醫學人文教育研討會

暨團隊第九次會議

日期：2008 年 11 月 22、23 日

主辦：醫學人文教育核心團隊計畫辦公室

協辦：黃達夫醫學教育促進基金會

醫學人文教育研討會暨核心團隊第九次會議

時　間	內　　容
11 月 22 日（星期六）　　目標：達成共識	
10:30~10:45	台北劍潭捷運站集合（二號出口文林路側）
10:45~11:30	搭乘專車到陽明山中國麗緻大飯店，將行李放在 202 房
11:30~13:30	與美食約會（4F 擎天廳）
13:30~14:00	**相見歡**：互相認識（1F 貴賓廳）
14:00~15:30	**與大師有約（一）**：龍應台教授主講：誰說人文要進入醫學教育？—從「瘟疫」談起（1F 貴賓廳）
15:30~16:00	茶點時間
16:00~16:40	**心靈交流**：簡報之前討論，學生分享對醫學人文的看法（陳崙至、李奇郡、王詩晴、劉介修）（1F 貴賓廳）
16:40~18:00	**挑戰智慧**：老師與學生對如何改善醫學人文教育分組交換意見（1F 貴賓廳）
18:00~19:30	與筷子共舞（2F VIP1+2）
19:30~21:30	**歡樂時光**：團隊老師、眷屬及學生互相認識（4F 擎天廳）
11 月 23 日（星期日）　　目標：展望未來	
07:00~08:00	與美食約會（2F 天荷廳）
08:00~09:30	**各自耕耘**：老師分組確認課程、師資、行政之建言；學生討論明年活動（1F 貴賓廳、4F 擎天廳外）
09:30~11:30	**共築願景**：老師與學生共同討論明年計畫目標、各組工作內容，以及各校團隊的成立和運作（1F 貴賓廳）
11:30~13:00	與筷子共舞（2F VIP1+2）
13:00~14:30	**與大師有約（二）**：陳東升教授主講：醫療專業人才的培育—一個社會學的觀點（1F 貴賓廳）
14:30~15:00	**團結共語**：老師與學生分享這兩天的收穫（1F 貴賓廳）
15:00~16:00	搭乘專車到劍潭捷運站

參加人員名單　（按姓名筆畫）

編號	姓　名	單　　位
01	王心運	高醫醫學系
02	王珍華	國防識教育中心
03	王英偉	慈濟教學發展中心
04	王詩晴	慈濟醫學系五年級
05	白裕彬	長庚醫務暨醫管所
07	江漢聲	輔仁醫學院
08	何明蓉	臺大社會醫學科
09	宋晏仁	陽明大學／衛生署
10	李奇郡	成大醫學系五年級
11	李鈺玲	陽明醫學系五年級
12	沈仁翔	長庚醫學系三年級
13	沈志宇	北醫醫學系三年級
14	林秀娟	成大附設醫院
15	林維書	輔仁醫學系三年級
16	林馥郁	成大醫學系六年級
17	柯毓賢	長庚醫學系
18	柳林瑋	高醫醫學系四年級
19	徐畢卿	成大護理學系
20	張寓智	長庚神經內科
21	張燕娣	陽明研發處
22	梁繼權	臺大家庭醫學科
23	許木柱	慈濟人文社會學院
24	許儷絹	中國社會醫學科
25	連珖旭	中山醫學系二年級
26	陳則宇	臺大醫學系二年級
27	陳昱璁	高醫醫學系四年級
28	陳柏勳	長庚中醫系二年級
29	陳耑至	中國中醫系一年級
30	陳景祥	和信醫院內科

編號	姓　名	單　　位
31	陳咏亮	基隆醫院復健科
32	揚振亞	陽明醫學系五年級
33	黃志賢	陽明醫學系
34	黃怡超	陽明傳統醫藥研究所
35	黃淑玲	國防通識教育中心
36	楊仁宏	中山教師成長中心
37	楊毅暉	國防醫學系二年級
38	劉介修	聯勤司令部
39	蔡甫昌	臺大社會醫學科
40	蔡尚穎	北醫附設醫院
41	蔡承烜	中國醫學系四年級
42	賴其萬	和信醫院
43	戴志展	中國醫學倫理委員會
44	鍾飲文	高醫通識教育中心

各校名單

編號	姓 名	單　　位
01	楊仁宏	中山教師成長中心
02	連珑旭	中山醫學系二年級
03	陳耑至	中國中醫系一年級
04	許儷絹	中國社會醫學科
05	陳景祥	中國畢業
07	蔡承烜	中國醫學系四年級
08	戴志展	中國醫學倫理委員會
09	陳榮邦	北醫放射線學科
10	蔡尚穎	北醫附設醫院
11	沈志宇	北醫醫學系三年級
12	林秀娟	成大附設醫院
13	李奇郡	成大醫學系五年級
14	林馥郁	成大醫學系六年級

編號	姓 名	單　　位
15	陳柏勳	長庚中醫系二年級
16	張寓智	長庚神經內科
17	白裕彬	長庚醫務暨醫管所
18	柯毓賢	長庚醫學系
19	沈仁翔	長庚醫學系三年級
20	劉介修	高醫畢業
21	鍾飲文	高醫通識教育中心
22	王心運	高醫醫學系
23	柳林瑋	高醫醫學系四年級
24	陳昱璁	高醫醫學系四年級
25	王珍華	國防通識教育中心
26	黃淑玲	國防通識教育中心
27	楊毅暉	國防醫學系二年級
28	黃怡超	陽明傳統醫藥研究所
29	黃志賢	陽明醫學系
30	李鈺玲	陽明醫學系五年級
31	揚振亞	陽明醫學系五年級
32	許木柱	慈濟人文社會學院
33	王英偉	慈濟教學發展中心
34	陳咏亮	慈濟畢業
35	王詩晴	慈濟醫學系五年級
36	何明蓉	臺大社會醫學科
37	蔡甫昌	臺大社會醫學科
38	梁繼權	臺大家庭醫學科
39	陳則宇	臺大醫學系二年級
40	林維書	輔仁醫學系三年級
41	江漢聲	輔仁醫學院

（一） 醫學畢業生核心能力之培養

1. 雖然我們對醫學畢業生某些要求無法用結果（outcomes）衡量，但我們還是可以建立共同的標準，作爲各校對畢業生基本要求的參考，也可以當作評鑑的依據，但各校可以發展自己的特色或重點。
2. 對於核心能力的選擇，需要與相關人士達成共識，作爲醫學教育的目標；這些包括教師、醫院的醫事人員、學校行政人員、學生、家長及社會大眾。
3. 在各項核心能力下，需詳細列出給領域的知識、技能和態度，並區分不同年級的學生所要達到的目標。
4. 我們需視台灣現今的情況，定期檢視我們的標準是否需做修正。
5. 目前整理的內容，包括以下幾項目：
   - 「知識＋技能」是我們所要教授給學生的東西，也就是課程部份，但除了考量其內容，也必須考慮教學方式。許多技能會在不同課程裡重複，如自我學習、團隊合作、溝通技巧等，所以課程設計必須是整合的。
   - 「態度」則較難學習，最好能在挑選學生時就先做篩選。不過一旦招收了，我們需要照顧到所有學生；若我們能夠塑造一個良好的環境，並提供優良的做事模式和榜樣，相信可以「薰陶」大多數（中段）學生。
   - 「組織／制度」代表社會、學校等大小環境的影響，也就是 organization 的部份，或是主流價值、hidden curriculum。
   - 「行爲／結果」就是 outcomes，是可以被觀察、衡量及考試的東西，也是我們希望學生在學校的學習結果。我們需針對不同年級的學生，設計不同深淺度的課程，讓學生有次第的學習，達到最高境界的結果。
   - 「習慣」或 habit，是我們希望學生養成的長期行爲。

（二） 醫學人文的定義和範疇

1. 我們暫時借用其他學校對醫學人文的定義，例如美國紐約大學和倫敦大學學院；他們同樣強調跨領域，認爲其包括不同學科：有人文（文學、歷史、哲學、倫理、宗教）、社會科學（心理學、文化學、社會學、人類學）、藝術（文學、戲劇、電影、視覺藝術），以及其在醫學教育和醫療的運用（如醫學倫理、醫學社會學、醫療史等）。
2. 人文和藝術學科能夠讓我們多瞭解人類之狀態、受苦的經驗、位格／個人本質觀／人觀（personhood）、人與人之間的責任、以及對醫療有歷史觀等，同時也培養學生一些人性照顧的基本技能，例如觀察力、分析能力、同理心、自我反省等；而社會科學協助我們瞭解生物科學和醫學如何發生在文化和社會的脈絡下，以及文化如何和個人生病經驗及醫療行爲產生相互影響。
3. 醫學人文教育不只限制於醫學系的學生，其他醫學相關科系的學生也需要該領

（三） 醫學人文教育的重要性

1. 因爲醫學涉及最尖端科學，但又關係人，需要良好的醫術和品德。
2. 醫療工作責任重大，醫師也需兼顧自己身、心、靈、社會發展。
3. 醫學生處於「什麼都不能做」及「什麼都能做」蕩漾之間，許多醫學生剛開始都懷有理想抱負，但隨著種種壓力，熱誠會減退，產生 “ethical erosion”，是我們需避免的。
4. 按照 Jane Macnaughton 的解釋，人文和藝術的訓練，可以讓醫師有洞察力、論理和「受教」(包括適應能力、個人發展、寬廣的視野等)，能夠在臨床的判斷上除了技術方面，也增加人性面的判斷。

（四） 醫學人文與通識教育的區隔

1. 一般認爲通識教育即「博雅」或「全人」教育，是訓練大學生對許多事務能夠瞭解、分析及批判，但又有開放的心胸及彈性等，也就是達到「廣闊」; 其範圍可包括自然科學、人文、藝術、語文、心理與社會學科、法律、管理、資訊等。
2. 目前因爲各校通識和醫學人文課程之間師資、配合程度等不同，應該依據個別情況盡量合作，相輔相成。

（五） 醫學人文核心課程的定訂

1. 透過醫學畢業生核心能力的認定，我們將可以找出其中哪些是醫學人文的範疇，並包括哪幾個核心領域。

（六） 課程安排及設計之原則與指導方針

1. 醫學人文教師需對學生有一定水準的要求，不要讓課程淪爲營養學分。要做到這點，教師本身需要有足夠的專業水準、教學技巧，和良好的課程設計，並對課程列出合理明確的要求。
2. 課程設計必須有連貫性，從低年級到高年級要循序漸進(也就是需要做 vertical integration)，從一般觀念到專業素養。例如學生必須修過社會學才能進入醫學社會學。
3. 課程的安排必須考量學生的需求，例如倫理和溝通技巧課程在低年級和高年級的內容不同。

（七） 醫學人文課程的教學

1. 鼓勵人文社會科老師與醫師合作教學（team teaching），使其內容較與醫療有關。
2. 利用典範學習讓學生有榜樣可以學習，情境教學可以使內容更有趣。
3. 利用服務學習和實踐課程讓醫學人文課程更具實質性和關聯性，並可以結合社區的其他資源，擴大師資和教學題材，例如讓病人、原住民、民間團體等當學生學習的對象。

