

# The library at the point of care: Integrated resources and instruction in the third-year medical school curriculum

Whitney A. Townsend, MLIS; Mark P. MacEachern, MLIS; Irina Zeylikovich, MSI. University of Michigan Taubman Health Sciences Library

	M1	M2	M3	M3 (M)	M3 (PhD)	M4
<b>Scheduling</b>	2 sessions 1. 1 hr required (early August) 2. 2 hr required (mid-late August)	2 hr session October	2 2 hr sessions Early May	3 month intervals beginning in June	3 month intervals beginning in June	starting in Aug
<b>Session description</b>	MDM: Parents & Populations I	MDM: Parents & Populations I	MDM: Parents & Populations I (M3) Case-based	All Clerkship	PhD Clerkship	Research Medical Residency (AMT)
<b>Session focus</b>	<b>Foundational Resources:</b> Background information resources, research literature	<b>Evidence-based Practice Resources:</b> Primary vs. secondary literature, systematic reviews, practice guidelines	<b>Information Resources in the Clinical Environment:</b> Drug databases, practice guidelines, patient education resources, mobile resources	<b>Information Resources in the Clinical Environment:</b> Published clinical queries, practice guidelines, drug databases, systematic reviews	<b>Information Resources in the Clinical Environment:</b> Published clinical queries, practice guidelines, drug databases, systematic reviews	<b>Research Resources:</b> Using the evidence base to the primary literature, the appropriate evidence synthesis
<b>Methods</b>	Medline via PubMed Medline via Ovid Web of Science Bank, Accessing E journals & MGRS	Clinical Queries Therapy Systematic Reviews Guidelines	Clinical Queries Clinical Studies Systematic Reviews	Clinical Queries Clinical Studies Systematic Reviews	Published Clinical Queries (Systematic Reviews)	Education by M3M PubMed, PubMed Medline
<b>Cochrane</b>		Cochrane OER via Ovid	CDSR (Shear and)	CDSR (Shear and)	CDSR (Shear and)	
<b>Guidelines</b>		National Guideline Clearinghouse (NHC) Lundin Practice Guidelines ACP-PCP	Dynamed NCC ACP-PCP USMHS	Dynamed NCC ACP-PCP USMHS		
<b>Textbooks</b>	Video tutorial: Accessing E-books (Quintel, MDCConsult, AccessMedicine)					
<b>Drug Databases</b>		MicroMedex Facts & Comparisons Natural Standard	MicroMedex Facts & Comparisons			
<b>Patient Education</b>		USMHS Patient Education Mediastatus	# time	# time		
<b>Misc.</b>	Video tutorial: How to Use the PubMed Database	Clinical Calculators AccessMedicine (DrugResearch) AccessMedicine AccessMedicine	# time	DARE JAMA Evidence		2 days of Science class single scholar

### Current M3 Involvement

- 3 Curriculum-integrated information resources sessions
- LibGuide supplemental content
- CMS-integrated library page

One of the most pressing challenges clinicians face is effectively and appropriately utilizing online information resources at the point of care. The third year medical school curriculum is a prime place to teach tomorrow's physicians to incorporate library resources into their workflow as they begin their clinical clerkship rotations. This poster is an overview of the ways librarians integrate instruction and online resources into third-year medical student clerkship experiences within a large academic health system. Methods include: hands-on instruction during pre-clerkship orientation, targeted hands-on instruction co-taught with clinical faculty during two different clerkship rotations, and utilization of the medical school's online course management system to supply targeted point of care resources and relevant online instruction to designated clerkship rotations.

## M3 Orientation Orientation to PoC Resources

Taubman Health Sciences librarians have been involved in third year medical student orientation sessions for over a decade. Orientation to the wards takes place in early May, and marks a "tipping point" for students and their relationship to information resources. Students begin their clinical rotations and need rapid access to high quality information for medical decision making at the point of care. This two hour hands-on session is co-taught with a faculty physician and is arranged in a rapid-fire case-based format to simulate the clinical environment. Students are also briefly introduced to available mobile resources and the library's mobile resources guide.

