

Thinking outside the library: being embedded in a professional practice lab

Shannon Gordon, Pharmacy Liaison Librarian,
Davis Centre Library & School of Pharmacy, University of Waterloo

Lisa McLean, Senior Lab Demonstrator Professional Practice,
School of Pharmacy, University of Waterloo

Nardine Nakhla, PharmD, RPh, Adjunct Clinical Assistant Professor,
School of Pharmacy, University of Waterloo

Presented at the Ontario Library Association Super Conference, January 31, 2014

We'll Discuss:

- The course, PHARM 131
- Drug information (DI) station
- Student questions & feedback
- Benefits & challenges
- Other approaches
- Questions

The Course: PHARM 131

- 1st year course
 - 1st professional practice laboratory course
 - Introduction to community pharmacy practice
 - Enrols ~120 students
- Prerequisites: Pharm 129, Pharm 130

Knowledge acquired from PHARM 129 will be applied to simulated pharmacy situations and patient case scenarios. This will provide the opportunity for students to demonstrate technical skills and clinical knowledge in a practical context.



COURSE OBJECTIVE

PHARM 131 gives the students the *skills* required to be a technically competent pharmacy student for the first co-op work term and is a building block for the skills necessary to become a practicing pharmacist.

5 Lab 'Stations'

Medication Dispensing
(Pharmacy Technician)

Sterile Compounding
(Pharmacy Technician)

Patient Counselling
(Pharmacists)

- Information Gathering
- Non-Prescription Aisle

Drug Information Requests
(Librarian)

Lab Day: Hands-On

2 hour lab repeated 3 times



Medication
Dispensing:
8 Students



Sterile Compounding:
8 Students

Patient Counselling +
Info Gathering
**8 Students + 8
Students**



Drug Information
Requests:
8 Students



Part I (MCQ)	Part II (OSCE)	COMPETENCIES	Parts I and II Overall %
7%	5%	Competency #4: Drug, Therapeutic and Practice Information Pharmacists assume responsibility for accessing, retrieving, evaluating and exchanging relevant information to ensure safe and effective patient care.	6%
.	√	4.1 Clearly define the question(s) to be researched. <ul style="list-style-type: none"> • Clarify requests for information. • Identify key targets (audiences). 	
√	√	4.2 Identify appropriate sources of relevant information, using evidence-informed approaches where possible. <ul style="list-style-type: none"> • Name major sources of information. • Discuss the appropriateness of these sources. • Assess the value of the sources. 	
.	√	4.3 Retrieve information from relevant sources. <ul style="list-style-type: none"> • Use a variety of retrieval techniques to access relevant information. • Assess the suitability and reliability of these techniques. 	
√	√	4.4 Evaluate scientific information. <ul style="list-style-type: none"> • Assess the adequacy of research design (e.g., ethics, methodology, etc). • Assess the relevance, applicability, accuracy, reliability, validity, and generalizability of information. 	

The PPL Team

Nardine Nakhla: Course Coordinator; Adjunct Clinical Assistant Professor, Community Pharmacist

Lisa McLean: Regulated Pharmacy Technician, Senior Lab Demonstrator Professional Practice

Elaine Magowan: Regulated Pharmacy Technician

Shannon Gordon: Pharmacy Liaison Librarian

Other TAs as required

DATES	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
May 9	ORIENTATION				
May 16	Dispensing Part 1 Kroll	Group Consult - Non-Rx Aisle	DI Request Part 1	Sterile Compounding Part 1	Group Consult – Information Gathering
May 23	Group Consult – Information Gathering	Dispensing Part 1 Kroll	Group Consult Non-Rx Aisle	DI Request Part 1	Sterile Compounding Part 1
May 30	Sterile Compounding Part 1	Group Consult – Information Gathering	Dispensing Part 1 Kroll	Group Consult - Non- Rx Aisle	DI Request Part 1
June 6	DI Request Part 1	Sterile Compounding Part 1	Group Consult – Information Gathering	Dispensing Part 1 Kroll	Group Consult - NonRx Aisle
June 13	Group Consult - Non-Rx Aisle	DI Request Part 1	Sterile Compounding Part 1	Group Consult – Information Gathering	Dispensing Part 1 Kroll
June 20	NO LAB THIS WEEK DUE TO THE OPA CONFERENCE				
June 27	Dispensing Practical - Kroll	Consult Room & NonRx Practical	DI Request Part 2	Sterile Compounding Part 2	Dispensing Part 2 Nexxsys
July 4	Dispensing Part 2 Nexxsys	Dispensing Practical - Kroll	Consult Room & NonRx Practical	DI Request Part 2	Sterile Compounding Part 2
July 11	Sterile Compounding Part 2	Dispensing Part 2 Nexxsys	Dispensing Practical - Kroll	Consult Room & NonRx Practical	DI Request Part 2
July 18	DI Request Part 2	Sterile Compounding Part 2	Dispensing Part 2 Nexxsys	Dispensing Practical - Kroll	Consult Room & NonRx Practical
July 25	Consult Room & NonRx Practical	DI Request Part 2	Sterile Compounding Part 2	Dispensing Part 2 Nexxsys	Dispensing Practical - Kroll

