

Online Drug Information Resources

A Toolkit to help Pharmacists get it right

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23/02/2015

Disclaimer:
PRESENTING AUTHORS HAVE NO RELATIONSHIPS TO DISCLOSE

Learning objectives

By the end of this session, participants should be able to:

- State the benefits and limitations of using online drug information resources.
- Validate any provided online drug information resources in terms of their appropriateness.
- Establish a structured approach that determines the ultimate question and appropriate search strategy.
- Describe methods to retrieve drug information from reliable and trusted resources.
- Select appropriate drug resources to answer a particular question in a specific area of practice.
- Integrate a systematic process in formulating drug information response and providing feedback.

Session outline

- Welcome
- Introducing Online Drug Information Resources
- Small group discussion of scenarios
- Break
- Small group discussion of scenarios
- Concluding remarks

Drug information today

- The quantity of medical information and medical literature available is growing rapidly.
- Technology has changed the way information is accessed.
- Pharmacists, in their different settings, are always receiving drug information queries?
- Key is to effectively select the most appropriate resource to answer the different queries.

Drug information today

- The provision of drug information (DI) is among the fundamental professional responsibilities of all pharmacists.
- There are seven basic competency categories in which a practicing pharmacist in Qatar should demonstrate proficiency:

NAPRA Category	Description
Drug, Therapeutic and Practice Information	“Pharmacists assume responsibility for accessing, retrieving, evaluating and exchanging relevant information to ensure safe and effective patient care”

Drug Information Resources

Tertiary Sources



Secondary Sources



Primary Sources

First Activity

- Discuss the benefits and limitations of using online drug information resources?

All Prescribing
Information
Just a click away!



Advantages of using online DI resources

- The internet has allowed for convenient and quick access to updated medical information.
- Many of the resources are freely accessible
- Online drug information resources provide more detail Information about rare or tropical diseases and alternative medicine which may not be available through printed resources

Disadvantages of using online DI resources

- Sometimes, accessing and navigating the Internet can be time consuming and restraining.
- Not all content distributed over the Internet is useful.
- Many useful sites may charge a fee, or require a subscription to get the information.
- Many unreliable sources with citations not referenced.
- Many patients utilize online resources as their primary information source.

“Knowledge is power.”

Sir Francis Bacon

Evaluating Electronic Drug Information Resources

- Pharmacists should be adequately trained to efficiently search and navigate online DI resources.
- Pharmacists should critically evaluate the reliability of websites prior to use to ensure that they are accurate, current, and non-biased.

Evaluating Electronic Drug Information Resources

Table 1. Ten Key Questions to Ask When Evaluating a Web Site

Question	Comment
Who runs the Web site?	Usually found in the "About Us" section. Be wary of Web sites funded by an entity that stands to profit from the message.
What is the purpose of the Web site?	The primary purpose of the Web site should be educational, not financial, gain.
Who is responsible for the information?	Use the suffix of the Web address as a clue (i.e., ".gov" = governmental agency, ".edu" = academic institution, etc.).
How is the information documented?	References should be readily available.
What are the credentials of the contributors or reviewers?	The contributors or reviewers should be health care professionals.
Is the information current?	Locate the date of the last update.
What is the Web site's linking policy?	Linking should not be allowed without approval.
What is the Web site's privacy policy?	Usually found in the "Privacy" section. Information obtained from users may be sold.
Is contact information readily available?	The Web site administrator is often the primary contact.
Who monitors the chat room?	If a chat room is available, a moderator should be present (preferably a health care provider).

Evaluating Internet Health Information

- **Who runs the Web site?**
- **What is the purpose of the Web site?**
- **What is the original source of the information on the Web site?**
 - Sites that end in ".gov," sponsored by the federal government
 - .edu sites, which are run by universities or medical schools
 - .org sites maintained by not-for-profit groups whose focus is research and teaching the public about specific diseases or conditions

Evaluating Internet Health Information

- How is the information on the Web site documented?
- How is information reviewed before it is posted on the Web site?
- How current is the information on the Web site?

Let's try to validate an online drug information resource

✓ validate





**KEEP
CALM
AND USE A
SYSTEMATIC
APPROACH**

Modified Systematic Approach

The Seven Steps

Step 1: Secure Demographics of Requestor

Step 2: Obtain Background Information

Step 3: Determine and Categorize the Ultimate Question

Step 4: Develop Strategy and Conduct Search

Step 5: Perform Evaluation, Analysis, and Synthesis

Step 6: Formulate and Provide Response

Step 7: Conduct Follow-Up and Documentation

Step 1: Secure Demographics of Requestor

- The requester's professional and educational background should be identified in order to to formulate and deliver a response with the appropriate perspective
- The respondent should gather information from the requestor that will allow him or her to reply to the request
- **Example:** the requestor's address, phone number, pager number, and fax number.

Step 2: Obtain Background Information

- To formulate an acceptable response, the pharmacist must have a clear understanding of the ultimate question
- Identify the true information needed by asking probing questions of the requestor.
 1. The resources that the requestor already consulted
 2. Whether the request is patient specific or academic
 3. The patient' diagnosis, medications and pertinent medical information
 4. The urgency of the request

Step 3: Determine and Categorize the Ultimate Question

- Classify requests as patient-specific or academic and by type of question to aid in tailoring the search strategy and selecting resources.

