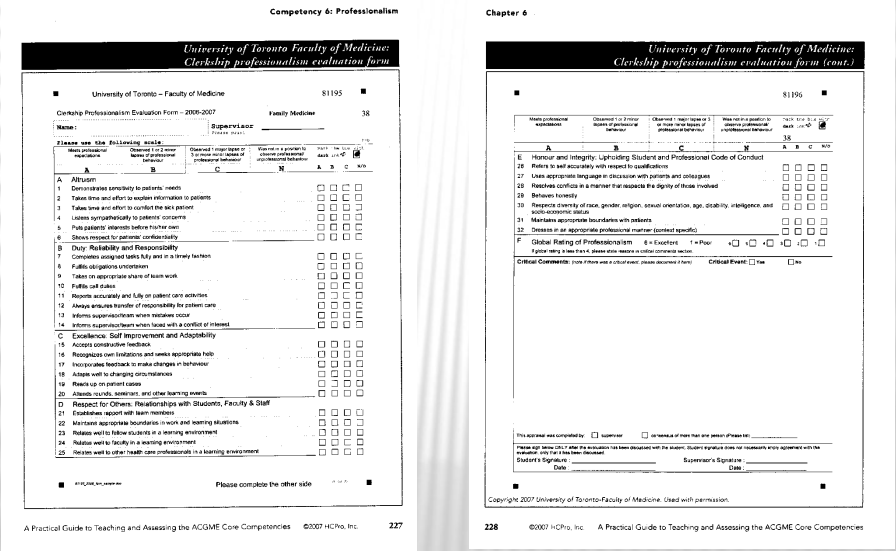
建立教學計畫與程序，根據教學目標來評估

- 由於專業素養的涵蓋的範圍很大，教學機構在對學員進行專業素養的評估時必須根據自己教學計畫中的教學目的之特性， 選定適當的教學方法及評估方式。
- 因此，明確的教學目標及教學計畫是評估的第一步。

可行的評估方法

- Direct observation by faculty followed by feedbacck
- 360-degree evaluation
- Professionalism mini evaluation exercise (P-MEX)
- Objective structured clinical examination (OSCE)
- Assessment by peers
- Critical incident reports
- Portfolios maintained by learners and used for self-reflection
- Use of vignettes to assess ethics knowledge
- Assessment of the learning environment via resident questionnaires

範例



Competency 6: Professionalism

University of Toronto Faculty of Medicine: Clerkship professionalism evaluation form

University of Toronto – Faculty of Medicine 81195

Clerkship Professionalism Evaluation Form – 2005-2007 Family Medicine 38

Name: Supervisor

Please use the following scale:

Meets professional expectations	Observed 1 or 2 minor lapses of professional behaviour	Observed 1 major lapse or 3 or more minor lapses of professional behaviour	Was not in a position to observe professional unprofessional behaviour
A	B	C	N

		A	B	C	N/O
A	Altruism				
1	Demonstrates sensitivity to patients' needs				
2	Takes time and effort to explain information to patients				
3	Takes time and effort to comfort the sick patient				
4	Listens sympathetically to patients' concerns				
5	Puts patients' interests before his/her own				
6	Shows respect for patients' confidentiality				
B	Duty: Reliability and Responsibility				
7	Completes assigned tasks fully and in a timely fashion				
8	Fulfills obligations uncertainem				
9	Takes on appropriate share of team work				
10	Fulfills call duties				
11	Reports accurately and fully on patient care activities				
12	Always ensures transfer of responsibility for patient care				
13	Informs supervisor/team when mistakes occur				
14	Informs supervisor/team when faced with a conflict of interest				
C	Excellence, Self Improvement and Adaptability				
15	Accepts constructive feedback				
16	Recognizes own limitations and seeks appropriate help				
17	Incorporates feedback to make changes in behaviour				
18	Adapts well to changing circumstances				
19	Reads up on patient cases				
20	Attends rounds, seminars, and other learning events				
D	Respect for Others: Relationships with Students, Faculty & Staff				
21	Establishes rapport with team members				
22	Maintains appropriate boundaries in work and learning situations				
23	Relates well to fellow students in a learning environment				
24	Relates well to faculty in a learning environment				
25	Relates well to other health care professionals in a learning environment				

Please complete the other side

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Chapter 6

University of Toronto Faculty of Medicine: Clerkship professionalism evaluation form (cont.)