Winter
2013

Invitation

Planning
meetings

Review DI
cases &
resources

Spring
2013

Course
orientation

10 week lab:
60 hour total

Lab Day

Overview of DI cases & DI
resources
~ 5-10 minutes



In-lab DI seeking support
~ 2 hours



Collection of completed DI
requests

Weeks 1-5

Assessment

- Feedback focused; not graded

Objective

- Develop and expand DI skillset

4 DI requests

- Case 1: print or online DI sources
- Cases 2-4: only use print DI sources

Weeks 6-10

Assessment

- Worth 10% of final grade (/50)
- Average = 43/50 or 86%

Objective

- Assess DI knowledge

5 DI requests

- Could use online or print DI sources

Sample DI Request

UW Professional Practice Lab 1
Drug Information Documentation Form

Date: _____
Name: _____

Question Set #: 4
Total Score: / 10 Points

4. Susan has recently found out that she is lactose intolerant. She is very upset and has come to the pharmacy to buy Lactaid. She doesn't know much about the product and was hoping you could tell her something about Lactaid. Susan would also like to know if any of her medications contain lactose. Susan currently takes Glucophage, ~~Stresstabs~~ and ~~Lisinopril~~ (apotex brand). Please provide your answers like you would in practice.

Part 1: Patient information for DI request (point form) [/ 2 Points]

[1 Point] Patient Name:

[1 Point] Relevant background information:

Part 2: Evidence gathering for DI request [/ 2 Points]

[1 Point] What was your search strategy for answering this request?

[1 Point] What source(s) answered this request? Indicate the title of the resource, section where you found the answer, and if it is online or print. Example: *CPS 2013/product monographs section/print version*.

Part 3: Your answer for DI request (point form) [/ 6 Points]

Patient Information

Identify patient name

Provide relevant background information

/2 points

Answer for DI request

What would you do in practice?

/6 points

Evidence Gathering

What was your search strategy
for answering this request?

What source(s) answered this request?

/2 points

Search Strategy

How did students determine where to search?

What was their search 'thought process'?

For example:
special population or group,
geographic focus,
keywords, etc.

DI Resources

- e-Therapeutics (e-CPS)
- Lexicomp
- Micromedex
- Natural Standard
- Access Pharmacy
- Canadian Pharmaceuticals & Specialties (CPS)
- Therapeutic Choices
- Martindale
- Drugs in Pregnancy and Lactation
- Pediatric Dosage Handbook

Do lisinopril and Glucophage® contain lactose?

What pharmacological and non-pharmacological therapeutic options exist for smoking cessation?

?

Are Quinolone antibiotics safe to use during pregnancy?

Is it okay to crush/open phenytoin and Colace® capsules?

Should isotretinoin be prescribed for a woman in her 2nd trimester who is experiencing severe acne?

What do the risk categories mean in the Briggs text?

Does a certain drug interact with grapefruit juice?

?

How do you use the Martindale? What do certain symbols mean?

How do I know what a drug is called in another country?

What company manufactures drug X in another country?