Categorizing the Ultimate Question

- Administration of Medicines
- Adverse Drug Reactions
- Drug Interactions
- Drugs in Pregnancy
- Compatibility of Parenteral Drugs
- Drugs in Renal Disease
- Drugs in Liver Disease
- Drugs in Breast-feeding
- Children and Medicines
- Alternative Medicines
- Product Availability

Example

- 50 years old male
 - Past medical history: Hypertension
 - Current medication: Lisinopril 10mg daily
 - Presenting complaint: Has developed a dry cough
-
- What is the ultimate Questions?
 - Is drug cough a side effect of ACE inhibitor?

Step 4: Develop Strategy & Conduct Search

- Select and prioritize resources based on the probability of locating the desired information
 - Without prioritization, resources may be used based on ease of access or degree of comfort instead of probable efficiency

Step 5: Perform Evaluation, Analysis & Synthesis

- Perform a systematic search of appropriate primary, secondary, and tertiary resources and other electronic resources as necessary.
- Confirm information with other references to assure consistency between various resources

Step 6: Formulate and Provide Response

- Restate the question and any pertinent background information
- Provide the information and recommendation (if applicable)
- Compose the response at the requestor's comprehension level

DESIRED CHARACTERISTICS OF A RESPONSE

Timely
Current
Accurate
Complete
Concise
Supported by the best available evidence
Well-referenced
Clear and logical
Objective and balanced
Free of bias or flaws
Applicable and appropriate for specific circumstances
Answers important related questions
Addresses specific management of patients or situations

Example

From: [Redacted]
To: [Redacted]
Date: 01.03.2014
Re: Antimalarials in a patient on haemodialysis

Dear Colleague,

Please could you advise regarding the most appropriate malaria prophylaxis for a 69-year-old woman who undergoes regular haemodialysis travelling to Pakistan for 3 weeks. Looking at the HPA guidance, this would appear to be doxycycline but I am not sure whether or not the dose would need altering?

Many thanks

Dr James Brown
Avenue Medical Centre

From: [Redacted]
To: [Redacted]
Date: 01.03.2014
Re: Antimalarials in a patient on haemodialysis

Dear Dr Brown,

Thank you for your enquiry regarding the most appropriate antimalarial for your patient on haemodialysis travelling to Pakistan. I understand that you were considering doxycycline but were not sure if a dose reduction was necessary.

Advice around the preferred chemoprophylaxis for Pakistan is actually quite conflicting with some expert bodies recommending proguanil and chloroquine, and others describing chloroquine resistance and so recommending doxycycline or mefloquine or atovaquone/proguanil.

Either way, since proguanil is excreted entirely by the kidneys, its use is probably best avoided in patients on haemodialysis, when alternative treatments exist.

Both doxycycline and mefloquine have been used in patients with severe renal impairment and their doses do not need adjusting for haemodialysis.

I do hope this is helpful and please do not hesitate to contact us if you have any further questions.

Yours sincerely,

[Redacted] Pharmacist

Step 7: Conduct Follow-Up & Documentation

- **Disseminate the information.**
 - Document the request, information resources, response, and follow-up as appropriate for the request and the practice setting.
 - Log Book
 - Computer Database
 - Paper form
- **Reasons for documentations (examples)**
 - Justification of pharmacist's professional value to the institution
 - Future reference for repetitive drug information requests
 - Protective measure against legal liability

Step 7: Conduct Follow-Up & Documentation

- **Follow-up.**
 - Perform a follow-up assessment to determine the utility of the information provided and outcomes for the patient or changes in medication-use practices and behaviors.
- **Reasons for follow-up**
 - Provide the requestor with additional information that supports or changes a prior recommendation
 - Obtain feedback concerning the quality of the service

QUESTIONS TO CONSIDER BEFORE FORMULATING A RESPONSE

Are the requestor's name, profession, and affiliation known?

Does the question pertain to a specific patient?

Is there a clear understanding of the question or problem?

Is the correct question being asked?

Why is the question being asked? Why now?

Are the requestor's expectations understood?

Has pertinent patient history and background information been obtained?

What are the unique circumstances that generated the query?

What information is actually needed?

When is the information needed and in what format (e.g., verbal, written)?

How will the information provided be used or applied?

How has the problem or situation been managed to date?

Are there alternative explanations or management options that should be explored?

DESIRED CHARACTERISTICS OF A RESPONSE


- A new mother has been breast-feeding her child for 3 months. The mother has recently been prescribed levofloxacin for treatment of an infection.
 - *What sources should be consulted to determine the appropriateness of this choice?*
 - *Is it safe for her to continue breast-feeding during this therapy?*
 - *What additional information is needed to answer this patient's question?*

Open-access online drug information resources



Useful Websites:

www.medicines.org.uk



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About the eMC

[What is the eMC?](#)

[What does the eMC contain?](#)

[Where does the information come from?](#)

[How is the information updated?](#)

[Who can use the eMC?](#)

[Which pharmaceutical companies add information to the eMC?](#)

[I can't find the information I'm looking for](#)

[About us](#)

What is the eMC?

