Nancy Clark, M.Ed.
Director of Medical Informatics Education

# ACCESSING ELECTRONIC MEDICAL INFORMATION QUICKLY:  A REVIEW
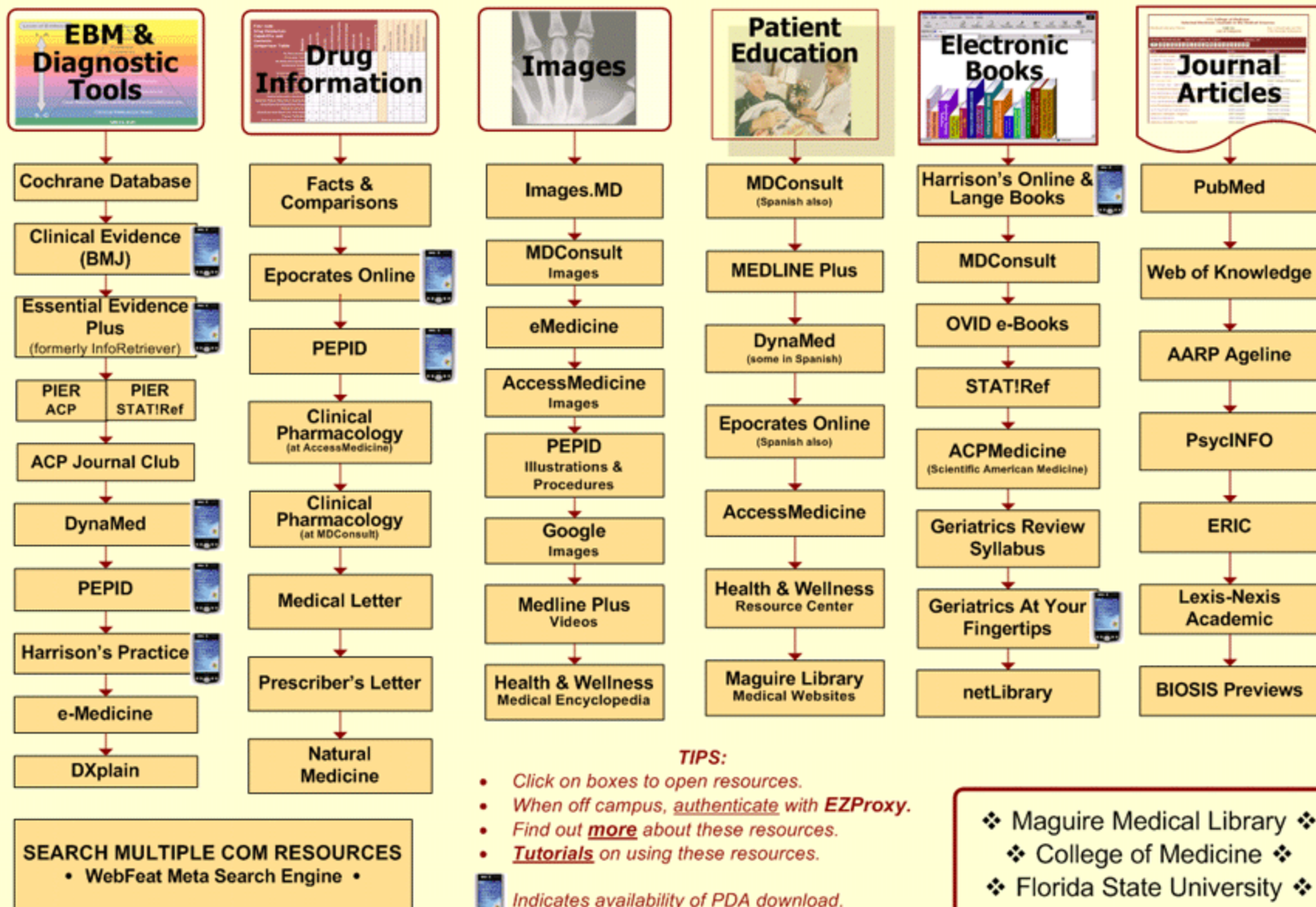
http://www.med.fsu.edu/informatics

# Objectives

Students will improve their ability to

- Quickly locate current disease information
- Answer clinical questions in small group cases, preceptors
- Using library subscription resources
- Using their PDA
- Using reliable, free resources

