



實證護理的基本概念介紹

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大綱

- 甚麼是實證護理實務 (evidence-based nursing / practice, EBN / EBP)?
- Five steps of EBP
- Practice time!





證據 (Evidence)

- 證據是訴訟法上，用來確定當事人主張為真實的證明

<https://zh.wikipedia.org/wiki/%E8%AD%89%E6%93%9A>

- 憑據、憑證、左證、佐證

教育部重編國語辭典修訂本 <http://dict.revised.moe.edu.tw/cgi-bin/cbdic/gswweb.cgi?o=dcbdic&searchid=Z00000117867>

- Evidence-based: 在醫學、教育或其它領域所使用的一種方法，強調於實務中應用目前最佳、可獲得的研究證據

<https://en.oxforddictionaries.com/definition/evidence-based>



何謂 Evidence in EBP?

- 清楚 (clearness)、明顯 (obviousness)
- 能支持結論的指示 (indication)、徵象 (sign)、事實 (facts)
- 由個人或文獻而來，可能可以建立事實的訊息
- 用來指引、證實

Rycroft-Malone, J., Seers, K., Titchen, A., Harvey, G., Kitson, A. & McCormack, B. (2004). What counts as evidence in evidence-based practice? *Journal of Advanced Nursing* 47(1), 81–90.



為何需要護理實證技巧？

- 最新知識(up-to-date knowledge) 與臨床技能不斷的衰退、過時
 - 研究未能有效、及時應用在臨床
- 需要證據時無法及時取得
- 傳統證據資源品質欠佳
 - Textbook, expert opinion,
- ◎ 對臨床情境能提供每日所需的有效資訊



EBP vs. Research Utilization

- EBP: 使用一群研究 using evidence from a body of studies from which conclusions about an intervention can be drawn.
- Research utilization: 使用單一研究的研究結果
- Many current EBP references now include **case reports and clinical examples** in the lowest level of evidence

DiCenso, Cullum, & Ciliska. (1998).



EBP詞彙

- Evidence-based practice (EBP): An umbrella term, which encompasses several specialties
- Evidence-based medicine (EBM)
- Evidence-based nursing (EBN)
- Evidence-based healthcare (EBHC)

Scott, K., & McSherry, B. (2008). Evidence-based nursing: Clarifying the concepts for nurses in practice. *Journal of Clinical Nursing*, 18, 1085–1095.



Evidence-Based Medicine

- 1972 Dr. Archie Cochrane
 - Years-long gap in translating evidence into practice
 - Randomized controlled clinical trials (RCTs)
- 1980 McMaster's University, Canada
 - EBM Working Group
 - EBM as a new paradigm for teaching medical students
- 1988
 - First electronic database of clinical trials, the Oxford Database of Perinatal Trials (The Cochrane Collaboration)

Scott, K., & McSherry, B. (2008). Evidence-based nursing: Clarifying the concepts for nurses in practice. *Journal of Clinical Nursing*, 18, 1085–1095.



EBM (cont.)

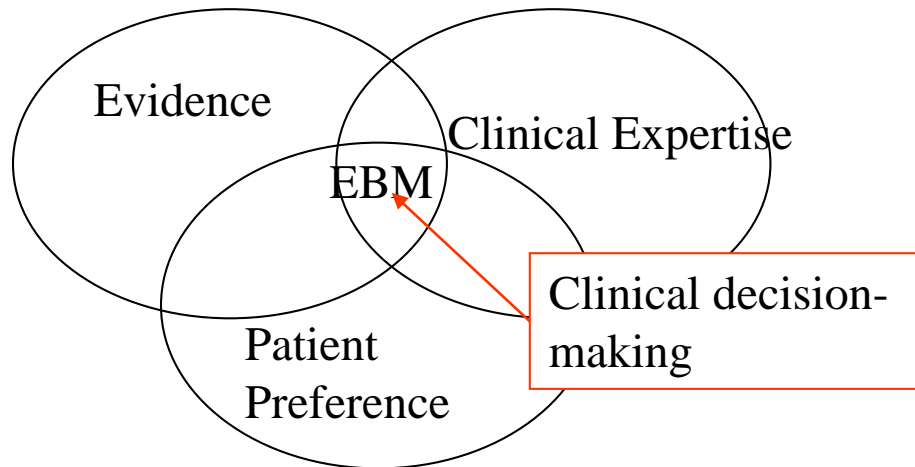
- 1992
 - Cochrane Centre by UK National Health Service (NHS)
 - Systemic review of RCTs related to all healthcare areas
- 1993
 - Cochrane Collaboration
 - Systematic reviews of RCTs and communicating healthcare research findings
- 1995
 - British Medical Journal Group (BMJ Group) began publication of Evidence-based Medicine for Primary Care and Internal Medicine

