

The University of Jordan

Faculty: Pharmacy

Department: Clinical and Biopharmaceutical Sciences

Program: PharmD

Academic Year/ Semester: 2013-2014/1st semester

Clinical Rotation Internal Medicine (1203601 and 1203602)

Credit hours	7	Level	6th year	Pre-requisite	
Coordinator/ Lecturer	AL- Motassem Yousef	Office number	122	Office phone	23357
Course website		E-mail	ayousef@ju.edu.jo	Place	Jordan University Hospital, Royal Medical Services and Urdon Hospital
Teachers	Dr. Abla Bsoul Dr. AL-Motassem Yousef Dr. Ala'a Eisa Dr. Sameh Zubydi Dr. Amal Al-Ukour Dr. Oriana Awwad RPh. MSc. Ola Diab RPh. MSc. Shyma'a Qodah RPh. MSc. Deema Jaber RPh. MSc. Rawyah Shreideh RPh. MSc. Muna Barakat RPh. MSc. Amani RPh. MSc. Nida'a Zalloum				

	RPh. MSc. Bayan Hyari RPh. MSc. Bunyan Qodah RPh. MSc. Sumah Abu Louhah RPh. PharmD. Hiba Fahmawi RPh. MSc. Afaf Rousan RPh. MSc. Adel Batarseh RPh. MSc. Hadeel Zayat RPh. MSc. Mohammad Olymat RPh. MSc. Nadia Omari RPh. MSc. Iqbal Thuhyrat
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Office hours					
Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday
		11-12		11-12	

Course Description

This course is intended to provide students with basic knowledge and skills to be one of valuable medical care provider in internal medicine. The course covers but not limited to six different specialties: oncology, critical care, respiratory, nephrology, infectious diseases and cardiology.

This hospital training is directed toward training the students to use the theoretical and basic principles of pharmacology, therapeutic and clinical courses in dealing with real cases to identify and resolve different treatment related problems in the different specialties. The course represent practical commencement of principal elements in pharmaceutical care in the area of internal medicine

Learning Objectives

General objectives:

Our aims in this training that the students should be able:

1. To demonstrate the ability of students to search for specific guidelines and use of EBM for controversial area.
2. To learn problem solving skills and analysis when guidelines are unavailable or research in certain area are lacking.
3. To assess the ability of students to identify TRPs and to construct optimal care plan for the patient.

4. To demonstrate the ability of students to determine if the patient achieved the desired outcomes and to determine the appropriate time for follow up evaluation.
5. To demonstrate the ability of students to provide appropriate patient counseling.
6. To know the ability of students to check for the most significant drug- drug interactions among patient's medications and how to monitor and manage such interactions.
7. To assess the ability of students to communicate with health care providers and their ability to provide a clear recommendations to them.

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Student is expected to:

A1-To gain knowledge about the most current guidelines

A2-To gain knowledge of the most common and adverse effects of drugs in practice

B. Intellectual Analytical and Cognitive Skills: Student is expected to:

B1- Be able to identify the most significant drug- drug interactions among patient's medications and know how to monitor and manage such interactions

B2- Be able to identify TRPs in patients and to construct optimal care plan for the patient.

C. Subject-Specific Skills: Student is expected to:

C1-Demonstrate the ability to determine if the patient achieved the desired outcomes and to determine the appropriate frequency for follow up evaluation.

C2-Demonstrate the ability of students to provide appropriate patient counseling.

D. Transferable Key Skills: Students is expected to:

D1-Demonstrate the ability to search for specific guidelines and use of EBM for controversial area.

D2- Learn problem solving skills and analysis when guidelines are unavailable or research in certain area are lacking.

D3- be able communicate with health care providers and their ability to provide a clear recommendations to them.

ILOs: Learning and Evaluation Methods

ILO/s	Learning Methods	Evaluation Methods
	Lectures and Discussions, Homework and Assignments, Projects, Presentation, ...	Exam, Quiz, presentation, project, assignments, ...

Course Contents

Content	Reference	Week	ILO/s
<i>Homework:- Assign your team and project, Write Proposal about your project.</i>		<i>Due date: 5th week</i>	

Learning Methodology

Discussions, presentations, assignment, educational rounds, home work

Projects and Assignments

Evaluation

Evaluation	Points
Cases oral discussion	15
Cases discussion with PhD	10
Cases written manual	15
Assignments + EBM	5
Behavior + attendance + attire + attitude	5
Unified quiz	5
presentations	5
Final Exam	40

Main Reference/s:

*Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey **Pharmacotherapy: A Pathophysiologic Approach, 8e , 2011**

* **Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, 10th edition, 2013.**

*Uptodate data base.