# PPT and Handouts

- Accessing Medical Information Quickly (PPT) on Informatics web site under Medical References

- Finding Clinical Information Quickly Handout

- Decision Support Handout

- Drug References Handout (on BB)

# FIND MEDICAL INFORMATION (START HERE)

## EBM & Diagnostic Tools
- Cochrane Database
- Clinical Evidence (BMJ)
- Essential Evidence Plus (formerly InfoRetriever)
- PIER ACP | PIER STAT!Ref
- ACP Journal Club
- DynaMed
- PEPID
- Harrison's Practice
- e-Medicine
- DXplain

## Drug Information
- Facts & Comparisons
- Epocrates Online
- PEPID
- Clinical Pharmacology (at AccessMedicine)
- Clinical Pharmacology (at MDConsult)
- Medical Letter
- Prescriber's Letter
- Natural Medicine

## Images
- Images.MD
- MDConsult Images
- eMedicine
- AccessMedicine Images
- PEPID Illustrations & Procedures
- Google Images
- Medline Plus Videos
- Health & Wellness Medical Encyclopedia

## Patient Education
- MDConsult (Spanish also)
- MEDLINE Plus
- DynaMed (some in Spanish)
- Epocrates Online (Spanish also)
- AccessMedicine
- Health & Wellness Resource Center
- Maguire Library Medical Websites

## Electronic Books
- Harrison's Online & Lange Books
- MDConsult
- OVID e-Books
- STAT!Ref
- ACPMedicine (Scientific American Medicine)
- Geriatrics Review Syllabus
- Geriatrics At Your Fingertips
- netLibrary

## Journal Articles
- PubMed
- Web of Knowledge
- AARP Ageline
- PsycINFO
- ERIC
- Lexis-Nexis Academic
- BIOSIS Previews

## SEARCH MULTIPLE COM RESOURCES
- WebFeat Meta Search Engine •

**TIPS:**
- Click on boxes to open resources.
- When off campus, authenticate with **EZProxy**.
- Find out **more** about these resources.
- **Tutorials** on using these resources.

Indicates availability of PDA download.

❖ Maguire Medical Library ❖
❖ College of Medicine ❖
❖ Florida State University ❖

Page revised: April 2008

# When to Use Which Resource?

- Diagnosis versus list of complaints/symptoms
- Zebras versus common problems
- Detailed information/explanations versus bottom line
- Lots of time versus short on time
- Internet connection versus PDA only

# Types of Clinical Questions

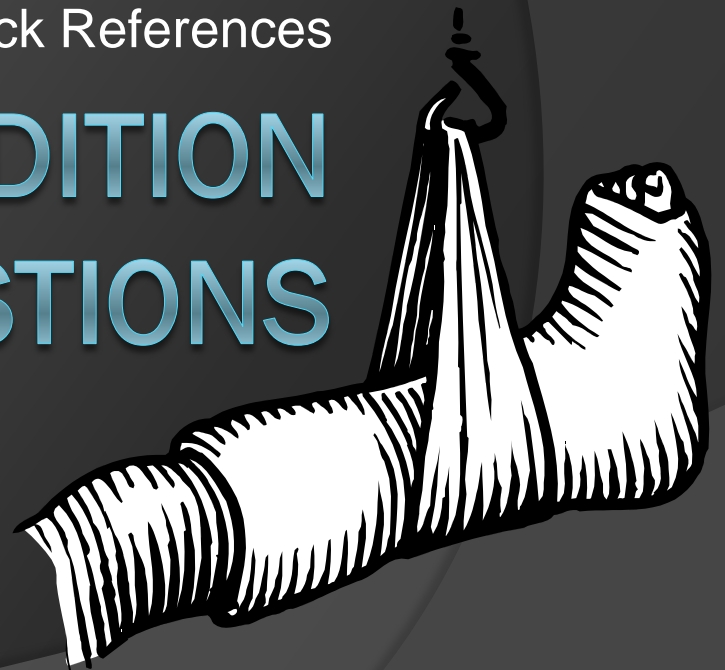- Definition of a term (Stedman's in PEPID, eMedicine)
- Drug question
- DDx (DxPlain and Epocrates Sx)
- Question about a known disease or condition
- Lab test question