（八） 針對隱形課程（hidden curriculum）的問題

1. 【待進一步討論】

（九） 醫學人文師資的延攬

1. 問題敘述：主要在醫學大學裡，較難找到人文的師資。尤其年輕剛拿到博士學位的人文老師，比較會希望在本科系裡，這樣他們有許多同儕或前輩學者可以協助增長自己的專業，而且有些會排斥到醫學院上課。但有少部份老師，喜歡獨自工作，或是喜歡與不同領域的學者在一起。
2. 問題分析：可以分爲內部和外部資源去開發，如以下各建議：
3. 建議：在醫學大學裡，可以找較資深的人文學者，或是喜歡跨領域的老師，並鼓勵他們就近從事醫療相關議題的研究，才能結合研究和教學。
4. 建議：提供實質回饋，讓臨床醫師能參與人文的教學，例如認可授課和聽課的醫師可獲得繼續教育學分，一方面讓醫師較願意參與教學，另一方面也鼓勵臨床醫師去聽課。
5. 建議：設立榮譽講座，鼓勵退休的醫師參與人文教學。
6. 建議：在校內提供時間和空間，讓老師定期聚會互相認識，進而討論如何合作，例如成大的 TGIF（每週五聚會）。
7. 建議：建立人文師資的人力庫，利用回饋式的跨校合作，讓不同領域的老師互相到其他學校上課。
8. 建議：透過區域性的跨校策略聯盟，讓老師到不同學校上課，解決師資不足的問題。不過，需要提供老師一些資源，例如交通費、教材準備費、上課時數等。許多學校的經驗是跨校修課對學生來說有行政、交通、時間上的限制等，所以在學生方面推動較沒成效，但是在老師方面比較可行。
9. 建議：將每星期的某一天定爲醫學人文課程日，方便學校安排課程，也讓學生較不會衝堂，並且讓不同學校的老師可以互相支援。

（十） 師資的留用（升等、薪資）

1. 問題敘述：人文的師資有兩種：一種是醫學背景的去做人文，另一種就是人文

2. 建議各校的教評會改善醫學人文教師升等辦法，可參考國科會人文處的標準，要求各校明確區隔醫學人文（社會）學科老師與自然科學、醫學類老師之升等條件，以鼓勵醫學人文老師。
3. 建議：也可以用該學術領域的 peer review，審核老師的升等。可以考慮將來由 MEH 團隊推薦一個有公信力的 peer review。
4. 建議：不要讓臨床醫師的升等變成只能選擇服務、研究或教學某單一部份，而不能混合搭配兩個部份。
5. 需增加人文師資的酬勞和資源，並減少他們教學外的其他工作，如行政工作和參加會議等。
6. 對於臨床醫師參與人文的教學，也要顧及薪水的保障。

（十一） 師資的培訓

1. 【待討論】（1）人文、（2）臨床的新老師、（3）較資深的師資，需要什麼樣的訓練？

（十二） 學校政策之原則與指導方針

1. 各校應明確整合「醫學人文」教育之負責單位，以收權責相輔之效。
2. 各校需清楚訂出醫學生畢業時應具備的醫學人文核心能力（含知識、技能及態度），以提供課程規劃之參考，並有明確的成果（outcomes）評估。
3. 鼓勵各校成立「醫學教育研究中心」統籌研究並督導各校醫學人文教育的規劃、執行與評估。
4. 鼓勵各校成立「人文藝術中心」，統籌規劃各校醫學人文相關活動，以培養並塑造醫學人文藝術的氛圍。
5. 鼓勵各校成立醫學人文藝術（季、月、週）活動聯盟，統一全國各醫學院之藝術活動，以收資源共享之效果。
6. 建議未來對於醫學院領導人的遴選時，應該要有個公開理念討論的機制。

（十三） 醫院政策之原則與指導方針

1. 賦予醫學院院長與醫學系系主任在醫院行政架構上有適當的位置與資源，以貫徹其醫學人文教育的理念。
2. 建議未來對於醫院領導人的遴選時，應該要有個公開理念討論的機制。
3. 建議醫院的獎金一部份作爲基礎研究（包括人文）的獎金。

（十四） 給教育部的建言

1. 請教育部針對人文師資、課程、教學評估等訂定明確的原則和指導方針（principles and guidelines）給各校。
2. 原提案：教育部對董事會成員與校長之適任性與遴選機制可納入醫學人文素養之考量。
   回應：對於人學素養的定義有困難，但可以從討論有哪些素養是作爲領導者所需具備的重要特色來決定。

（十五） 給評鑑單位的建言

1. 請醫學院評鑑委員會（TMAC）和醫策會訂定明確的規範和指導方針（guidelines），將醫學人文教育理念與實務的成效列入評鑑的要件中。
2. 將學校和教學醫院的適當組織架構模式、相關人員任用之規範納入評鑑。
3. 醫院評鑑中對教學醫院之組織文化、經營管理模式進行監測或規範。

（十六） 其他建言

1. 原提案：健保局、教育部或衛生署的 3%教學費用，需部分提撥予學校，而學校需將固定比例之教學費用指定用於醫學人文教育上。
   回應：衛生署的錢要跨部會提撥會有困難，而健保的錢目前則被立法院凍結中。
   修正提案：希望各醫院對於教育的部份能有明確的 performance 指標，包括將醫學人文也納入指標當中。
2. 原提案：結合全國各醫學院校與社會資源，成立「醫學人文教育基金」以強化醫學人文教育資源。
   回應：現在政府的氛圍在縮減基金數，要在成立基金可能有點困難，特別是目前大學已經有所謂的校務基金，各校很難再成立新的基金，除非是由教育部內部所成立，但也不確定是否真的可行。
   修正提案：邀請現有的基金會，例如黃崑巖教授的，一起參與推動醫學人文教育。
3. 提案：專科醫學會與醫師公會對「醫療專業主義 professionalism」（即自我紀律和高品質的要求）的倡導與教育，各醫療院所協會對「醫院組織文化」的倡導與教育。

學生對課程的建議

1. 課程的主題及重要性必須能充分凸顯
   - 要讓學生在開始醫學人文課程時，或初進大學時，就了解「爲什麼要學習醫學人文」
   - 例如在一堂課的開始就丟出許多醫學上面臨的**兩難問題➔**
     >>了解學習醫學人文在醫療行爲中的實務性(了解**互動溝通，與人相處的難處及重要**)。
     >>對現實矛盾狀況產生反思，是一個認識自己的過程
   - **醫學生涯、醫師扮演的角色**等相關主題，希望能聽到老師們以**「真實」情況**跟學生分享。
   - 真實的現實狀況、沒有名的醫師(轉角的小兒科醫師)給與的分享可能更親民更實際。每堂課都是崇高的大教授，最後可能讓大家覺得「又不是每個人都能想院長」
   - 「沒有熱情就趕快轉系吧」這個恐嚇很多人都聽老師說過，但實際上並不合宜。醫學人文應該能夠透過這樣的學習讓學生漸漸喜歡上醫學找到自己的定位跟了解自己想要成爲的醫師，而非警告學生現在不喜歡就趕快走人。
   - **若課程訴求爲自我建設方面，應該清楚的將此訊息傳達出來。**

2. 醫學人文課程必須具備連貫性，不宜在一二年級之後就斷線。
   - 強調永續學習可以略區分不同知識背景而設計課程
     >>一二年級著重於人文方面的醫學人文，如透過社區服務了解醫療角色
     >>三四年級著重於醫學部份的人文，如像在胚胎時合併討論墮胎，呼吸生理或循環生理時一併討論插管及葉克膜的爭議，病理時一併討論乳癌的穿刺、切除等議題。
     >>五六七年級進入醫院後以個人接到或遇到的人文, 倫理,法律問題個案討論(不應該再給予一個教案來模擬)
   - 教學內容要與潮流(current issues: 性別，新移民等現實議題)相接軌

3. 課程應具備學生自主性
   - 課程設計討論委員會希望學生能參與其中，應包含有修與未修過該堂課的同學共同討論，未修過的學生可提出自己想要學什麼，也可以經過聽取學長姐及老師的討論，更深入的瞭解自己應該在這堂課中學到什麼。已修過課的學長姐則可以提供非常務實的經驗，哪些老師好、哪些老師不太適合、怎樣的活動 loading 會太大、哪些時間點不適合跑社區服務等細節。

- 醫學生涯，關懷等等名人講座性質的講者選擇希望可以讓學生一起參與，增加由學生自己挑的講者，一定會比較有興趣、有意願聽課(例如一半的講者由校方選，另一半的講者於學期初時以選項及指名的方式由學生選)。

4. 人際互動、社會關懷等課程應具備實務性
   - 透過服務學習、社區活動、關懷、自主設計課程等，從實踐中學習或從錯誤中反思。但反對「強迫」學生參與服務性社團或活動來代表實作課程
   - 課程設計應考慮學生實行的狀況(排擠效應，專業與人文的取捨，醫學生的 loading)➔考慮彈性化學生成果呈現，減輕學生負擔。
   - 實作課程必須經過縝密安排，課程設計的負責人應注意整體性的效果，由不同 tutor 帶領如果在規劃上缺乏一致性及整體性，例如如果沒有經過溝通協調的標準病人、或是只有某一個 tutor 帶著二三十個人去社區關懷時，並未事先思考學生參與的適合性、甚至未經協調，就通知學生某年某月某日要去醫院當一天志工，這樣的課程反而會因爲只考慮教師方便卻無顧慮學生角度，學習效果不彰。

5. 評分方式
   - 操性，道德不能、亦不應用「分數」評估 (這學期醫學人文 86 分，下個學期 82 分，就表示下學期變得比較不關心人群嗎？)
   - Grading 應該是評估學生在整個學習過程中是否能達到認識自己的功能
   - 以 Pass or fail 的評分方式，再依各人表現給予 excellent, honor, or high honors 等等以評語讓學生了解自己學習的表現(對學生來說面子也是很重要的，不一定只有分數高低)，除此之外如果被評 fail 的同學,老師應該給完整的理由
   - 根據必修選修的不同給予評分方式，例如自我建設性質的課程如邏輯學、社會學、經濟學、現代史等課程就不妨採取傳統的分數制。(此點請參考以下內容)
   - 評分老師不能只有一位，應多元,或至少多位評估

補充關於必修選修以及其評分方式（因爲在我們原本的討論中似乎並未對此一部分做具體闡述）: (珑旭補充的)

1. 必修:

將大部分課程內容符合上述核心準則的課程或者其他被大眾認定爲醫生所需具備的能力定爲必修，例如：

a 醫學人文與實務的關係與重要性（給學生許多兩難的議題，或者讓學生思考有哪些議題是醫學專業知識所無法解決的部分）

ｂ實作性質的服務教育（跟診或社區服務）

ｃ台灣醫療史中的典範（讓現在學生從以往的故事中獲得新的反思與感動）

ｄ醫療溝通的技巧

以上僅舉部分例子，這些必修的課若涉及到”道德操行”可採用前述的 Pass or fail 的評分方式，但若課程要求的作業爲”學生”對於此門課程的認知程度深淺、用心與否、參與度多寡等等，其實就可以用傳統評分方式，因爲分數的高低並非代表學生的操守而是過程的呈現！

2. 選修:

可加入更多一般性的通識課程例如：

人文領域：藝術、哲學、音樂、文學、歷史…等等

科學領域：醫學相關、生物相關、理工相關…等等

以上未必須與醫學刻意做連結，因爲醫學人文的範疇有一部分是”人文”，並且醫學生亦是大學生然而真正的”大學生活”只有大一大二，校方應該要更讓醫學生有在此時更多的機會培養醫學生擁有健全的人文素養，而這樣的素養只有透過多方面的涉略才能夠養成，所以實在不必拘泥在醫學的範疇中。

