

Curriculum for Clerkship in Endocrinology Ward of Hospitals Affiliated with Shahid Beheshti Medical University: A Case Report

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Introduction

A well structured curriculum to support students, optimize experiential learning and facilitate competency in the skills needed for effective clinical practice is a prerequisite for every ward of a teaching hospital. Thus we have developed a new guideline for education of endocrinology in hospitals affiliated to Shahid Beheshti University of Medical Sciences, Tehran, Iran(1).

Objectives.

General educational objectives are defined according to expected competencies of general practitioners in encountering each patient and it explains all details of appropriate process of practicing medicine in real situation, without any ward-dependant specialties.

Specific educational objectives in each (educational) ward are the objectives that are expected, in the best circumstance, to be studied only in that specific ward.

General educational objectives are defined in four domains: Knowledge, Patient care, Communication skills and professionalism.

Educational objectives in the domain of "Knowledge" are summarized in each ward's guideline containing all required educational contents for students.

Educational objectives in the domain of "Patient care" are divided to 9 sub-domains:

History taking, physical examinations, diagnostic studies, evidence-based medicine (EBM), clinical intervention, clinical therapeutics, prognosis, preventive health care and legal issues.

Specific educational goals in endocrinology ward are defined in 2 sections: Diseases and Clinical skills:

1- Diseases are listed in the table at appendix 2, categorized in two levels. Besides, the minimum and maximum numbers of patients that student should take part in their care as an observer or collaborator are defined. Besides knowing educational priorities in this ward, these numbers will help students to have time table for their study and to have goal-oriented education.

2- Following clinical skills are specific objectives of this ward:

- a. Accurate physical exam of thyroid
- b. Recognizing clinical signs of diseases mentioned in level one and two

Educational Schedule

Educational schedule will be given to students at the beginning of course.

Educational sessions.

Education sessions will be held in different formats and various settings::

- Educational sessions for reviewing pathophysiology Explaining pathophysiology and some other basic concepts in diagnosis of diseases and patient care.

- Educational sessions for reviewing semiology and taking history

Reviewing and developing prior student's knowledge in history taking and physical examinations focused on endocrinology

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diseases. With participating actively in these sessions, students could solve their problems in recognizing clinical signs and other findings related to endocrinology diseases.

- Educational sessions for introducing diagnostic studies

Introducing specific diagnostic studies for endocrinology diseases like radiology, hormonology laboratory and interpreting endocrine tests.

- Educational sessions for introducing risk factors

Helping students to know risk factors, while giving them opportunity to understand how to decrease these risks in patients and society

- Educational sessions for clinical presentations

Showing students the accurate approach for diagnosis and primary treatment of following presentations:

- Goiter
- Fatigue and weakness
- Hyper/hypoglycemia
- Hyper/hypocalcaemia
- Increased bone fragility
- Weight gain and loss
- Thyroid nodule

With help of pathophysiology review and diagnostic studies sessions, students could diagnose the disease based on clinical presentations. Thus the educational sessions on clinical presentations play an important role in wrapping up all educational concepts of diseases.

- Educational sessions for diseases

Following the educational sessions for clinical presentations, teaching diagnostic and therapeutic knowledge about important diseases

- Educational sessions for pathology and pharmacology
- Educational rounds

Admitted patients whose diseases are mainly discussed in educational sessions of clinical presentations, are assessed. These rounds provide good opportunity for students to review all taught knowledge beside patient's bed and to practice medicine accurately.

Grand rounds give an outstanding opportunity for students to have last updated information and comments of professors.

- Educational clinics

Providing multiple occasions for practicing medicine in outpatient clinic

- Educational sessions for clinical problem solving

Helping students for resolving their problems in logical thinking skills for clinical problem solving

- Educational on calls

There are 4 on calls for students to provide the opportunity to visit newly-come patients in emergency room (ER) or clinic. They have the possibility to use whatever they have learnt for visiting patients without any help or to take part actively in visiting patients.

Final Exam

There are three sections:

1. Professionalism: Students attitude towards patients
2. Portfolio : Evidence of students' competencies in different sections, containing:
 - a. Patient list: listing all admitted patients that they know well in the ward (appendix 3 is a sample). As mentioned in appendix 2, minimum column is the minimum patients that should be assessed by students for achieving expected competencies of practicing medicine in this ward. Maximum column is for motivated and active students for helping them to be more successful in the future.
 - b. Patient note: Exact registering of patients in the form (appendix 4 is a sample) for having both diagnostic and therapeutic process and clinical logic. It is expected that students have 5 notes from 5 different diseases at the end of course. Every note should be checked by one of residents/fellow-in-training and have their comments and signature on it.
 - c. Short note: Registering students' activities in educational clinics (appendix 5 is a sample)

d. Checklist for professionalism: filled by educational supervisor (appendix 7 is a sample)

3. Oral Exam: mainly focused on diseases in students' patient list which will be a motivation for them to know exactly their patients in their list. Question type is similar to discussion section of patient note and students will be asked about pathology, pharmacology or radiology too.

Discussion

With such integration of pathophysiology, pharmacology and other issues of educational sessions with endocrine diseases, there would be deeper understanding of disease in every aspect in comparison to traditional curriculum and this kind of education would be more relevant, applicable and bring about more positive changes in patient care and physician practice. Furthermore, such final assessment would make it not only an effective, but also an efficient process.

As a well structured concept and standardized teaching materials are good supports for education within a regular study course and a thorough clinical assessment motivates students to learn medicine practically, our guideline for clerkship in endocrinology ward covers all aspects.

References

1. Yazdani S, Hosseini F, Homayounizand R. Reform in general medical degree curriculum. Tehran: Mehrayaneh Publication;2004