81196

Meets professional expectations	Observed 1 or 2 minor lapses of professional behaviour	Observed 1 major lapse or 3 or more minor lapses of professional behaviour	Was not in a position to observe professional unprofessional behaviour
A	B	C	N

		A	B	C	N/O
E	Honour and Integrity: Upholding Student and Professional Code of Conduct				
26	Refers to self accurately with respect to qualifications				
27	Uses appropriate language in discussion with patients and colleagues				
28	Resolves conflicts in a manner that respects the dignity of those involved				
29	Behaves honestly				
30	Respects diversity of race, gender, religion, sexual orientation, age, disability, intelligence, and socio-economic status				
31	Maintains appropriate boundaries with patients				
32	Dresses in an appropriate professional manner (context specific)				
F	Global Rating of Professionalism 6 = Excellent 1 = Poor	6	5	4	3 2 1

If global rating is less than 4, please state reason in critical comments section

Critical Comments: (note if there was a critical event, please document it here) Critical Event: Yes No

This appraisal was completed by: supervisor co-fellows or more than one person (Please list):

Please sign below only if after the evaluation has been discussed with the student. Student signature does not necessarily imply agreement with the evaluation, only that it has been discussed.

Student's Signature: Supervisor's Signature:

Date: Date:

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UNIVERSITY OF TORONTO

- Items for evaluation of clerkship professionalsim
  - Altruism
  - Duty: reliability and Responsibility
  - Excellence: self improvement and adaptability
  - Respect for other: relationship between student, fauclty and Staff
  - Honor and integr

結論

- 醫師專業素養的教學困境在於老師對醫師專業素養的認識、教學的能力，以及最重要的教學組織環境。
- 醫學界及醫學教育界必須體認醫師專業素養的發展對整體專業的重要性，由上到下齊心戮力，踏實的發展，才有可能讓醫師專業的價值發出更大的光芒。

謝謝您的聆聽！

Healthcare Matrix之介绍及實例應用

林曉娟 醫師

中國醫藥大學附設醫院

小兒科

Healthcare Matrix之介紹
及實例應用

林曉娟/林清淵/陳偉德
中國醫藥大學附設醫院
兒童醫學中心
Aug 23, 2008

Healthcare Matrix at CMUH

- 陳偉德教授
- December, 2007
- 癌症中心的病例討論會
- 兒童醫學中心的合併症討論會(5例)
- 北港附設醫院病例討論會(10例）

醫療照護品質目標
Crossing The Quality Chasm

2001醫學研究所 (Institute of Medicine, IOM)/
美國科學院 (National Academy of Science)

1、安全的醫療 (Safety)
2、有效用的處置 (Effective)
3、病人為中心 (Patient-Centered)
4、及時的服務 (Timely)
5、有效率的服務 (Efficient)
6、平等的就醫 (Equitable)

醫師稱職能力目標
1999Competency-based Education

Accreditation Council for Graduate Medical Education (ACGME)

1. 服務與照護 (Patient care)
2. 專業知識 (Medical Knowledge)
3. 實作導向之學習與改進
   (Practice-based learning and improvement)
4. 人際關係及溝通技巧
   (Interpersonal and communication skills)
5. 專業特質及倫理 (Professionalism)
6. 社會或健保體系內之行為
   (Systems-based practice)

Joint Commission Journal on Quality and Patient Safety

Health Professions Education

Using a Healthcare Matrix to Assess Patient Care in Terms of Aims for Improvement and Core Competencies

John W. Bingham, M.H.A.
Doris C. Quinn, Ph.D.
Michael G. Richardson, M.D.
Paul V. Miles, M.D.
Steven G. Gabbe, M.D.

IOM / ACGME	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE (Overall Assessment)						
Assessment of Care						
MEDICAL KNOWLEDGE & SKILLS (What must I know)						
INTERPERSONAL & COMMUNICATION SKILLS (What must I say)						
PREFESSIONALISM (How must I act)						
SYSTEMS-BASED PRACTICE (On whom do I depend and who depends on me)						
Improvement						
PRACTICE-BASED LEARNING & IMPROVEMENT (How must I improve)						