**2012 OUTLINE - internal**

**Introduction 10 min - RAJ**

- Intro to Tables (judgment table & clerkship resources handout)
- 3 Resources in this session
- Intro SCREENSHOTS HERE

**1) Topic 1 (Drug Information) - LIBRARIAN (45 min.)**

- "Rapid Fire" cases - 1) Drug 2) Drug-Drug Interaction 3) Drug Identifier & Adverse Effects 4) Comparative Table
- Intro to resources - Live to resources main page
  - o Case 1: Mometan & Dexamet
  - o Case 2: Facts & Comparisons
  - o Case 3: National Standard
- Debrief w/ resources

**2) Topic 2 (Guidelines) - LIBRARIAN (25 min.)**

- Review of case exercises
- Intro to resources - Live to resources main page
  - o Case 1: National Guideline Clearinghouse & UMHS Guidelines
  - o Case 2: Dynamed (ACP Pin demo)
- Debrief w/ resources

**3) Topic 3 (Patient Education) - LIBRARIAN (15 min.)**

- Review of case exercises
- Intro to resources - Live to resources main page
  - o Case 1: UMHS Patient Education
  - o Case 2: Mediastatus.gov
- Debrief w/ resources

**5) Cool Tools (5 min.)**

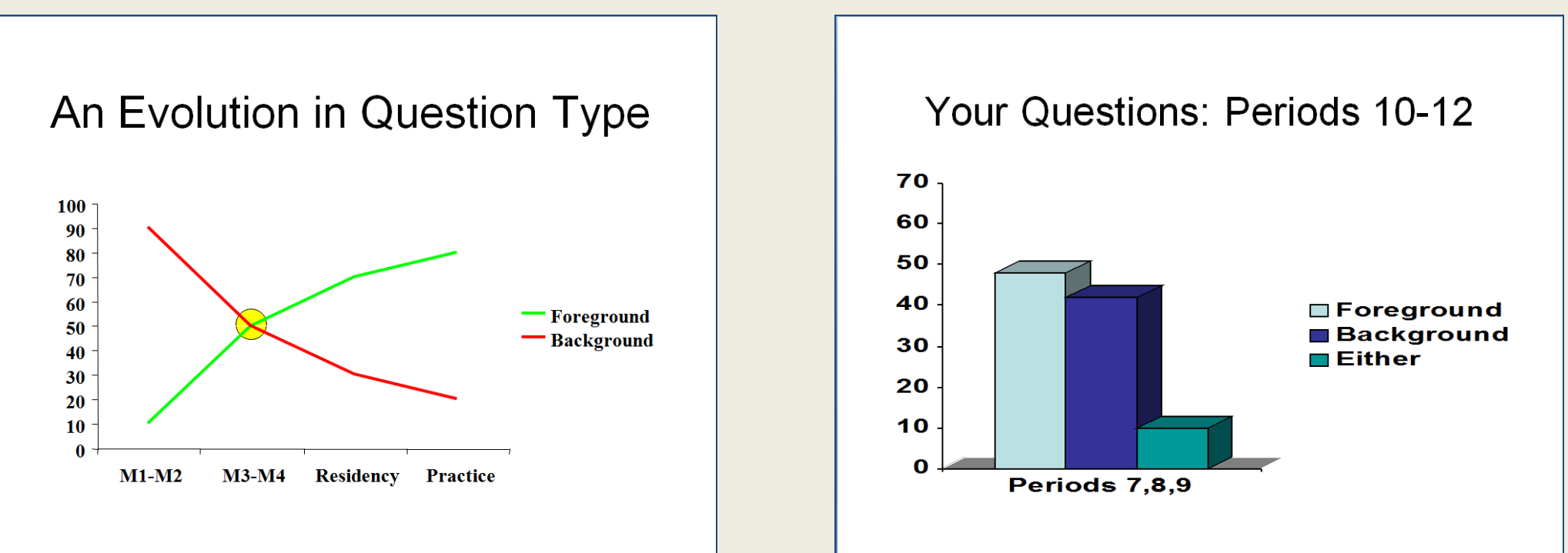
**6) Session wrap-up**

**Online Resources to Know for M3 Clerkship Rotations**

- Internal Medicine
- Surgery
- Pediatrics
- Obstetrics/Gynecology
- Neurology
- Psychiatry
- Family Medicine

## Internal Medicine Clerkship Real-Case/Real-Time EBM

The third-year Internal Medicine Clerkship session requires students to submit a challenging clinical question they encountered recently during the rotation. The instructors review the student-submitted questions and identify four that best illustrate the tools and features of four major categories of resources: primary literature, systematic reviews, practice guidelines, and drug databases. For each of the four clinical questions selected, the students are directed to two resources and given five minutes to answer the question. The faculty instructor leads a discussion about the clinical significance of their findings. Finally, a librarian walks the students through each resource, again highlighting key features and functionalities. [1]



**Case 3**

The patient is an 81 year old woman with no past medical history who presents for an annual HME. She has been getting mammograms annually for decades. She is in essentially perfect health with no comorbidities, and she leads an active, healthy lifestyle.