Bliss-Holtz, J. (2007). Evidence-based practice: A primer for action. *Issues in Comprehensive Pediatric Nursing*, 30, 165–182,

EBM定義

- Dr. David Sackett

- “conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.”



Sackett, D.L., Rosenberg, W.M.C., Gray, J.A.M., Haynes, R.B., Richardson, W.S. (1996). Evidence-based medicine: What it is and what it isn't. *British Medical Journal*, 312(January 13), 71–72.



EBN

- 1998

- BMJ began publication of Evidence-Based Nursing (EBN)

Bliss-Holtz, J. (2007). Evidence-based practice: A primer for action. *Issues in Comprehensive Pediatric Nursing*, 30(4), 165-82.

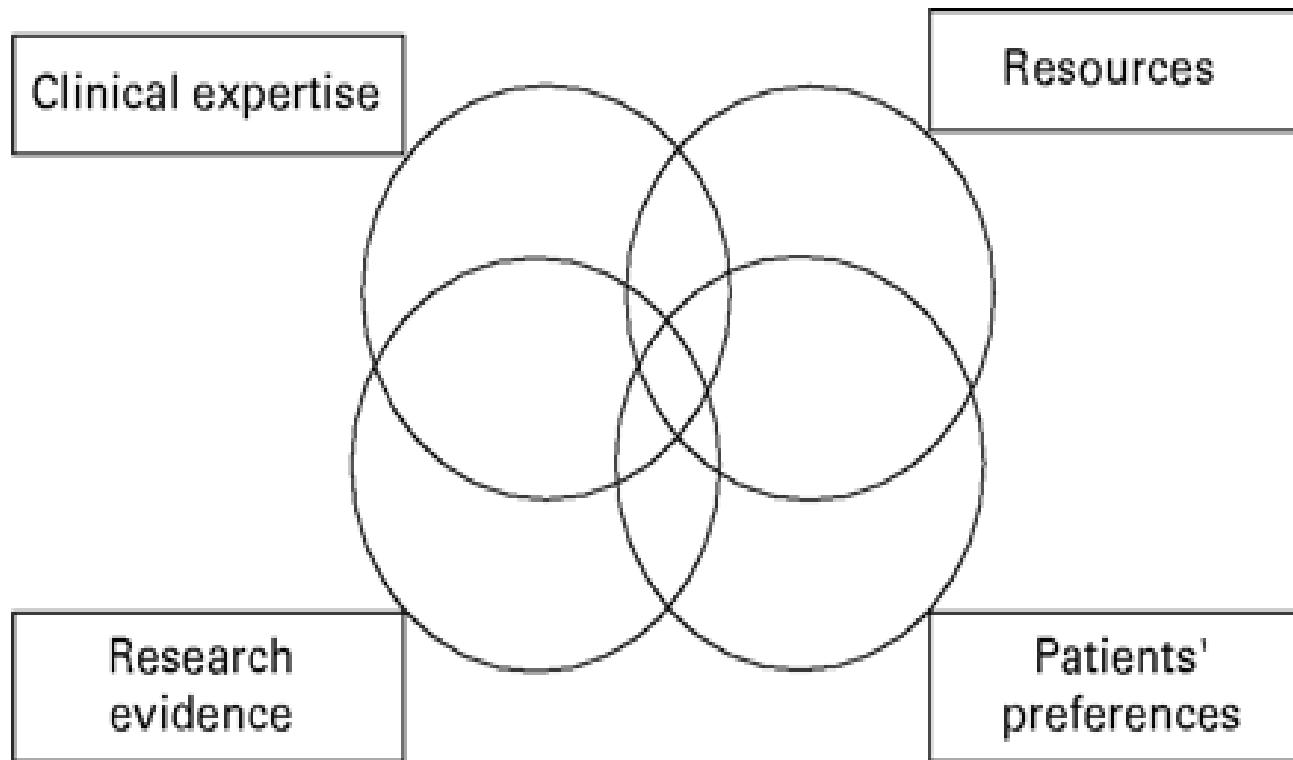
- Definition of EBN

- "An ongoing process by which **evidence, nursing theory** and the **practitioners' clinical expertise** are critically evaluated and considered, in conjunction with **patient involvement**, to provide delivery of **optimum nursing care** for the individual."

Scott, K. & McSherry, R. (2009). Evidence based nursing: Clarifying the concepts for nurses in practice. *Journal of Clinical Nursing*, 18(8): 1085-95.

EBN (cont.)

- Four factors of EBN



DiCenso, Cullum, & Ciliska. (1998). A model for evidencebased clinical decision.



EBN 與 EBM的差異

- 護理提供全人照護、與病患一起治療與工作，而非對其工作。
- 有效的治療只是臨床決策的一部份，在決定治療性措施時，病患的接受度與成本效益也應被考慮。



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 - Textbook, expert opinion,