健康照護矩陣

6x6

Health Care Matrix

健康照護矩陣 Healthcare Matrix

姓名：
病歷：

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 照顧病患（是/否） PATIENT CARE	A1	A2	A3	A4	A5	A6
照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE and SKILLS (應該熟知的)	B1	B2	B3	B4	B5	B6
C 人際溝通技巧 INTERPERSONAL and COMMUNICATION SKILLS (應該表達的)	C1	C2	C3	C4	C5	C6
D 專業素養 PROFESSIONALISM (應該做的)	D1	D2	D3	D4	D5	D6
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE (應該相互支援的)	E1	E2	E3	E4	E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING and IMPROVEMENT	F1	F2	F3	F4	F5	F6

A. Patient Care：具有憐憫同情心，能適當而有效率的診療病患，預防疾病及增進健康。
B. Medical Knowledge and Skills：具備已建立及發展中的生物醫學、臨床醫學及社會科學的知識，並如用上述知識運用至照顧病患上。
C. Interpersonal and Communication Skills：與病患及其家人或其他醫療照護成員建立團隊關係，做好有效的溝通管道。
D. Professionalism：呈現實踐專業責任，堅守倫理原則，尊重多樣性群體原則之行為。
E. Systems-Based Practice：有熟識運用醫療照護體系之運作及錢由，並有能力運用體系資源，提供最適宜的醫療照護。
F. Practice-Based Learning and Improvement：自我評估醫療行為，運用科學證據，提供創新品質。

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1. Safe：避免意圖幫助病患的醫療行為反而傷害病患。
2. Timely：減少等候時間，避免造成傷害的延遲。
3. Effective：根據醫學知識提供適當不適當亦無不足的服務。
4. Efficient：避免浪費、無效材、意見或能力等資源的浪費。
5. Equitable：提供同樣品質的服務，不因性別、種族、地域或社經階層而不同。
6. Patient-Centered：提供患個別偏好及需求，提供尊重及負責任的照護，並依其價值觀作臨床決策。

稱職能力教學目標

A. PATIENT CARE

照顧評估

B. MEDICAL KNOWLEDGE and SKILLS
（應該熟知的）

C. INTERPERSONAL and COMMUNICATION SKILLS
（應該表達的）

D. PROFESSIONALISM
（應該做的）

E. SYSTEMS-BASED PRACTICE
（應該相互支援的）

學習改進

F. PRACTICE-BASED LEARNING and IMPROVEMENT

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2	B3	B4	B5	B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2	C3	C4	C5	C6
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4	D5	D6
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE （應該相互支援的）	E1	E2	E3	E4	E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

Using the Matrix

- History
- Physical Exam
- Labs
- Tests
- Consults
- Etc.

→ Diagnosis → Care of Patient (Matrix)

Doris Quinn, April 26, 2008

案例1（1）

- 2歲6個月女童
- 住院前1週有流鼻水、咳嗽有痰症狀
- 住院前4天出現高燒（39 ˚ C）和間歇性上腹痛
- 住院前1天因左下肺葉肺炎和呼吸窘迫住進另一家醫院，血液檢查發現Hb 8.7 gm/dl, WBC 3,200/µl, band form 42%, platelet 43,000/µl.給予Augmentin治療。隨後因陸續出現黃疸、尿量減少、茶色尿，BUN 61mg/dL, Creatinine 1.8 mg/dL
- 在肺炎合併溶血性尿毒症候群的臆診下，轉至本院兒科加護病房。

案例1（2）

- 住院後病情繼續惡化，嚴重溶血、低血小板值、血壓不穩、瀕臨休克、急需生理食鹽水洗滌過的紅血球輸血，但備血時間延誤，至晚上才拿到血品。雖和家屬積極說明，但家屬不能完全接受。爾後病情迅速惡化，肺部因嚴重肺炎必須使用呼吸器，腎衰竭開始做腹膜透析治療，住院第8天又出現左肺血胸。經積極治療，目前病情已逐漸穩定，停止腹膜透析及呼吸器治療。

案例1（3）

- 此病例在傳統病例討論會的討論重點包括

（1）休克合併乏尿及溶血性尿毒症候群之輸液治療？

（2）如何縮短溶血性尿毒症候群之病程及改善預後？

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 照顧病患（是/否） PATIENT CARE	A1	A2	A3	A4	A5	A6
照顧評估						
醫學知識 MEDICAL KNOWLE & SKILLS （應該熟知的）	B1	B2				
人際溝通技巧 INTERPE COMMU SKILLS （應該表		C2				
專業特質 PREFES （應該						
醫療體系 SYSTEM PRACTI （應該相				E4	E5	E6
學習改進						
行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT				F4	F5	F6

Avoiding injuries to patients from the care that is intended to help them.
避免意圖幫助病人的醫療行為反而傷害病人 是? 否?

Patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.具有憐憫心、同情心，能適當而有效率的診療病痛、預防疾病、增進健康及臨終照顧

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 照顧病患（是/否） PATIENT CARE	A1 Yes	A2	A3	A4	A5	A6
照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2	B3	B4	B5	B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2		C4	C5	C6
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4	D5	D6
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE （應該相互支援的）	E1	E2	E3	E4	E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2		B4	B5	B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2				
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2				
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE （應該相互支援的）	E1	E2				
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

Reducing waits and sometimes harmful delays for both those who receive and those who give care.
減少等候時間甚至造成傷害的延遲

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 照顧病患（是/否） PATIENT CARE	A1 Yes	A2 No 沒有及時處理敗血性休克與呼吸衰竭，準備washed RBC時間過長	A3	A4	A5	A6
照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2		B4	B5	B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2				
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2				
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學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

No
沒有及時處理敗血性休克與呼吸衰竭，準備washed RBC時間過長

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2		B4	B5	B6
人際溝通 INTERP COMMU SKILLS （應該表				C4	C5	C6
專業特質 PREFES （應該做					D5	D6
醫療體系 SYSTEM PRACTIC （應該相互支援					E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively)
根據醫學知識提供適當(不過當亦無不足)的服務

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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照顧						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2	B3	B4	B5	B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2				
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3			
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE （應該相互支援的）	E1	E2	E3	E4	E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

No

延遲休克的處置，導致肝腎功能惡化

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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照顧						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2		B4	B5	B6
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學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

Avoiding waste, including waste of equipment, supplies, ideas, and energy.

避免設備、藥材、衛材、意見或能量等資源的浪費

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2	B3	B4	B5	B6
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學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

No
病人處於溶血性貧血狀態，
washed RBC準備時間過長

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socio-economic status.
提供同樣品質的服務，不因性別、種族、地域或社經階層而不同

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 照顧病患（是/否） PATIENT CARE	A1 Yes	A2 No 沒有及時處理敗血性休克與呼吸衰竭，準備washed RBC時間過長	A3 No 延遲休克的處置，導致肝腎功能惡化	A4 No 病人處於溶血性貧血狀態，washed RBC準備時間過長	A5 Yes	A6
照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2	B3	B4	B5	B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2		C4	C5	C6
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4	D5	D6
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE （應該相互支援的）	E1	E2	E3	E4	E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

Yes

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C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1					
D 專業特質 PREFESSIONALISM （應該做的）	D1					
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE （應該相互支援的）	E1					
學習改進						
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Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

依病患個別偏好、需求及價值觀，提供尊重及負責任的照護，並依其價值觀作臨床決策

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學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

No
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Medical knowledge about established and evolving biomedical, clinical, and cognate sciences (e.g. epidemiological and social-behavioral) and the application of this knowledge to patient care. 具備已確立及發展中的生物醫學、臨床醫學及社會科學的知識，並能將上述知識運用至照顧病人上

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F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2	F3	F4	F5	F6

敗血性休克與呼吸衰竭皆會致命，相關生理病理知識要再充實學習

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D 專業特質 PREFESSIONALISM （應該做的）	D1					
E 醫療體系內行醫 SYSTEM-BASED PRACTICE （應該相互支援的）	E1	E2				
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2				

Interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.與病患及其家人或其他醫療照護團隊成員，建立並維持專業的關係

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Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.呈現實踐專業責任、堅守倫理原則、尊重多樣性群體差異之行為

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C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2				
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System-based practice, as manifested by actions that demonstrate and awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. 有熱誠理解醫療照護體系之運作及緣由，並有能力運用體系資源，提供最適當的醫療照護

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A 照顧病患（是/否） PATIENT CARE	A1 Yes	A2 No 沒有及時處理敗 休克與呼吸 備wash 長	A3 No	A4 No	A5 Yes	A6 No 病人的問題未能在第 獲得及時的處
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2 敗血性 鳴皆會 理病理				
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2				
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學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2 加強對於肺炎合併溶血性尿毒症的診斷和治療	F3	F4	F5	F6

Practice-based learning and improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvement in patient care.
自我評估醫療行為、運用科學證據，提升照護品質

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F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2 加強對於肺炎合併溶血性尿毒症的診斷和治療	F3	F4	F5	F6

加強對於肺炎合併溶血性尿毒症的診斷和治療

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學習改進						
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對於腎衰竭合併休克的知識不足

