

從冒險到無懼



資深醫護人員處理過嗎？

常見的異常事件原因

A sentinel event is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof.

Most Frequently Identified Root Causes of Sentinel Events Reported by The Joint Commission by Year

Year	Human Factors	Communication	Medication	Equipment	Environment	Other
2010	28	25	25	25	25	25
2011	28	25	25	25	25	25
2012	28	25	25	25	25	25
2013	28	25	25	25	25	25
2014	28	25	25	25	25	25
2015	28	25	25	25	25	25
2016	28	25	25	25	25	25
2017	28	25	25	25	25	25
2018	28	25	25	25	25	25
2019	28	25	25	25	25	25

事件



冒險只發生在
“搶救”“緊急”？



專家團隊 ≠ 團隊專家

台大醫院 萬芳醫院



Table with 4 columns: Category, Item, Score, and Total Score.

Category	Item	Score	Total Score
History taking	1. History taking	10	40
	2. History taking	10	40
	3. History taking	10	40
	4. History taking	10	40
Physical examination	1. Physical examination	10	40
	2. Physical examination	10	40
	3. Physical examination	10	40
	4. Physical examination	10	40
Management plan	1. Management plan	10	40
	2. Management plan	10	40
	3. Management plan	10	40
	4. Management plan	10	40

藉由模擬讓學生瞭解知識不等同於能力
藉由模擬讓學生及早經驗實際
藉由模擬讓學生發覺不足
藉由模擬讓學生面對壓力

結論

- 醫療模擬訓練可以降低錯誤增進病人安全
- 模擬提供安全環境來犯錯以增進才能學習
- 模擬訓練是培訓專業素養的好工具
- 個別診斷也可由模擬來訓練

台灣急診醫學會副秘書長 AHA 區域主任導師
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影片出處：醫院會(已剪輯)



沒有呼吸了 他不呼吸了



資淺醫護人員處理過嗎？

資淺醫護人員會處理嗎？

資淺醫護人員都準備好了嗎？

我們教過他怎麼處理嗎？

我們怎麼走過來的？

常見的異常事件原因

A sentinel event is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof.

Most Frequently Identified Root Causes of Sentinel Events Reviewed by The Joint Commission by Year

