實證醫學

成功大學 口腔醫學研究所 黃振勳

實證醫學

- 內容大綱
- 實證醫學的緣起由來
- 牙醫師PGY課程的實證醫學
- 牙醫實證醫學的雜誌與資料庫
- 教導實證醫學課程的教案實例
- 課程後的學員回饋與自我評估

實證醫學的緣起由來

- 1972, 英國流行病學家Archie Cochrane提出實證 醫學的概念,
- 1992, Guyatt et al. 在McMaster U提出實證醫學
- 考科藍合作組織 & 考科藍實證醫學資料庫(The Cochrane Library) 考科藍合作組織(The Cochrane Collaboration)是一個國際性、非營利性且獨立的機構,Sackettm DL 建立於1993年。

羅恆廉等2009

牙醫的實證醫學

 "...an approach to oral health care that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences."

defined by the American Dental Association (ADA),

牙醫師PGY課程的實證醫學

- 實證醫學融入牙醫師PGY的課程
- 實證醫學教學8 小時,應完成至少2 例實際 案例報告(含操作過程)
- 實證醫學教育應用於牙醫師PGY課程的教學與評估,例如 社區牙醫學的教學 社區牙醫訓練的CSR評量 一般病患全人醫療照護的mini-CEX評核

二年期牙醫師畢業後一般醫學訓練計畫之訓練項目

訓練內容	時數	備註
醫學倫理、法律與醫療糾紛 處理	8小時	應完成至少2 例實際案例研 討
實證醫學	8 小時	應完成至少 2 例實際案例報告(含操作過程)
感染控制與廢棄物處理	6小時	
急救訓練(ACLS)	16 小時	應完成「中華民國高級心臟 救命術聯合委員會」認可之 ACLS 學員訓練課程,並取 得證書。
醫療品質及病人安全	6小時	應完成至少2 例醫療品質及 病人安全實際案例研討
病歷寫作	4 小時	
衛生政策	4 小時	
健康保險與健保事務	8小時	
口腔醫務管理與轉診處理	4 小時	
口腔病理診斷	4 小時	

一般病患全人醫療照護及治療計畫擬定 (mini-CEX)

編 必修1:一般病患全人醫療照護及治療計畫擬定 (mini-CEX)

集员从女:

	評等項目	4	有待加:	強	4	子標	2		優良		未
	ग्रन्थ्र	1	2	3	4	5	6	7	8	9	N
1	醫療面談										
2	口腔檢查										
3	人道專業										
4	臨床判斷										
5	结商衛教										
_	1 -4 -1 -1										[
6	組織效能										
7	組織效能 整體適任										[
7							_	_			
7	整體適任						_	_			-
7	整體適任						_	_			

觀察時間: 分鐘,回饋時間: 分鐘

教師簽章:______ ■R1 ■R2

細號1

mini-CEX 評量指引 (牙科)

mini -CEX 評量採 3 等顯、9 等級計分;1 分至 3 分為 Unsatisfactory (有特加強), 4 分至 6 分為 Satisfactory (合予標準), 7 分至 9 分為 Superior (優良)。評量項目共分七大類, 其定義及操作型細目如下說明, 但操作型細目未必適合在每一位案例, 請依實際股股減虧的給分。

1、醫療面據(Medical Interview Skills):有效利用問題或導引來獲得所須知正確而 足夠的訊息;對病人之情緒及肢體語言能適當的回應。

操作型細日如下:適當的自我介紹,在問診的過程中先以開放性問題 (open-ended questions) 詢問:然後,漸進性的以特定性的問題認助病情判斷;保留締病人陳述病文的權利,不要打斷病人的發言;適時澄清收集的實訊是否正確;詢問病文時要有過轉位及系統性;適時整理並模要病史;注視病人,對病人情緒及肢體語言能有適當的回應

2、口腔檢查(Oral and Maxillofacial Examination Skills):依效率及合理之次序;依病情圧碳的操作構造或診斷之步轉;告知檢查事項;適當而審價的處理病人之不論。