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C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2	C3	C4	C5	C6
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4	D5	D6
E 醫療體系內行醫 SYSTEM-BASED PRACTICE （應該相互支援的）	E1	E2	E3	E4		
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2 加強對於肺炎合併溶血性尿毒症的診斷和治療	F3 加強腎衰竭合併症與休克的處置	F4	F5	F6

加強腎衰竭合併症與休克的處置

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2	C3	C4	C5	C6
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4		D6
E 醫療體系內行醫 SYSTEM-BASED PRACTICE （應該相互支援的）	E1	E2	E3	E4		
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING & IMPROVEMENT	F1	F2 加強對於肺炎合併溶血性尿毒症的診斷和治療	F3 加強腎衰竭合併症與休克的處置	F4	F5	F6

低估病情嚴重度，未能在休克前放置中央靜脈導管

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 照顧病患（是/否） PATIENT CARE	A1 Yes	A2 No 沒有及時處理敗血性休克與呼吸衰竭，準備washed RBC時間過長	A3 No 延遲休克的處置，導致肝腎功能惡化	A4 No 病人處於溶血性貧血狀態，washed RBC準備時間過長	A5 Yes	A6 No 病人的問題未能在第一時間獲得及時的處理
照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2 敗血性休克與呼吸衰竭皆會致命，相關生理病理要再充實學習	B3 對於腎衰竭合併休克的知識不足	B4 低估病情嚴重度，未能在休克前放置中心輸液導管	B5	B6
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學習改進						
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縮短 washed RBC 準備時間

醫療品質 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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積極與血庫聯繫，
告知病人危急狀況

醫療品質 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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照						
B 醫學知識 MEDICAL KNOWLEDGE & SKILLS （應該熟知的）	B1	B2 敗血性休克與呼吸衰竭皆會致命，相關生理病理要再充實學習	B3 對於腎衰 的知識不			B6
C 人際溝通技巧 INTERPERSONAL & COMMUNICATION SKILLS （應該表達的）	C1	C2	C3	C4		C6 家長落有質疑，顯示對於病情惡化和病程解釋需更詳細
D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4	D5	D6
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示對於病情惡化和
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醫療品質 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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請示資深專責醫師，提升病人照護品質，加強和病人家屬溝通的技巧

醫療品質 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
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D 專業特質 PREFESSIONALISM （應該做的）	D1	D2	D3	D4	D5	D6
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70歲男性肺癌病人之矩陣個案討論 (1/3)

一位70歲慢性支氣管炎男性病人，長期於北港附設醫院門診治療，有抽煙、喝酒、嚼食檳榔的習慣，96年2月8日照過胸部X光片，但無特殊發現，10月11日初因痰中帶血持續2-3天而住院檢查，胸部X片發現左下肺有腫瘤陰影，胸部電腦斷層攝影證實相同的發現，其他檢查包括痰液的染色及培養皆為陰性，病人要求轉診台中附設醫院而於10月15日出院。

70歲男性肺癌病人之矩陣個案討論 (2/3)

病人於10月17日至台中附醫門診，胸部X光檢查持續發現腫瘤陰影，螢光氣管鏡檢查發現左氣管腫瘤，氣管沖洗發現疑似惡性腫瘤細胞，骨骼掃瞄未發現轉移跡象，10月24日肺功能檢查發現中度阻塞(FEV1=0.94L, 41.6%)，11月8日，胸部X光檢查依然有腫瘤陰影，第二次肺功能檢查(FEV1=1.29L, 57.2%)後，轉至胸腔外科，因無健保病房，病人於11月18日住院，21日接受左下肺切除手術，病理結果為鱗狀細胞癌，無淋巴結轉移，病人於12月6日日出院，轉返北港附醫追蹤。

70歲男性肺癌病人之矩陣個案討論 (3/3)

本病例在傳統病例討論會中的討論重點包括：

1、病史經過之確認。
2、肺癌之分期？
3、肺癌外科手術之適應症及併發症。
4、病人之預後？

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE						
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

避免意圖幫助病人的醫療行為反而傷害病人
是? 否?