**How long should this patient continue annual mammograms?**

National Guidelines Clearinghouse  
UMHS Guidelines  
Dynamed

**Additional Consideration**

**DynaMed**

## Pediatrics Clerkship Systematic Reviews at the PoC

In contrast to the frenetic pace of the Internal Medicine Clerkship session, the third-year Pediatrics Clerkship session focuses less on finding and more on evaluating information and integrating that information into clinical practice. During the session, students are given a PICO question and asked to search for a relevant systematic review using PubMed's Clinical Queries. Once a relevant review is identified, they are asked to use the DARE (Database of Abstracts of Reviews of Effects) review structure to evaluate it, and then report their conclusions to the class. This session is held during the 12-week Pediatrics rotation. [1]

**Goals**

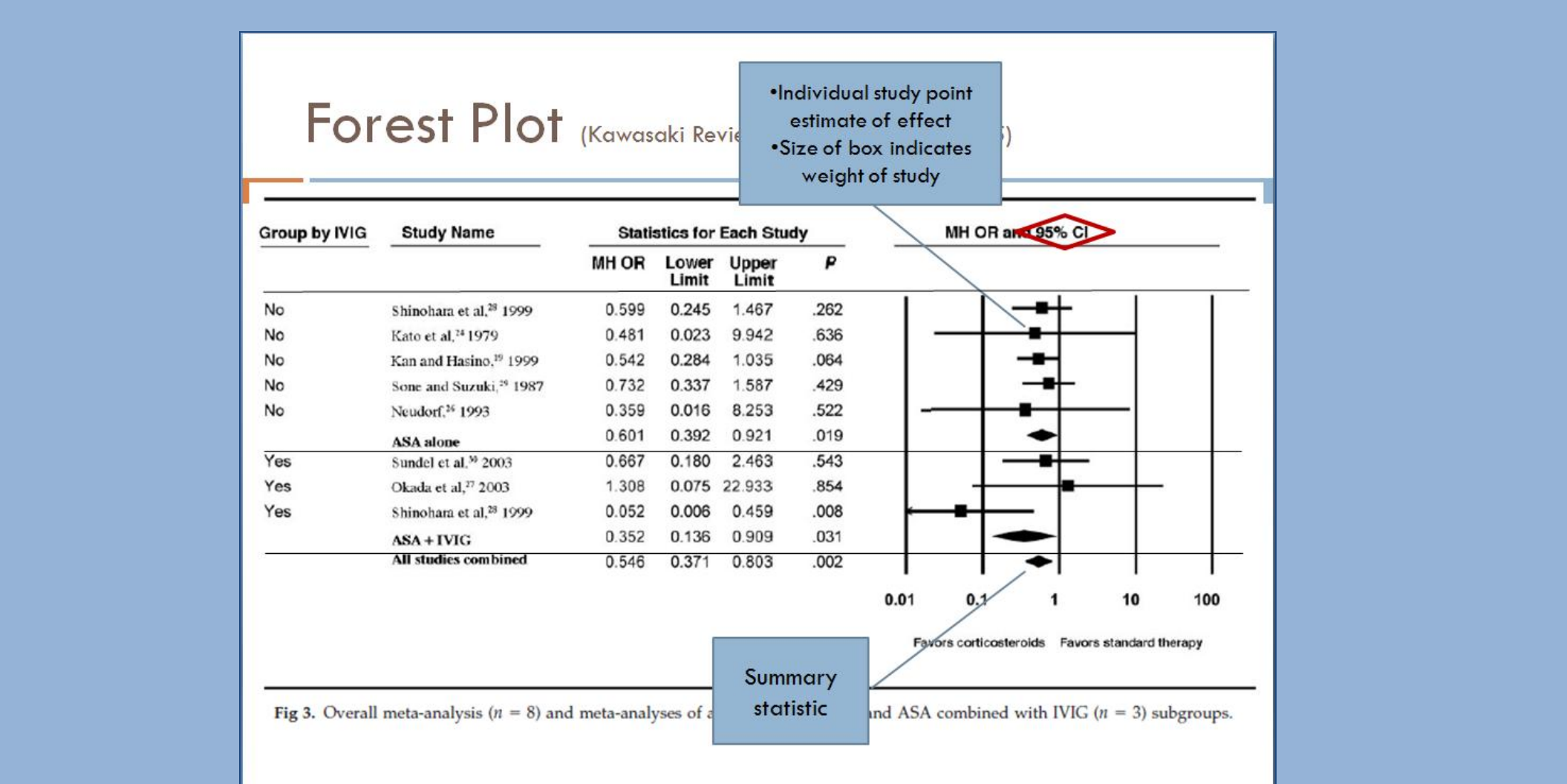
- Understand what Systematic Reviews are and why they are important
- Learn how to find Systematic Review articles
- Learn how to understand and appraise them
- Improve ability to incorporate evidence into your clinical activity

