Name of the course: Pneumology/Allergology
Type of the course: compulsory
Total number of academic hours – 132, Including: lectures - 30, practical seminars – 75, clinical practice - 27
Number of credits provided for the course: 7

The purpose of discipline Pneumology / Allergology

Pneumology/Allergology is one of the basic disciplines for physician’s academic training regardless their later specialty. The main purpose of the discipline is to obtain knowledge and training skills needed to make a diagnosis, treatment and social reintegration of patients with lung disease and allergy.

Training objectives

At the knowledge and understanding level
- To know essentials of pathology, physiology, pharmacology and semiology of respiratory and allergic diseases
- To know and use properly specific notions of the discipline;
- To know biological laws to be able to determine relationships between morphological changes and clinical manifestations

At the application level

In theoretical terms: Gaining knowledge of clinical and therapeutic aspects of respiratory diseases and allergy;

In practical terms:
- Clinical evaluation of patients with lung diseases and allergy
- At the end of course students must be able to interpret chest radiographs, HRCT, spirometry, bodypletismography, puncture and pleural biopsy, thoracoscopical and fibrobronchoscopical examination, inhalatory drug administration, skin tests etc;
- Management of emergencies in respiratory medicine: tracheal-bronchial foreign body, hemophytis, asthma attack, anaphylactic shock, etc.

At the integration level
- To reveal the importance of pulmonary disease and allergy in medicine;
- To demonstrate a creative approach in solving issues of clinical medicine;
- To rule out the relationship between Pneumology/Allergology and other clinical disciplines;
- To be able to apply and integrate skills with clinical knowledge;
- To perform an objective assessment and self-evaluation of one’s knowledge of the discipline;
- To be able to learn new achievements in clinical disciplines.

Conditioning and preliminary requirements:
Pneumology/Allergology is a field suitable for integration and implementation of fundamental knowledge (anatomy, human physiology, microbiology, pathophysiology, etc.) in clinical practice. During this course, along with studying etiology, pathogenesis, clinical manifestations, evolution, treatment and prevention of respiratory diseases, future specialists acquire practical skills in examination of a patient and interpretation of obtained results.

A special role of Pneumology course consists in formation of clinical judgement that will ensure a correct diagnosis, an appropriate treatment of emergency cases in respiratory medicine.

The basic content of the course:

A. LECTURES:

<table>
<thead>
<tr>
<th>No.</th>
<th>THEME</th>
<th>No. of hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Paraclinical tests in respiratory medicine</td>
<td>4 hours</td>
</tr>
<tr>
<td>3.</td>
<td>Pneumonia</td>
<td>2 hours</td>
</tr>
<tr>
<td>4.</td>
<td>Pneumonia</td>
<td>2 hours</td>
</tr>
<tr>
<td>5.</td>
<td>Lung abscess, pulmonary gangrene, bronchiectasis. Pulmonary cancer</td>
<td>2 hours</td>
</tr>
<tr>
<td>6.</td>
<td>Asthma</td>
<td>2 hours</td>
</tr>
<tr>
<td>7.</td>
<td>Asthma</td>
<td>2 hours</td>
</tr>
<tr>
<td>8.</td>
<td>Acute and chronic bronchitis. Cystic fibrosis. COPD</td>
<td>4 hours</td>
</tr>
<tr>
<td>9.</td>
<td>Interstitial diffuse pneumonias</td>
<td>2 hours</td>
</tr>
<tr>
<td>10.</td>
<td>Secondary pulmonary hypertension. Chronic pulmonary heart</td>
<td>2 hours</td>
</tr>
<tr>
<td>11.</td>
<td>Pleural diseases. Pulmonary manifestations in systemic diseases</td>
<td>2 hours</td>
</tr>
<tr>
<td>12.</td>
<td>Respiratory failure</td>
<td>2 hours</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>30 hours</td>
</tr>
</tbody>
</table>

B. PRACTICAL HOURS

<table>
<thead>
<tr>
<th>No.</th>
<th>THEME</th>
<th>No. of hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction</td>
<td>5 hours</td>
</tr>
<tr>
<td>3.</td>
<td>Paraclinical tests in respiratory medicine</td>
<td>8 hours</td>
</tr>
<tr>
<td>4.</td>
<td>Pneumonia</td>
<td>5 hours</td>
</tr>
<tr>
<td>5.</td>
<td>Pneumonia</td>
<td>5 hours</td>
</tr>
<tr>
<td>6.</td>
<td>Lung abscess, pulmonary gangrene, bronchiectasis. Pulmonary cancer</td>
<td>5 hours</td>
</tr>
<tr>
<td>7.</td>
<td>Asthma</td>
<td>5 hours</td>
</tr>
</tbody>
</table>
**Recommended literature:**

**In English:**


**Teaching and learning methods used:**

The discipline Pneumology/Allergology is taught in a classical manner: lectures and practical work. Lectures are delivered by professors of the department.