- ◎ 對臨床情境能提供每日所需的有效資訊

Giuse, N. B. (2008). Riding the waves of change together: are we all paying attention? *Journal of the Medical Library Association : JMLA*, 96(2), 85–87.
<http://doi.org/10.3163/1536-5050.96.2.85>



Criticisms and Defenses of EBP

- EBP leads to “cookbook” nursing and a disregard for individualized patient care
 - External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision.

DiCenso, A., Cullum, N, & Ciliska, D. (1998). Implementing evidence based nursing: some misconceptions, *Evidence-Based Nursing*, 1: 38-39

Sackett, D.L., Rosenberg, W.M.C., Gray, J.A.M., Haynes, R.B., Richardson, W.S. (1996). Evidence-based medicine: What it is and what it isn't. *British Medical Journal*, 312(January 13), 71–72.



Criticisms and Defenses of EBP (cont.)

- An overemphasis on RCTs and systematic reviews in EB health care → inhumanity
 - Should try to avoid the non-experimental approaches, since these routinely lead to false positive conclusions about efficacy

DiCenso, A., Cullum, N., & Ciliska, D. (1998). Implementing evidence based nursing: some misconceptions, *Evidence-Based Nursing*, 1: 38-39

Sackett, D.L., Rosenberg, W.M.C., Gray, J.A.M., Haynes, R.B., Richardson, W.S. (1996). Evidence-based medicine: What it is and what it isn't. *British Medical Journal*, 312(January 13), 71–72.