The electronic Medicines Compendium (eMC) contains up to date, easily accessible information about medicines licensed for use in the UK. The eMC has more than 10,600 documents, all of which have been checked and approved by either the UK or European government agencies which license medicines. These agencies are the UK Medicines and Healthcare Products Regulatory Agency (MHRA) and the European Medicines Agency (EMA).

The eMC was launched in 1999 and has become an established website, trusted for reliable information about medicines. The eMC is free to use and you don't have to register any personal details.

The eMC is managed and owned by Datapharm Communications Limited, known as Datapharm. We work with pharmaceutical companies, the NHS, and other healthcare organisations to provide good information about medicines.

What does the eMC contain?

The eMC contains two types of documents.

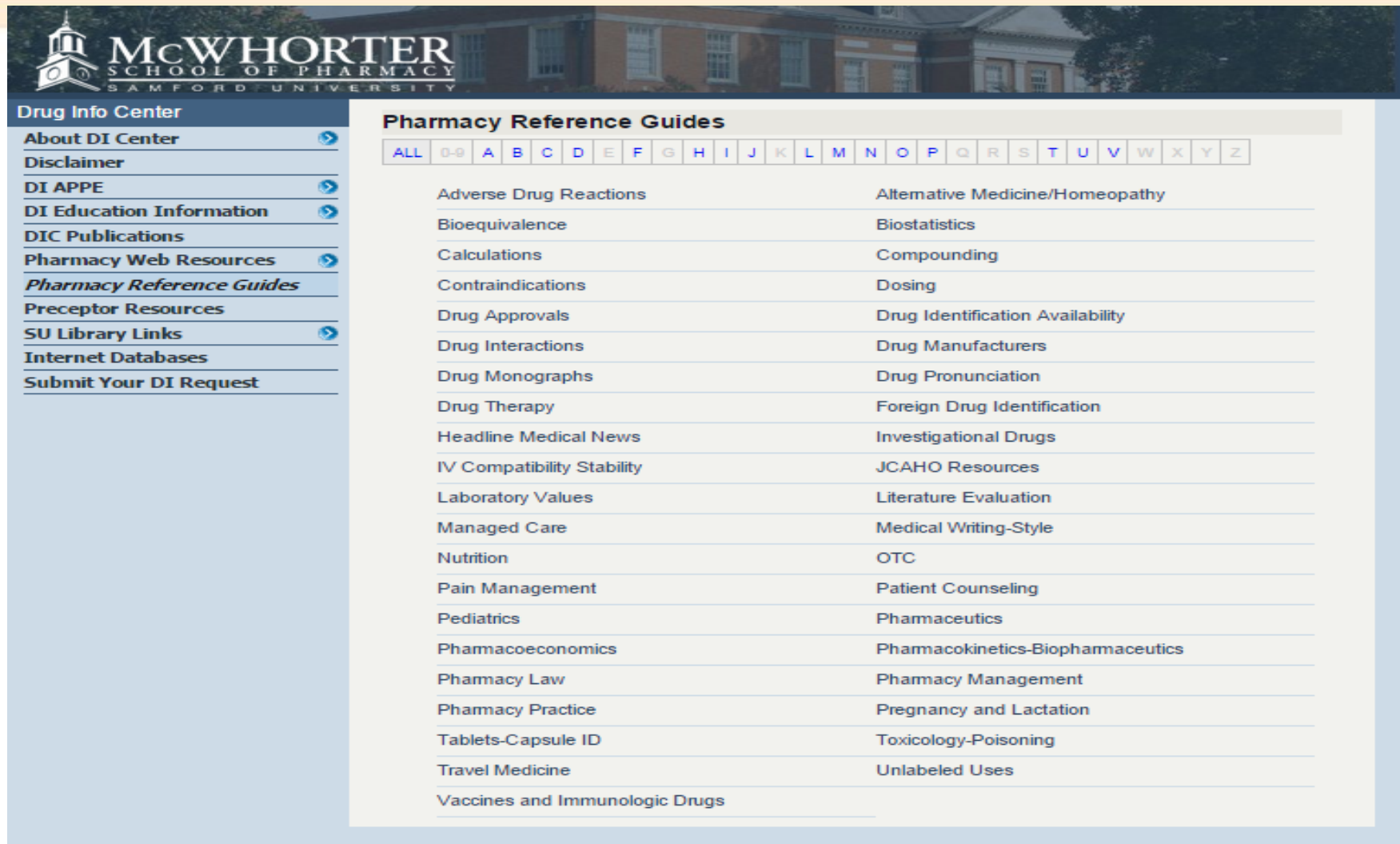
- Summaries of Product Characteristics (known as [SPCs](#) or SmPCs)
- Patient Information Leaflets (known as [PILs](#), Package Leaflets or PLs)

Summaries of Product Characteristics

An SPC tells healthcare professionals, such as doctors, pharmacists and nurses, how to prescribe and use a medicine correctly. An SPC is based on clinical trials that a pharmaceutical company has carried out, and gives information about dose, use and possible side effects. An SPC is always written in a standard format, which is explained in our [glossary](#).