*Drug Information Hand book.-**lexicomp.**

*www.drugs.com (**for drug-drug interactions**)

*www.pubmed.com (**Clinical trials**).

*www.medlineplus.com (**for patient counseling**).

*www.docguide.com(**Clinical trials**).

*www.medscape.com(**Clinical trials**).

*www.theheart.org (**Clinical trials**).

References:

Topic	References
Mechanical ventilation	<ul style="list-style-type: none"> - Overview of mechanical ventilation, UpToDate 2013 - Modes of mechanical ventilation, UpToDate, 2013 - Oxford handbook of critical care, 2005
Acid-base disorder	<ul style="list-style-type: none"> - Pharmacotherapy-A pathophysiologic approach, 8th ed, 2011
Acute decompensated heart failure	<ul style="list-style-type: none"> - Acute decompensated heart failure, Pharmacotherapy-A pathophysiologic approach, 8th ed, 2011 - HFSA guideline, 2010
Stress induce-ulcer prophylaxis	<ul style="list-style-type: none"> - Stress ulcer prophylaxis in the intensive care unit, UpToDate, 2013
Choosing the sedative agent	<ul style="list-style-type: none"> - Sedative-analgesic medications in critically ill patients: Properties, dosage regimens, and adverse effects, UpToDate, 2013 - Sedative-analgesic medications in critically ill patients: Selection, initiation, maintenance, and withdrawal, UpToDate, 2013
Sepsis, sever sepsis and septic shock	<ul style="list-style-type: none"> - Sepsis and septic shock, Pharmacotherapy-A pathophysiologic approach, 8th ed, 2011 - Management of evere sepsis and septic shock in adults, UpToDate, 2013 - Surviving sepsis camping: international guidelines for management of ever septic and septic shock, 2013
Compatibility of IV mixtures with different diluents and their stability	<ul style="list-style-type: none"> - Handbook on Injectable Drugs, Trissel - http://www.globalrph.com/

Topic	References
Hypertension	<ul style="list-style-type: none"> - The Seventh Report of the Joint National Committee on JNC Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, 2004 or update if released soon
Diabetes	<ul style="list-style-type: none"> -Standards of Medical Care in Diabetes—2013, ADA or update if released soon
Dyslipidemia	<ul style="list-style-type: none"> - Implications of Recent Clinical Trials for the National Cholesterol Education Program Adult Treatment Panel III Guidelines, 2004. +ACE guidelines for management of dyslipidemia and

	prevention of atherosclerosis 2012.
Heart failure	2013 Focused Update: ACCF/AHA Guidelines for the Practice Guideline: Focused Update Diagnosis and Management of Heart Failure in Adults A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Or update if released soon
Acute decompensated heart failure	HFSA, Applying Consensus Guidelines in the Management of Acute Decompensated Heart Failure, March 2010. Or update if released soon
Myocardial infarction	ACC/AHA 2007+2012 Guidelines for the Management of Patients with Unstable Angina/Non-ST-Elevation Myocardial Infarction ACC/AHA Guidelines 2006+2013 for the Management of Patients with STEMI.
Atrial fibrillation	ACC/AHA/ESC 2006+2012 Guidelines for the Management of Patients With Atrial Fibrillation.

Topic	References
Asthma	GINA Report 2012
COPD	GOLD Report 2013
Community acquired pneumonia	IDSA/ATS Guidelines on the management of CAP 2007
HAP/VAP	IDSA/ATS Guidelines on the management of HAP/VAP 2005
Aspiration pneumonia	- Uptodate
ABGS	- Uptodate

Topic	References
Chemotherapy induced nausea and vomiting	NCCN guidelines
Pain management	NCCN guidelines
Anemia related to chemotherapy	NCCN guidelines
Infection related to cancer	NCCN guidelines
Myeloid growth factor	NCCN guidelines

VTE in cancer patient	NCCN guidelines
	https://www.google.io/?gws_rd=cr&ei=1FJMUrP2K8TI0QXHh4DIBQ#q=nccn+guidelines
Neutropenic fever treatment	IDSA 2010
Hypercalcemia in malignancy	Uptodate
Tumor lysis syndrome	Journal of oncology
Oral and enterotoxicity of chemotherapy	Uptodate
Xerestomia/ anorexia mucosities/oral candidiasis	Uptodate
General toxicity of chemotherapy agents -Platinum agents (ex.Cisplatin) -Anthracyclines ex.doxorubicin -Vina alkaloid ex.Vincristine -Methotrexate, Etoposide, Ara-C, Ifosphamide, Docetaxel, Infliximab	Uptodate/Dipiro DI handbook-oncology
Common chemotherapy regimen used for cancer	-DI-Handbook-oncology -Huntsman Cancer Learning Center -BC agency