操作型細目如下:進行口腔檢查前後要記得洗手、截乎套口罩;必要時,請助理人 員在旁:檢查過程中要注意病人的舒適威;檢查過程中要注意病人的隱私;頒內病 人說明即將進行的檢查;依據適當之治療計畫執行;照正確的檢查技巧執行;正確 完成必要的告聽。

3、人道專案(Humanistic Qualities/Professionalism):表現尊重、關懷、同理心; 建立信賴感;處理病人對病情相關訊息的需求。

操作型細目如下:剪病人及病情表示與趣;即使是病人的小問題,也表達關心:獲 拌病人的信任:專童病人信仰:病人服意向醫生說出困擾的事情;表現出服和性; 了解病人面臨問題的心態壓射並表述問理。

4、臨床判斷(Clinical Judgment):適當的處置診察步驟;考慮利弊得失。

操作型細目如下:根據病吏及口腔檢查結果歸納出可能的診斷;依問題優先順序選 撰檢查;會運用實證醫學的原理;提供適當醫療處置及治療計畫,並考慮其利弊 得夫及醫療故量;讓成人來與醫療決定

5、結兩衛教(Counseling Skills):解釋檢查或處置的基本理由;獲得病人同意;提供有關處置之教育與結局。

操作型知日如下:检查或置模得病人同意;有提供教育與諮詢:提供相關治療的替 代票: 內病人解釋檢查或治療的方法、利弊及注意事項: 會會知檢查或置的不確 定性: 會評括病人是否己了解醫師的說明;有按求病人對檢查或置的喜好

6、組織效能(Organization/Efficiency):按優先順序處置;及時而適時;歷練而簡潔。

操作型细目如下:有系統的呈現病例,找出問題建立先後順序,正確的檢查及處置 去瞭。

7、整體適任(Overall Clinical Competence):執行臨床演練綜合表現。即為您對受 試學員之整體感覺判斷,此大項無操作型細目。

社區牙醫訓練 (CSR)

細號7

評量日期:____年___月___日

必修 2: 社區牙醫訓練 (CSR)

涨請注意!所有評等項目皆須評核且達最低標準(4分以上),本訓練項目結束後之評核

學員姓名:_

教師姓名:

方能採計為通過。

地點與對象:□柱區 □學校 □偏遠地區 □身心障礙

項 目:□衞教 □義珍 □錦檢

好草項目	- 7	有待加多	k	1	合乎標準	l.	優良			未評
计手模目	1	2	3	4	5	6	7	8	9	NA
1.記錄評估										
資料完整性										
任務配合性										
器材準備										
2.執行力評估										
實料綜合分析能力										
專案素養										
选购與预防醫學										
學習檢討(由評核教師	提問	書寫)	:							
 此次服務,讓您學 	创什麽	?								
2. 此次服務,您認為:	有那些	缺點?	•							
 出次服務,您認為: 	有那些	須再か	強?							
※評估優良或有待加別	线時,1	清教師	依評等	項目:	尼項說	明回饋	t:			
評估時間:分	鐘,	回饋時	間:_		分鐘					
教師簽章:		Ą	員簽	k:_				□R1	□F	22

超號7

病歷回顧口頭測驗評分項目說明

目的:評估學員對於社區牙醫訓練參與度及執行力

※資料完整性:事前的聯繫諮詢,按優先順序,有系統呈現此次服務行程目的及步驟

※任務配合性:針對選擇的任務及提供的醫療項目,提出適當方案 任務編組:口腔問題之醫療規劃,提供者,諮詢者,教育者,協調者

提供醫療項目:衝教,義診或篩檢等

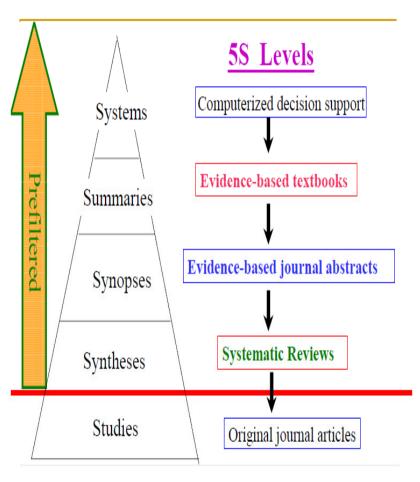
※器材準備:針對任務及醫療項目性質,準備教材、器械或材料供應。尤其是義診或篩檢 須使用的器械及材料的感控處置

