

TTUHSC School of Pharmacy
Guidelines For
Team-Based Pharmacotherapy Courses
May 2008

Background

The Texas Tech School of Pharmacy pharmacotherapy course sequence consists of 18 whole body/organ system - based courses. Because the 4-year Doctor of Pharmacy curriculum does not contain a preceding basic pharmacology course addressing each major drug class or a major pathophysiology overview course; faculty must ensure that students are first grounded in pathophysiology and pharmacology before studying pharmacotherapeutics. *Therefore, each pharmacotherapy course content distribution shall be 1/3 pathophysiology, 1/3 pharmacology, and 1/3 pharmacotherapeutics.* Pharmaceutical sciences faculty shall teach pathophysiology and pharmacology while pharmacy practice faculty shall teach pharmacotherapeutics. This content distribution is fundamental to the totality of the curriculum. Therefore, exceptions to these guidelines or significant deviation from these guidelines require prior approval of the School's Curriculum Affairs Committee. The following pharmacotherapy courses are granted an exception to the above distribution of content guidelines:

- Herbals
- Infectious Diseases
- Nutrition
- Special Populations
- Pharmacogenetics

However, these five courses should adhere to the general principles stated below.

It is critically important that various team policies, procedures, and actions regarding the administration of the pharmacotherapy courses are consistent throughout the 18 course series. Below are specific guidelines that should be adhered to in the development and delivery of pharmacotherapy courses.

Content Distribution

The TTUHSC Curricular Affairs Committee shall provide direction to the faculty regarding which diseases and topics will be covered within the course. The entire course team shall review all preceding courses to assess if other courses address similar topics. For example, the basic pharmacology of corticosteroids may be introduced in Respiratory Pharmacotherapy; however the pathophysiology of diseases requiring this treatment may be addressed in several courses such as Integumentary and Oncology. Likewise, the detrimental effects of steroids on bone metabolism may be emphasized in Bone and Joint without once again presenting the basic pharmacology.

The 18 team leaders for the pharmacotherapy courses shall annually convene in April/May with the Curricular Affairs Committee to review the syllabus for each course and assess the totality of the 18 course sequence to ensure appropriate administrative delivery of the courses. The CAC shall also focus on matters related to quality improvement of individual courses and the pharmacotherapy sequence. The goals are to enhance consistency of course administrative

policies and procedures and learning objective standards across the 18 pharmacotherapy course series and to improve communication of methods and objectives across the course teams. After the CAC and team leaders meeting, team leaders are asked to communicate recommendations and suggestions back to their course teams.

To avoid conflicting and unnecessary duplication of learning material, faculty should teach *only* those topics which are specifically assigned to that specific course team and subsequently to that specific team member.

1. Topics to be covered by pharmaceutical sciences faculty:
 - a. Pathophysiology/Pathology – By definition, this is “the functional and structural changes that accompany a particular syndrome or disease.” Since anatomy and physiology are prerequisites for enrollment in the pharmacotherapy sequence, an extensive review of these topics is not appropriate in the Pharmacotherapy series. If needed, students should perform a self-assessment of anatomy and physiology knowledge and complete self-directed remediation. Pathophysiology topics which should be addressed include:
 - Basic description & overview of the disease
 - Etiology
 - Epidemiology
 - Pathophysiology

The CAC will annually review the specific pathophysiology addressed in each pharmacotherapy course and offer guidance to course teams regarding the depth of pathophysiology and clinical presentation within and across the 18 course sequence.

- b. Pharmacology – By definition, this is “the science of drugs including their origin, composition, actions, mechanism of action, ADME-pharmacokinetics, adverse effects, contraindications, and toxicology.” The CAC will annually review the specific drugs addressed in each pharmacotherapy course and offer guidance to course teams regarding number of drugs and depth of pharmacology for specific drugs within and across the 18 course sequence. Pharmacology topics which should be addressed include:
 - Drug class
 - Brand and/or generic drug names
 - Dosage formulations
 - Mechanism of action
 - Basic ADME - pharmacokinetics
 - Adverse effects
 - Contraindications
2. Topics to be covered by pharmacy practice faculty:
 - a. Pharmacotherapeutics – By definition, this is the “treatment of disease with medicine.” While this typically refers to drugs, general treatment principles are presented which may include non-pharmacological modalities. Topics which should be covered include:

- Clinical diagnosis of the disease state and clinical presentation
- Non-drug treatment recommendations of the disease state (especially those critical to optimal pharmacotherapy treatment)
- Disease prevention (especially the pharmacotherapy of disease prevention)
- Applied clinical pharmacokinetics / pharmacodynamics
- Therapeutic efficacy
- Drug place in therapy (e.g., drug of choice for specific disease states)
- Monitoring
- Therapeutic guidelines/recommendations
- Dosing guidelines used in clinical practice
- Drug preparation (refer to previous courses when possible)
- Costs
- Counseling points

Course Administration

Careful planning and organization is extremely important when delivering a team-based pharmacotherapy course. While the guidelines below are designed with the pharmacotherapy course sequence in mind, they may be applied to all courses that have more than one team member (see the Teaching Team Guidelines document on the Web). Below are specific guidelines which must be adhered to by each pharmacotherapy team:

- The entire course team should ***convene no later than two months prior to the start of the course*** to review direction from the CAC and update the syllabus including: course objectives, scheduling, exam dates, grading scheme/breakdown, specific content, and assessment methods.
- The team leader is responsible for scheduling all team meetings. All team members are expected to attend each course team meeting and communicate with the team leader.
- All faculty who teach a specific topic/disease should communicate with one another *while in the process* of developing handout/lecture material. This should occur at least one week prior to scheduled delivery of the lecture or course session.
- All faculty should be conversant with material presented by other team members and integrate their own course lecture material in a manner that compliments and integrates well with previous lecture material.
- When developing testing materials, all course team members should conduct a peer-review of all questions/items. Through peer-review, the quality of exams will be increased and unintentional duplication or conflicts will be avoided. Faculty must submit test items with enough lead time so that all fellow team members may review each test item prior to assembly of an exam.
- Exams should be scheduled at least one month in advance and the date/time of the examination should be communicated to Student Services for room/computer/distance education reservations and to help minimize problems with student scheduling (e.g., multiple exams on same day). The course team leader is responsible for communicating exam dates/times to distance campuses and arranging proctors. If there are no team members on a distance campus, then the team leader should contact the SOP administration on that campus one month in advance to arrange for distance proctors.

- All team members should assist the team leader in administration of exams. Assigned team members are expected to proctor exams on their home campuses.
- All team members should review the test statistics and questions for the entire exam and contribute input on decisions regarding exam grades.
- Team members should be actively engaged in the process of finalizing course grades. The team leader ultimately is responsible for making decisions on course evaluations/exams and for finalizing course grades. Should the team not agree regarding the exclusion of an item, the team leader has authority to make the final decision. The Team Leader will be held responsible for this decision by the SOP administration.
- The post-course review should occur no later than four weeks after completion of the course.
- All team members should be involved in drafting post-course review documents and in reviewing such documents before submission to the Pharmacotherapy Team Leader Council and the Curricular Affairs Committee.

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