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是					
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是					
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

減少等候時間，
避免造成傷害的
延遲

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？				
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？				
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

根據醫學知識提供適當(不過當亦無不足)的服務

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？			
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
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SYSTEMS-BASED PRACTICE						
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PRACTICE-BASED LEARNING & IMPROVEMENT						

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PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？			
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

避免設備、藥材、衛材、意見或能力等資源的浪費

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？		
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？		
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

提供同樣品質的服務，不因性別、種族、地域或社經階層而不同

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否	
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照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

依病人個別偏好及需求，提供尊重及負責任的照護，並依其價值觀作臨床決策

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS						
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PREFESSIONALISM						
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PRACTICE-BASED LEARNING & IMPROVEMENT						

具備已確立及發展中的生物醫學、臨床醫學及社會科學的知識，並能將上述知識運用至照顧病人上

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS						
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

與病人及其家人或其他醫療照護成員建立團隊精神，維持有效的溝通管道

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受				
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受				
PREFESSIONALISM						
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

呈現實踐專業責任、堅守倫理原則、尊重多樣性群體差異之行為

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受				
PREFESSIONALISM		如能及早診斷現在該如何告知病人？				
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受				
PREFESSIONALISM		如能及早診斷現在該如何告知病人？				
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

有熱誠理解醫療照護體系之運作及緣由，並有能力運用體系資源，提供最適當的醫療照護

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受				
PREFESSIONALISM		如能及早診斷現在該如何告知病人？				
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT						

自我評估醫療行為，運用科學證據，提昇照護品質

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈				
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受				
PREFESSIONALISM		如能及早診斷現在該如何告知病人？				
SYSTEMS-BASED PRACTICE						
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT		重新複習胸部X光的判讀				

	SAFE	TIMELY	EFFECTIVE	EFFICIENT	EQUITABLE	PATIENT-CENTERED
PATIENT CARE	是	半年前之X光能否早期診斷？	電腦斷層及氣管鏡是否皆為診斷所需？	二次胸部X光及肺功能檢查必要否？	否 門診後儘早住進病房？	是
照顧評估						
MEDICAL KNOWLEDGE & SKILLS		肺部支氣管之解剖學分佈	各種診斷及檢查之適應症及限制或盲點	肺部手術前肺功能之評估標準		
INTERPERSONAL & COMMUNICATION SKILLS		病人家屬略有質疑，經解釋後可接受			病人經說明後可接受等待健保病房	
PREFESSIONALISM		如能及早診斷現在該如何告知病人？				
SYSTEMS-BASED PRACTICE				醫療體系內檢查結果應能傳遞共用	健保總額已超支	
學習改進						
PRACTICE-BASED LEARNING & IMPROVEMENT		重新複習胸部X光的判讀	根據實証建立肺癌診治之臨床作業規範	學習此兩種檢查之適應性及信效度	健保病房妥善分配使用	

健康照護矩陣之運用 (1/2)

- 病例討論會(包括死亡病例或合併症病例)
- 30分鐘為包括診斷、治療、預後等傳統的臨床課題，15分鐘為矩陣表單檢討分析，最後15分鐘則為所有與會人員的討論
- 資深住院醫師或研究醫師
- 適用於所有的臨床學科

健康照護矩陣之運用 (2/2)

- 36方格資料可依序輸入電腦資料庫中，再進行分析研究
- 跨領域學習：照顧病人之護理、藥學、營養、復健等專業，可分別填寫矩陣表單，再集會討論，精進團隊整合性照護
- 日常醫療中隨時銘記在心
- 醫療糾紛？

醫學教育的階段性教學方案

- Life-long Learning
- **Healthcare Matrix**
- Chart CPR
- Mini-CEX
- PSC (Problem Solving Conf.)
- OSCE
- PBL
- Lecture

參考資料

- Bingham JW, Quinn DC, Richardson MG, Miles PV, Gabbe SG. 2005. Using a healthcare matrix to assess patient care in terms of aims for improvement and core competencies. Joint Commission Journal on Quality and Pt Safety 32;98-105.
- Quinn DC, Bingham JW, Shourbaji NA, Jarquin-Valdivia AA. Medical students learn to assess care using the healthcare matrix. 2007.Med Teach 29;660-665
- 李正淳、蔡昆道、林清淵、陳志毅、許南榮、林曉娟、陳偉德. 兼顧醫療品質與醫師職稱能力之健康照護矩陣.醫學教育(印刷中)
- 陳偉德教授。兼顧醫療品質與醫師職稱能力之健康照護矩陣（草稿和簡報資料）

