

Specialty Program Accreditation 2012 – Course Outline 2011-2012

2.3.15.c.1 Course Title: **Clinical Epidemiology and Evidence-Based Care**
Course Number: **DEN1014S**
Academic Year Offered: **Each year**

<u>Format</u>	<u>Number of hours</u>
Lecture	
Field Work	
Seminar	20
Clinical	
Other (test)	2
Total course hours:	22

2.3.15.c.3 Academic unit responsible for this course:

Department of Graduate and Postgraduate Studies, Faculty of Dentistry

2.3.15.c.4 List the names of all teachers actively involved in presenting the course. Please use two or three columns to save space.

Course Director: **Dr. Asbjorn Jokstad**

Instructors: **All presentation are done by course participants**

2.3.15.c.5 Describe the objectives and outcomes of the course.

Oral health clinicians and planners have to stay updated about the advances within their fields and need therefore learn how to critically appraise scientific literature. Moreover, conducting clinical practice research requires also particular skills and knowledge generally labeled under the tern “clinical epidemiology” or “Evidence-based practice”, AKA, Evidence-Based Health or Medicine.

Following general introductory lectures on Clinical Epidemiology, topics within the fields are to be presented by the course participants on a rotational basis. The presentations by the course participants will center on identified key literature located on an intranet website, although presentation and appraisal of alternative literature is also welcomed. It is expected that the key literature has been read by all course participants before each session. The sessions will revolve around: Searching for the Evidence; Bias & methodological design & measurements; Diagnosis; Prognosis ; Therapy ; Harm and Causality; Systematic Review and Clinical Guidelines.

2.3.15.c.6 Provide your course content outline below

Specialty Program Accreditation 2012 – Course Outline 2011-2012

Theme	Critical Appraisal of research paper:	Presenters	Discipline
Diagnos is	Dudic A, et al. Diagnostic accuracy of digitized periapical radiographs validated against micro-computed tomography scanning in evaluating orthodontically induced apical root resorption. Eur J Oral Sci 2008; 116: 467–72.	Marc E. Yarascavitch & Christine E. Hibberd	Orthodontic s &
	Shimazaki Y, Akifusa S, Takeshita T, et al. Effectiveness of the Salivary Occult Blood Test as a Screening Method for Periodontal Status. J Periodontol. 2010 Nov 2.	Reyhaneh Rezaei & Ryan S. Schure	Periodontol ogy
Prognosi s	Roskamp L, Westphalen VP, Lima JH, Carneiro E, Fariniuk LF, Silva Neto UX, Westphalen FH. The influence of atopy in the prognosis of the replantation of avulsed teeth. J Periodontol. 2009;80(7):1121-4.	Rajesh Krishan & Pavel Cherkas	Endodontics
	Peñarrocha M, Martí E, García B, Gay C. Relationship of periapical lesion radiologic size, apical resection, and retrograde filling with the prognosis of periapical surgery. J Oral Maxillofac Surg. 2007;65(8):1526-9.	Anousheh Persadmehr & Christina McCord	Endodontics & Oral Pathology
Therapy	Olympio KPK, et al. Effectiveness of a chlorhexidine dentifrice in orthodontic patients: a randomized-controlled trial. J Clin Periodontol 2006; 33: 421–6.	Sean E.V. Chung & Heather Nicole Ford	Orthodontic s
	Klaassen MA, Veerkamp JS, Hoogstraten J. Young children's Oral Health-Related Quality of Life and dental fear after treatment under general anaesthesia: a randomized controlled trial. Eur J Oral Sci. 2009;117(3):273-8.	Basma Dabbagh & Trang Doan Nguyen	Pediatric Dentistry
Systemat ic Review	De Vos W, Casselman J, Swennen GR. Cone-beam computerized tomography (CBCT) imaging of the oral and maxillofacial region: a systematic review of the literature. Int J Oral Maxillofac Surg. 2009;38(6):609-25	Hanadi M.H. Khalifa & King Chong Chan	Oral Radiology
	Kotsovilis S, et al. The adjunctive use of platelet rich plasma in the therapy of periodontal intraosseous defects: a systematic review. J Periodont Res 2009; doi: 10.1111/j.	Noah Turk	Periodontol ogy MSc
Aetiolog y	Dorocka-Bobkowska B, Zozulinska-Ziolkiewicz D, et al. Candida-associated denture stomatitis in type 2 diabetes mellitus. Diabetes Res Clin Pract. 2010;90(1):81-6.	Iavia S. Lakschevitz & Michael Duchnay	Oral Pathol/ Oral Medicine
	Morita I, Okamoto Y, Yoshii S, et al. Five-year incidence of periodontal disease is related to body mass index. J Dent Res 2011; 90(2):199-202.	Guy Moshe Aboodi & Corneliu Sima	Periodontol ogy
Meta- Analysis	Al-Jundi MA, John MT, Setz JM, Szentpétery A, Kuss O. Meta-analysis of treatment need for temporomandibular disorders in adult nonpatients. J Orofac Pain. 2008 Spring;22(2):97-107	Eszter Somogyi-Ganss & Brent Winnett	Prosthodont ics
Guidelin es	American Academy of Pediatrics; American Academy of Pediatric Dentistry, et al. Guidelines for monitoring and management of pediatric patients during and after sedation for diagnostic and therapeutic procedures: an update. Pediatrics 2006 ;118(6):2587-602.	Eun Kim & Sangeeta Kumari Patodia	Dental Anaesthesia
	California Dental Association Foundation;.. Oral health during pregnancy and early childhood: evidence-based guidelines for health professionals. J Calif Dent Assoc. 2010;38(6): 405-40	Edward Hyun Yoon & Darsi Josephe Perusini	Pediatric Dentistry
Impleme ntation	Wårdh I, et al. Which evidence has an impact on dentists' willingness to change their behavior? J Evid Based Dent Pract 2009;9(4):197-205.	Brandy Thompson & Alyssa N. Hayes	Dental Public Health
	Mettes TG, et al. Impact of guideline implementation on patient care: a cluster RCT. J Dent Res 2010;89(1):71-6	Abeer Khalid	Dental Public