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6. 因材施教(可合併至學生自主的課程設計委員會中)
   - 提供足夠的課程型態及內容給予同學選擇(社區，實作，大堂課，小組，或合併等等)，因爲每個人共鳴的點不同、每個人學習的方式不一樣，獲得感動的方式也不一樣。目前可能普遍課程規劃上認爲小組討論最理想，但並不一定每一個人都很愛討論，就現實來說，也不是每個學校都能找到這麼多受過良好訓練的 tutor，就課程型態及設計上應該要考慮多元性及現實軟硬體的配合，才能發揮最大的學習效果。
   - 在授與醫學人文課程前了解學生現階段對醫學人文核心準則的了解，並調整課程設計更符合同學的需求及認知(避免不教而殺，或者是課程設計跟學生本身生長背景有太大差距造成的不了解)

學生對教師的建議

1. Tutor 必須要能做一個非常清楚的 Orientation, 明確告知課程的目標在哪裡。並能嚴守課程目標。
    - 有些老師開始上課的時候什麼都不講清楚，Orientation 都只講考幾次試、交幾次報告，更慘的是交報告的時間和考試的時間還亂調。
    - 目標：例如與病人溝通的技巧、分析問題的能力、對社會問題的觀察力.....等類似這樣的目標。
    - 尤其「非醫學」人文的部分，tutor 應該要能明確指出今天的音樂、美術、書畫裡面我們要學到哪些「與醫學有關的能力」。
    - 每一堂課的最後最好要可以引導回課程目標。告訴大家今天的故事、今天的課程內容跟課程目標到底有什麼關係。
    - 教師應該要可以整理歸納文獻的內容，強調與主題的關連性。

2. 老師必須要有良好的 presentation skill, 有幽默感、是一個好的 team maker, 帶動討論氣氛。
    - 老師應該可以受一些帶活動、team making 技巧的訓練，知道如何帶動討論避免冷場。
    - 不要出現那種「講也講不完，所以就算了」的狀況。也不要出現直接外來的資料複製貼上課本或文獻，只唸內文沒有更多的引述跟解釋。

3. 教學團隊應與學生有定期的聚會，討論教學內容的方向。師生關係必須平等，可以和同學以朋友的模式相處，學生反應目標之後不能影響到成績。

4. 課程設計必須是一個緊密合作的工作團隊，其中包含醫師與非醫師。
    - 非醫師可以提供思辨能力與社會觀察的訓練，
    - 醫師可以提供醫學與社會的結合。
    - 有一些課程應該要是可以 cooperate 基礎科學和臨床醫學的 (cooperate 的過程非常重要)，例如生物統計學，就可以由臨床醫師和生統學者合作，指導學生如何把生物統計的原理應用於論文的寫作上。

5. 教師應該在實務課程中給予適時的引導跟協助。
    - 社區、NGO 服務：活動進行期間常規的討論、指導與鼓勵，而不是等到期末才來大審判。
    - 醫院工作參與：教師與主課單位應該與服務單位先確認服務與學習

- 跟診：科目和醫師的選擇必須仔細考慮。精神科就是一個很好的選項，因爲精神科才會有機會看到很多詳細的病人互動與病史詢問、社會關懷。主課單位應該跟跟診的醫師溝通清楚學生到醫院不是去學醫療知識跟技術的。跟診的醫師也需要瞭解學生要學的內容是什麼。

6. Tutor 必須有自行終身學習的能力，隨時保持教材更新、與社會議題結合。
    - 看到學生反應很糟例如開始瘋狂蹺課時，就應該意識到課程有問題。
    - 投影片不可以是萬年投影片。
    - 講材符合時事，不要永遠都在 review 歷史議題(好漢不提當年勇)

7. Tutor 能引導學生發掘問題及思考問題、引導激勵學生。
    - 提升學生的使命感。
    - 指導學生如何進行 critical thinking，應該用「實例 demonstrate」給學生看。
    - 鼓勵學生問問題、指導學生如何從看似正常的問題中 keep on asking.

學生對其他的建議

虐殺胎兒---重建品牌形象
醫學生普遍對醫學人文反感.
怎麼樣由學生讓學生知道醫學人文的規畫和課程.能從中得到什麼??

時間不夠
學生的時間: 課程之間的取捨
老師的時間　兼任不是專任.導生比造成
被訪問者或是社區的時間 某些特定的時間才可能配合.有些事情是有時效性.
時間的分配
課程與課程之間過於零散.零散時間無法整合…

怎麼讓學生花更多時間在人文課程上？意識到人文課程的重要性？

金錢與資源不足
學生如果去訪談.交通費要如何是好?? 要去拍片子??那器材怎麼來??
1)有多少資源就做多少事???
2)想做什麼事就去找多少資源???
學校跟老師可以提供什麼資源.學生自己要找出什麼資源…各校之間的不同…
募款??校外 NGO??(聽起來又變成社團了.課程與社團活動要去做轉換??)

可以用在地化來縮減難度…

實際操作課.社區(非課堂)之間的關係...
跟社區之間的長期合作關係.社團好像都有但是學校好像比較沒有…
有共識.不造成困擾.
建立合作關係??
不管跟誰合作.好像都要有 key person 帶進去…
不是從無到有.而是學校已經有些雛型的東西.然後再讓學生自己發展下去

多元性的醫學人文課程.每個人共鳴的點不同.每個學校都要有不同模式的東西.
雖然他可能會討厭某些模式的東西…但是因爲每個人學習的方式不一樣.獲得感動的方式也不一樣.

怎麼評估.evaluate??

身爲學生本份該做的事情.應該要有所評估.ex.出席率.參與度

小組互評??

所有的醫學人文課程都只是在你的心裡種下一顆種子.將來有機會萌芽的時候就讓他們萌芽吧…

你能做出來的跟你心裡所想的真的有差距

完全不評分也不行.應該要有合理回饋

在課程一開始就要說清楚到底要學些什麼.學生比較不會無所適從.流暢度.洞察力. 去除一些太過主觀的東西. 但是能評分的東西還是該評分…Ex.好跟不好的衛教是聽得出來的.

學生可以做的行動

慈濟詩晴：放到個板上，以及醫聯會的網站上。

智群：老師來推動效果很薄弱，但是如果可以由學生提出意見想法給同學，給老師一個機會做個改革也許會比較好。

智瑋：呼籲學弟妹勇敢去找主任老師宣傳今天開會的結果。或者去成立社團來把這件事情的好和感動宣傳出去。

韻芝：目前收穫最大的是聽到各校不一樣的課程，可以建立一個平台讓老師與學生知道這方面的資訊互相參考。目前雖然還沒辦法解決現實與理想的落差，但是以前學習到的想法已經成爲現在自己反省的準則。

楚葳：不要再回去跟低年級的學弟妹說醫學人文的壞，留給他們清淨的空間自己思考。

毅暉：在學校闢一個空間讓大家公開交流相關的想法與資訊。
故意考低一點讓系主任找你(太偉大了)
找一些好醫學生來拍紀錄片

簡佑：我們有一個很大的問題是「懶惰」，不要因爲懶惰就不去評鑑，不去跟學弟妹溝通。醫聯會會整理這兩天相關的會議紀錄給各系會長請大家踴躍索取。並與 SCOME 繼續商討後續的行動，包括擴大相關計畫醫學生的參與。

維書：反過來問問自己有沒有做到自己該做到的事情(自己要認同醫學人文的價值才能說服別人)

承烜：要批評老師之前至少也要先去上過課。

珖旭：與會的同學老師可以回自己的學校做推廣，每個學校的夥伴可以回去後一起另用各種場合作宣傳。

昱璁：可以靠人際關係從周圍的好朋友著手，宣傳可以從各個學校國事組開始。需要建立有系統的 database 以利宣傳。和學校相關的會議跟學校溝通。與系辦公室打好關係。醫聯會可以用 SCOME 爲主軸來進行相關工作。說不定可以搞學運。

建宏：醫聯會在校內的活動力可能沒這麼大，所以也許在院方的活動會議中多參與會比較有效。另外要多努力充實自己，會念書的好學生也許說話會比較有力

曉慧：要說服老師之前可以先給老師一些鼓勵，再給老師一些建議。(要會說話啦)
用漸進式的方式溝通。每年級派代表分享自己上課的情形提出建議。

維書：大家不要小看自己的力量，我參加過課程委員會的學生代表，跟老師打好關係一下，真的有用喔　揪咪

子堯：維書把一年級的普生實驗和一些課程的時數減少，也增加選外系課的自由度。另外如果有同學想要轉系也要提供相關輔導。

承烜：去跟老師溝通之前想把想法具體化文字化，把自己的人脈介紹給老師，讓自己學校的課程更進步。

建宏：要主動一點，以後院方有相關的想法就比較會主動找你

曜聰：同儕之間互相的刺激也許很有幫助，可以找以前同學念其他科系的討論或許可以得到新的想法。

建宏：醫聯會在校內的知名度不高，但是可以靠著大家的介紹宣傳讓院方知道有這個團體以利之後的活動。

馥郁：現在享受的改革都是以前學長姊爭取下來的，所以要保持這樣的熱心把好的東西傳承下去。

承烜：景祥學長在我大一的時候寫了一封四五千字的文章給我，對我的影響很大，所以我們也可以把好的東西分享給學弟妹。我們現在努力做的也許短期內看不到結果，但是幾年後可能就會很不一樣。在學校裡面可能會遇到很多對我們做法不以爲然的聲音，我們應該去多找同學宣傳自己的想法，增加正面的力量。

奇郡：在傳話的過程中我們是否給了學弟妹不正確的刻板印象。學弟妹也要給學長姊多一些正面的回饋。還沒有經歷過就先不要輕易下結論。由個人的努力來影響其他同學。希望大家要顧好自己年級該盡的本分。

信諄：我在系學會負責醫學教育改革的部分，聽起來很厲害但是實際上只是在做問券，大家通常不認真填，所以現在有用紙本的方式來做統計，然後努力往上呈現給系主任。以前系主任不太理，現在主任比較有在重視。但是有個問題是問券回收率低同學不太願意填，因爲覺得填了老師也不會改變。希望這次可以把開會的結果帶回去跟同學分享影響同學。要多與老師建立溝通的管道和老師面對面座談。很感動學弟妹願意主動來參加，知道我們也可以給意見來改善這個課程。

醫學教育之目標和結果整理

World Federation for Medical Education (WFME)　2003

The core of the medical curriculum consists of:

1. fundamental theory and practice of medicine, specifically basic biomedical, behavioural and social sciences
2. general clinical skills
3. clinical decision skills
4. communication abilities, and
5. medical ethics

Institute for International Medical Education (IIME)　2002

Global minimum essential requirements in medical education (GMER)

1. professional values, attitudes, behavior and ethics
2. scientific foundation of medicine
3. communication skills
4. clinical skills
5. population health and health systems
6. management of information
7. critical thinking and research

Brown Medical School's 9 Abilities　2000

1. effective communication
2. basic clinical skills
3. using basic science in the practice of medicine
4. diagnosis, management, and prevention
5. lifelong learning
6. professional development and personal growth
7. social and community contexts of health care
8. moral reasoning and clinical ethics
9. problem solving