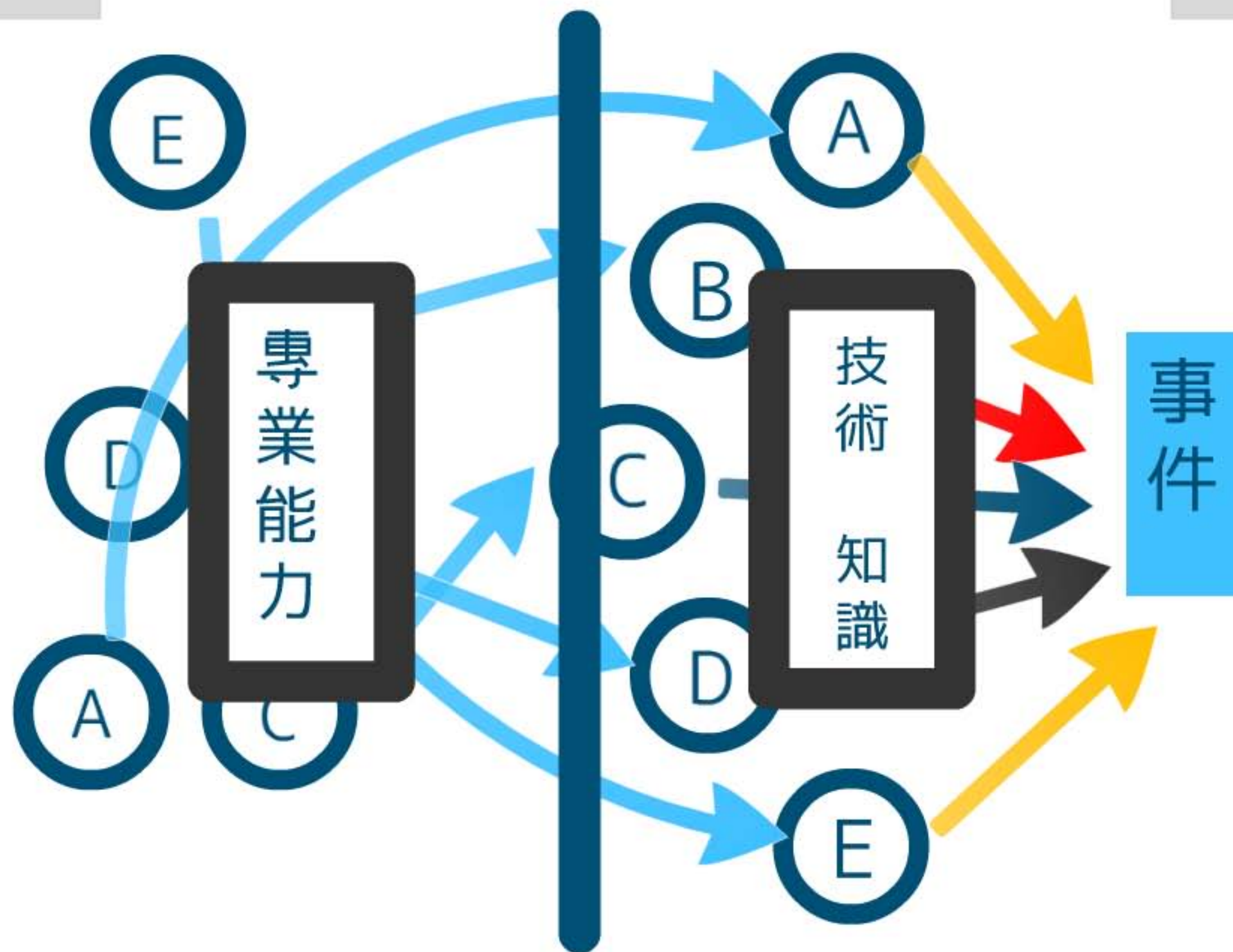
*The majority of events have multiple root causes
(Please refer to subcategories listed on slides 5-7)*

2010 (N=802)		2011 (N=1243)		2012 (N=901)	
Leadership	710	Human Factors	899	Human Factors	614
Human Factors	699	Leadership	815	Leadership	557
Communication	661	Communication	760	Communication	532
Assessment	555	Assessment	689	Assessment	482
Physical Environment	284	Physical Environment	309	Information Management	203
Information Management	226	Information Management	233	Physical Environment	150
Operative Care	160	Operative Care	207	Continuum of Care	95
Care Planning	135	Care Planning	144	Operative Care	93
Continuum of Care	112	Continuum of Care	137	Medication Use	91
Medication Use	86	Medication Use	97	Care Planning	81

Most Frequently Identified Root Causes of Sentinel Events Reviewed by The Joint Commission by Year

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專家團隊 ≠ 團隊專家

台大醫院 馬彗明教授

從急診轉送到加護病房 護理師跟傳送阿姨..... 非演出



冒險只發生在
“搶救” “緊急”？

急診搶救佔____%

急診搶救佔____%

鑑別診斷

醫學 iOSCE

第1站
病史+ 體格檢查
(8+2min)
標準病人 + 虛擬病人
SP DxR

第2站
鑒別診斷
(10min)
DxR

第3站
各項檢查
(10min)
DxR

第4站
最終診斷
(10min)
DxR



请简要描述患者的主要病情。

请输入新的拟诊...

添加

您的拟诊列表...