Five Steps of EBP

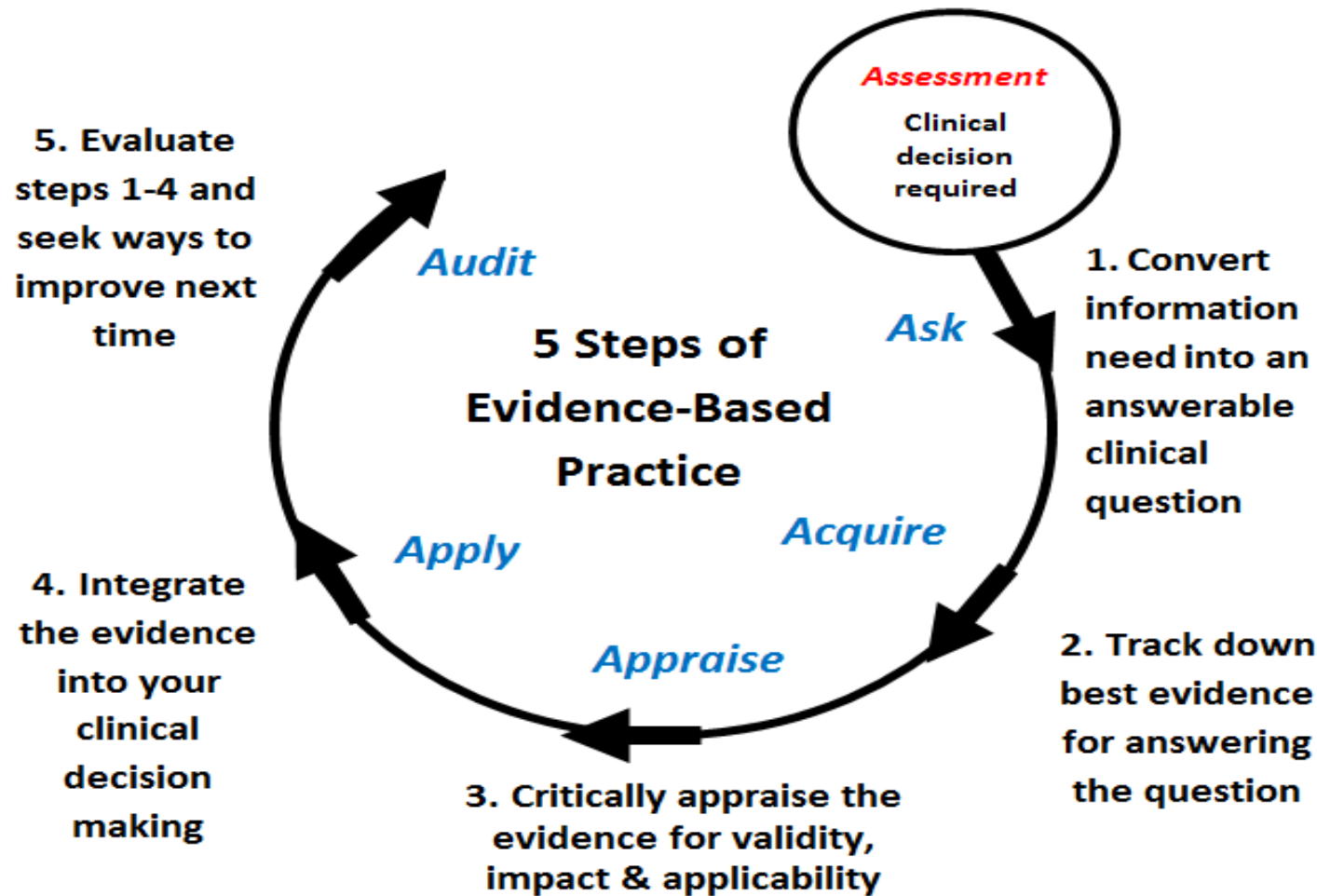




Five Steps of EBP

- **Ask:** 問題應是focused, structured, answerable.
- **Acquire:** 搜尋可用的最佳實證文獻資料
- **Appraise:** 評讀證據的效度、臨床相關性、可用性
- **Apply:** 在臨床專業知識（clinical expertise）與病患的喜好下應用可用性證據
- **Assess/Audit:** 自我反思稽核、或同儕評估證據使用的效果與效率

Five Steps of EBP



Adapted from Sackett et al 2011, Evidence-based medicine: how to practice and teach EBM