Harden et al, 3-circle model for outcome-based education 1999

(adopted by all medical schools in Scotland)

A "Doing the right thing" – what the doctor is able to do

1. clinical skills
2. practical procedures
3. investigations
4. management
5. health promotion
6. communication
7. informatics

B "Doing the thing right" – how the doctor approaches their practice

1. basic and clinical sciences
2. attitudes and ethical understanding
3. decision-making skills

C "The right person doing it" – the doctor as a professional

1. role of the doctor
2. personal development

Common "Global" Competencies

（from Partners Harvard Medical International）

- expert in medical science, clinical care and their interrelationship through evidence
- skilled in communications, caring and interpersonal relationships
- professionalism, including professional ethics and being a member of a team
- life-long learner, improving based on practice and quality improvement principles
- knowledgeable in the system, including its economics and management principles

哈佛校長德瑞克・伯克提出二十一世紀八個教育目標：

1. 表達能力（寫作、口語溝通）
2. 思辨能力
3. 道德推理能力
4. 履行公民責任的能力
5. 迎接多元化生活的能力
6. 迎接全球化社會的能力
7. 廣泛的興趣
8. 就業能力

出自：『大學教了沒？—哈佛校長提出的 8 門課』天下文化，2008

根據台灣某醫學院針對國內 491 家醫療機構和 1275 家生技產業公司的雇主滿意度調查，認為畢業生待強化項目依序排列（引述台大社會學科陳東升教授，調查日期 96 年中及 97 年初各一個月的時間）：

1. 團隊合作態度 （39.5%）　　2. 表達溝通技巧 （38.3%）
3. 人際經營技巧 （30.9%）　　4. 解決問題能力 （29.6%）
5. 危機轉變能力 （27.2%）　　6. 挫折抗壓能力 （25.9%）
7. 創意思考能力 （25.9%）　　8. 專業技能 （24.7%）
9. 組織管理能力 （21.0%）

天下雜誌 360 期『大學生應有的素養與能力』摘要：

- OECD 國家從 1997 年開始進行 DeSeCo「關鍵素養的定義與選擇」的跨國研究計畫，嘗試定義並選出 21 世紀公民的關鍵素養
- 素養定義為：「能成功地回應個人或社會要求的能力」，包含個人獲取和應用的知識、認知和技能的能力，以及態度、情緒、價值和動機等。素養是可以在合適的學習環境中學習而來。
- 關鍵素養（key competencies）：
  (1) 互動地使用工具，包括使用語言、符號和文本能力，運用知識和資訊的能力，運用科技的能力等；
  (2) 在異質性的社群中互動，包括發展和經營良好人際關係的能力，團隊合作的能力，處理和解決衝突的能力；
  (3) 自主地行動，包括在較大的世界觀與脈絡下行動的能力，形成並執行生涯規劃與個人計畫的能力，主張與辯護自己的權利、利益、限制與需求的能力。
- 知識經濟所需要的素養：團隊合作、能在不明確的環境中進行協作、解決問題、能處理非例行程序、能擔負決策責任、溝通技能、以及能從較寬廣的脈絡來理解工作場合的發展
- 深思熟慮(reflection)是關鍵素養的心臟，個人必須學習以一種更為整合的方式去思考和行動，迎合跨界的時代
- 態度是就業能力最重要的因素，包括主動學習、勇氣、熱情、毅力、公平、誠信、關懷、負責、冒險、自信等
- 以方程式比喻： 能力(C)=【知識(K) ＋ 技能(S)】$^{態度(A)}$

WFME Global Standards for Quality Improvement

by the World Federation for Medical Education 2003

Concepts: A global set of standards for medical education is not to be equated with a global core curriculum. The core of the medical curriculum consists of the fundamental theory and practice of medicine, specifically basic biomedical, behavioural and social sciences, general clinical skills, clinical decision skills, communication abilities and medical ethics, and must be addressed by all medical schools aiming to produce safe practitioners of quality. These elements have an important bearing on the concept of international standards in medical education, but such standards do not address details regarding content and quantity.

Purpose: Several recent reports have described the necessity for radical changes and innovations in the structure and process of medical education at all levels. Such reconstruction is essential to:

- prepare doctors for the needs and expectations of society;
- cope with the explosion in medical scientific knowledge and technology;
- inculcate physicians' ability for lifelong learning;
- ensure training in the new information technologies;
- adjust medical education to changing conditions in the health care delivery system.

Rationale: For international standards to be generally accepted, the following premises were adopted:

- Only general aspects of medical schools and medical education should be covered.
- Standards should be concerned with broad categories of the content, process, educational environment and outcome of medical education.
- Standards should function as a lever for change and reform.
- Compliance with standards must be a matter for each community, country or region.
- Standards should be formulated in such a way as to acknowledge regional and national differences in the educational programme, and allow for different profiles and developments of the individual medical schools, respecting reasonable autonomy of the medical schools.
- Use of a common set of international standards does not imply or require complete equivalence of programme content and products of medical schools.

- Standards should recognise the dynamic nature of programme development.
- Standards are formulated as a tool which medical schools can use as a basis and a model for their own institutional and programme development. Standards should not be used in order to rank medical schools.
- Standards are intended not only to set minimum requirements but also to encourage quality development beyond the levels specified. The set of standards, in addition to basic requirements, should include directions for quality development.
- Standards should be further developed through broad international discussion and consensus.
- The value of the standards must be tested in evaluation studies in each region. Such projects should be based on a combination of voluntary institutional self-evaluation and peer review.

Standards must be clearly defined, and be meaningful, appropriate, relevant, measurable, achievable and accepted by the users. They must have implications for practice, recognise diversity and foster adequate development.

Uses: It is the opinion of WFME that the set of international standards presented can be used globally as a tool for quality assurance and development of basic medical education. This could be done in different ways, such as:

1. Institutional Self-evaluation
   The primary intention of WFME in introducing an instrument for quality improvement is to provide a new framework against which medical schools can measure themselves in voluntary institutional selfevaluation and self-improvement processes. The guidelines can thus be considered a Self-study Manual for medical schools seeking to meet the WFME Global Standards in Basic Medical Education.

2. Peer Review
   The process described can be further developed by inclusion of evaluation and counselling from external peer review committees.

3. Combination of Institutional Self-evaluation and External Peer Review.
   WFME considers such a combination to be the most valuable method.

4. Recognition and Accreditation
   Depending on local needs and traditions, the guidelines can also be used by national or regional agencies dealing with recognition and accreditation of medical schools.

The WFME Global Standards

Definitions

The WFME recommends the following set of global standards in basic medical education. The standards are structured according to 9 areas with a total of 36 sub-areas (WFME is aware of the complex interactions and links between the various areas and sub-areas.).

AREAS are defined as broad components in the structure, process and outcome of medical education and cover:

1. Mission and Objectives
2. Educational Programme
3. Assessment of Students
4. Students
5. Academic Staff/Faculty
6. Educational Resources
7. Programme Evaluation
8. Governance and Administration
9. Continuous Renewal

SUB-AREAS are defined as specific aspects of an area, corresponding to performance indicators.

STANDARDS are specified for each sub-area using two levels of attainment:

- Basic standard. This means that the standard must be met by every medical school and fulfilment demonstrated during evaluation of the school.

  Basic standards are expressed by a "must".

- Standard for quality development. This means that the standard is in accordance with international consensus about best practice for medical schools and basic medical education. Fulfilment of - or initiatives to fulfil - some or all of such standards should be documented by medical schools. Fulfilment of these standards will vary with the stage of development of the

Standards for quality development are expressed by a "should".

ANNOTATIONS are used to clarify, amplify or exemplify expressions in the standards.

http://www.ifmsa.org/scome/wiki/index.php?title=WFME_Global_Standards_for_Quality_Improvement

Global minimum essential requirements in medical education

CORE COMMITTEE, INSTITUTE FOR INTERNATIONAL MEDICAL EDUCATION*

Institute for International Medical Education, White Plains, New York, USA

Professional Values, Attitudes, Behavior and Ethics

Professionalism and ethical behavior are essential to the practice of medicine. Professionalism includes not only medical knowledge and skills but also the commitment to a set of shared values, the autonomy to set and enforce these values, and responsibilities to uphold them. The medical graduate must demonstrate:

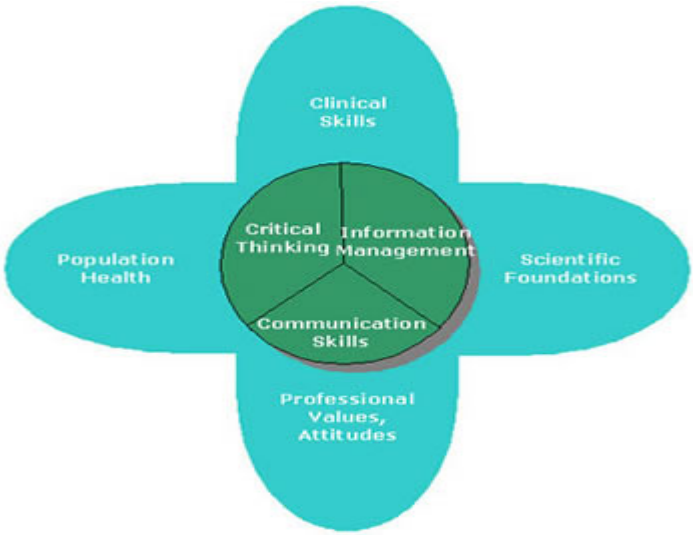

Figure 1. Domains of global essential requirements

· recognition of the essential elements of the medical profession, including moral and ethical principles and legal responsibilities underlying the profession;

· professional values which include excellence, altruism, responsibility, compassion, empathy, accountability, honesty and integrity, and a commitment to scientific methods,

· an understanding that each physician has an obligation to promote, protect, and enhance these elements for the benefit of patients, the profession and society at large;

· recognition that good medical practice depends on mutual understanding and relationship between the doctor, the patient and the family with respect for patient's welfare, cultural diversity, beliefs and autonomy;

· an ability to apply the principles of moral reasoning and decision-making to conflicts within and between ethical, legal and professional issues including those raised by economic constrains, commercialization of health care, and scientific advances;

· self-regulation and a recognition of the need for continuous self-improvement with an awareness of personal limitations including limitations of one's medical knowledge;

· respect for colleagues and other health care professionals and the ability to foster a positive collaborative relationship with them;

· recognition of the moral obligation to provide end-of-life care, including palliation of symptoms;
· recognition of ethical and medical issues in patient documentation, plagiarism, confidentiality and ownership of intellectual property;
· ability to effectively plan and efficiently manage one's own time and activities to cope with uncertainty, and the ability to adapt to change;
· personal responsibility for the care of individual patients.

Scientific Foundation of Medicine

The graduate must possess the knowledge required for the solid scientific foundation of medicine and be able to apply this knowledge to solve medical problems. The graduate must understand the principles underlying medical decisions and actions, and be able to adapt to change with time and the context of his/her practice. In order to achieve these outcomes, the graduate must demonstrate a knowledge and understanding of:

· the normal structure and function of the body as a complex of adaptive biological system;
· abnormalities in body structure and function which occur in diseases;
· the normal and abnormal human behavior;
· important determinants and risk factors of health and illnesses and of interaction between man and his physical and social environment;
· the molecular, cellular, biochemical and physiological mechanisms that maintain the body's homeostasis;
· the human life cycle and effects of growth, development and aging upon the individual, family and community;
· the etiology and natural history of acute illnesses and chronic diseases;
· epidemiology, health economics and health management;
· the principles of drug action and it use, and efficacy of varies therapies;
· relevant biochemical, pharmacological, surgical, psychological, social and other interventions in acute and chronic illness, in rehabilitation, and end-of-life care.