Specialty Program Accreditation 2012 – Course Outline 2011-2012

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2.3.15.c.7 Evaluation procedures: Describe how students are evaluated in this course.

The evaluation is based on:

- (i) Attendance .10%
- (ii) Active seminar participation20%
- (iii) Demonstration of critical appraisal skills in lecture presentation30%
- (iv) Written essay on test day40%

2.3.15.c.8 Required texts and materials: List all required texts, manuals or other materials for this course.

- **Evidence-Based Medicine. Straus SE, Richardson WS, Glasziou P, Haynes RB (eds). 3rd ed. Elsevier, 2005.**
 - **Clinical Epidemiology. Haynes RB, Sackett DL, Guyatt GH, Tugwell P. (eds). 3rd ed. Lippincott Williams & Wilkins, 2006.**
 - **Evidence-Based Dentistry. An introduction. Hackshaw A, Paul E, Davenport E (eds.) Blackwell Munksgaard, 2006.**
- Plus Intranet site with full text references (.pdf)**

Home - Clinical Epidemiology and Evidence Based Care

Specialty Program Accreditation 2012 – Course Outline 2011-2012

Jan2011 print		
<input type="checkbox"/> Add new document		
January 19. 3. Bias & methodological design & measurements		
Name	Title	Comment
How to design trials	Elements to consider when writing a paper	Developed by A Jokstad - feel free to send feedback for improvement. Adopted from Altman DG. Practical statistics for medical research. Chapman and Hall, London. http://books.google.com/books?id=w-vwRnRwWQc&icq
Lecture 3 study methodologies print		Dr A Jokstad lecture
Lecture 3 study methodologies view		Dr A Jokstad lecture
Measurements	Carr AB, McGivney GP. Measurement in dentistry. J Prosthet Dent. 2000 Mar;83(3):266-71	EBD series in J Prosthet Dentistry.
Research Design Hierarchies	Jacob RF, Carr AB. Hierarchy of research design used to categorize the "strength of evidence" in answering clinical dental questions. J Prosthet Dent. 2000 Feb;83(2):137-52.	EBD series in J Prosthet Dentistry
Writing your first scientific paper	Items to remember	Developed by A Jokstad - feel free to send feedback for improvement.
<input type="checkbox"/> Add new document		
January 26. 4. Diagnosis and Screening.		
Name	Title	Comment
Checklist for critical appraisal of paper on diagnostics or screening	Adopted from: Sackett et al. Evidence Based Medicine. Elsevier 2005.	
Diagnosis 2011	Lecture slides Dr Jokstad	
Diagnosis Paper 1 Dudic et al apical root resorption	Dudic A, Giannopoulou C, Martinez M, Montet X, Kiliaridis S. Diagnostic accuracy of digitized periapical radiographs validated against micro-computed tomography scanning in evaluating orthodontically induced apical root resorption. Eur J Oral Sci 2008; 11	
Diagnosis Paper 2 Shimazaki et al Screening perio	Shimazaki Y, Akfusa S, Takashita T, et al. Effectiveness of the Salivary Occult Blood Test as a Screening Method for Periodontal Status. J Periodontol 2010.	
Diagnostic test evaluation	Eckert SE, Goldstein GR, Koka S. How to evaluate a diagnostic test. J Prosthet Dent. 2000 Apr;83(4):386-91	EBD series in J Prosthet Dentistry
Diagnostic Tests	From the Public Health Resource Unit (PHRU), U.K.	
Dudic et al. Root resorption	Critical Appraisal OF Dudic et al. Root resorption	Marc Yarescavitch & Christine Hibberd Orthodontics