※資料線合分析能力:針對此次行程所收集的記錄,有系統整理分析,適當討論

※專業責養:對病人/民眾關懷,態度觀切負責認真,提供教育與諮商,相關治療方案

※追蹤與預防醫學:瞭解執行情況及所遭遇之問題及困難,具體建議改善措施

牙醫實證醫學的雜誌與資料庫



Haynes et al. 2006.

- Evidence-based journal abstracts: Evidence Based Dentistry, Journal of Evidence-Based Dental Practice
- Systemic reviews: Cochrane Database of Systematic Reviews
- Original journal articles: professional dental journals, PubMed, OVID, Google Scholars, etc.



考科藍實證醫學資料庫

- 考科藍合作組織 & 考科藍實證醫學資料庫(The Cochrane Library) 考科藍合作組織(The Cochrane Collaboration)是一個國際性、非營利性且獨立的機構,建立於1993年,以英國流行病學家Archie Cochrane的名字來命名。
- 此組織致力於提供目前世上關於健康照護成效之最新的、最精確的訊息,並且宣傳健康照護之系統性回顧以及促進臨床試驗之證據檢索。 考科藍合作組織最主要的產品即爲Cochrane Database of Systematic Reviews(CDSR, 即本中文化計畫翻譯的文獻資料庫),每年分四季出版於The Cochrane Library電子期刊中。
- Cochrane Database of Systematic Reviews的作者皆為專業的健康照護工作者,並且志願加入51個Cochrane Review Groups之一後(即51個疾病群組),與該群組的編輯團隊共同來完成每一篇的文獻,每一篇文獻也都經過嚴格的品質審檢後才能被出版。
- 有中文翻譯文獻
- Oral Health Group

國家衛生研究院

實證牙醫學雜誌



Bridging the gap between research and dental practice, **EBD** provides a single source of ground breaking issues in Dentistry. We filter out the best range of evidence from a wide range of sources, presenting clear, comprehensive and easily digestible summaries.





SUMMARY REVIEW/PERIODONTAL DISEASE

No difference between 0.12% and 0.2% chlorhexidine mouthrinse on reduction of gingivitis

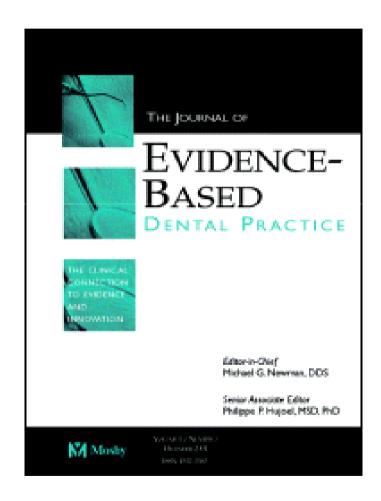
Abstracted from

Berchier CE, Slot DE, Van der Weijden GA.

The efficacy of 0.12% chlorhexidine mouthrinse compared with 0.2% on plaque accumulation and periodontal parameters: systematic review. J Clin Periodontal 2010; 37: 829–839. Epub 2010 Jul 7.

 Question: In adult patients is 0.12% chlorhexidine mouthrinse (CHX) as effective as 0.2% CHX in reducing plaque accumulation and improving periodontal parameters?