排列拟诊

上移

下移

删除

完成

向"笔记"中添加拟诊

向笔记中添加DDx

- 问诊
- 体检
- 辅助检查
- Dx 拟诊
- Dx 诊断
- Rx 处置
- 待判读
- 咨询
- 查看
- 添加
- 笔记
- 学习
- 病历书写
- 问题列表

正在研究的拟诊
选择所有适用的项目

辅助检查

常用辅助检查

- 血液 A-P
- 血液 Q-Z
- 尿液
- 粪便
- 脑脊髓
- X线
- 核医学
- 超声
- CT
- MRI
- 电生理检查法
- 心血管
- 胃肠道
- 遗传学
- 血液学
- 免疫学
- 微生物学
- 特殊检查
- 其他

搜索

常用辅助检查

- 血常规 (CBC)
- 红细胞沉降率 (ESR)
- 尿常规 (UA)
- 大便潜血 (愈创木脂、潜隐血)
- 谷丙转氨酶 (SGPT) - ALT
- 带有心律长条图的 EKG (ECG)
- 胸部平片 (X线) (CXR)
- 革兰染色
- 咽拭子培养
- 血胆红素
- 白细胞碱性磷酸酶
- 乳酸脱氢酶 (LDH)
- 谷草转氨酶 (SGOT) - AST
- 血钙, Ca
- γ-谷氨酰转氨酶 (GGT)

cn demo.dxrclinician.com/DxR/Thomas_class/Clarke/mainSet.html

正在研究的拟诊
选择所有适用的项目

辅助检查

常用辅助检查

血液 A-P

血液 Q-Z

尿液

粪便

高尿酸

X线

影像学

超声

CT

MR

电生理检查法

心电图

胃镜

遗传学

血液学

免疫学

微生物学

特殊检查

其他

搜索

X线透视
X线片 (BE)
胸片 (X线)
颈椎 X线检查
腰椎 X线检查
髋关节 X线 (KUB + X线)
股骨 X线
骨盆 X线
骨密度测定 - 前臂
骨密度测定 - 双髋 X线扫描及测量
骨密度测定 - 腰椎
骨 X线检查
骨扫描
关节 X线
膝关节 X线
踝关节 X线