Useful Websites:

http://pharmacy.samford.edu/msop_referenceGuides.aspx



The screenshot displays the McWhorter School of Pharmacy website. The header features the school's logo and name. A left sidebar lists various resources under the 'Drug Info Center' heading. The main content area is titled 'Pharmacy Reference Guides' and includes an alphabetical index bar. Below the index, a two-column list of reference topics is provided, each with a corresponding link.

McWHORTER SCHOOL OF PHARMACY
SAMFORD UNIVERSITY

Drug Info Center

- About DI Center
- Disclaimer
- DI APPE
- DI Education Information
- DIC Publications
- Pharmacy Web Resources
- Pharmacy Reference Guides*
- Preceptor Resources
- SU Library Links
- Internet Databases
- Submit Your DI Request

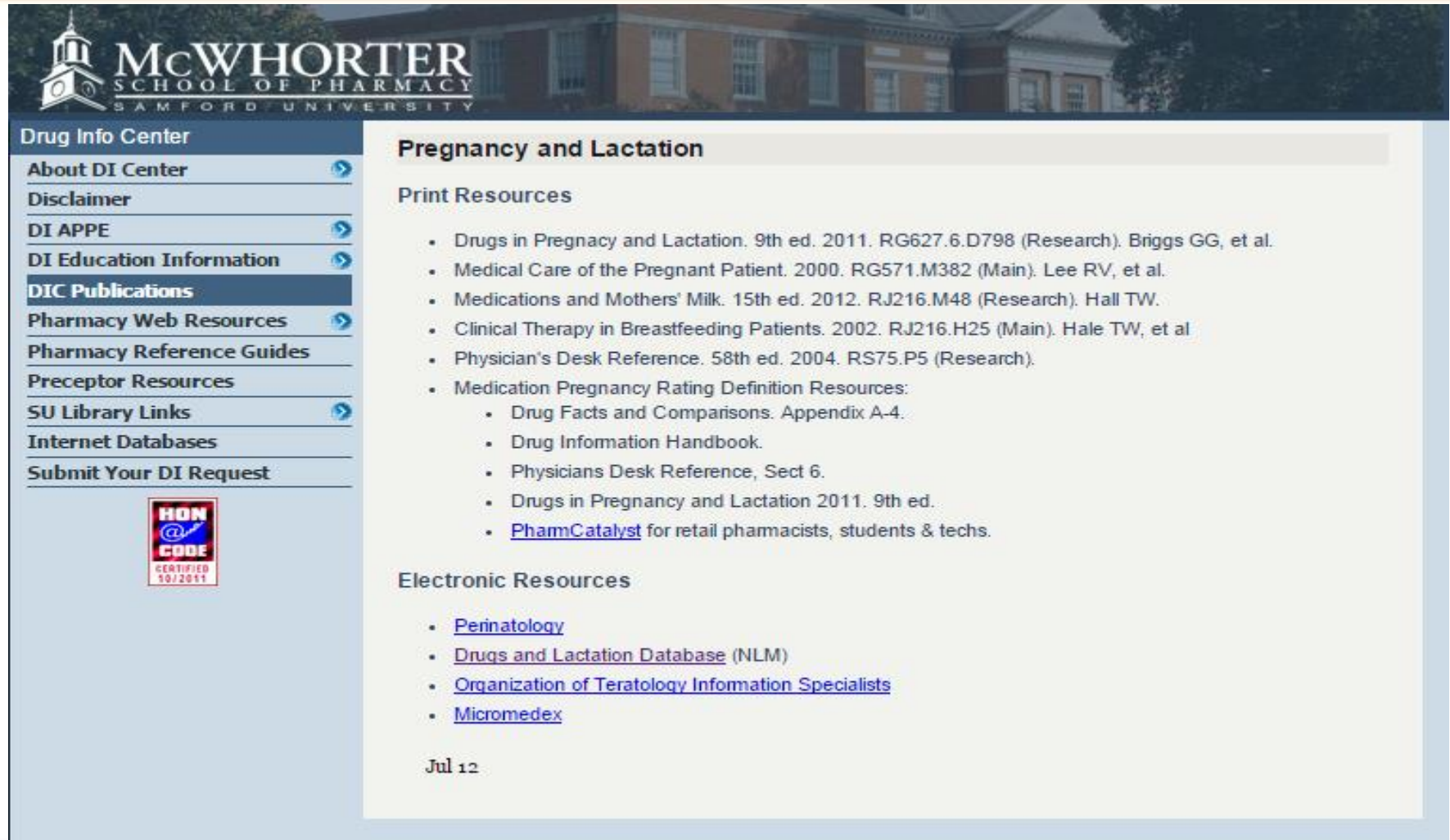
Pharmacy Reference Guides

ALL 0-9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Adverse Drug Reactions	Alternative Medicine/Homeopathy
Bioequivalence	Biostatistics
Calculations	Compounding
Contraindications	Dosing
Drug Approvals	Drug Identification Availability
Drug Interactions	Drug Manufacturers
Drug Monographs	Drug Pronunciation
Drug Therapy	Foreign Drug Identification
Headline Medical News	Investigational Drugs
IV Compatibility Stability	JCAHO Resources
Laboratory Values	Literature Evaluation
Managed Care	Medical Writing-Style
Nutrition	OTC
Pain Management	Patient Counseling
Pediatrics	Pharmaceutics
Pharmacoeconomics	Pharmacokinetics-Biopharmaceutics
Pharmacy Law	Pharmacy Management
Pharmacy Practice	Pregnancy and Lactation
Tablets-Capsule ID	Toxicology-Poisoning
Travel Medicine	Unlabeled Uses
Vaccines and Immunologic Drugs	