Communication skills

The physician should create an environment in which mutual learning occurs with and among patients, their relatives, members of the healthcare team and colleagues, and the public through effective communication. To increase the likelihood of more appropriate medical decision making and patient satisfaction, the graduates must be able to:

· listen attentively to elicit and synthesize relevant information about all problems and understanding of their content;
· apply communication skills to facilitate understanding with patients and their families and to enable them to undertake decisions as equal partners;
· communicate effectively with colleagues, faculty, the community, other sectors and the media;
· interact with other professionals involved in patient care through effective teamwork;
· demonstrate basic skills and positive attitudes towards teaching others;
· demonstrate sensitivity to cultural and personal factors that improve interactions with patients and the community;
· communicate effectively both orally and in writing;
· create and maintain good medical records;

· synthesize and present information appropriate to the needs of the audience, and discuss achievable and acceptable plans of action that address issues of priority to the individual and community.

Clinical Skills

The graduates must diagnose and manage the care of patients in an effective and efficient way. In order to do so, he/she must be able to:

· take an appropriate history including social issues such as occupational health;
· perform a physical and mental status examination;
· apply basic diagnostic and technical procedures, to analyze and interpret findings, and to define the nature of a problem;
· perform appropriate diagnostic and therapeutic strategies with the focus on life-saving procedures and applying principles of best evidence medicine;
· exercise clinical judgment to establish diagnoses and therapies;
· recognize immediate life-threatening conditions;
· manage common medical emergencies;
· manage patients in an effective, efficient and ethical manner including health promotion and disease prevention;
· evaluate health problems and advise patients taking intoaccount physical, psychological, social and cultural factors;
· understand the appropriate utilization of human resources, diagnostic interventions, therapeutic modalities and health care facilities.

Population Health and Health Systems

Medical graduates should understand their role in protecting and promoting the health of a whole population and be able to take appropriate action. They should understand the principles of health systems organization and their economic and legislative foundations. They should also have a basic understanding of the efficient and effective management of the health care system. The graduates should be able to demonstrate:

· knowledge of important life-style, genetic, demographic, environmental, social, economic, psychological, and cultural determinants of health and illness of a population as a whole;
· knowledge of their role and ability to take appropriate action in disease, injury and accident prevention and protecting, maintaining and promoting the health of individuals, families and community;
· knowledge of international health status, of global trends in morbidity and mortality of chronic diseases of social significance, the impact of migration, trade, and environmental factors on health and the role of international health organizations;
· acceptance of the roles and responsibilities of other health and health related personnel in providing health care to individuals, populations and communities;
· an understanding of the need for collective responsibility for health promoting interventions which requires partnerships with the population served, and a multidisciplinary approach including the health care professions as well as intersectoral collaboration;
· an understanding of the basics of health systems including policies, organization, financing, cost-containment measures of rising health care costs, and principles of effective management of health care delivery;
· an understanding of the mechanisms that determine equity in access to health care, effectiveness,

and quality of care;

· use of national, regional and local surveillance data as well as demography and epidemiology in health decisions;

· a willingness to accept leadership when needed and as appropriate in health issues.

Management of Information

The practice of medicine and management of a health system depends on the effective flow of knowledge and information. Advances in computing and communication technology have resulted in powerful tools for education and for information analysis and management. Therefore, graduates have to understand the capabilities and limitations of information technology and the management of knowledge, and be able to use it for medical problem solving and decision-making. The graduate should be able to:

· search, collect, organize and interpret health and biomedical information from different databases and sources;

· retrieve patient-specific information from a clinical data system;

· use information and communication technology to assist in diagnostic, therapeutic and preventive measures, and for surveillance and monitoring health status;

· understand the application and limitations of information technology;

· maintain records of his/her practice for analysis and improvement.

Critical thinking and research

The ability to critically evaluate existing knowledge, technology and information is necessary for solving problems, since physicians must continually acquire new scientific information and new skills if they are to remain competent. Good medical practice requires the ability to think scientifically and use scientific methods. The medical graduate should therefore be able to:

· demonstrate a critical approach, constructive skepticism, creativity and a research-oriented attitude in professional activities;

· understand the power and limitations of the scientific thinking based on information obtained from different sources in establishing the causation, treatment and prevention of disease;

· use personal judgments for analytical and critical problem solving and seek out information rather than to wait for it to be given;

· identify, formulate and solve patients' problems using scientific thinking and based on obtained and correlated information from different sources;

· understand the roles of complexity, uncertainty and probability in decisions in medical practice;

· formulate hypotheses, collect and critically evaluate data, for the solution of problems.

To retain and advance competencies acquired in medical school, graduates must be aware of their own limitations, the need for regularly repeated self-assessment, acceptance of peer evaluation and continuous undertaking of self-directed study. These personal development activities permit the continued acquisition and use of new knowledge and technologies throughout their professional careers.

The 'Essentials' alone are not likely to change graduates' competencies unless they are linked to evaluation of students' competencies. Therefore, assessment tools for the evaluation of educational outcomes are essential for the implementation of this document. This will ensure that graduates, wherever they are trained in the world, have similar core competencies at the start of further graduate

medical education (specialty training) or when they begin to practice medicine under the appropriate, nationally determined supervision. Such tools are under development by the specially established IIME Task Force for Assessment.

The presented 'Global Minimum Essential Requirements' are considered an instrument for improvement of the quality of the medical education and indirectly of the medical practice. It is hoped that the IIME project will have significant influence on medical school curricula and educational processes, paving the road to the competence-oriented medical education.

Published in Medical Teacher 2002 Vol 24, No 2
Source: http://www.iime.org/documents/gmer.htm

The Royal College of Physicians and Surgeons of Canada
Le Collège royal des médecins et chirurgiens du Canada

CanMEDS 2005 Framework

Medical Expert

Definition: As *Medical Experts*, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care. *Medical Expert* is the central physician Role in the CanMEDS framework.

Description: Physicians possess a defined body of knowledge, clinical skills, procedural skills and professional attitudes, which are directed to effective patient-centered care. They apply these competencies to collect and interpret information, make appropriate clinical decisions, and carry out diagnostic and therapeutic interventions. They do so within the boundaries of their discipline, personal expertise, the healthcare setting and the patient's preferences and context. Their care is characterized by up-to-date, ethical, and resource-efficient clinical practice as well as with effective communication in partnership with patients, other health care providers and the community. The Role of Medical Expert is central to the function of physicians and draws on the competencies included in the Roles of Communicator, Collaborator, Manager, Health Advocate, Scholar and Professional.

Key Competencies: *Physicians are able to…*

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care;
2. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice;
3. Perform a complete and appropriate assessment of a patient;
4. Use preventive and therapeutic interventions effectively;
5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic;
6. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise.

Enabling Competencies: *Physicians are able to...*

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical and patient-centered medical care

1.1. Effectively perform a consultation, including the presentation of well-documented assessments and recommendations in written and/or verbal form in response to a request from another health care professional

1.2. Demonstrate effective use of all CanMEDS competencies relevant to their practice

1.3. Identify and appropriately respond to relevant ethical issues arising in patient care

1.4. Effectively and appropriately prioritize professional duties when faced with multiple patients and problems

1.5. Demonstrate compassionate and patient-centered care

1.6. Recognize and respond to the ethical dimensions in medical decision-making

1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments, as needed

2. Establish and maintain clinical knowledge, skills and attitudes appropriate to their practice

2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to the physician's specialty

2.2. Describe the RCPSC framework of competencies relevant to the physician's specialty

2.3. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date, and enhance areas of professional competence

2.4. Contribute to the enhancement of quality care and patient safety in their practice, integrating the available best evidence and best practices

3. Perform a complete and appropriate assessment of a patient

3.1 Effectively identify and explore issues to be addressed in a patient encounter, including the patient's context and preferences

3.2 For the purposes of prevention and health promotion, diagnosis and or management, elicit a history that is relevant, concise and accurate to context and preferences

3.3 For the purposes of prevention and health promotion, diagnosis and/or management, perform a focused physical examination that is relevant and accurate

3.4 Select medically appropriate investigative methods in a resource-effective and ethical manner

3.5 Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and management plans

4. Use preventive and therapeutic interventions effectively

4.1 Implement an effective management plan in collaboration with a patient and their family

4.2 Demonstrate effective, appropriate, and timely application of preventive and therapeutic interventions relevant to the physician's practice

4.3 Ensure appropriate informed consent is obtained for therapies

4.4 Ensure patients receive appropriate end-of-life care

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic

5.1 Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to their practice

5.2 Demonstrate effective, appropriate, and timely performance of therapeutic procedures relevant to their practice

5.3 Ensure appropriate informed consent is obtained for procedures

5.4 Appropriately document and disseminate information related to procedures performed and their outcomes

5.5 Ensure adequate follow-up is arranged for procedures performed

6. Seek appropriate consultation from other health professionals, recognizing the limits of their expertise

6.1 Demonstrate insight into their own limitations of expertise via self-assessment

6.2 Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal patient care

6.3 Arrange appropriate follow-up care services for a patient and their family

Communicator

Definition: As *Communicators*, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

Description: Physicians enable patient-centered therapeutic communication through shared decision-making and effective dynamic interactions with patients, families, caregivers, other professionals, and important other individuals. The competencies of this Role are essential for establishing rapport and trust, formulating a diagnosis, delivering information, striving for mutual understanding, and facilitating a shared plan of care. Poor communication can lead to undesired outcomes, and effective communication is critical for optimal patient outcomes. The application of these communication competencies and the nature of the doctor-patient relationship vary for different specialties and forms of medical practice.

Key Competencies: *Physicians are able to…*

1. Develop rapport, trust and ethical therapeutic relationships with patients and families;
2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues and other professionals;
3. Accurately convey relevant information and explanations to patients and families, colleagues and other professionals;
4. Develop a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop a shared plan of care;
5. Convey effective oral and written information about a medical encounter.

Enabling Competencies: *Physicians are able to...*

1. Develop rapport, trust, and ethical therapeutic relationships with patients and families

1.1. Recognize that being a good communicator is a core clinical skill for physicians, and that effective physician-patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes

1.2. Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy

1.3. Respect patient confidentiality, privacy and autonomy

1.4. Listen effectively

1.5. Be aware and responsive to nonverbal cues

1.6. Effectively facilitate a structured clinical encounter

2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals

2.1. Gather information about a disease, but also about a patient's beliefs, concerns, expectations and illness experience

2.2. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals

3. Accurately convey relevant information and explanations to patients and families, colleagues and other professionals

3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner and in such a way that it is understandable, encourages discussion and participation in decision-making

4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care

4.1. Effectively identify and explore problems to be addressed from a patient encounter, including the patient's context, responses, concerns, and preferences

4.2. Respect diversity and difference, including but not limited to the impact of gender, religion and cultural beliefs on decision-making

4.3. Encourage discussion, questions, and interaction in the encounter

4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care

4.5. Effectively address challenging communication issues such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding

5. Convey effective oral and written information about a medical encounter

5.1. Maintain clear, accurate, and appropriate records (e.g., written or electronic) of clinical encounters and plans

5.2. Effectively present verbal reports of clinical encounters and plans

5.3. When appropriate, effectively present medical information to the public or media about a medical issue

Collaborator

Definition: As *Collaborators*, physicians effectively work within a healthcare team to achieve optimal patient care.