需要获取某些辅助检查的信息，
请点击“辅助检查信息”，然后
点击该检查名称。

辅助检查信息

执行



问题列表

cn demo.dxrclinician.com/DxR/Thomas_class/Clarke/mainSet.html

问诊

体检

正在研究的拟诊
选择所有适用的项目

辅助检查

转送信息

iOSCE

i=

integrated

informatic

investigative

innovative

整合性

資訊性

探索性

創新性

问题列表

cn demo.dxrclinician.com/DxR/Thomas_class/Clarke/mainSet.html

问诊

体检

正在研究的拟诊
选择所有适用的项目

辅助检查

转送信息

OSCE=

Objective Structured Clinic Examination

客觀性結構式臨床考試

問題列表

cn demo.dxrclinician.com/DxR/Thomas_class/Clarke/mainSet.html

问诊

体检

正在研究的拟诊
选择所有适用的项目

辅助检查

转送信息

$iOSCE = SP + VP$
 $iOSCE = \text{標準病人} + \text{虛擬病人}$

問題列表

cn demo.dxrclinician.com/DxR/Thomas_class/Clarke/mainSet.html

问诊
体检

正在研究的拟诊
选择所有适用的项目

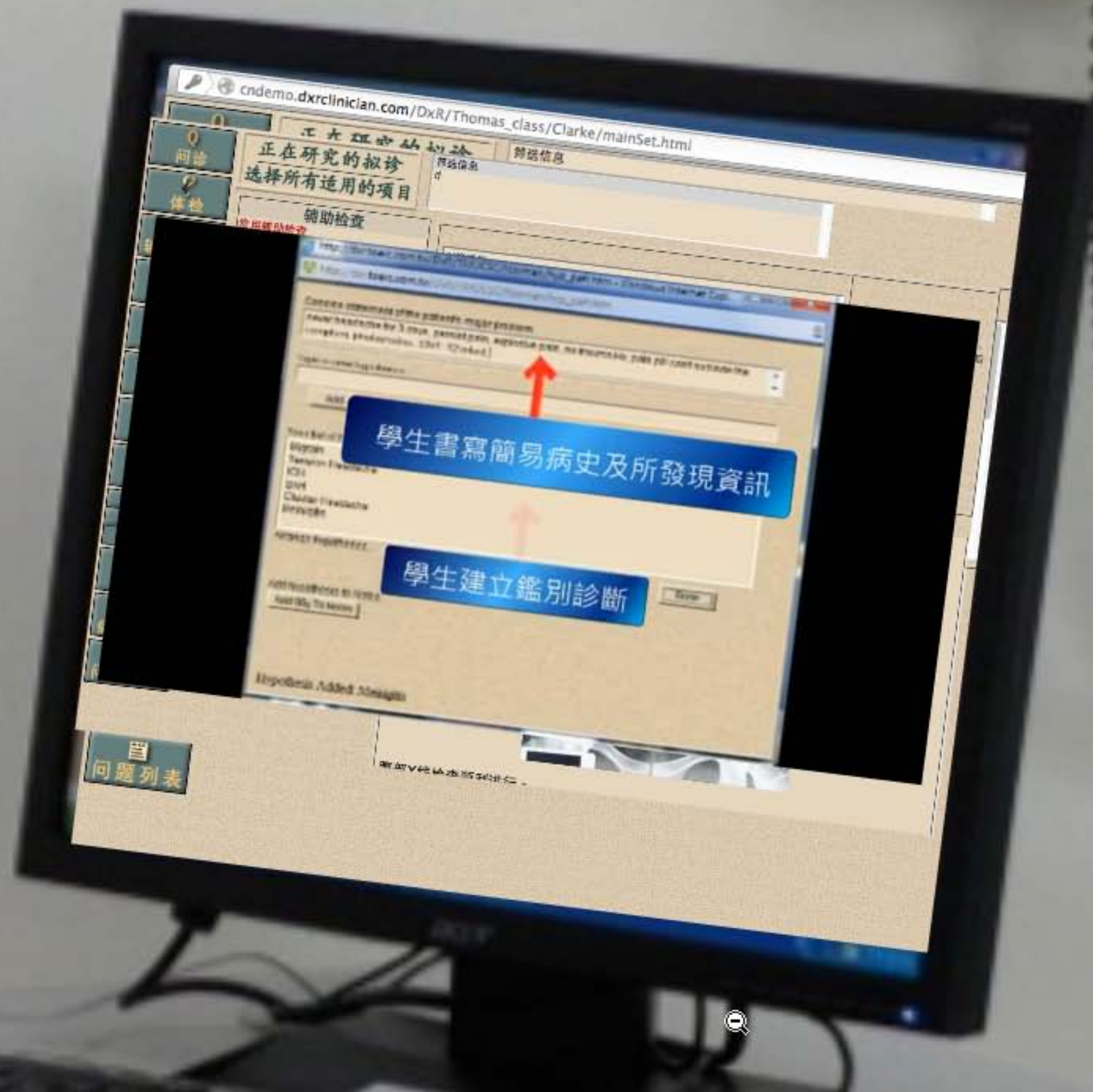
辅助检查

转送信息

學生和標準病人互動8分鐘後，
2分鐘由老師和標準病人給予學生回饋，
一站共計10分鐘

問題列表





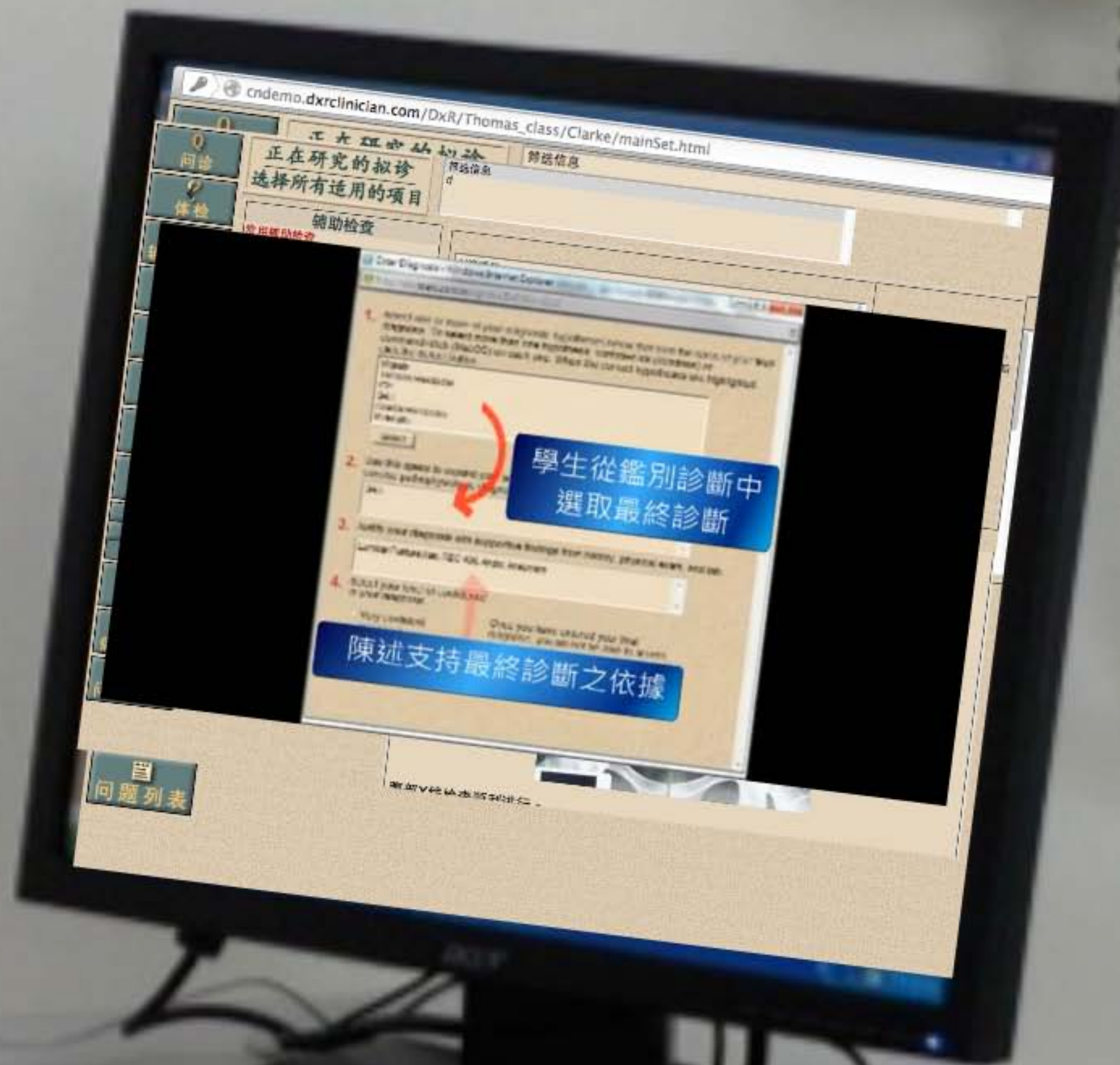
正在研究的拟诊
选择所有适用的项目

辅助检查

學生書寫簡易病史及所發現資訊

學生建立鑑別診斷

問題列表



cndemo.dxrclinician.com/DxR/Thomas_class/Clarke/mainSet.html

问诊

体格

正在研究的拟诊
选择所有适用的项目

辅助检查

转送信息

學生從鑑別診斷中
選取最終診斷

陳述支持最終診斷之依據

问题列表



An integrative OSCE methodology for enhancing the traditional OSCE program at Taipei medical university ospital - a feasibility study