Useful Websites:

http://pharmacy.samford.edu/msop_referenceGuides.aspx



The screenshot displays the McWhorter School of Pharmacy website. The header features the school's logo and name. A left sidebar lists navigation options under the 'Drug Info Center' heading. The main content area is titled 'Pregnancy and Lactation' and includes sections for 'Print Resources' and 'Electronic Resources'. The 'Print Resources' section lists several references, including 'Drugs in Pregnancy and Lactation' (9th ed., 2011) and 'Medical Care of the Pregnant Patient' (2000). The 'Electronic Resources' section lists links to 'Perinatology', 'Drugs and Lactation Database (NLM)', 'Organization of Teratology Information Specialists', and 'Micromedex'. A 'HON @ CODE' logo is visible in the bottom left of the sidebar.

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Drug Info Center

- About DI Center
- Disclaimer
- DI APPE
- DI Education Information
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- Pharmacy Web Resources
- Pharmacy Reference Guides
- Preceptor Resources
- SU Library Links
- Internet Databases
- Submit Your DI Request

HON @ CODE
CERTIFIED
10/2011

Pregnancy and Lactation

Print Resources

- Drugs in Pregnancy and Lactation. 9th ed. 2011. RG627.6.D798 (Research). Briggs GG, et al.
- Medical Care of the Pregnant Patient. 2000. RG571.M382 (Main). Lee RV, et al.
- Medications and Mothers' Milk. 15th ed. 2012. RJ216.M48 (Research). Hall TW.
- Clinical Therapy in Breastfeeding Patients. 2002. RJ216.H25 (Main). Hale TW, et al.
- Physician's Desk Reference. 58th ed. 2004. RS75.P5 (Research).
- Medication Pregnancy Rating Definition Resources:
 - Drug Facts and Comparisons. Appendix A-4.
 - Drug Information Handbook.
 - Physicians Desk Reference, Sect 6.
 - Drugs in Pregnancy and Lactation 2011. 9th ed.
 - [PhamCatalyst](#) for retail pharmacists, students & techs.

Electronic Resources

- [Perinatology](#)
- [Drugs and Lactation Database \(NLM\)](#)
- [Organization of Teratology Information Specialists](#)
- [Micromedex](#)

Jul 12

Useful Websites:

<http://www.mims.co.uk/>

mims

News Guidelines Tables Fact Sheets Clinics



Drugs



Conditions



Travel



Articles

Drug name, Drug class

Drug search

Browse drugs by section

Browse drugs by manufacturer

MIMS (*Monthly Index of Medical Specialities*) is a pharmaceutical prescribing reference guide published in the UK since 1959 aimed at healthcare professionals

Table 2. Select Open-Access Drug Information Sources Available Via the Internet

Web Address	Sponsor	Area(s) Covered
www.merck.com/pubs	Merck	General medicine
www.nccam.nih.gov	National Centers for Complementary and Alternative Medicine	Herbal and alternative medicine
http://ods.od.nih.gov/index.aspx	NIH Office of Dietary Supplements	
www.usp.org/USPVerified/	United States Pharmacopeia	
www.nlm.nih.gov/medlineplus	NIH MedlinePlus	Patient information
www.mayoclinic.com/health/drug-information/DrugHerbIndex	Mayo Clinic	
http://medlineplus.gov	National Library of Medicine	
www.talkaboutrx.org	National Council on Patient Information and Education	
www.webmd.com	WebMD LLC	
www.globalrph.com	GlobalRPh Inc	General pharmacy; calculators
www.guidelines.gov	National Guideline Clearinghouse	Evidence-based medicine;
www.cochrane.org	The Cochrane Collaboration	only abstracts are open access at the
www.ahrq.gov	Agency for Healthcare Research and Quality	Cochrane Collaboration
www.nlm.nih.gov	National Library of Medicine	General health and education; links to MedlinePlus, AIDInfo, PubMed, and others
www.nih.gov	National Institutes of Health	General health and education; 27 disease/organ-specific institutes
www.cdc.gov	Centers for Disease Control and Prevention	General health and education; traveler's health
www.fda.gov	Food and Drug Administration	General information on drugs and biologics; bioequivalence information (Orange Book)
www.torsades.org	ArizonaCERT	QT-prolonging potential of drugs
http://medicine.iupui.edu/clinpharm/ddis	Indiana University School of Medicine	CYP450 interactions
www.glutenfreedrugs.com/	Unknown, maintained by a clinical pharmacist	Gluten-free medications
www.clinicaltrials.gov	National Institutes of Health	Clinical trial registry
www.clinicalstudyresults.org	PhRMA	PhRMA Clinical Study Results Database
www.ashp.org	American Society of Health System Pharmacists	Pharmacy practice resources
www.accp.com	American College of Clinical Pharmacy	
www.amcp.org	Academy of Managed Care Pharmacy	
www.pharmacist.com	American Pharmacists Association	
www.healthinfotranslations.com	Various hospitals and associations	Health information translations
www.asco.org	American Society of Clinical Oncology	Cancer-related information
www.nccn.org	National Comprehensive Cancer Network	
www.hematology.org	American Society of Hematology	
www.emedicine.com	Medscape	General medicine
www.orpha.net	Orphanet	Portal for rare diseases and orphan drugs
www.omnimedicalsearch.com	OmniMedicalSearch.com	Health care information search engine

