

Preface

This book describes goals, curricula, and post-learning, formative assessments for the knowledge and skill sets that could be developed and acquired in training programs, for instance, an ACGME-accredited program for Sleep Medicine. Each chapter is designed to address the needs of Training Directors and Training Programs presenting material in a unique educational goal-based format, rather than an approach focused on content, and accordingly provides examples for assessment. Thus, each chapter has a focus on an area or cluster of areas of knowledge or skills in sleep medicine and articulates appropriate means and examples of instruction for an assessment of the knowledge or skill set in that topic. These principal components and assessments could be used by a program to respond to ACGME calls for such material in the broad range of sleep medicine, address weaknesses in existing program material, and assess trainees in a standardized fashion with the potential for measurable benchmarks.

Each ACGME program should tailor this template to its own program and determine “passing scores”, which, when used alongside clinical assessments of trainees, provides a platform for judging whether or not training goals have been individually met. Such a program also can serve international training, as it is based on a curriculum and competencies and therefore not confined to a set time for lectures or an arbitrary time limit for acquiring training.

Each chapter on content areas has the following items:

- Introduction to the content area where the scope of the chapter is discussed.
- A concept Map of the content area aligned with ACGME competencies.
- Suggested “Objectives” for instructional material and how to deliver it.
- Matching Questions. This formative test is designed to provide a language context for the content area, and is presented in three parts: the longer list of answers, the shorter list of questions, and answer sheet.
- Essay Questions. Sample questions are to be provided before or after a presentation to assess the written skills of the trainee. “Ideal” answers are provided. In the Essay Questions, a case description is provided followed by a number of follow-up questions related to the physiology or pathophysiology related to the content area.

In most of the chapters there is a group learning exercise called an IQ group.

- **Inquiry (IQ) Learning case.** (Note that not all chapters will have one.) These cases can be initially presented in one session to a learning group (e.g. the IQ “team”) with no prior knowledge of what is to be covered, emulating what a physician would experience when seeing a new patient. The IQ team concept involves a small, student-centered learning team that uses elaborate patient cases and discussion to learn, retain, synthesize and integrate knowledge. At the first session, the case is read one paragraph at a time, after which team members ask pertinent questions. At the end of the first session, each IQ Team develops its own learning objectives that will help to generate a clinical framework and to guide their learning over the time until the second session. At the second session, the IQ team presents to each other the results of their homework on the group objectives from the first session. At the end of the second session, the Learning Objectives developed by the Sleep Medicine Faculty are disclosed. Learning this way ensures an experiential, not passive, learning experience, and permits identification of learning objectives for basic sciences in the clinical context.

This resource is designed as a first draft for development of competencies in any Sleep Medicine training program with the intent that the program may focus on the trainees and refine the material for their own purposes.

Competencies define the curriculum and inform students about what they must be able to demonstrate to succeed. No one instructional approach provides the knowledge and skills for a Sleep Medicine trainee. Rather a collective hierarchy of clinical and teaching approaches can define the program. Clear objectives will direct students towards higher quality learning by indicating the intended achievements, but leave room for “emergent” learning. Emergent learning occurs when a student actively seeks for information to answer a question, and bumps into other ideas, concepts or facts tangentially related to the case. It is estimated that in an IQ case the student will encounter ~20 % more content than what is really needed. Constructively aligning learning and assessment tasks can lead learners to spend focused time on the topics in the field.

This book hopefully will be used to augment current activities by faculty, staff, peers and others who judge trainee progress and achievement. Multiple assessments like those presented here can empower a program to define and achieve the student learning outcomes, and encourage autonomous learning. Evaluation of the quality of written and oral responses informs on communication skills.

We have developed a complementary online resource for the sharing of content developed through writing this resource (<http://competenciesinsleepmedicine.weebly.com/>) On this resource will be additional material like PDF presentations in the topic areas, and other games. It will include links to additional learning opportunities.

As a final thought, this is a decent start, but unlikely to be the last word. I think that the Objectives and Matching Questions list most of the terms we encounter as a specialty now and stretch the program to discuss history, physiology, pathophysiology, and new terms. The Essay Questions provide a good start. The IQ groups are uneven for a specialty program. We are still searching for the right balance of levels.

Some seem very basic without challenges to a fellow in the latter half of a 1-year program. Of course, many of the professional societies have developed illustrative cases or PSG fragments that would complement this book, but I think that the stories themselves are important. I hope the interesting cases being presented across the country in training programs could be de-identified and deposited so that other IQ cases could be created.

Luck.

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Competencies in Sleep Medicine

An Assessment Guide

Strohl, K.

2014, XVII, 397 p. 26 illus., 17 illus. in color., Hardcover

ISBN: 978-1-4614-9064-7