Che-Wei Lin^{1,2†}, Daniel L Clinciu^{3,4†}, Mark H Swartz^{5†}, Chien-Chih Wu⁶, Gi-Shih Lien⁷, Cho-Yu Chan⁶, Fei-Peng Lee⁸ and Yu-Chuan Li^{1,9*}

Abstract

Background: Continuous development and use of new technologies and methodologies are key features in improving the learning, performance, and skills of medical students and students of all health care professions. Although significant improvements in teaching methodologies have been made in all areas of medicine and health care, studies reveal that students in many areas of health care taking an objective structured clinical examination (OSCE) express difficulties. Thus, this study was planned as a feasibility study to assess the educational effectiveness of an integrated objective structured clinical examination (IOSCE) using both standardized patients and virtual patients.

Methods: Thirty (30) medical students in their first year of internship at Taipei Medical University volunteered to be part of a feasibility study for demonstrating the concept of IOSCE. They divided themselves into five groups of six students each and were requested to evaluate two cases: 1) a patient with abdominal pain and 2) a patient with headache using a combination of a standardized patient and a virtual patient. For each of the two cases, five stations were designed in which students were given ten minutes per station leading to a final diagnosis and concluded with a debriefing. The five stations were:

- Station 1) Interacting with the standardized patient.
- Station 2) Writing the patient note and developing a differential diagnosis.
- Station 3) Selecting appropriate laboratory and imaging studies.
- Station 4) Making a final diagnosis and stating the evidence for it.
- Station 5) Having the debriefing.

Each group of 6 students was assigned 2 hours per day for each case. All participants completed a survey regarding the usefulness and efficiency of the IOSCE.

Results: All medical students (30/30; 100%) found the IOSCE program to be very satisfactory, and all expressed that they would like to have further IOSCE experiences if given the opportunity. In terms of ease and helpfulness, the students rated the program an average of 4.4 for the 1st case (abdominal pain) and 4.5 for the 2nd case (headache) on a scale of 1–5, with 5 being the highest and 1 being the lowest score.

(Continued on next page)

Table 1 The participants' rating of iOSCE for case 1 (abdominal pain)

Rating scale (1–5)	Clinically relevant	Improving clinical skills	Helpful	Difficult	Will attend again
Strongly agree (5)	18	19	17	4	23
Agree (4)	11	10	12	12	7
Somewhat agree (3)	1	1	1	12	0
Disagree (2)	0	0	0	0	0
Strongly disagree (1)	0	0	0	0	0
Average score	4.6	4.6	4.5	3.4	4.8

Table 2 The participants' rating of iOSCE for case 2 (headache)

Rating scale (1–5)	Clinically relevant	Improving clinical skills	Helpful	Difficult	Will attend again
Strongly agree (5)	18	18	21	8	23
Agree (4)	12	11	9	13	7
Somewhat agree (3)	0	1	0	7	0
Disagree (2)	0	0	0	0	0
Strongly disagree (1)	0	0	0	0	0
Average score	4.6	4.6	4.7	3.9	4.8

# of Students	Criteria Item	# of Students Satisfactory
8	Blood A-G 16 Amylase or equivalent	0
21	Blood A-G 24 Bilirubin (Blood)	
20	Present Illness 03 Have you noticed anything that makes the problem better or worse? or equivalent	
1	Present Illness 16 Have you recently been injured? When and what kind of injury? or equivalent	
28	Present Illness 01 Why are you here today? What problems are you having? or equivalent	
13	General 12 Fever or equivalent	
29	Present Illness 05 Can you describe the symptoms? or equivalent	
9	Present Illness 06 How severe are the symptoms? Minor? Debilitating? or equivalent	

Figure 2 The statistics table from the Utility Record. Using the Utility Record the faculty and trainers can see the performance of each student and use it as feedback when training or teaching.

藉由模擬讓學生瞭解知識不等於能力

藉由模擬讓學生及早經驗實際

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- 鑒別診斷也可由模擬來訓練

今天我努力把你教好

因為 明天我是你的病人