Type of Request	Useful Tertiary Sources	Secondary Resources
General Product Information	Major compendia*, Handbook of Nonprescription Drugs ¹ , product labeling,	MEDLINE, EMBASE, IPA, IDIS
Adverse Effects	Meyler's Side Effects of Drugs ² , Side Effects of Drugs Annual ³ , product labeling, major compendia*	Reactions Weekly, MEDLINE, EMBASE, IPA, IDIS
Availability of Dosage Forms	Red Book ⁴ , American Drug Index ⁵ , major compendia*	_____
Compounding/Formulations	Remington: The Science and Practice of Pharmacy ⁶ , Merck Index ⁷ , A Practical Guide to Contemporary Pharmacy Practice ⁸ , USP/NF ⁹ , Trissel's Stability of Compounded Formulations ¹⁰ , (Children's Hospital of Philadelphia) Extemporaneous Formulations ¹¹ , Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems ¹² , USP Pharmacists' Pharmacopeia ¹³	IPA, IDIS, EMBASE, MEDLINE

Type of Request	Useful Tertiary Sources	Secondary Resources
Dietary Supplement	Natural Medicine Comprehensive Database ¹⁴ , Review of Natural Products ¹⁵ , Natural Standard ¹⁶ , PDR for Herbal Medicine ¹⁷ , Trease and Evans' Pharmacognosy ¹⁸ , AltMedDex ¹⁹	EMBASE, MEDLINE, IPA, IDIS
Dosage Recommendations (General and organ impairment)	Major compendia*, Drug Prescribing in Renal Failure ²⁰	MEDLINE, IPA, IDIS, EMBASE
Drug Interactions	Hansten and Horn's Drug Interaction Analysis and Management ²¹ , Drug Interaction Facts ²² , Stockley's Drug Interactions ²³ , Food-Medication Interactions ²⁴ , Drug Therapy Monitoring System ²⁵ , major compendia*	Reactions, IPA
Drug-Laboratory Interference	Basic Skills in Interpreting Laboratory Data ²⁶ , Laboratory Tests and Diagnostic Procedures ²⁷	_____
Geriatric Dosage Recommendations	Geriatric Dosage Handbook ²⁸ , The Merck Manual of Geriatrics ²⁹ , major compendia*	MEDLINE, IPA, IDIS, EMBASE
Identification of Product	IDENTIDEX ³⁰ , Clinical Pharmacology ³¹ , IDENT-A-DRUG ³² , Clinical Reference Library ³³ , electronic Facts and Comparisons ³⁴	_____
Investigational Drug Information	FDA website ³⁵ , Clinicaltrials.gov ³⁶ , MedlinePlus ³⁷ , manufacturer websites	Current Contents, EMBASE, MEDLINE, Lexis-Nexis, IPA, IDIS

Useful Websites:

<http://www.medscape.com/pharmacists>

Medscape PHARMACISTS ▾


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Patient Safety
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Geriatrics
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Saliva Test for Autism?
A pilot proteomic study suggests potential biomarkers for autism in saliva, which may pave the way for earlier diagnosis and treatment.
Medscape Medical News, February 20, 2015 | 3 comments


**All Eyes on Texas as It Considers Tough New Telemedicine Rule**
The proposed amendment would bar physicians from prescribing to patients during telephone or online consultation if they had not seen them in person first.
Medscape Medical News, February 20, 2015 | 5 comments


**Bourbon Virus Case History Released**
After 11 days of worsening symptoms, a previously healthy farmer died after infection with a novel virus.
Medscape Medical News, February 20, 2015 | 3 comments

FDA Approves New Varicose Vein Treatment
FDA Approvals, February 20, 2015 | 22 comments

New 9-vHPV Offers Additional Protection -- Problem Is Uptake
Medscape Medical News, February 20, 2015 | 8 comments


More Support for Causal Link Between Marijuana and Stroke
Medscape Medical News, February 20, 2015 | 7 comments



FDA Clearance of DTC Genetic Test Gets Mixed Reviews
Medscape Medical News, February 20, 2015