RQs in the Lab



Week 1: 45

Week 2: unavailable (away)

Week 3: 30

Week 4: 38

Week 5: 41

Student Thoughts

- Appreciated lab's hands-on nature
- DI cases were challenging yet doable
- Using print DI resources was challenging!
- Unsure how much detail to provide in their answers
- Overall, a positive learning experience

“I felt that it was a great idea to have the first 5 weeks unmarked to give us practice”

“The DI request station is too difficult for students with no therapeutic knowledge of the drugs”

“Information we learn during this lab
is SO IMPORTANT for us, especially
going out for our first co-op in the fall”

“I believe the lab fulfilled its purpose of
introducing us to the main features
of working in a pharmacy setting”

Making Connections

Working with
1st year students

Strengthening
relationships with
instructors

Supporting Teaching & Learning

Marketing
librarian skillset

Support at a
point of need

Insight into UG
curriculum

Challenges

- Technology
 - The server died!
 - Internet connectivity
- Confusion with wording of some cases
- 6 hours of reference support

Our experience

- Very positive collaboration
- Opportunity to share our experience
- Possibility for future involvement

What happens elsewhere?

Librarian-led small group DI tutorials¹

Herbs and nutraceuticals course²

Drug information and literature evaluation course³

Drug information skills program⁴

You!

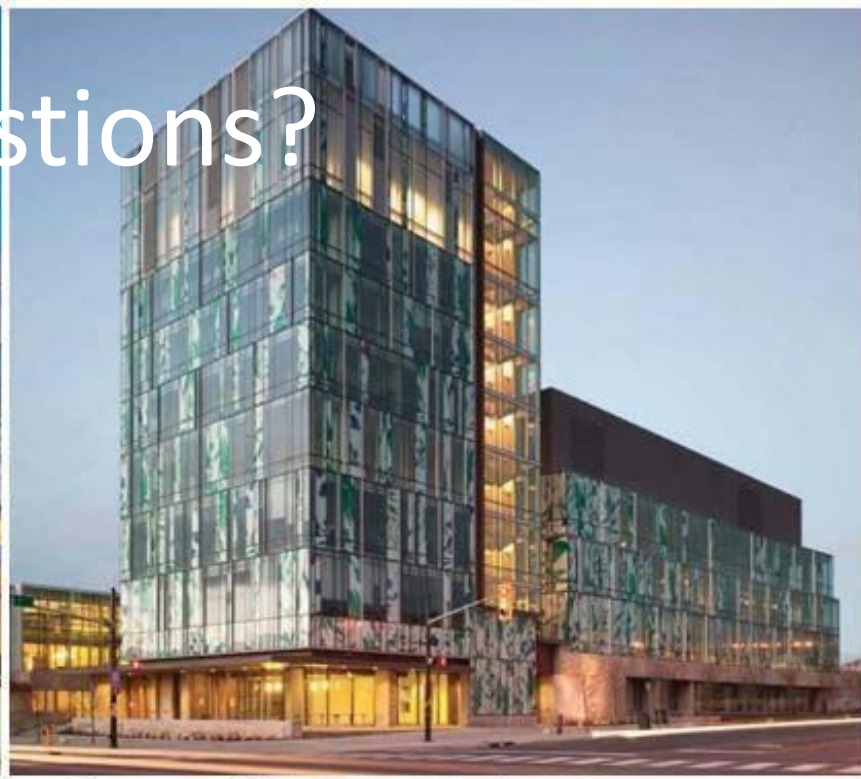
- Have you provided information seeking support within a lab environment?
- How do you support students seeking drug information?

Our 3rd Speaker,

Lisa McLean



Questions?



shannon.gordon@uwaterloo.ca

nnakhla@uwaterloo.ca

Works Cited

1. Lapidus M, Kostka-Rokosz M, Dvorkin-Camiel L. Librarian-lead tutorial for enhancement of pharmacy students' information-searching skills in advanced experiential rotations. *Med Ref Serv Q*. 2009;28(4):351-362. <http://www.tandfonline.com/doi/pdf/10.1080/02763860903249217>.
2. Lapidus M. Educating student pharmacists about herbal medicines: Faculty–librarian collaboration. *Health Information & Libraries Journal*. 2007;24(4):267-273. <http://onlinelibrary.wiley.com/doi/10.1111/j.1471-1842.2007.00718.x/pdf>.
3. Timpe EM, Motl SE, Eichner SF. Weekly active-learning activities in a drug information and literature evaluation course. *Am J Pharm Educ*. 2006;70(3):1-5. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1636938/pdf/ajpe52.pdf>.
4. Wood EH, Oppenheimer PR. Drug information skills for pharmacy students: Curriculum integration. *Bull Med Libr Assoc*. 1990;78(1):8-14. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC225320/pdf/mlab00122-0024.pdf>.