**Introduction to Epidemiology and Pharmacoepidemiology**

**PGS 384S, Unique # 58395**

Spring 2018

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Twice weekly: Tuesday and Thursday - 9:30-11:00
Class: South Pharmacy Building, PHR 3.114B
Office: North Pharmacy Building, PHR 3.210A
San Antonio room to be determined (TV link)

**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). Letter grades.

January 16th  

**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 (or papers) of interest
dealing with populations and/or epidemiology. (as Power Points – (but not necessary); if to be used – please send to me before class, to have pre-loaded before class). Bumped into …

January 18th Chapter 1 - Introduction
Discuss in class:
Chapter 1 - Clinical Epidemiology – Introduction. (all will contribute)
Start discussion of: -Chapter 1 - Basic Epidemiological Methods and Biostatistics:
Chapter 1, Introduction to Epidemiology (this may take many weeks to cover)
(Doubt we will get to it today!)
Articles you (or me) bring in to class - current item(s), disease outbreaks, or – bumpy into –
Bras and cancer – National Inquirer – Who to present?

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 class presentations - pic classics, and more

Bumped into –

January 23rd  Introduction (continued)
Discuss in class: Chapter 1 - Clinical Epidemiology – Introduction.
Dressed to kill – Who to present?
Bumped into –

January 25th  Introduction (concluded) – Clinical Epidemiology
Discuss in class:
Chapter 2 - Clinical Epidemiology Frequency -
Expressions of probability: words and numbers. GD Bryant and GR Norman, NEJM 1980;302(7):411

What do we mean by usually? – Who to present?
Expressions of probability: words and numbers – Who to present?
An empirical demonstration of Berkson’s Bias – Who to present?
Medical usage and abusage: Prevalence and Incidence – Who to present?
Bumped into – many …. 

January 30th  Frequency – Chapter 2 – Clinical Epidemiology
Discuss in class:

February 1st  Frequency – Chapter 2 – Clinical Epidemiology (concluded)
Presentations -
Discuss in class: (or sooner)
Cohort definition -
Well person issue –

February 6th  Abnormality - Chapter 3 - Clinical Epidemiology
Discuss in class:

February 8th  Abnormality - Chapter 3 - Clinical Epidemiology (concluded
Presentations -
Discuss in class:

February 13th  Risk: Basic Principles - chapter 4 - Clinical Epidemiology; and start: Risk:
Exposure to Disease - chapter 5 - Clinical Epidemiology

February 15th  Risk: Exposure to Disease - chapter 5 - Clinical Epidemiology

February 20th  Risk: Exposure to Disease - chapter 5 - Clinical Epidemiology

February 22nd Risk: Exposure to Disease - chapter 5

February 27th  Risk: Exposure to Disease - chapter 5 - Clinical Epidemiology; Risk: From
Disease to Exposure - chapter 6 - Clinical Epidemiology.

March 1st   Risk: From Disease to Exposure - chapter 6 - Clinical Epidemiology.

March 6th   Risk: From Disease to Exposure - chapter 6 - Clinical Epidemiology, Prognosis -
chapter 7 - Clinical Epidemiology

March 8th   Prognosis - chapter 7 - Clinical Epidemiology

March 14th  Spring Break – enjoy!
March 15th  Spring Break – enjoy!
March 20th  Diagnosis - chapter 8 - Clinical Epidemiology
March 22nd  Diagnosis - chapter 8 - Clinical Epidemiology  
March 27th  Diagnosis - chapter 8 - Clinical Epidemiology  
March 29th  Treatment - chapter 9 - Clinical Epidemiology  
April 3rd  Treatment - chapter 9 - Clinical Epidemiology, Prevention – chapter 10 Clinical Epidemiology  
April 5th  Prevention – chapter 10 Clinical Epidemiology  
April 10th  Prevention – chapter 10 Clinical Epidemiology, Chance - chapter 11 - Clinical Epidemiology  
April 12th  Chance - chapter 11 - Clinical Epidemiology, Cause - chapter 12 - Clinical Epidemiology  
April 17th  College Research Day – may not meet (or a short class)  
Summarizing the Evidence and Knowledge Management – chapters 13, 14; - - Clinical Epidemiology, Chapter 1, Introduction to Epidemiology: Basic Epidemiological Methods and Biostatistics:  
April 24th  Start presentation of research proposals- ~ 15 minutes each (or catch-up day-depending on schedule)  
April 26th  Presentation of research proposals  
May 1st  Presentation of research proposals  
May 3rd  Presentation of research proposals (written report due, 4PM, today)  
Classis papers/issues – we may not have time to cover ….
  The menace of daily life –
  Thalidomide –
  Elixir of sulfanilamide (diethylene glycol)
  Reserpine (and Berkson’s Bias)-
  Fluoxetine and suicide – early and later papers
  Measles, mumps and rubella vaccine (MMR) and autism -
  Hexachlorophene poisoning –
  Diethylstilbestrol (DES) -
  Benoxaprofen -
Benzyl alcohol -
Suprophen –
Tolmentin -
Zomepirac –
Vioxx -
Weight loss – Dexatrim® – ephedra and phenylpropanolamine (old formulation), stroke issue
Talc – and ovarian cancer –
Coffee –
Chocolate -
Alcohol –
Wine -
Beer –
Pizza –
Will Roger’s phenomenon -
Confounding by indication –
Simpson’s Paradox -
Channeling bias –
Berkson’s Bias –
Geoffrey Rose’s Big Idea –
Ecological fallacy -
Placebo adherence –
Polypill –
Cell-phones -
FAERS -
Many others -

REQUIRED:
Clinical Epidemiology, The Essentials, 5th edition
Robert H. Fletcher, Suzanne W. Fletcher, Grant S. Fletcher
Lippincott, Williams & Wilkins, 2012
About $29.82 (or $41.98)  Kindle edition $55.23 (Amazon.com, 19 December 2017)
Barnes and Noble $29.21 (used), $53.13 (new)
Also at Campus Book Store; The library has 2 copies
There may be a *.pdf copy on the web.

Just to know about:  - Optional references in Pharmacoepidemiology


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