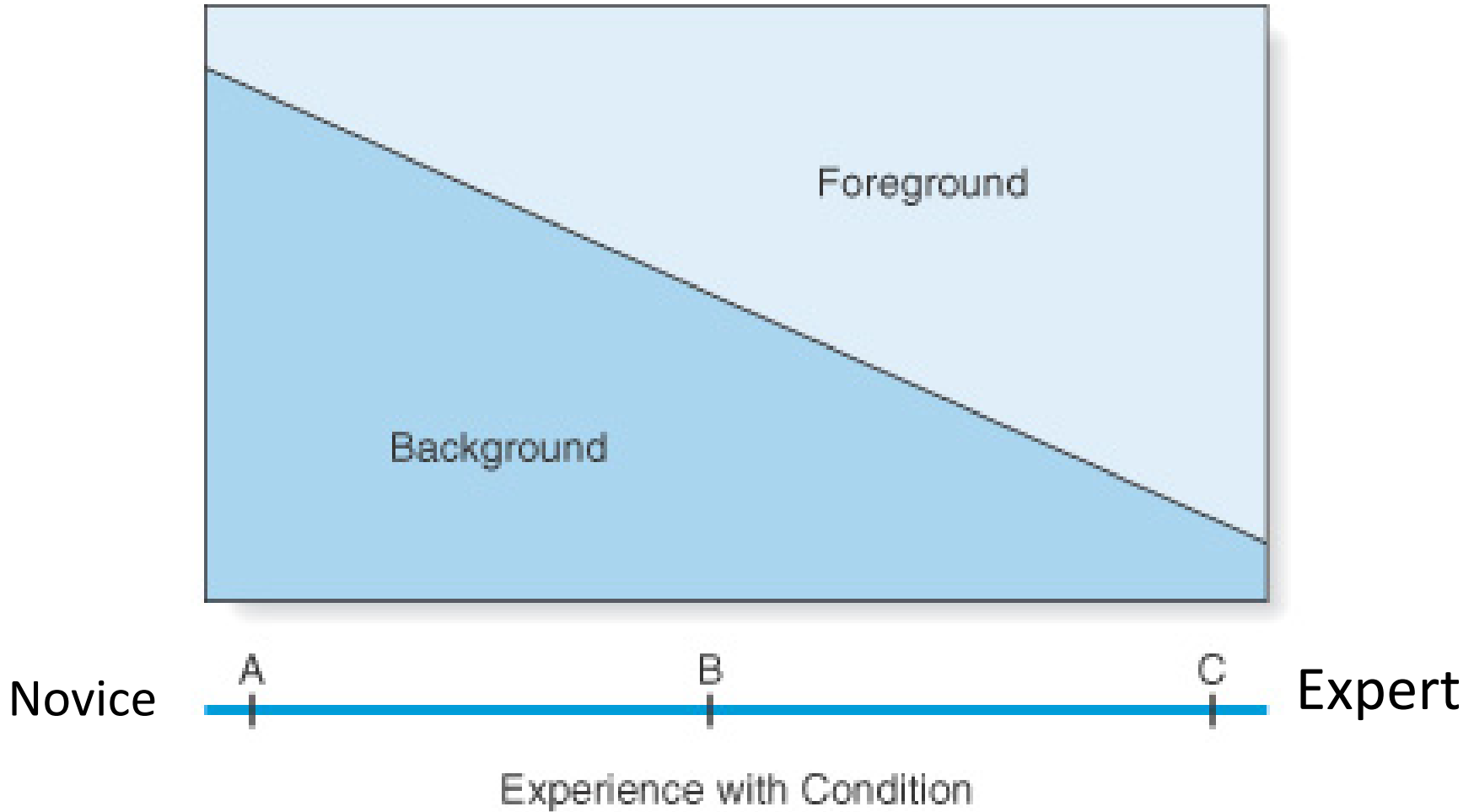
Ask

- 背景問題 (Background question)
 - 有關疾病、狀況或過程的一般知識，較廣、基本，通常可從教科書找到答案
- 前景問題 (Foreground question)
 - 必須是臨床的獨特或相關問題
 - 通常提供與臨床決策 (clinical decision making) 有關的證據

Stillwell, S. B., Fineout-Overholt, E., Melnyk, B. M., Williamson, K. M. (2010). Evidence-based practice, step by step: Asking the clinical question A key step in evidence-based practice. *American Journal of Nursing*, 110(3), 58-61.