感謝

- 陳偉德教授和林清淵教授的指導
- 中國醫藥大學附設醫院兒童醫學中心同仁的協助

姓名：

性別/年齡：

健康照護矩陣 Healthcare Matrix

診斷：

病歷：

醫療品質 / 稱職能力	安全的醫療 SAFE 1	及時的服務 TIMELY 2	有效用的處置 EFFECTIVE 3	有效率的服務 EFFICIENT 4	平等的就醫 EQUITABLE 5	病人為中心 PATIENT-CENTERED 6
A 病人照護 (是/否) PATIENT CARE	A1	A2	A3	A4	A5	A6
照顧評估						
B 醫學知識 MEDICAL KNOWLEDGE and SKILLS (應該熟知的)	B1	B2	B3	B4	B5	B6
C 人際溝通技巧 INTERPERSONAL and COMMUNICATION SKILLS (應該表達的)	C1	C2	C3	C4	C5	C6
D 專業素養 PROFESSIONALISM (應該做的)	D1	D2	D3	D4	D5	D6
E 醫療體系內行醫 SYSTEMS-BASED PRACTICE (應該相互支援的)	E1	E2	E3	E4	E5	E6
學習改進						
F 行醫導向之學習改進 PRACTICE-BASED LEARNING and IMPROVEMENT	F1	F2	F3	F4	F5	F6

健康照護成員：
Healthcare Team Members

填表人：

日期：

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A. Patient Care：具有憐憫同情心，能適當而有效率的診療病痛、預防疾病及增進健康。
B. Medical Knowledge and Skills：具備已確立及發展中的生物醫學、臨床醫學及社會科學的知識，並能將上述知識運用至照顧病患上。
C. Interpersonal and Communication Skills：與病患及其家人或其他醫療照護成員建立團隊精神，維持有效的溝通管道。
D. Professionalism：呈現實踐專業責任、堅守倫理原則、尊重多樣性群體差異之行爲。
E. Systems-Based Practice：有熱誠理解醫療照護體系之運作及緣由，並有能力運用體系資源，提供最適當的醫療照護。
F. Practice-Based Learning and Improvement：自我評估醫療行爲，運用科學證據，提昇照護品質。

1. Safe：避免意圖幫助病患的醫療行爲反而傷害病患。
2. Timely：減少等候時間，避免具傷害性的延遲。
3. Effective：根據醫學知識提供適當(不過當亦無不足)的服務。
4. Efficient：避免設備、藥衛材、意見或能力等資源的浪費。
5. Equitable：提供同樣品質的服務，不因性別、種族、地域或社經階層而不同。
6. Patient-Centered：依病患個別偏好及需求，提供尊重及負責任的照護，並依其價值觀作臨床決策。

一般醫學師資培育認證辦法
及相關證明申請表單

台灣醫學教育學會

台灣醫學教育學會一般醫學師資培育及認證辦法

民國 97 年 5 月 8 日工作小組第二次會議通過

民國 97 年 6 月 26 日工作小組第三次會議修訂

第一條 台灣醫學教育學會（以下簡稱本學會），為執行衛生署推動全一年期一般醫學訓練，特訂定一般醫學師資培育及認證辦法（以下簡稱本辦法）。

第二條 一般醫學師資培育課程分為下列三部份：

（一）於一般醫學示範中心擔任病房主治醫師或病房主任並參與實際教學至少 6 個月。

（二）一般醫學研習營課程至少需修習七小時，分為下列三類：

(1)本學會舉辦之一般醫學研習營。

(2)由一般醫學訓練示範中心所在醫院與本學會合辦之一般醫學研習營課程。

(3)財團法人醫院評鑑暨醫療品質策進會與本學會合辦之一般醫學研習營課程。

（三）觀摩及實務訓練課程，需於一般醫學訓練示範中心至少接受七小時之訓練。

第三條 凡符合本辦法第二條第一款者；或曾擔任畢業後一般醫學訓練導師或臨床教師至少 6 個月並修習本辦法第二條第二款及第三款課程之培訓師資，報請本學會審核後發給一般醫學師資證書，證書效期 3 年，展延辦法另訂。

第四條 本辦法經本學會一般醫學訓練示範中心試辦輔導計畫工作小組委員會議通過後實施，修正時亦同。

台灣醫學教育學會一般醫學師資認證申請書 970523

受理日期:

教師基本資料			
姓名		身份證字號	
出生日期		通訊地址	
聯絡電話		E-MAIL	
職稱		目前任職機構及單位	

【以下資格請擇一申請】

壹、符合本學會一般醫學師資培育及認證辦法第二條第一款
(於一般醫學示範中心擔任病房主任或主治醫師並實際參與教學至少六個月以上)