PHARMACISTS PERSPECTIVE MORE
**Does Methotrexate Improve Osteoarthritis Pain?**
Can this disease-modifying antirheumatic drug improve symptoms of osteoarthritis? What does the research find?
Medscape Pharmacists, February 18, 2015

Statins in Primary Prevention: Welcome to the Gray Zone
theheart.org on Medscape, February 20, 2015 | 6 comments

Pentoxifylline: New Use for Old Drug
Medscape Nephrology, February 18, 2015

Flu Vaccine Prevented Millions of Flu Cases
 *CDC Expert Commentary, February 17, 2015*

Introducing Medscape MedPulse
Learn More 

Useful Websites:

<http://online.epocrates.com>

The screenshot shows the Epocrates website. At the top, the logo 'ePOCRATES' is displayed with 'an athenahealth company' underneath. To the right, there is a link 'Have an account? SIGN IN'. Below the header is a navigation bar with seven categories: DRUGS, DISEASES, INTERACTION CHECK, PILL ID, CALCULATORS, TABLES, and PATIENT RESOURCES. The main content area has a light blue background with the text 'Search. Diagnose. Treat.' and a large white search bar containing the placeholder text 'Search Epocrates'. At the bottom, there are three columns of content. The first column is titled 'Clinical Updates' and describes staying informed about medical developments, with a '» Read more' link. The second column is titled 'Patient Resources' and describes viewing links to free patient education materials, also with a '» Read more' link. The third column is titled 'athenahealth Insights' and describes staying up-to-date on clinical data trends, with a '» Read more' link.

ePOCRATES[®]
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Have an account? SIGN IN

DRUGS | DISEASES | INTERACTION CHECK | PILL ID | CALCULATORS | TABLES | PATIENT RESOURCES

Search. Diagnose. Treat.

Search Epocrates

Clinical Updates

Stay informed about important medical developments and current drug information.

» Read more

Patient Resources

View links to free patient education materials selected by the Epocrates clinical team.

» Read more


athenahealth Insights

Stay up-to-date on clinical data trends and thought leadership from our parent company.

» Read more

Useful Websites:

<http://qnl.qa/home>



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ABCDEFGHIJKLMNOPQRSTUVWXYZ

National Resources
Free access is provided through barcode / PIN access to any registered member from Qatar.


To Register For Access
Any Qatar Citizen or Resident Permit holder is eligible to join the library. Please follow the link to [Register](#) and follow the instruction. You will be required to provide a copy of your Qatar ID / Residency Permit before access is permitted.

Please note:

- Databases are usually unavailable due to system maintenance on Sunday mornings.
- All the databases have National access, unless otherwise indicated.

 **ABI/INFORM Complete (ProQuest)**
<LANGUAGE: English>
ABI/INFORM Complete is a comprehensive business database that delivers over 6,800 journals. It covers key disciplines like accounting, economics, finance, information technology, management, marketing, risk management, and supply chain.

[^ Back to top](#)

 **Al Manhal**

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- Lets try some Medicine Information Scenarios?



Scenario 1

Scenario 1 – Breast-feeding	
Question	'Hi. I need to know if you can breast-feed with atorvastatin. I have a patient who stopped taking it when she was pregnant but wants to know if she can restart it now she has delivered'.
What further background information do you need to clarify the question and minimise the risks when advising the caller?	

Scenario 1

Scenario 1 – Breast-feeding		
Question	'Hi. I need to know if you can breast-feed with atorvastatin. I have a patient who stopped taking it when she was pregnant but wants to know if she can restart it now she has delivered'.	
What further background information do you need to clarify the question and minimise the risks when advising the caller?	Enquirer	History
	Nicola Turner, Midwife Available on bleep 2345 or ext 5678	Used to take atorvastatin 20mg at night for familial hypercholesterolaemia
	Patient	No other medicines or relevant past medical history
	Ms BS Hosp No: 4523698 26 yrs Ward: Hunters Bar	NKDA
	Further information	
	Baby boy (as yet unnamed) born last week at 34 weeks. Has been treated for jaundice with UV lamps but appears otherwise well at present. Pregnancy uneventful. Mum really wants to breast-feed. This is her first child. Need to know as soon as possible but tomorrow would be okay. Please bleep.	

Scenario 2

Scenario 2	
Question	'Hello Doctor Raja here, from <u>Duhail</u> Medical Practice. I'm trying to find out if citalopram can cause drowsiness or confusion?'
What further background information do you need to clarify the question and <u>minimise</u> the risks when advising the caller?	

Scenario 2

Scenario 2		
Question	'Hello Doctor Raja here, from <u>Duhail</u> Medical Practice. I'm trying to find out if citalopram can cause drowsiness or confusion?'	
What further background information do you need to clarify the question and <u>minimise the risks</u> when advising the caller?	Enquirer	History
	Dr Raja Hamad <u>Duhail</u> Medical Practice T: 44445123	Alcoholic liver disease (deranged LFTs, bleeding varices), Depression
	Patient	Citalopram 20mg OD Vitamin B Co Strong One tablet BD Thiamine 100mg BD Propranolol 40mg BD Omeprazole 20mg OD NKDA
	<u>Mr BA 52 yrs</u>	
	Further information	
	Patient's wife has brought him to clinic today because has become increasingly confused and drowsy over last few days. Only new medicine is citalopram, which was started 3 months ago for depression. Other medicines all on regular repeat for about 2 years. Kidney function is okay but usually has deranged LFTs (last results 6 months ago showed chronic impairment), has a history of bleeding varices Don't need to know now, but can you do it by this afternoon? Email the answer to duhailmedical@phcc.com	

Scenario 3

Scenario 3	
Question	'Um Salam. Can you tell me what the best choice of antihistamine is in pregnancy?'
What further background information do you need to clarify the question and minimize the risks when advising the caller?	