Guide to Decision making	Needleman & Moles. A guide to decision making in evidence-based diagnostics. Periodontol 2000. 2005;39:164-77	
Review: Value of radiographs in Periodontology	Tugnait A, et al. The usefulness of radiographs in diagnosis and management of periodontal diseases: a review. J Dent. 2000 May;28(4):219-26.	
Screening for Oral Cancer	Downer MC, et al. A systematic review of measures of effectiveness in screening for oral cancer and precancer. Oral Oncol. 2006 Jul;42(6):551-60.	
Shimazaki et al. SOBT	Critical Appraisal OF Shimazaki et al. SOBT	Ryan Schure & Reyhaneh Rzaei, Periodontology
Wisdom tooth extraction and diagnostic tests	Mygare O, Ustian L. Repetitive imaging procedures for lower wisdom teeth removal. Clin Oral Investig. 2009 Dec;12(4):201-202	
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February 2. 5. Prognosis		
Name	Title	Comment
Checklist for critical appraisal of paper on prognosis	Adopted from: Sackett et al. Evidence Based Medicine. Elsevier 2005	
Cohort studies appraisal	From the Public Health Resource Unit (PHRU), U.K.	
Penerrocha et al	Critical Appraisal OF Penerrocha et al	Anoushah Persadmehr, Endodontics & Christine McCord, Oral Pathology
Prognosis 2011	Lecture slides Dr Jokstad	
Prognosis Paper 1. Roskamp Replantation	Roskamp L, Westphalen VP, Lima JH, Carneiro E, Fortnauk LF, Silva Neto UJ, Westphalen PH. The influence of atopy in the prognosis of the replantation of avulsed teeth. J Periodontol. 2009;80(7):1121-4.	
Prognosis Paper 2. Penerrocha pathology endo	Penerrocha M, Marti E, Garcia B, Gay C. Relationship of periapical lesion radiologic site, apical resection, and retrograde filling with the prognosis of periapical surgery. J Oral Maxillofac Surg. 2007;65(8):1526-9.	
Prognosis	Anderson JD, Zarb GA. Evidence-based dentistry: prognosis. J Prosthet Dent. 2000 May;83(5):495-500	EBD series in J Prosthet Dentistry
Roskamp L et al	Critical Appraisal OF Roskamp L et al	Rajesh Krishan & Paveel Cherlas Endodontics
<input type="checkbox"/> Add new document		
Feb 9. 6. Therapy		
Name	Title	Comment
Checklist for critical appraisal of paper on Intervention	Adopted from: Sackett et al. Evidence Based Medicine. Elsevier 2005	
Klaassen MA et al Eur J Oral Sci	Critical appraisal of Klaassen et al	Basma Dabbagh and Trang Nguyen Pedodontics
Olympio KPK et al	Critical appraisal of Olympio KPK, et al.	Sean E.V. Chung and Heather Nicole Ford Orthodontics
RCT appraisals	From the Public Health Resource Unit (PHRU), U.K.	
Therapy 2011	Lecture slides Dr Jokstad	
Therapy Paper 1 Olympio Orthodont	Olympio KPK, et al. Effectiveness of a chlorhexidine dentifrice in orthodontic patients: a randomized-controlled trial. J Clin Periodontol 2006; 33: 421-426.	
Therapy Paper 2. Klaassen OHQL pedodont	Klaassen MA, Veerkamp JS, Hoogstraten J. Young children's Oral Health-Related Quality of Life and dental fear after treatment under general anaesthesia: a randomized controlled trial. Eur J Oral Sci. 2009;117(3):273-8.	
Therapy	Goldstein GR, Preston JD. How to evaluate an article about therapy. J Prosthet Dent. 2000 Jun;83(6):599-603.	EBD series in J Prosthet Dentistry
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February 16. 7. Systematic Reviews		
Name	Title	Comment
Checklist for critical appraisal of reviews	Adopted from: Sackett et al. Evidence Based	