Disease Quick References

# DISEASE/CONDITION QUESTIONS

# Types of Disease Questions

- **BACKGROUND** Questions:
  - Description
  - Cause/etiology
  - Incidence and prevalence/Epidemiology
  - ICD-9 codes
  - Risk Factors
  - Signs and Symptoms
  - Associated Conditions
  - History and physical

# Types of Disease Questions

- Types of Questions that require current information:
  - Diagnosis
  - Treatment
    - Surgery, medications, therapy, diet….
    - Initial versus ongoing management (follow-up)
    - Harm of certain treatments
  - Prognosis
    - Outcomes or course of the disease
  - Prevention and screening

Knowing type of question makes using resources more efficient

Bottom line

# Disease Quick References

## WEB

- ACP PIER
- ✔ DynaMed
- ✔ eMedicine
- Harrison's Practice
- PEPID

## PDA

- ✔ DynaMed
- ✔ Epocrates Dx 5MCC
- Harrison's Practice*
- PEPID

# How do the resources differ?

- ◎ Interface issues
  - Ease of use, organization of subtopics…
- ◎ Scope of content - # diseases, symptoms
- ◎ Depth of Content
  - Bulleted lists versus lengthy commentary
  - Links out to original research articles
- ◎ Currency of content
- ◎ Specialty perspective

# Disease Quick References

| Disease Descriptions, Causes, Codes | Disease Incidence and Prevalence, Demographics | Diagnosis of Disease: HX, PE, Tests, | Treatment of Disease | Prognosis of Disease | Disease Prevention, Screening www.cdc.gov |

**PEPID** — Bottom Line / Common Problems

**Harrison's Practice**

**eMedicine**

**Dynamed**

**Books: Merck Manual; ACP Medicine; Access Medicine-Current Medical Dx & Tx; etc.** — Detailed / Zebras

Web

PDA

**5 Minute Clinical Consult in Epocrates Dx** — Bottom Line

**PEPID**

**Harrison's Practice**

**DynaMed**

**Mobile MerckMedicus: Merck Manual (17th ed.)** — Detailed

# PEPID

- Contains disease information with images (check out Diverticular Disease)
- Bottom line bulleted lists
- Very little background information geared to 3$^{rd}$ year students or higher
-  Links within to drugs, diagnostic tests, associated conditions, evidence based summaries
- On Web and PDA

# Harrison's Practice

- Internal Medicine focus
- Background information
- Signs and symptoms as well as diagnoses
- Moderate depth, scope is growing
- Linked to Access Medicine content
- Has drug information from GoldStandard
- Can be downloaded to PDA

# eMedicine

- Moderate amount of detail and information
- Several monographs on one topic by different specialties
- One long page (CTRL-F)
- Background information good
- Stedman's is built in
- Navigation variable between monographs
- Google searches it

# Dynamed

- Highly evidence based resource
- Contains signs and symptoms as well as diagnosis
- Very in-depth, thorough
- Background information as well
- On PDA as well

# Epocrates Dx on PDA

- 5 Minute Clinical Consult
- Content depth light
- Bottom line resource with background
- No signs or symptoms
- Popular- updated annually
- Scope: 800 diseases

# Compare Resources

- *Background*: What is the incidence and prevalence of acute pancreatitis?

- *Diagnosis*: What tests should you order with Gilberts Disease to confirm diagnosis?

- *Treatment:* What are the general treatment methods for acute otitis media (AOM)?

- *Prognosis:* What is the 5 year survival rate for someone with Stage II adenocarcinoma of the lung?

# Books

- Merck Manual available online and free on PDA in Mobile MerckMedicus
  - Access wirelessly on IE: Merck Manual, Harrison's Practice, Pocket Guide to Diagnostic Tests, Reuter's Medical News
  - Free to all practicing physicians and medical students
- ACPMedicine – Scientific American Medicine online