Background vs. Foreground



© Elsevier Ltd 2005. Straus et al.: Evidence-based medicine



Background Questions

- 二種元素
 - A question root (5W1H: who, what, when, why, where, how) with a verb
 - A disorder, test, treatment, or other aspect of healthcare
- Sources: Textbooks, handbooks, databases, and ebooks

Stillwell, S. B., Fineout-Overholt, E., Melnyk, B. M., Williamson, K. M. (2010). Evidence-based practice, step by step: Asking the clinical question A key step in evidence-based practice. *American Journal of Nursing*, 110(3), 58-61.



Examples for Background Questions

- 甚麼是頭痛的原因？
- 40歲以上的女性多久要做一次乳房攝影檢查？
- 甚麼是預防壓瘡的最好的方法？
- 甚麼是敗血症？
- 利尿劑furosemide 尖峰的效果是甚麼？
- 那些治療可降低術後傷口的疼痛？
- 惡性腫瘤的傷口是如何形成的？

Stillwell, S. B., Fineout-Overholt, E., Melnyk, B. M., Williamson, K. M. (2010). Evidence-based practice, step by step: Asking the clinical question A key step in evidence-based practice. *American Journal of Nursing*, 110(3), 58-61.



Foreground Questions

- PICO(T) format
- 通常回答什麼是最有效的治療 (patient care)
- Five types of questions
 - Templates for PICOT questions
- Sources: primary literature, evidence-based extraction service, guidelines, or systematic reviews

Stillwell, S. B., Fineout-Overholt, E., Melnyk, B. M., Williamson, K. M. (2010). Evidence-based practice, step by step: Asking the clinical question A key step in evidence-based practice. *American Journal of Nursing*, 110(3), 58-61.



Foreground Questions (cont.)

PICO / PICo

P: 感興趣的病人或問題

I: 考慮的介入或暴露

C: 有關的對照組，但有些情況不需納入對照組

O: 重要的臨床結果

(T): 介入措施達到的時間

Centre for Evidence-Based Medicine, 2009, <http://www.cebm.net/?o=1014>

Templates and Definitions for PICOT Questions (1)

Question type	Definition	Template
介入或治療 (intervention or therapy)	決定何種治療可帶來做好的效果	In <u>patients with heart failure</u> (P) how does <u>doing exercise</u> (I) compared with <u>not doing</u> (C) affect <u>quality of life</u> (O) Within <u>first year of diagnosis</u> (T)
病因 (etiology)	決定一個狀況的最主要的危險因子或原因	Are <u>healthy people</u> (P) who have <u>smoking</u> (I) compared with those without <u>smoking</u> (C) at risk for <u>lung cancer</u> (O) over _____ (T)

Templates and Definitions for PICOT Questions (2)

Question type	Definition	Template
診斷或診斷 性試驗 (Diagnosis or diagnostic test)	決定何種試驗能最正確 與精準的診斷某個狀況	In <u>patients with heart failure</u> (P) are/is <u>troponins</u> _____ (I) compared with <u>CK-MB</u> (C) more accurate in diagnosing <u>acute coronary syndrome</u> (O)
預後或預測 (Prognosis or prediction)	決定某種情況的長期的 臨床病因及可能的合併 症	In <u>patients with diabetes</u> (P) how does <u>HbA1C <7</u> (I) compared with <u>HbA1C ≥7</u> (C) Influence <u>nephropathy</u> (O) over <u>5 years</u> _____ (T)
意義 (Meaning)	了解特殊個人、族群或 社區對否些經驗的意義	How do <u>undergraduate students</u> (P) With <u>attending the conference</u> (I) perceive <u>positive experience</u> (O) during <u>the clinical practicum</u> (T)

PICOT問題的範例

- 對於 ___(P)，在 ___(T) 的時間內接受 ___(I) 比接受 ___(C)，在 ___(O) 的成效為何？
- 對於 ___(P)，___(I) 比起 ___(C)，在經過(T)的時間，其預後/ ___(O)為何？
- 對於 ___(P)，___(I) 相較於 ___(C)，更能準確的診斷 ___(O)?
- 經過 ___(T) 的時間， ___(P) 之中，有 ___(I) 的人相較於沒有 ___(C) 的人，罹患 ___(O) 的風險為何？
- 在 ___(T) 的時間內，面臨 ___(I) 的 ___(P) 如何感知其 ___(O)?



