

Introduction to Epidemiology and Pharmacoepidemiology
PGS 384S, Unique # 59585

Spring 2016

draft 3 January 2016

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Class: Old Pharmacy Building, PHR 5.214

Office: Old Pharmacy Building PHR 3.210A

Twice weekly: Tuesday and Thursday

9:30-11:00

PHR 5.214

San Antonio room to be determined

Objectives: Principles of epidemiology; descriptive, analytic, and clinical epidemiology; epidemiologic perspective for health care management; epidemiology and the public policy process; pharmacoepidemiology. Emphasis on drug examples.

Evaluation: One in class 'quiz.' One take-home exam. Quite a few in class 'small – well – short in length' presentations (i.e., almost every class period!). A project proposal due at end of semester (oral presentation, audio-visuals and handouts as appropriate, written proposal of 3-5 pages (with references)).

January 19th Text: Clinical Epidemiology, The Essentials, 5th ed. Robert H. Fletcher, and Suzanne W. Fletcher; Lippincott, Williams & Wilkins, 2012

Handouts: Course schedule/syllabus (to be revised (weekly?) as we go along)
Basic Epidemiological Methods and Biostatistics - Chapter 1 -
Introduction to Epidemiology; and glossary

Power Points from Clinical Epidemiology, 5th ed.

Pharmacoepidemiology, and Therapeutic Risk Management - Chapter 1 -
The Contribution of Pharmacoepidemiology to the Study of Drug Uses
and Effects, and Risk Management

Problem set, for chapter 1, Basic Epi. Methods & Biostat

Homework: read: chapter 1 - Clinical Epidemiology (be ready to discuss); chapter 1 -
Basic Epidemiological Methods and Biostatistics (be ready to discuss,
eventually – may take a few (or many) weeks to cover)

Bring in for 'mini' presentation – news articles of interest dealing with
populations and/or epidemiology.

January 21st Chapter 1 - Introduction

Discuss in class:

Chapter 1 - Clinical Epidemiology – Introduction. Start discussion of: -Chapter 1
- Basic Epidemiological Methods and Biostatistics: Chapter 1,
Introduction to Epidemiology (this may take weeks to cover)

Articles you (or me) bring in to class

Bras and breast cancer –

Current item(s) –

Homework: Answer problem set, for chapter 1, Basic Epi. Methods & Biostat., after we
finish going over the chapter (or as you read the chapter)

Look over and select items for April 14th and later -

January 26th Introduction (continued)

Discuss in class:

Chapter 1 - Clinical Epidemiology – Introduction.

Dressed to kill –

Incidence and Prevalence –

Adverse event frequency -

January 28th Introduction (concluded) – Clinical Epidemiology

Discuss in class:

Complete chapter 1 - Clinical Epidemiology

Handouts: What do we mean by usually? JH Toogood, Lancet 1980 (May17):1094

Expressions of probability: words and numbers. GD Bryant and GR Norman,
NEJM 1980;302(7):411

An empirical demonstration of Berkson's Bias. RS Roberts et al. J. Chron
Disease 1978; 31:119-128

Medical usage and abuse: Prevalence and Incidence. GD Friedman, Ann
Intern Med 1976; 84:502-504

Pharmacoepidemiology I: A Review of Pharmacoepidemiologic Study
Designs. M Etminan and A Samii. Pharmacotherapy
2004;24(8):964-969

Pharmacoepidemiology II: The Nested Case-Control Study – A novel
Approach in Pharmacoepidemiologic Research. M Etminan.
Pharmacotherapy 2004;24(9):1105-1109

What do we mean by usually? –

Bumped into –

Berkson's Bias –

Expression of words -

January 28th Frequency – Chapter 2 – Clinical Epidemiology

February 2nd Frequency – Chapter 2 – Clinical Epidemiology

Discuss in class:

Channeling bias –

Well person issue –

February 4th Frequency – Chapter 2 – Clinical Epidemiology (concluded)
 Discuss in class:
 Bumped into –
 Cohort definition –
 US Cancer statistics -