# Mobile Merck Medicus
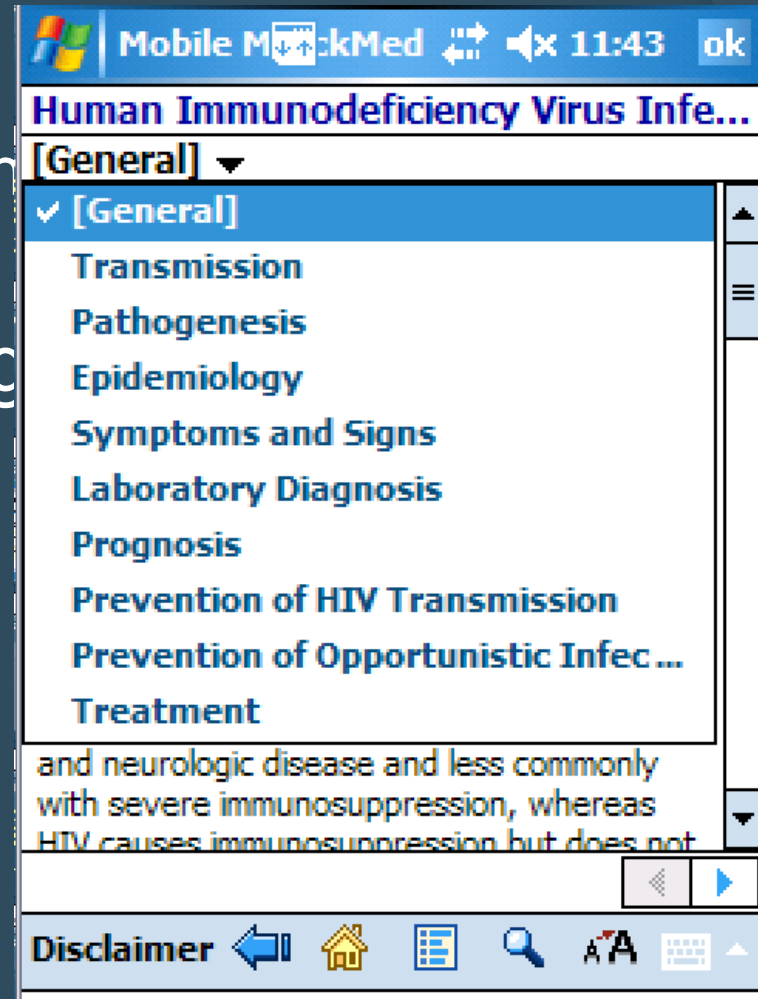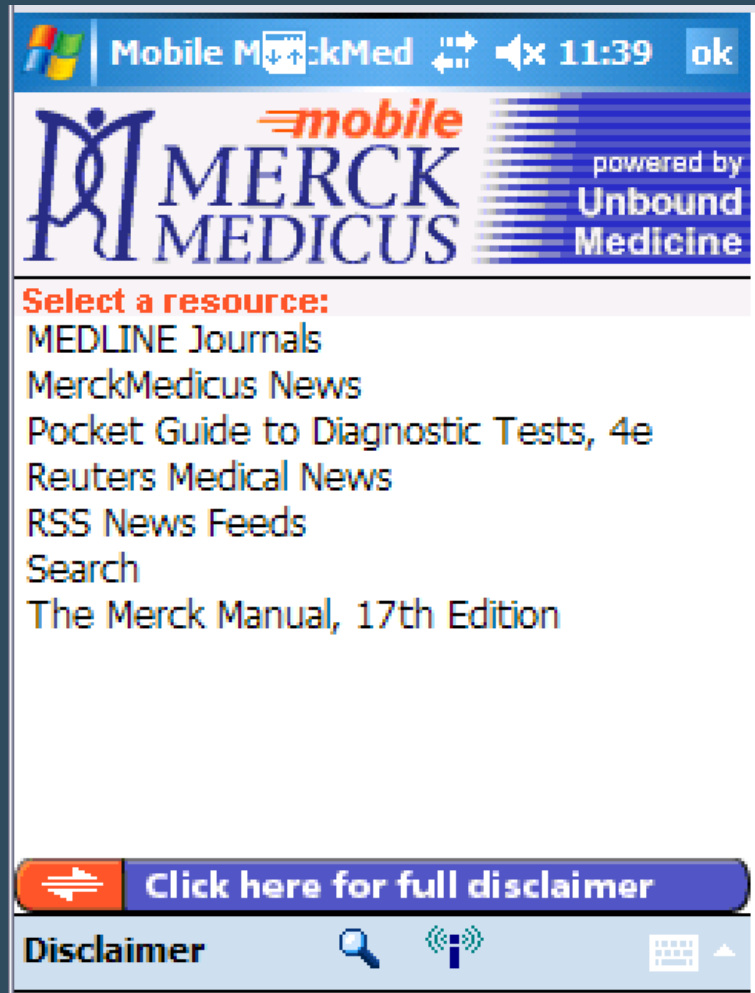


**Installed on PDA**

# Mobile Merck Medicus
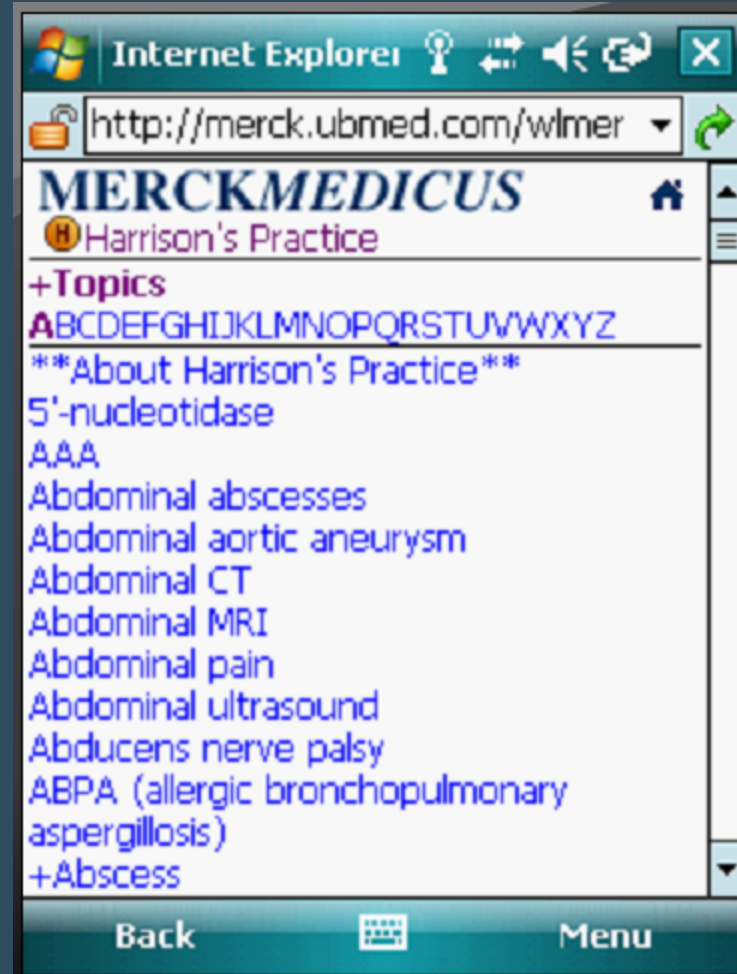
**Wirelessly via Internet**

# LAB RESOURCES

# LAB Resources

- Epocrates Essentials Labs PDA
  - Laboratory tests only
- PEPID Lab Manual – online and PDA
- Pocket Guide to Diagnostic Tests
  - Laboratory, imaging, and microbiology tests
  - Online at Access Medicine and MerckMedicus
  - PDA in Mobile MerckMedicus

# Interpretation of diagnostic tests

- What are normal lab values?

- What diseases could cause these findings?

- What medications could cause these findings?

# Epocrates Labs

# PEPID Lab Manual

# Lab tab in Access Medicine

- Contains
  - Diagnostic imaging
  - Cultures
  - laboratory

# Lab Questions

1.  A basic metabolic panel reveals that a 30 year old man suffering from bipolar disorder has a serum calcium level of 10.9 mg/dL. Is this normal, high or low?

2.  A 32 Yr old female patient complaining of fatigue and weight gain is evaluated for hypothyroidism. Her TSH (thyroid stimulating hormone) comes back 0.1 mIU/L. Is this high, low or normal?

# Bottom Line

- Pick your favorites that match your taste in depth of information

- Learn which resource to use to answer certain types of questions.

- Resources should be current, accurate, evidence based, respected.

- Resources should be easy to use.

- Practice… **this is lifelong learning**