**What are Review Articles?**

- Narrative vs. Systematic Reviews
- Types of Systematic Reviews
- When to look for a systematic review

**Group Exercise Appraising Two Steroid for Kawasaki Disease Papers**

- Are the Results Valid?**
  - Did the Review explicitly address a sensible clinical question?
  - Was the search for relevant studies detailed and exhaustive?
  - Were the primary studies of high methodological quality?
  - Were assessments of studies reproducible?
- What are the results?**
  - Were the results similar from study to study?
  - What are the overall results of the review?
  - How precise were the results?
- How can I apply the results to patient care?**
  - How can I best interpret the results to apply them to the care of patients in my practice?
  - Were all clinically important outcomes considered?
  - Are the benefits worth the costs & potential risks?



## Surgery Clerkship Online Surgical Resources

In late 2011, an author (WT) attended a Clerkship director meeting to discuss how the library supports clerkship rotations. After the session the surgery clerkship director expressed interest in developing a website of supplemental readings for that rotation's lecture content. The director and the surgery librarian (MPM) met to discuss E-Book content and website platforms. Ultimately deciding on a Libguide comprised of short E-Book chapters, review articles, and Dynamed entries. The Libguide was instituted as a pilot in September 2012 (<http://guides.lib.umich.edu/M3SurgeryClerkship>).

**M3 Library**

**M3 Surgery Clerkship**

On this guide you will find brief readings to supplement the M3 Surgery Clerkship lecture content.

Overview | **Abdominal Pain (Acute & Chronic)** | Acute Deep Venous Thrombosis | Breast Disease | Cold Patches, Extremity & Circulation | Dysphagia | Gastrointestinal Bleeding | Herpes | Jaundice | Neck Mass | Otitis/Auritis | Postoperative Fever | PVD | TIA & Carotid Stenosis | Trauma (Shock) & Burn

**Links / Resources**

- Other Surgery Resources
- Taubman Health Sciences Library
- Clinical Home Page
- Access Surgery (E-Books)
- MD Consult

**Evidence-Based Learning and Supplementary Materials**

These resources supplement the Surgery Clerkship's lecture content. Most of the included book chapters are short, so if you would like more detailed background information by searching E-Book resources, like MD Consult, Access Medicine, and Dynamed:

- Abdominal Pain (Acute & Chronic)
- Acute Deep Venous Thrombosis
- Breast Disease
- Cold Patches, Extremity & Circulation
- Dysphagia
- Gastrointestinal Bleeding
- Herpes
- Jaundice & Obstructive Jaundice
- Neck Mass
- Otitis/Auritis
- Postoperative Fever
- PVD
- TIA & Carotid Stenosis
- Trauma (Shock) & Burn

**Acute Deep Venous Thrombosis**

**Links / Resources**

- Other Surgery Resources
- Taubman Health Sciences Library
- Clinical Home Page
- Access Surgery (E-Books)
- MD Consult (E-Books)

**Acute Deep Venous Thrombosis**

**Book Chapters**

- Current Diagnosis & Treatment: Surgery
- First Clinical Advisor (1 of 4) (Q)

**Review Articles**

- Cochrane Reviews
- Dynamed
- Deep Venous Thrombosis

**Useful Resources**

- Other Surgery Resources
- Taubman Health Sciences Library
- Clinical Home Page
- Access Surgery (E-Books)
- MD Consult (E-Books)

[1] MacEachern, M., Townsend, W., Young, K., & Rana, G. (2012). Librarian integration in a four-year medical school curriculum: a timeline. *Medical Reference Services Quarterly*, 31(1), 105-114. doi:10.1080/02763869.2012.641856