February 9th
 Bumped into –

February 11th Abnormality - Chapter 3 - Clinical Epidemiology
 Will Rogers –

February 16th Risk: Basic Principles - chapter 4 - Clinical Epidemiology

February 18th Risk: Exposure to Disease - chapter 5 - Clinical Epidemiology

February 23rd Risk: From Disease to Exposure - chapter 6 - Clinical Epidemiology

February 25th Prognosis - chapter 7 - Clinical Epidemiology
 Case-cohort studies -

March 1st Diagnosis - chapter 8 - Clinical Epidemiology
 CVD – from figure 7.1 –
 ROC -

March 3rd Diagnosis - chapter 8 - Clinical Epidemiology

March 8th Diagnosis - chapter 8 - Clinical Epidemiology

March 10th Diagnosis - Chapter 8 - Clinical Epidemiology

March 15th Spring Break

March 17th Spring Break

March 22nd Treatment - chapter 9 - Clinical Epidemiology

March 24th Treatment - chapter 9 - Clinical Epidemiology ,Prevention - chapter 10 - Clinical Epidemiology

March 29th Prevention - chapter 10 - Clinical Epidemiology

March 31st Chance - chapter 11 - Clinical Epidemiology
 Height and Mortality -

April 5th Cause - chapter 12 - Clinical Epidemiology
 FAERS -
 Ebola -

April 7th Cause - chapter 12 - Clinical Epidemiology ; Summarizing the Evidence and Knowledge Management – chapters 13, 14; - - Clinical Epidemiology

April 12th Basic Epidemiological Methods and Biostatistics: Chapter 1, Introduction to Epidemiology
 Placebo adherence -

April 14th Discussion and presentation of classic papers in pharmacoepidemiology

Various topics – may include: - we'll try for 6/day

Ephedra -

Hexachlorophene poisoning –

Male breast cancer-

Gum –

Running and mortality -

April 19th continued discussion 'Classics'-

The menace of daily life -

Country Music and Suicide -

Reserpine (and Berkson's Bias) -

Tea –

April 21st – “in-class”quiz. Closed book, no references.

April 26 College Research Day - no class

April 28th continued discussion 'Classics'- start presentation of research proposals

Alcohol –

Amygdalin (Laetrile) –

Confounding by indication -

Fluoxetine and suicide -

Measles, mumps and rubella vaccine (MMR) and autism -

Coffee –

Ephedra -

May 3rd Presentation of research proposals - ~ 15 minutes each

May 5th Presentation of research proposals (written report due, 4PM, today)

REQUIRED:

Clinical Epidemiology, The Essentials, 5th edition

Robert H. Fletcher, Suzanne W. Fletcher, Grant S. Fletcher

Lippincott, Williams & Wilkins, 2012

ISBN – 978-1-4511-4447-5

About \$43.13 Kindle edition \$40.97 (Amazon.com, 16 October 2013)

Just to know about:

Optional references in Pharmacoepidemiology

Pharmacoepidemiology, 5th edition; Brian L. Strom, Stephen E. Kimmel, Sean Hennessy,

eds; New York, John Wiley and Sons; 2012. hard cover - about \$279.48 Kindle version: \$265.51 (Amazon.com, 16 October 2013)

Textbook of Pharmacoepidemiology, 2nd edition, Brian L. Strom and Stephen E. Kimmel, eds., New York, John Wiley and Sons; 2013. soft cover - about \$67.98 (Amazon.com, 16 October 2013)

Pharmacoepidemiology and Therapeutic Risk Management, Abraham G. Hartzema, Hugh H. Tilson, and K. Arnold Chan, eds., Cincinnati, OH, Harvey Whitney Books, 2008. soft cover - about \$209.00 (Amazon.com, 16 October 2013)

Understanding Pharmacoepidemiology (LANGE Clinical Science) by Yi Yang and Donna West-Strum, 2011. Soft cover – about \$31.39 Kindle version: \$29.82 (Amazon.com, 16 October 2013)

Basic Epidemiological Methods and Biostatistics: A Practical Guidebook, Randy M. Page, Galen E. Cole, Thomas C. Timmreck, Jones & Bartlett Publishers, 1995. Soft cover - about \$258.09 Used: \$28.17 (Amazon.com, 16 October 2013)

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