PICO(T)問題

• 由臨床狀況問問題

P	I	C	O	T
使用呼吸器的重症病患	洗手	無洗手 其他方法	院內感染 機率	
正在接受手術的成人	引導式想像	音樂治療	疼痛	術後24 小時



舉例：心臟血管護理

- 對等待CABG病患，由一位心血管護理專家進行術前居家訪視及多次電訪的介入性措施，能否減輕病患的焦慮與憂鬱？
- **P:**等待CABG病患
- **I:**心血管護理師的術前居家訪視及多次電訪
- **C:**無
- **O:**病患的焦慮及憂鬱減輕



舉例: ICU

- 對機械性換氣的ICU病患採半坐臥姿，能否比採平躺姿勢有較低的院內感染性肺炎機率？
- **P:**機械性換氣的ICU病患
- **I:**半坐臥姿
- **C:**平躺姿勢
- **O:**較低的院內感染性肺炎機率



舉例:感染控制

- 醫院護理人員使用抗菌性泡沫劑可否與以水及肥皂洗手減少相同的手部細菌數?
- **P:**醫院護理人員
- **I:**使用抗菌性泡沫劑
- **C:**以水及肥皂洗手
- **O:**減少相同的手部細菌數



舉例:產科

- 在醫院生產的婦女採其它姿勢，能否比截石臥式有較低的生產輔助機率？
- **P:**在醫院生產的婦女
- **I:**截石臥式以外的姿勢
- **C:**截石臥式
- **O:**較低的生產輔助機率



舉例:內外科護理

- 內外科護理人員進行床旁交班，能否比傳統護理站交班有較佳的病患照護滿意度？
- **P:**內外科護理人員
- **I:**進行床旁交班
- **C:**傳統護理站交班
- **O:**較佳的病患照護滿意度



舉例：癌症護理

- 末期癌症患者維持書寫疼痛日記能否比無介入性措施有較低的自我報告疼痛分數？
- **P:**末期癌症患者
- **I:**維持書寫疼痛日記
- **C:**無介入性措施
- **O:**較低的自我報告疼痛分數



舉例:恢復室

- 對恢復室病患在一般照護外另加播放柔和音樂能比只進行一般照護方法能降低主觀的疼痛分數
- **P:**恢復室病患
- **I:**一般照護+播放柔和音樂
- **C:**只有一般準照護
- **O:**降低主觀的疼痛分數



舉例：精神科護理

- 慢性精神分裂症住院病患進行團體社交技巧訓練課程較一般照護方式能提升對話技巧
- **P:**慢性精神分裂症住院病患
- **I:**團體社交技巧訓練課程
- **C:**一般照護方式
- **O:**提升對話技巧（與同儕互動的次數）



舉例:胸腔護理

- COPD患者接受預防性heparin時，注射30秒能否比注射10秒有較少的瘀青範圍？
- **P:**接受預防性heparin 的COPD患者
- **I:** heparin注射時間為30秒
- **C:** heparin注射時間為10秒
- **O:**減少瘀青的範圍



舉例: Wound Care

- 老年糖尿病併有第三期足潰瘍患者，使用負壓傷口治療能否比一般濕敷傷口治療有較好的傷口癒合？
- **P:**老年糖尿病併有第三期足潰瘍患者
- **I:**負壓傷口治療
- **C:**一般濕敷傷口治療
- **O:**較好的傷口癒合（潰瘍傷口分期）



Practice time!