示範中心	職稱	期間	檢具證明文件	審核
	□病房主任□主治醫師		□ 醫院證明	
	□病房主任□主治醫師		□ 醫院證明	
	□病房主任□主治醫師		□ 醫院證明	
	□病房主任□主治醫師		□ 醫院證明	

貳、曾擔任 PGY 訓練導師或臨床教師至少六個月且符合本學會一般醫學師資培育及認證辦法第二條第二及第三款

2-1 曾擔任 PGY 訓練導師或臨床教師至少六個月

PGY 訓練醫院	職稱	期間	檢具證明文件	審核
	□訓練導師□臨床教師		□ 醫院證明	
	□訓練導師□臨床教師		□ 醫院證明	
	□訓練導師□臨床教師		□ 醫院證明	

2-2 修習本學會舉辦或合辦一般醫學研習課程至少七小時

研習營名稱	日期	時數	檢具證明文件	審核
			□ 主辦單位證明	
			□ 主辦單位證明	
			□ 主辦單位證明	

2-3 於示範中心觀摩及實務訓練課程至少七小時

示範中心名稱	日期	時數	檢具證明文件	審核
			□ 示範中心證明	
			□ 示範中心證明	
			□ 示範中心證明	

備註: 依本學會一般醫學師資培育及認證辦法第三條規定，證書效期三年。

申請人簽章:

審核結果: □通過　　□不通過

表單編號：97-1

擔任一般醫學示範中心病房主任/主治醫師證明

查本院下表所列醫師，確實於本院一般醫學示範中心擔任病房主任/主治醫師並實際參與教學六個月以上，參與教學期間如下:

	姓名	身份證字號	期間	月份合計
示範中心病房主任			/ / ~ / /	
			/ / ~ / /	
示範中心主治醫師	姓名	身份證字號	期間	月份合計
			/ / ~ / /	
			/ / ~ / /	
			/ / ~ / /	
			/ / ~ / /	

※依本學會一般醫學師資培育及認證辦法第二條第一款規定需於示範中心擔任病房主任/主治醫師並實際參與教學六個月以上。

示範中心主持人簽章:

示範中心所屬醫院院長簽章或機關用印:

表單編號：97-2

擔任畢業後一般醫學訓練導師/臨床教師證明

查本院下表所列醫師，擔任畢業後一般醫學訓練導師/臨床教師並實際參與教學六個月以上，參與教學期間如下:

	姓名	身份證字號	期間	月份合計
PGY 導師			/ / ~ / /	
			/ / ~ / /	
			/ / ~ / /	
			/ / ~ / /	
PGY 臨床教師	姓名	身份證字號	期間	月份合計
			/ / ~ / /	
			/ / ~ / /	
			/ / ~ / /	
			/ / ~ / /	

※依本學會一般醫學師資培育及認證辦法第三條規定需擔任畢業後一般醫學訓練導師或臨床教師至少 6 個月。

單位主管簽章:

畢業後一般醫學訓練醫院院長簽章或機關用印:

修習本學會舉辦或合辦之一般醫學研習課程證明

查　　醫師，身份證字號　　，參與一般醫學研習課程合計　　小時無誤。

一般醫學研習課程名稱	主辦單位/合辦單位	日期	起迄時間	小時數
		/ /		
		/ /		
		/ /		
		/ /		
		/ /		
		/ /		
		/ /		
一般醫學研習課程時數總計				

※依本學會一般醫學師資培育及認證辦法第二條第二款規定需修習一般醫學研習課程至少七小時。

主辦單位負責人簽章:

主辦單位用印:

表單編號：97-4

修習示範中心觀摩及實務訓練課程證明

查　　醫師，身份證字號　　，參與本示範中心觀摩及實務訓練課程合計　　小時，無誤。

示範中心觀摩及實務訓練課程名稱	日期	起迄時間	小時數
	/ /		
	/ /		
	/ /		
	/ /		
	/ /		
	/ /		
	/ /		
示範中心觀摩及實務訓練課程時數總計			

※依本學會一般醫學師資培育及認證辦法第二條第三款規定觀摩及實務訓練課程，需於一般醫學訓練示範中心至少接受七小時之訓練。

示範中心主持人簽章:

示範中心所屬醫院院長簽章或機關用印:

表單編號：97-5