*Department reserves the right to hold practical hours and lectures in an interactive manner.*

Algorithm of practical lesson in Pneumology / Allergology:

Duration - 5 academic hours (225min)

- a. Report an evening ward round made a student, who was on duty the day before - 5-7 min.
- b. Lecturer answers questions on a theme - 10 - 15 min.
- c. Evaluation of initial basic knowledge (pretest) - 15 - 20 min.
- d. Independent work of students with patients - 30 - 35 min.
- e. Discussion on a theme using illustrative and training materials - 60 min.
- f. Presenting a theme using the collection of illustrative material on the computer (chest Xrays, HRCT, spirogram, angiogram, ECG, and EchoCG, histological images) - 35 min.
- g. Continuation of discussion on the theme and clinical cases at the patient’s bedside - 60 min
- h. Summary of achieved knowledge, conclusions - 10 min.

**Suggestions for individual activity:**

In terms of teaching, one of the least effective methods of learning is passive listening to the lectures, even if their structure and illustrations are very comprehensive.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Topic</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Asthma</td>
<td>5 hours</td>
</tr>
<tr>
<td>9</td>
<td>Acute and chronic bronchitis. Cystic fibrosis. COPD</td>
<td>5 hours</td>
</tr>
<tr>
<td>10</td>
<td>Interstitial diffuse pneumonias</td>
<td>5 hours</td>
</tr>
<tr>
<td>11</td>
<td>Secondary pulmonary hypertension. Pulmonary chronic heart</td>
<td>5 hours</td>
</tr>
<tr>
<td>12</td>
<td>Pleural diseases. Pulmonary manifestations in systemic diseases</td>
<td>5 hours</td>
</tr>
<tr>
<td>13</td>
<td>Respiratory failure</td>
<td>5 hours</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>75 hours</strong></td>
</tr>
</tbody>
</table>
If you want to succeed in acquiring knowledge of Pneumology / Allergology, you will have to work thoroughly with theoretical material and deal with the patients.

This means that, you should:

1. Read the material attentively. Take notes. Try to formulate your own highlights. Study diagrams and pictures in the manual and notebook. Do tests offered in books. Get acquainted with Pneumology pocketbook.

2. Come to lectures and practical work, and be active! Do not attend only because of checking attendance! Otherwise, you will not probably meet the requirements. Listen attentively to the presented information and ask yourself: Do I agree with the teacher? Do I understand what he/she is talking about? Does the presented information correspond with what I have learned from the books?

3. Ask questions! Ask the teacher, each other, and yourself. Don’t hesitate to ask in the auditorium, in the hall, in the corridors, in teachers’ offices. If you put questions this demonstrates that you try to understand and process the taught material, and this is welcomed very much in our Department.

4. Get organized in groups of 2-3 students for regular meeting for discussions on the course material. Usually, working in small groups gives you the advantage of a more comprehensive understanding of the information than when working alone. In addition, the ability to explain the learned material to your colleagues will be very useful for the future.

5. Spend your time reasonably. The Discipline Pneumology / Allergology is of great demand. Other disciplines taught in the academic IV-year have the same requirements. Therefore, you have to manage your time so that you could find a balance between the effort to obtain knowledge, and other responsibilities and personal life.

Methods of assessment:

Assessment of students’ knowledge during the module:

a. The practical lessons – at each practical lesson, every student is given a mark based on: pretest assessment, work at the patient’s bedside, report on the theme, and practical skills.

b. A case history made up by a student is given a mark upon presentation at the end of the module after its discussion during the practical hours throughout the cycle.

Students who have the average grade 5.0 and over are admitted to the examination. If absences from practical lessons are not worked off, students are not admitted to the examination in Pneumology / Allergology.

The final examination in Pneumology / Allergology (the final evaluation) consists of test grade ("Test Editor" SUMP "Nicolae Testemitanu"), assessment of theoretical knowledge (oral test) and practical skills.

The test evaluation consists of 100 items on all Pneumology / Allergology themes, including 40 single-choice items and 60 multiple-choice. Every student has maximum 2 hours to solve the test. A student receives grades from 0 to 10.
Every student has 30 minutes to prepare for the oral answer and the evaluation of practical skills. Each of these tests is assessed with grades from 0 to 10. Practical skills topics and questions for oral test are approved at the department meeting and presented to the students at least one month before the examination session.

The final examination grade consists of four components: the annual average mark (coefficient 0.3), practical skills (coefficient 0.2), test evaluation (coefficient 0.2) and oral test (coefficient 0.3).

Students are given marks from 10 to 1 with no decimals, as follows:
- 10 or "excellent" (equivalent to ECTS - A) is given for knowing 91-100% of the material;
- 9 or "very good" (equivalent ECTS - B) is given for knowing 81-90% of the material;
- 8 or "good" (equivalent ECTS – C) is given for knowing 71-80% of the material;
- 6 and 7 or "satisfactory" (equivalent to ECTS - D) is given for knowing 61-65% and 66-70% of the material, respectively;
- 5 or "weak" (equivalent to ECTS - E) is given for knowing 51-60% of the material;
- 3 and 4 (equivalent ECTS - FX) are given for knowing 31-40% and 41-50% of the material, respectively;
- 1 and 2 or "unsatisfactory" (equivalent to ECTS - F) are given for knowing 0-30% of the material.

If a student misses the examination without a serious reason, it is recorded as "absent" and is equivalent to grade 0 (zero). In case the student fails the examination, he/she has the right to 2 re-examinations.

**Language of teaching:**
Romanian, Russian, English, French.