Description: Physicians work in partnership with others who are appropriately involved in the care of individuals or specific groups of patients. This is increasingly important in a modern multiprofessional environment, where the goal of patient-centred care is widely shared. Modern healthcare teams not only include a group of professionals working closely together at one site, such as a ward team, but also extended teams with a variety of perspectives and skills, in multiple locations. It is therefore essential for physicians to be able to collaborate effectively with patients, families, and an interprofessional team of expert health professionals for the provision of optimal care, education and scholarship.

Key Competencies: *Physicians are able to…*

1. Participate effectively and appropriately in an interprofessional healthcare team;
2. Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict.

Enabling Competencies: *Physicians are able to...*

1. Participate effectively and appropriately in an interprofessional healthcare team

1.1. Clearly describe their roles and responsibilities to other professionals

1.2. Describe the roles and responsibilities of other professionals within the health care team

1.3. Recognize and respect the diversity of roles, responsibilities and competences of other professionals in relation to their own

1.4. Work with others to assess, plan, provide and integrate care for individual patients (or groups of patients)

1.5. Where appropriate, work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review or administrative responsibilities

1.6. Participate effectively in interprofessional team meetings

1.7. Enter into interdependent relationships with other professions for the provision of quality care

1.8. Describe the principles of team dynamics

1.9. Respect team ethics, including confidentiality, resource allocation and professionalism

1.10. Where appropriate, demonstrate leadership in a healthcare team

Collaborator – cont'd

2. Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict

2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team

2.2. Work with other professionals to prevent conflicts

2.3. Employ collaborative negotiation to resolve conflicts

2.4. Respect differences, misunderstandings and limitations in other professionals

2.5. Recognize one's own differences, misunderstanding and limitations that may contribute to interprofessional tension

2.6. Reflect on interprofessional team function

Manager

Definition: As *Managers*, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system.

Description: Physicians interact with their work environment as individuals, as members of teams or groups, and as participants in the health system locally, regionally or nationally. The balance in the emphasis among these three levels varies depending on the nature of the specialty, but all specialties have explicitly identified management responsibilities as a core requirement for the practice of medicine in their discipline. Physicians function as Managers in their everyday practice activities involving co-workers, resources and organizational tasks, such as care processes, and policies as well as balancing their personal lives. Thus, physicians require the ability to prioritize, effectively execute tasks collaboratively with colleagues, and make systematic choices when allocating scarce healthcare resources. The CanMEDS Manager Role describes the active engagement of all physicians as integral participants in decision-making in the operation of the healthcare system.

Key Competencies: *Physicians are able to…*

1. Participate in activities that contribute to the effectiveness of their healthcare organizations and systems;
2. Manage their practice and career effectively;
3. Allocate finite healthcare resources appropriately;
4. Serve in administration and leadership roles, as appropriate.

Enabling Competencies: *Physicians are able to...*

1. Participate in activities that contribute to the effectiveness of their healthcare organizations and systems

1.1. Work collaboratively with others in their organizations

1.2. Participate in systemic quality process evaluation and improvement, such as patient safety initiatives

1.3. Describe the structure and function of the healthcare system as it relates to their specialty, including the roles of physicians

1.4. Describe principles of healthcare financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively

2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life

2.2. Manage a practice including finances and human resources

2.3. Implement processes to ensure personal practice improvement

2.4. Employ information technology appropriately for patient care

3. Allocate finite healthcare resources appropriately

3.1. Recognize the importance of just allocation of healthcare resources, balancing effectiveness, efficiency and access with optimal patient care

3.2. Apply evidence and management processes for cost-appropriate care

4. Serve in administration and leadership roles, as appropriate

4.1. Chair or participate effectively in committees and meetings

4.2. Lead or implement a change in health care

4.3. Plan relevant elements of health care delivery (e.g., work schedules)

Health Advocate

Definition: As *Health Advocates*, physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

Description: Physicians recognize their duty and ability to improve the overall health of their patients and the society they serve. Doctors identify advocacy activities as important for the individual patient, for populations of patients and for communities. Individual patients need physicians to assist them in navigating the healthcare system and accessing the appropriate health resources in a timely manner. Communities and societies need physicians' special expertise to identify and collaboratively address broad health issues and the determinants of health. At this level, health advocacy involves efforts to change specific practices or policies on behalf of those served. Framed in this multi-level way, health advocacy is an essential and fundamental component of health promotion. Health advocacy is appropriately expressed both by individual and collective actions of physicians in influencing public health and policy.

Key Competencies: *Physicians are able to…*

1. Respond to individual patient health needs and issues as part of patient care;
2. Respond to the health needs of the communities that they serve;
3. Identify the determinants of health of the populations that they serve;
4. Promote the health of individual patients, communities and populations.

Enabling Competencies: *Physicians are able to...*

1. Respond to individual patient health needs and issues as part of patient care

1.1. Identify the health needs of an individual patient

1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals to whom they provide care

2. Respond to the health needs of the communities that they serve

2.1. Describe the practice communities that they serve

2.2. Identify opportunities for advocacy, health promotion and disease prevention in the communities that they serve, and respond appropriately

2.3. Appreciate the possibility of competing interests between the communities served and other populations

3. Identify the determinants of health for the populations that they serve

3.1. Identify the determinants of health of the populations, including barriers to access to care and resources

3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

Health Advocate – cont'd

4. Promote the health of individual patients, communities, and populations

4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve

4.2. Describe how public policy impacts on the health of the populations served

4.3. Identify points of influence in the healthcare system and its structure

4.4. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity and idealism

4.5. Appreciate the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper

4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

Scholar

Definition: As *Scholars*, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

Description: Physicians engage in a lifelong pursuit of mastering their domain of expertise. As learners, they recognize the need to be continually learning and model this for others. Through their scholarly activities, they contribute to the creation, dissemination, application and translation of medical knowledge. As teachers, they facilitate the education of their students, patients, colleagues, and others.

Key Competencies: *Physicians are able to…*

1. Maintain and enhance professional activities through ongoing learning;
2. Critically evaluate information and its sources, and apply this appropriately to practice decisions;
3. Facilitate the learning of patients, families, students, residents, other health professionals, the public, and others, as appropriate;
4. Contribute to the creation, dissemination, application, and translation of new medical knowledge and practices.

Enabling Competencies: *Physicians are able to...*

1. Maintain and enhance professional activities through ongoing learning.

1.1. Describe the principles of maintenance of competence

1.2. Describe the principles and strategies for implementing a personal knowledge management system

1.3. Recognize and reflect learning issues in practice

1.4. Conduct a personal practice audit

1.5. Pose an appropriate learning question

1.6. Access and interpret the relevant evidence

1.7. Integrate new learning into practice

1.8 Evaluate the impact of any change in practice

1.9 Document the learning process

2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions

2.1. Describe the principles of critical appraisal

2.2. Critically appraise retrieved evidence in order to address a clinical question

2.3. Integrate critical appraisal conclusions into clinical care

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public and others, as appropriate

3.1. Describe principles of learning relevant to medical education

3.2. Collaboratively identify the learning needs and desired learning outcomes of others

3.3. Select effective teaching strategies and content to facilitate others' learning

3.4. Demonstrate an effective lecture or presentation

3.5. Assess and reflect on a teaching encounter

3.6. Provide effective feedback

3.7. Describe the principles of ethics with respect to teaching

4. Contribute to the development, dissemination, and translation of new knowledge and practices

4.1. Describe the principles of research and scholarly inquiry

4.2. Describe the principles of research ethics

4.3. Pose a scholarly question

4.4. Conduct a systematic search for evidence

4.5. Select and apply appropriate methods to address the question

4.6. Appropriately disseminate the findings of a study

Professional

Definition: As *Professionals*, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Description: Physicians have a unique societal role as professionals who are dedicated to the health and caring of others. Their work requires the mastery of a complex body of knowledge and skills, as well as the art of medicine. As such, the Professional Role is guided by codes of ethics and a commitment to clinical competence, the embracing of appropriate attitudes and behaviors, integrity, altruism, personal well-being, and to the promotion of the public good within their domain. These commitments form the basis of a social contract between a physician and society. Society, in return, grants physicians the privilege of profession-led regulation with the understanding that they are accountable to those served. [1]

Key Competencies: *Physicians are able to…*

1. Demonstrate a commitment to their patients, profession, and society through ethical practice;
2. Demonstrate a commitment to their patients, profession, and society through participation in profession-led regulation;
3. Demonstrate a commitment to physician health and sustainable practice.

Enabling Competencies: *Physicians are able to...*

1. Demonstrate a commitment to their patients, profession, and society through ethical practice

1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism

1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence

1.3. Recognize and appropriately respond to ethical issues encountered in practice

1.4. Appropriately manage conflicts of interest

[1] This description is adapted from Cruess S, Johnston S, Cruess R. 2004. "Profession": a working definition for medical educators. *Teaching and Learning in Medicine*. 16(1): 74-6.

1.5. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law

1.6. Maintain appropriate relations with patients.

2. Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation

2.1. Appreciate the professional, legal and ethical codes of practice

2.2. Fulfill the regulatory and legal obligations required of current practice

2.3. Demonstrate accountability to professional regulatory bodies

2.4. Recognize and respond to others' unprofessional behaviours in practice

2.5. Participate in peer review

3. Demonstrate a commitment to physician health and sustainable practice

3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice

3.2. Strive to heighten personal and professional awareness and insight

3.3. Recognize other professionals in need and respond appropriately

Source: Frank, JR., Jabbour, M., et al. Eds. Report of the CanMEDS Phase IV Working Groups. Ottawa: The Royal College of Physicians and Surgeons of Canada. March, 2005.

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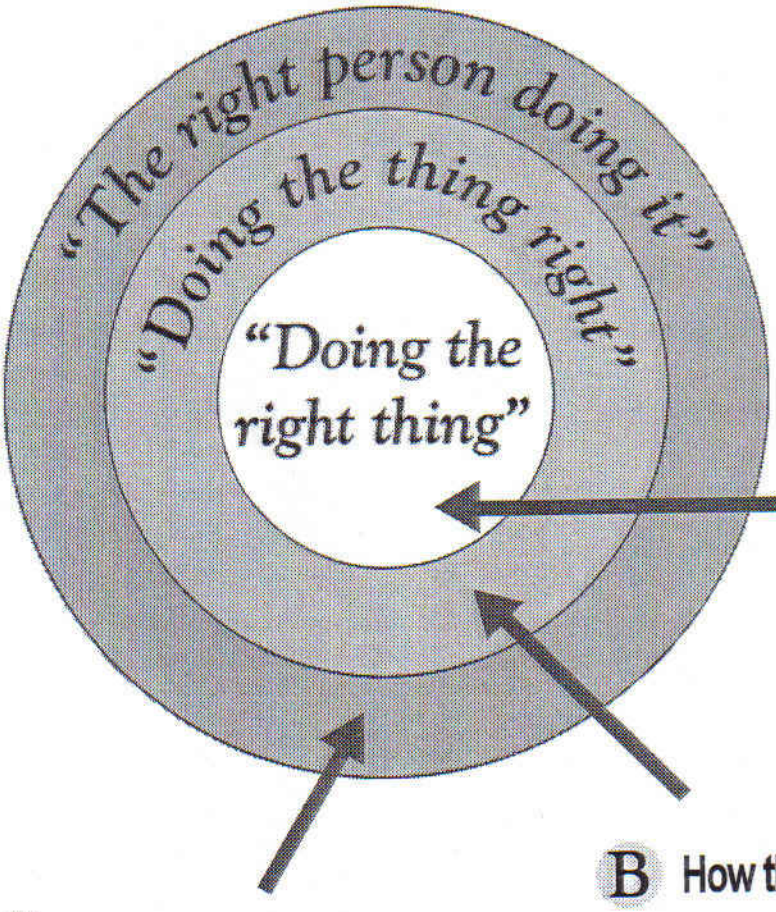
Outcome-based Education

In education in the healthcare professions there has been a shift of emphasis from process and educational strategies and methods, to product and learning outcomes. The three circle model serves as a useful framework for implementing outcome-based education.