Scenario 3

Scenario 3		
Question	'Um Salam. Can you tell me what the best choice of antihistamine is in pregnancy?'	
What further background information do you need to clarify the question and minimize the risks when advising the caller?	Enquirer	History
	Dr Salma Maskar Duhail Medical Practice Qatar T: 44443238	Asthma Hay fever Salbutamol inh II PRN Becotide 100 inh II BD
	Patient	NKDA
	Does not have name to hand Mid-20s and 14 weeks pregnant Second pregnancy, no problems so far First pregnancy uneventful	
	Further information	
	Been asked by GP in the practice to find this out. To treat hay fever. Hasn't tried anything so far. Patient's first presentation of hay fever so doesn't 'usually' use anything. The GP would normally use loratadine for non-pregnant patients. Patient has asthma, no other conditions. Need to know now please – doctor waiting.	

Scenario 4

Scenario 4		
Question	A GP telephones you to ask which antidepressant is recommended in patients with epilepsy?	
What further background information do you need to clarify the question and minimise the risks when advising the caller?	Enquirer	History
	Patient	
	Further information	

Scenario 4

Scenario 4		
Question	A GP telephones you to ask which antidepressant is recommended in patients with epilepsy?	
What further background information do you need to clarify the question and minimise the risks when advising the caller?	Enquirer	History
	Dr Anas Ameen Duhail Medical Practice	Epilepsy for the last 7 years and has been controlled on carbamazepine 200 mg b.d.
	Patient	
	Ms Muna Saleem 34 years old	
	Further information	
New diagnosis of depression and GP is thinking about giving citalopram. Hasn't tried anything so far.		

Scenario 5

- A colleague calls into the office to ask your advice. She is planning a 2-week holiday in Thailand and wants to find out about malaria prophylaxis and vaccinations.

Scenario 5: Questions to Ask!

- **How many people are travelling and who are they?**
 - Is it just the enquirer? Are there any children? Any pregnant or breast-feeding women?
 - For adults they will need to check their own vaccination histories to determine which
 - vaccines they have had in the past which might still be effective.
- **When are you travelling?**
 - This determines the vaccination schedule. Malaria resistance patterns also change with time so a patient visiting a malaria zone some time after your current NPA guidance expires ought to be told to come back nearer their date of travel to ensure your advice is up-to-date.
- **Where in Thailand will you be visiting?**

Scenario 5: Questions to Ask!

- **What type of accommodation will you be using?**
- **What activities will you be engaged in?**
 - These questions help you to determine the degree of risk which travellers will be exposed to. Trekking through jungle miles from anywhere with only a tent for shelter carries more risk than visiting urban areas and staying in hotels.
 - The geographical part of the country also affects the risk of contracting malaria due to the natural distribution of the malarial parasite and mosquito; the species of parasite and degree of resistance can also vary across a country.
- **Relevant medical and vaccination history?**
 - Taking any other medication? Any significant medical disorders? Any previous reactions to vaccines?

Concluding Remarks

By the end of this session, participants should be able to:

- State the benefits and limitations of using online drug information resources.
- Validate any provided online drug information resources in terms of their appropriateness.
- Establish a structured approach that determines the ultimate question and appropriate search strategy.
- Describe methods to retrieve drug information from reliable and trusted resources.
- Select appropriate drug resources to answer a particular question in a specific area of practice.
- Integrate a systematic process in formulating drug information response and providing feedback.

Pre-Post Quiz Model Answers

1- All of the following steps are fundamental before responding to drug information question. EXCEPT:

- a. Perform evaluation and analyze the given question.
- b. Determine the ultimate question.
- c. Patient's preference.**
- d. Demographics of requestor.

Pre-Post Quiz Model Answers

2- Categorizing or classifying the drug information question will limit the search scope resulting in less effective search strategy.

- a. True.
- b. False.**

Pre-Post Quiz Model Answers

3- Resources may be used based on ease of access or degree of comfort instead of efficiency.

- a. True.**
- b. False.**

Pre-Post Quiz Model Answers

4. Online drug information resources such as Pubmed and UpToDate are considered:

- a. Primary resources.
- b. Secondary resources.**
- c. Tertiary resources.

Pre-Post Quiz Model Answers

5- Tertiary resources are:

- a. The original manuscript, documents or records such as research articles, clinical studies and reports that are either published or unpublished.
- b. Information that has been summarized and distilled by the author or editor to provide a quick easy summary of a topic.**
- c. References that either index or abstract the primary literature.