- Manchester, UK
- ¹ Journal of Evidence-Based Dentistry, Nature Publishing
- ² The Journal of Evidence-Based Dental Practice, Elsevier Science
- ³ A Jokstad Lectures on EB Practice & Clinical Epidemiology
- ⁴ Italian EB Health Website - Many links to EB papers
- ⁵ U. Rochester. Nesbit guide to evidence based resources
- ⁶ The Forsyth Center for Evidence-Based Dentistry, Boston, MA, USA
- ⁷ Centre for Evidence-based Medicine, University Health Network, Canada
- ⁸ International Centre for Evidence-Based Oral Health, London, UK
- ⁹ Evidence Based Medicine Toolkit, University of Alberta, Canada
- ¹⁰ The Centre for Health Evidence, Alberta, Canada
- ¹¹ Virtual Centre for Improving Oral Health through Evidence-Based Dentistry (V-CIOH), Dundee, UK
- ¹² A SCHARR Introduction to Evidence Based Practice on the Internet
- ¹³ McMaster University Health Information Research Unit
- ¹⁴ PedsCCM: The Pediatric Critical Care Website
- ¹⁵ North Carolina EBP Center of Excellence
- ¹⁶ Duke University, N.C, USA

- Add new link
- Site Users**
- Abeer Khalid
 - Ahussain Ahmed
 - Alyssa Hayes
 - Anoushah Persadmehr
 - Ashkan Ebrahimpour
 - Basma Dabbagh
 - Brendy Thompson
 - Brent Winnett
 - Christine McCord
 - Christine Hibberd
 - Cornelia Sima
 - Cynthia Enriquez
 - Darsi Penasini
 - Dr A Jokstad
 - Edward Yoon
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Specialty Program Accreditation 2012 – Course Outline 2011-2012

De Vos Int J Oral Maxillofac Surg	Medicine, Elsevier 2005	
Kotovilis S, et al J Per Res	Critical Appraisal of De Vos	Hanadi M.H. Khalifa & King Chong Chan
Review, Systematic Reviews	Critical appraisal of Kotovilis S, et al	Noah Turk
Reviews 2011	Needleman IG. A guide to systematic reviews. J Clin Periodontol. 2002;29 Suppl 3:6-9;	
Reviews	Lecture slides Dr Jokstad	
Systematic R. Paper 1. De Vos SR Radiology	Felton DA, Lang BR. The overview: an article that interrogates the literature. J Prosthet Dent. 2000 Jul;84(1):17-21.	EBD series in J Prosthet Dentistry
Systematic R. Paper 2. Kotovilis PrP	De Vos W, Casselman J, Sivernsen GR. Cone-beam computerized tomography (CBCT) imaging of the oral and maxillofacial region: a systematic review of the literature. Int J Oral Maxillofac Surg. 2009;38(6):609-25	
Systematic Reviews Appraisal	Kotovilis S, et al. The adjunctive use of platelet rich plasma in the therapy of periodontal intrasosseous defects: a systematic review. J Periodont Res 2009; doi: 10.1111/j.	
Systematic Reviews in Dentistry	From the Public Health Resource Unit (PHRU), U.K.	
	Bader J, et al. Survey of systematic reviews in dentistry. J Am Dent Assoc. 2004 Apr;135(4):464-73.	

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March 2. 8. Aetiology, Causation & Harm

Name	Title	Comment
Aetiology Paper 1 Dorocka Bobkowska Candida	Dorocka-Bobkowska B, Zyzulska-Zolkiewicz D, et al Candida-associated denture stomatitis in type 2 diabetes mellitus. Diabetes Res Clin Pract. 2010;90(1):81-6.	
Aetiology Paper 2. Morita ea JDR 2011	Morita J, Okamoto Y, Yoshii S, Nakagaki H, Mizuno K, Sheiham A, Sabbah W. Five-year incidence of periodontal disease is related to body mass index. J Dent Res 2011; 90(2):199-202.	
Bradford Hill Causation criteria 1965	Hill AB: The environment and disease: association or causation? Proc R Soc Med 1965, 58:295-300	A classic paper!
Case Control Studies appraisal	From the Public Health Resource Unit (PHRU), U.K.	
Dorocka-Bobkowska et al Diabetes Res etiology 2011	Critical Appraisal of Dorocka-Bobkowska	Lavia S. Lakschevitz & Michael Duchray
Evans Postulates for Causation	Lecture slides Dr Jokstad	
Harm	Evans AS (May 1976). "Causation and disease: the Henle-Koch postulates revisited". Yale J Biol Med 1976; 49 (2): 175-95.	A Classic Paper!
J Periodontol 2010 Chuffee	Jacob RF, Lloyd FM. How to evaluate a dental article about harm. J Prosthet Dent. 2000 Jul;84(1):3-16	EBD series in J Prosthet Dentistry
Monta 1 et al J Dent Res 2011	Association between chronic periodontal disease and obesity: a systematic review and meta-analysis	
STROBE_checklist_v4_case-control[1]	Critical appraisal of Monta J ea	Cornellu Sima and Guy Aboodi , Periodontology
STROBE_checklist_v4_cohort[1]	STROBE Statement	Checklist of items that should be included in reports of case-control studies
STROBE_checklist_v4_combined[1]	STROBE Statement	Checklist of items that should be included in reports of cohort studies
STROBE_checklist_v4_cross-sectional[1]	STROBE Statement	Checklist of items that should be included in reports of observational studies