A What the doctor is able to do

1 Clinical skills
2 Practical procedures
3 Investigations
4 Management
5 Health promotion
6 Communication
7 Informatics

B How the doctor approaches their practice

8 Basic & clinical sciences
9 Attitudes & ethical understanding
10 Decision-making skills

C The doctor as a professional

11 Role of the doctor
12 Personal development

The learning outcomes for a competent and reflective practitioner, based on the three circle model

A

What the doctor is able to do – "*doing the right thing*"

Technical intelligences

1 Clinical skills	2 Practical procedures	3 Patient investigation	4 Patient management	5 Health promotion & disease prevention	6 Communication	7 Appropriate information handling skills
▪ History ▪ Physical examination ▪ Interpretation of findings ▪ Formulation of action plan to characterise problem and reach a diagnosis	▪ Cardiology ▪ Dermatology ▪ Endocrinology ▪ Gastroenterology ▪ Haematology ▪ Musculo-skeletal ▪ Nervous System ▪ Ophthalmology ▪ Otolaryngology ▪ Renal/urology ▪ Reproduction ▪ Respiratory ▪ Surgery ▪ General	▪ General principles ▪ Clinical ▪ Imaging ▪ Biochemical medicine ▪ Haematology ▪ Immunology ▪ Microbiology ▪ Pathology ▪ Genetics	▪ General principles ▪ Drugs ▪ Surgery ▪ Psychological ▪ Physiotherapy ▪ Radiotherapy ▪ Social ▪ Nutrition ▪ Emergency medicine ▪ Acute care ▪ Chronic care ▪ Rehabilitation ▪ Alternative therapies ▪ Patient referral	▪ Recognition of causes of threats to health and individuals at risk ▪ Implementation where appropriate of basics of prevention ▪ Collaboration with other health professionals in health promotion and disease prevention	▪ With patient ▪ With relatives ▪ With colleagues ▪ With agencies ▪ With media/press ▪ Teaching ▪ Managing ▪ Patient advocate ▪ Mediation and negotiation ▪ By telephone ▪ In writing	▪ Patient records ▪ Accessing data sources ▪ Use of computers ▪ Implementation of professional guidelines ▪ Personal records (log books, portfolios)

B

How the doctor approaches their practice – "*doing the thing right*"

Intellectual Intelligences		Emotional Intelligences		Analytical & Creative Intelligences	
8 Understanding of social, basic & clinical sciences & underlying principles		**9** Appropriate attitudes, ethical understanding & legal responsibilities		**10** Appropriate decision making skills, and clinical reasoning & judgement	
▪ Normal structure and function ▪ Normal behaviour ▪ The life cycle ▪ Pathophysiology ▪ Psychosocial model of illness ▪ Pharmacology and Clinical Pharmacology ▪ Public health medicine ▪ Epidemiology ▪ Preventative medicine and health prevention ▪ Education ▪ Health economics		▪ Attitudes ▪ Understanding of ethical principles ▪ Ethical standards ▪ Legal responsibilities ▪ Human rights issues ▪ Respect for colleagues ▪ Medicine in multicultural societies ▪ Awareness of psychosocial issues ▪ Awareness of economic issues ▪ Acceptance of responsibility to contribute to advance of medicine ▪ Appropriate attitude to professional institution and health service bodies		▪ Clinical reasoning ▪ Evidence-based medicine ▪ Critical thinking ▪ Research method ▪ Statistical understanding ▪ Creativity/ resourcefulness ▪ Coping with uncertainty ▪ Prioritisation	

C

The doctor as a professional – "*the right person doing it*"

Personal Intelligences

11 Role of the doctor within the health service	12 Personal development

▪ Understanding of healthcare systems
▪ Understanding of clinical responsibilities and role of doctor
▪ Acceptance of code of conduct and required personal attributes
▪ Appreciation of doctor as researcher
▪ Appreciation of doctor as mentor or teacher
▪ Appreciation of doctor as manager including quality control
▪ Appreciation of doctor as member of multi-professional team and of roles of other healthcare professionals
	▪ Self learner
	▪ Self awareness
	  • enquires into own competence
	  • emotional awareness
	  • self confidence
	▪ Self regulation
	  • self care
	  • self control
	  • adaptability to change
	  • personal time management
	▪ Motivation
	  • achievement drive
	  • commitment
	  • initiative
	▪ Career choice

RM Harden, JR Crosby, MH Davis, M Friedman (1999). From competency to meta-competency: a model for the specification of learning outcomes. *Medical Teacher* 21(6): 546-552. See also AMEE Education Guide No 14: Outcome-based Education.

A comparison of learning outcomes in the different areas of the three circle model

	A What the doctor is able to do *"What to do"*	B How the doctor approaches their practice *"How to do it"*	C The doctor as a professional *"What to be"*
1 **The theme**	Doing the right thing	Doing the thing right	The right person doing it
2 **Intelligences**	Technical intelligences	Academic, emotional, analytical and creative intelligences	Personal intelligences
3 **Definition**	Well defined and understood A programme with a finite end	Less well defined and understood A continuous process of learning	Poorly defined and understood
4 **Scope**	Basic threshold competences Training learner to follow prescriptions	Additional outcomes related to competent performance and quality care. Teaches learner to makes choices	Metacognition and personal development
5 **Level of attainment**	Mastery requirement for all doctors	Core competences but open-ended - disguises star performers from others	Personal attributes greatest in outstanding practitioners
6 **Observability**	Explicit - visible Actions	Explciti but less visible Thoughts and feelings	Implicit - implied Personal development
7 **Discreteness**	Components of competence	Clinical performance	Overall professional performance
8 **Response to change**	Anchored in past. Has to be unlearned when circumstances change	Looks forward to future. Can be built upon in changing circumstances	'Adaptable' practitioners
9 **Focus for attention**	The clinical task	Interaction of task and doctor	The doctor
10 **Knowledge**	Embedded in competencies	Basis for understanding	Basis for further development
11 **Teaching/learning**	Acquisition of knowledge and skills, eg through lectures and clinical teaching	Reflection and discussion, eg with small group work and problem-based learning	Role modelling and student-centred approaches to learning. May be the hidden curriculum
12 **Assessment**	Assessment of mastery at points in time in specific areas	Developmental assessment of student change and growth over time	Overall developmental assessment of student professional growth

RM Harden, JR Crosby, MH Davis, M Friedman (1999). From competency to meta-competency: a model for the specification of learning outcomes. *Medical Teacher* 21(6): 546-552. See also AMEE Education Guide No 14: Outcome-based Education.

Progression towards exit outcomes – four dimensions

Increased Scope		Increased Utility	Increased Proficiency
Increased Breadth A → A+B+C	Increased Difficulty A → A	Application (to medical practice) A → A	Increased Accomplishment A → A
■ Extension to more or new topics ■ Extension to different practice contexts ■ Accommodation of existing knowledge or skills to new knowledge or skills	■ More in-depth or advanced consideration ■ Application to a more complex situation • move from a unidimensional straight forward situation to one involving multiple problems or systems • move to multifactorial problems involving different factors (eg social, ecomonical, medical) • complications (eg associated with treatment) ■ Less obvious or more subtle situations • fewer cues • less obvious cues • atypical cues	■ Move from general context to specific medical context ■ Move from theory to practice of medicine ■ Move to integration into the role of a doctor • an integrated repertoire involving a holistic approach to practice and bringing together the different abilities expected of a doctor • dealing with and reconciling competing demands, such as time spent on *curative* and *preventative* medicine	■ More efficient performance • better organised • more confident • takes less time • more accessible • less unnecessary or redundant action • higher standards • fewer errors ■ Less need for supervision ■ Takes initiative and anticipates events ■ Better able to defend and justify actions ■ Adopts routinely as part of practice

AMEE Medical Education Guide No.14

- Callahan D (1998). Medical education and the goals of medicine. *Medical Teacher* 20(2): 85-86.
- Hamilton JD (1999). Outcomes in medical education must be wide, long and deep. *Medical Teacher* 21(2): 125-126.
- Harden RM, Crosby JR & Davis MH (1999). An introduction to outcome-based education, *Medical Teacher* 21(1): 7-14.
- Smith SR & Dollase R (1999). Planning, implementing and evaluating a competency-based curriculum. *Medical Teacher* 21(1): 15-22.
- Friedman Ben-David M (1999). Assessment in outcome-based education. *Medical Teacher* 21(1): 23-25.
- Ross N & Davies D (1999). Outcome-based learning and the electronic curriculum at Birmingham Medical School. *Medical Teacher* 21(1): 26-31.
- Harden RM, Crosby JR, Davis MH & Friedman M (1999). From competency to meta-competency: a model for the specification of learning outcomes. *Medical Teacher* 21(6): 546-552.

Medical Teacher (2002): Vol 24(2)

- Harden R M (2002). Developments in outcome-based education. Editorial. *Medical Teacher* 24(2): 117-120.
- Schwarz M R & Wojtczak A (2002). Global minimum essential requirements: a road towards competence-oriented medical education. *Medical Teacher* 24(2): 125-129.
- Core Committee, Institute for International Medical Education (2002). Global minimum essential requirements in medical education. *Medical Teacher* 24(2): 130-135.
- Simpson J G, Furnace J, Crosby J, et al (2002). The Scottish doctor – learning outcomes for the medical undergraduate in Scotland: a foundation for competence and reflective practitioners. *Medical Teacher* 24(2): 136-143.
- Harden R M (2002). Learning outcomes and instructional objectives: is there a difference? *Medical Teacher* 24(2): 151-155.