The Journal of Evidence-Based Dental Practice



REVIEW ANALYSIS & EVALUATION

MATICLE TITLE AND RELICIONAPHIC REPORTATION

Contamble of these Control and Provention. Press rate of containment in mugh solved found container programs rap data of recommends also as and remiserum f entitions.

Country Cortin CO, Corp CE, Alaboreco, Bening CO, Ching H, et al. Liter Secretaria: 2009-1407/190304-05.

THE RESERVE

Hatella I. Chalmans, DOC, PAO

или оплаждиватиона

To up this title recommendations for makes on. In all notificand on last programs (1000%) has discribe over studies title artise on.

SOURCE OF PURPORTS

The work group recupes and by the Centure for Disease Control and Promotion (CDC) in Advanta, Georgia.

TYPE OF BIT LEWIS BEINGS

Spokenskie sedan

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CONTRACTOR OF STREET

Application of Seabots Through

School-Based Sealant Programs Decreases Dental Carles Provalence

STATE OF THE PARTY.

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The General for Distance General and Percentains (GDR), this mappears as all an engine and groups as review in a silvanial or distance and quitare for review made in the resident and the resident and the resident and the resident and the programme (GDR) regarding (5) the effect forces on the resident of the resident and a solar solar and and the resident and th

The reliabious is solven who would by the considerations who are not considerate as a search of difference within a facilities in proper the consideration places considerate and places are the configuration. As the construction of the basis, the basis, the basis (a) there are better any that are reviews one consideration of the construction of

paramite review.

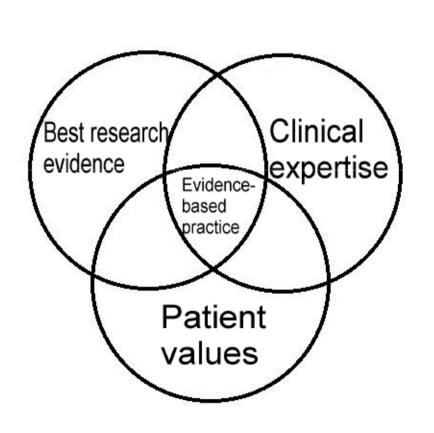
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- The officer between all regions: (i) as our not and cortain pix and the account theory (ii) are presenting the program into all as continued or including ones local allows as artificially part (iii) as well using however break in action and parties between
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- 8. The offers in reconstruction and places conservables a state regard to (1) the closuring markeds as a main slopes or reconstructed. By manufacturing (8) the effects of a first or other ingression and proposition in related one long is brightful as after the site of the parameters are used (9) the solid one as blanched one to the latest of a polying form to recold a result.
- But all thereighing surface in such disease as any child we wise an interface law on the Bissamp and the school surface research, and made on surveil.

教導實證醫學課程的教案實例



- 最佳證據
- 臨床專業
- 病患期望

實證醫學的五個步驟

- 提出問題 (Question formulation)
- 搜尋證據 (Evidence search)
- 嚴格判讀 (Critical appraisal)
- 恰當運用 (Evidence application)
- 評估結果 (Outcome evaluation)

教導實證醫學課程的教案實例



文獻證據等級

Oxford Centre for Evidence-based Medicine Levels of Evidence (May 2001)