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March 9. 9. Meta-analyses

Name	Title	Comment
PrismaChecklist		
PrismaFlow		
SystematicReviewsReplaceDeNovo	Using Existing Systematic Reviews to Replace de Novo Processes in CERs	From the US Agency for Healthcare Research and Quality (AHRQ)
Metaanalysis. Paper 1 AlJundi TMD	Al-Jundi MA, John MT, Setz JM, Szentpétery A, Kuss O. Meta-analysis of treatment need for temporomandibular disorders in adult nonpatients. J Orofac Pain. 2008 Spring;22(2):97-107	

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March 23. 10. Clinical guidelines

Name	Title	Comment
Appraisal of Guidelines Paper 1	Appraisal of AAPD Sedation Guidelines	
Cancer Care Ontario	Program in Evidence-Based Care Handbook	Describes how guidelines for cancer care are developed in Ontario
Checklist for critical appraisal of Clinical Guidelines	Adopted from: Sackett et al. Evidence Based Medicine. Elsevier 2005	
clinical guidelines 2011	Lecture slides Dr Jokstad	
Guidelines Paper 1. AAPD Sedation	American Academy of Pediatrics/ American Academy of Pediatric Dentistry, et al. Guidelines for monitoring and management of pediatric patients during and after sedation for diagnostic and therapeutic procedures: an update. Pediatrics 2006; 118(5):e387-602	
Guidelines Paper 2. Perinatal Oral Care	California Dental Association Foundation. Oral health during pregnancy and early childhood: evidence-based guidelines for health professionals. J Calif Dent Assoc. 2010;38(6):495-49	

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March 30. 11. Implementation of EB in Dental Practice

Name	Title	Comments
Clarkson 2004	Clarkson JE. Getting research into clinical practice - barriers and solutions. Caries Res. 2004 May-Jun;38(3):321-4.	
Clin Epi Article Review 1	Which Evidence has an Impact on Dentists' Willingness to Change Their Behavior	
Clin Epi Article Review 2	Impact of Guideline Implementation of Patient Care: a Cluster RCT	
Delany-2008	Delany C. Making a difference: incorporating theories of autonomy into models of informed consent. J Med Ethics. 2008 Sep;34(9):e3.	
Hannes ea 2008	Hannes K, Norré D, Goedhuys J, Naert I, Aertgeerts B. Obstacles to implementing evidence-based dentistry: a focus group-based study. J Dent Educ. 2008 Jun;72(6):736-44.	
Implementation Paper 1. Mettes NL	Mettes TG, et al. Impact of guideline implementation on patient care: a cluster RCT. J Dent Res 2010;89(1):71-6	
	Wärth J, et al. Which evidence has an impact on dentists' willingness to change their	

Specialty Program Accreditation 2012 – Course Outline 2011-2012

Home - Clinical Epidemiology and Evidence Based Care

Implementation Paper 2. Wardh. Sweden	behavior? J Evid Based Dent Pract 2009;9(4):197-205
McClone ea 2001	McClone P, Watt R, Sheiham A. Evidence-based dentistry: an overview of the challenges in changing professional practice. Br Dent J. 2001 Jun 23;190(12):636-9
Qualitative Studies appraisal	From the Public Health Resource Unit (PHRU), U.K.
Shaw Conway 2010	Shaw D, Conway DJ. Pascal's Wager, infective endocarditis and the "no-lose" philosophy in medicine. Heart. 2010 Jan;96(1):15-8

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April 6. Final Test

Type	Name	Modified By
There are no items to show in this view of the "April 6. Final Test" document library. To create a new item, click "Add new document" below.		

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2.3.15.c.9 Indicate below the instructor/student ratio used in the course.

Format _____ Instructor/Student Ratio

Lecture

Field work

Seminar

1:28

Clinical

Other