期望台灣醫學生具備的能力

知識／技能	態度	組織／環境／制度	能力／結果	習慣
學習自我批判與反省	謙卑，放下身段，容忍缺陷 誠信，開放的心胸	學習評估著重在反省 鼓勵誠實行爲的環境	常自我反省，降低優越感 誠實	終身自我成長
獨立思考，明辨是非 推理能力，邏輯演繹，辯論 對不確定性的詮釋與思考	明確的價值觀 開放的心胸	考試內容方式鼓勵思考 上課著重推理	能獨立思考及明辨是非 有自我學習的能力	能獨立思考及明辨是非 終身學習
博學多聞，顧及全人均衡發展 懂得時間管理	有理想，挑戰權威的勇氣及智慧 能以優雅的態度接受失敗 (幽默) 疼愛家人，從家人做起	上課時間不要太滿 學生能彈性選擇課程 鼓勵學生參與課外活動	瞭解自己的極限，能抗壓 身心成熟健全，能接受挫折 公私兼顧	終身自我成長 顧及事業及家庭的發展
具備倫理思辯的能力 基礎法律及倫理常識和訓練	明確的價值觀，不傷害原則 能身體力行	鼓勵道德倫理的環境	有道德倫理及責任感 身教	身體力行
專業知識、能力和技能 能運用基礎和臨床知識 能查詢資料及運用科技	對專業的敬重與使命感 不傷害原則，求知的態度 身體力行，有彈性及適應力	以實證醫學教法上課 理論和運用要結合 圖書和網路設備足夠	實踐專業知識、能力與技能 表現高照護水準 有危機處理及應變能力	終身學習 有彈性，能適應變化
分辨疾病/病痛，疼痛/痛苦之差別 敏銳的觀察力，不要物化病人 聆聽他人講話，建立病人信任感 對病人的心靈及家庭問題的瞭解 知道有哪些資源可運用	視病猶親，感同身受，人溺己溺 慈悲，有同理心，敏感度 對病人及其病痛關懷、負責 平等心，尊重他人，尊重生命 有彈性及適應力	對病人提供全人的照顧 注重宗教和社工服務 鼓勵學生展現其慈悲心 提供學生服務學習機會	有同理心，以病人爲中心 能獲得病人的信任 對病人負責 身教，同時展現慈悲與智慧 有危機處理及應變能力	以病人最大利益爲準則 以關係爲導向
提高領導能力，解決問題的能力 學習良好的文字和口語溝通 協調能力	團隊的精神 尊重他人，適應力 解決問題的態度及責任感	課程活動多以小組進行 不鼓勵個人英雄行爲 問題導向的學習	良好團隊合作 能夠良好的溝通與協調 能解決問題	以關係爲導向
不同文化的理解及溝通 對病人社會經濟問題的瞭解 對社會文化及國際事務瞭解 具備實踐的能力	容忍不同，對別人有興趣 對社會文化的關懷，有國際關 挑戰權威的勇氣及智慧 有理想性，責任感	學生多元化 (招生時) 鼓勵學生參與社會活動	病人之倡議，社會責任 身教，說到做到 有文化敏感度及能力	持續關懷社會問題， 甚至是國際問題

Definition of Medical Humanities

We define the term "medical humanities" broadly to include an interdisciplinary field of humanities (literature, philosophy, ethics, history and religion), social science (anthropology, cultural studies, psychology, sociology), and the arts (literature, theater, film, and visual arts) and their application to medical education and practice.

The humanities and arts provide insight into the human condition, suffering, personhood, our responsibility to each other, and offer a historical perspective on medical practice.

Attention to literature and the arts helps to develop and nurture skills of observation, analysis, empathy, and self-reflection -- skills that are essential for humane medical care.

The social sciences help us to understand how bioscience and medicine take place within cultural and social contexts and how culture interacts with the individual experience of illness and the way medicine is practiced.

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Introduction to Medical Humanities

Prepared for 臺大醫學院「人與醫學」課程

by 何明蓉

資料來源：Centre for Medical Humanities

University College of London

What is medicine

- Science
- Arts

What is humanities

- Systematic forms of study concerned with recording and interpreting human experience.
- Human body as intertwining of natural and existential dimensions
- Typically include literature, history, philosophy, ethics, arts

What is medical humanities

- An interdisciplinary recording and interpreting of human experiences of illness, disability, medicine and health care
- What unifies diverse disciplines: reflect the human experiences of medicine, seen through the humanities.

Windows to view medicine

- Literature and arts: appreciate metaphors people use to convey their experiences
  培養觀察力與想像力
- History: evolution of contemporary medicine, draw on the past to reflect on the present and gauge the future, history taking
- Philosophy: meaning of life

UCL Centre for Medical Humanities
(1998-2006)

- To raise awareness of medical humanities as an academic discipline
- Medical humanities is an interdisciplinary, and increasingly international endeavor that draws on the creative and intellectual strengths of diverse disciplines, including literature, art, creative writing, drama, film, music, philosophy, ethical decision making, anthropology, and history, in pursuit of medical educational goal.

UCL Centre Educational Objectives

- to connect with, or appreciate, the perspective of all those affected by illness: the person who is ill, the persons who love them, and the professionals involved in their care
- to facilitate reflection on the physician's own practice, on its strengths and weaknesses, so that he or she can build on the former and address the latter
- to provide both cultural and historical perspectives on illness and health care

Career Example

- Wayne Lewis was general practitioner who escaped the pressures of clinical medicine through literature (novels and poetry). He was frustrated by the divided intellectual life. Gradually, he started to use literature to teach medical students in discussion of medical ethics. After he completed an MA in medical humanities at Swansea, he got interested in philosophy of science and theology. This opened up new horizons and allowed him to reflect on his clinical activities in all sorts of unexpected ways. Practically, he was able to incorporate discussion of religious issues, particularly surrounding bereavement, into his practice. He became a lecturer teaching literature and philosophy to medical students at the University of Wales College of Medicine, and took up a post of lecturer in medical humanities at Swansea, teaching the MA course.

"Medical humanities" – how broadly to use this term?

by Dr. Gordon Harper

"Medical humanities" has become a popular phrase in medical education. Like many phrases that become widely used, it may have very different meanings to different people. For instance, to some it may mean something as broad as the entire range of those components of medicine that we consider (correctly or not) to be "non-biological" – everything from doctor-patient communication to medical ethics to the organization of care. To others it may have a more restricted meaning, such as the use in medicine of creative (as opposed to scientific) literature.

One way to clarify the resulting confusion is to review the routes through which the English language has acquired this word.

From the Latin noun *homo*, meaning a person, came the adjective *humanus.* This word is gender-neutral, referring to both men and women. (The Latin gender-specific terms are *vir* (man) and *mulier* (woman).

We use the Latin noun *homo* today in scientific terms for species, like *homo sapiens,* meaning the person (or people collectively) who is distinguished from other primates (or *hominids)* by the use of thinking.

The Latin noun and adjective occur in an epigram from Terrence that is often taken as a definition of an inclusive, as opposed to an intolerant, definition of self: "*Homo sum; nihil humani mihi alienum puto*" can be translated, "As a human being, I consider nothing that people do alien to me."

Possibly related to *homo* and *humanus* are another Latin noun and adjective, *humus* (n), earth, and *humilis* (adj) of the earth, or lowly.

Not related to the Latin *homo* is the Greek root *homo,* meaning same or identical, as in "homosexual," referring to same-gender sexual orientation. Notorious in our age has become the shorthand word, almost always severely pejorative, "homo" as used as a noun for a gay male or as an adjective for anything deemed insufficiently masculine.

From *humanus* the modern languages derive a host of words with quite different meanings:

1) Humane (adjective). First we have the adjective "humane," a word that *could* mean anything that characterizes people, but in contemporary English means "kind" or "considerate." Generous behavior, particularly to those less well off, may be called "humane," as in "That was a very humane thing he did, giving

his coat to the poor man." "Humane" may also be used to characterize protective behavior to animals; organizations devoted to animal protection, for example, are called "humane societies."

We collectively flatter ourselves in defining compassion as what distinguishes people from other species. Compassionate behavior occurs in other animals, to be sure. And characterize our species, from our capacity for language, to our tendency to define ourselves in groups according to shared ideas, or our vulnerability to do violence to others who do not share the same ideas. Anyone recalling these species differences might challenge the idea that what sets *homo* sapiens apart is our capacity for compassion.

Whether the equation of "humane" (which designates what is specific to the species *homo sapiens*) with compassion, among many possible attributes of people, is justified or not, most of the related words that follow, it will be clear, build on this equation.

2. Humanity (noun). This word has two meanings:

i) (collective) all people, as in, "...a great gift to humanity";

ii) (abstract) compassion, benevolence, "that was an act of great humanity".

3. Humanitarian (adjective), humanitarianism (noun). These refer to charitable attitudes or activities, that is, those undertaken on behalf of others for altruistic as opposed to selfish motives.

4. Humanize (verb) – to make more sympathetic, more understandable, that is, to show a person to have features in common with other people.

Related are the verb "to dehumanize" and the noun "dehumanization," used in psychology and political science to refer to process that *take away* the essential characteristics of people. They are used, for instance, to describe processes that accompany group prejudice and that are used instrumentally, for instance in warfare – to render the enemy as one seen not as a person in order to justify killing him. At the extreme is the dehumanization that occurs in genocide – making the victims appear not human beings, not part of the same human community.

Of interest to medical educators is the popular use of "dehumanize" to refer (critically) to something that happens in the course of professional training, meaning the way that medical students or physician can appear to lose feeling for other people, compared to the way they were before becoming physicians. It

can be argued that such perception is mistaken, that what is happening is not a taking away but the acquisition of the ability to perform a professional activity without being distracted by personal or emotional reaction, what Osler called "aequanimitas."

4. Humanism (noun. A set of values and studies that take people as the reference point, in contrast to religious or spiritual discourse in which an extra-human source of ideas or values is assumed. Pope's couplet (below under 5) is taken as the signature statement of this attitude.

In contemporary controversies over the place of religion in society, humanism (or, secular humanism) is often invoked positively or negatively in contrast to organized religion.

5. Humanities (noun in plural form, may be used singular). The body of knowledge, or the study of that body of knowledge, bearing on the experience of people, but in a subjective, individual sense, often linked to fiction as opposed to non-fiction; creative literature as opposed to scientific literature.

The link between humanity, as a collective, and humanities, as a field of study, recalls a famous couplet of the English poet, Alexander Pope: "Know thyself, presume not gods to scan; the proper study of mankind is man". But the phrase "study of man" brings another distinction to mind. Our modern word "anthropology", coined in the 19th century from Greek roots, means "study of man", but in a scientific sense, either from a biological point of view (physical anthropology) or social and cultural point of view (cultural anthropology); does *not* include the study of literature).

For many, the line from "humane," meaning compassionate, to "humanities," meaning the study of (non-scientific) literature, reflects the assumption that such study contributes to our understanding of other people, and so to compassionate behavior. This is an important assumption when applied to education. Not all educators share this assumption, including not all medical educators. But the assumption deserves and ought to be susceptible to empirical testing.

5. Medical humanities (noun). We see this phrase used in two senses.

i) More restrictively: fictional writing, or the study or use of that writing, in medicine or medical education. This may include

- personal memoirs by physicians or students;

- personal memoirs by patients about experience with illness;
- stories (not necessarily fictional) about the experience of illness; or
- fiction in general, used to promote understanding of others' point of view, sensitivity to others' experience, or self-understanding.

ii) More broadly: the range of *non-biological* subjects in medicine, including

- medical history,
- medical ethics,
- professional development,
- cultural competence,
- the patient-doctor relationship and patient-doctor communication,
- even medical sociology, medical anthropology, or medical economics.

Given the ascendancy during the 20th century of narrowly defined biomedicine, and the increasing potency of biological interventions, it may be understandable that we lump together "everything else in medicine". But such convenience may not be the best way to clarify our educational goals – what kinds of physicians we want to graduate, our educational strategies – how we think we can produce such physicians, and our methods of assessment – how we will know whether we are achieving what we set out to do.

We also encounter here, in the spirit of finding the whole fabric by starting with any single thread, the larger questions of what medicine will consist of, what medical care will aim to provide to the sick and suffering, and how we organize domains of knowledge that expand at greatly differing rates.