l			₩.		
Level₽	Aetiology/Harm₽	Prognosis₽	Diagnosis.,	Differential diagnosis/symptom prevalence study.	Economic and decision analyses.
.1.a.,	SR (with <u>homogeneity*</u>) of <u>RCTs</u> .,	SR (with <u>homogeneity*</u>) of inception cohort studies; <u>CDR†</u> validated in different populations.	SR (with homogeneity*) of Level 1 diagnostic studies; CDR† with 1b studies from different clinical centres.	SR (with homogeneity*) of prospective cohort studies	SR (with homogeneity*) of Level 1 economic studies.
1b.,	Individual RCT (with narrow Confidence Interval±).	Individual inception cohort study with ≥ 80% follow-up; <u>CDR†</u> validated in a single population.	Validating** cohort study with good††† reference standards; or CDR† tested within one clinical centre.	Prospective cohort study with good follow-up****.	Analysis based on dinically sensible costs or alternatives; systematic review(s) of the evidence; and including multi-way sensitivity analyses.
.1.C.,	All or none§.,	All or none case-series.	Absolute SpPins and SnNouts††.,	All or none case-series.	Absolute better-value or worse-value analyses ††††
2a.,	SR (with <u>homogeneity*</u>) of cohort studies.	SR (with homogeneity*) of either retrospective cohort studies or untreated control groups in RCTs.	SR (with homogeneity*) of Level >2 diagnostic studies.	SR (with homogeneity*) of 2b and better studies	SR (with homogeneity*) of Level >2 economic studies.
2b.,	Individual cohort study (including low quality RCT; e.g., <80% follow-up).	Retrospective cohort study or follow- up of untreated control patients in an RCT; Derivation of <u>CDR†</u> or validated on split-sample§§§ only.	Exploratory** cohort study with good†††reference standards; CDR† after derivation, or validated only on split-sample§§§ or databases.,	Retrospective cohort study, or poor follow-up.,	Analysis based on dinically sensible costs or alternatives; limited review(s) of the evidence, or single studies; and induding multi-way sensitivity analyses.
2¢.,	"Outcomes" Research; Ecological studies.	"Outcomes" Research	л	Ecological studies.	Audit or outcomes research.
3.a.,	SR (with <u>homogeneity*</u>) of case- control studies.	.1	SR (with homogeneity*) of 3b and better studies.	SR (with homogeneity*) of 3b and better studies.	SR (with homogeneity*) of 3b and better studies.
3b.,	Individual Case-Control Study.	a	Non-consecutive study; or without consistently applied reference standards	Non-consecutive cohort study, or very limited population.,	Analysis based on limited alternatives or costs, poor quality estimates of data, but including sensitivity analyses incorporating clinically sensible variations
4.,	Case-series (and poor quality cohort and case-control studies§§).	Case-series (and poor quality - prognostic cohort studies***).	Case-control study, poor or non- independent reference standard	Case-series or superseded reference standards.	Analysis with no sensitivity analysis.
5.1	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles".	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles".	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles".	Expert opinion without explicit critical appraisal, or based on physiology, bench research or "first principles".	Expert opinion without explicit critical appraisal, or based on economic theory or "first principles".

a)

Produced by Bob Phillips, Chris Ball, Dave Sackett, Doug Badenoch, Sharon Straus, Brian Haynes, Martin Dawes since November 1998.

系統性文獻回顧和傳統的文獻回顧



- 文獻的選擇
- 篩選的條件
- 證據力的評估
- 綜合分析 (Meta-analysis)

實證醫學的訓練目標:

- 課程結束後,使參加者能列出實證醫學的基本概念。包括:
- 1. 可以依「臨床情境」以PICO原則,形成「可回答的問題」。
- 2. 認識並熟悉EBM常用資料庫(包括EBM database,實用醫學網路入口等)
- 3. 會使用medline或是PubMed,能依據問題設定關鍵(Keyword, MeSH)字,利用「clinical queries」介面進行資料搜尋,並知道如何獲得電子版全文。
- 4. 會判斷文獻證據等級。
- 5. 會使用評讀文獻輔助工具(Critical Appraisal Skill Program)來評讀有關「治療」或/及「診斷」的文獻。
- 6. 展現「教育處方紀錄單張」的臨床實務運用。

成大醫院畢業後一般醫學訓練計畫

http://educ.hosp.ncku.edu.tw/pgy/formulation.asp

課程後的學員回饋與自我評估

- 編寫實証醫學教材
- 提出教育處方
- 如何幫助學員提出可以回答(四部份)的問題
- 指導和示範搜尋文獻與資料庫的技巧
- 嚴格判讀及判斷文獻的證據等級
- 文獻的結論建議與實際的臨床醫療
- 評估教學效果
- 從學員的回饋中學習