



Guide for Development of Subspecialty Foundational Documents

Approved by UCNS Board of Directors: March 2004

OVERVIEW

This information is intended as a guide for the development of the foundational documents that are necessary for a complete membership application to the United Council for Neurological Subspecialties (UCNS).

There are three documents that are important to the development of a new neurological subspecialty. These documents are: (1) Core Content (or model of the subspecialty), (2) Core Curriculum and (3) Program Requirements (also known as Training Requirements). The importance of these documents flows primarily from their ability to provide an individual or organization a complete understanding of the subspecialty.

Although these documents are very important to developing subspecialties, with the exception of program requirements, it is not easy to find analogs within the literature of mature specialties or subspecialties. Program Requirements are somewhat universal because they are required for participation in the Accreditation Council for Graduate Medical Education (ACGME) program accreditation process. Despite the wide availability of program requirements, physicians that do not directly participate in the program accreditation process at the national or local level seldom are familiar with the content and format of this document.

Core Content and Core Curriculum documents are less common in mature specialties and subspecialties because such specialties and subspecialties and their training programs evolved over time and did so in an environment with less oversight. These more mature specialties and subspecialties had the opportunity to grow through a variety of different stages and adaptations without being required to agree on a common set of standards.

Specialties and subspecialties developing in the current medical environment neither have the luxury of a leisurely evolution, nor in our competitive world do they have the unbridled independence to define their core content and core curriculum independently while seeking national recognition. More restrictive medical education reimbursement and competition for a limited number of graduate medical education slots put a greater premium on a clear articulation of the boundaries of newly developing specialties and subspecialties. Because of these higher expectations, specialties and subspecialties are now expected to produce the foundational documents earlier in their development cycle. This will be a long-term advantage.

It is important to understand the role of the UCNS. The UCNS works with groups that are at an earlier stage in the subspecialty development process. The traditional specialty and subspecialty approval process, through the ACGME and American Board of Medical Specialties (ABMS), is evoked at a point where the specialty or subspecialty is fairly advanced. The UCNS has both a development and approval function. This will force subspecialties participating in the UCNS process to develop the foundational documents earlier in their developmental cycle.

TABLE OF CONTENTS

I. CORE CONTENT

- A. Examples**
 - 1. Neurology**
 - 2. Internal Medicine**

II. CORE CURRICULUM

- A. Traditional Curriculum Components**
 - 1. Program Content**
 - 2. Goals**
 - 3. Objectives**
 - 4. Methods of Training to be Used**
 - 5. Methods of Evaluation**
 - 6. Methods of Feedback**

III. PROGRAM REQUIREMENTS

- A. Components**
 - 1. Introduction**
 - 2. Institutional Support**
 - 3. Duration of Training and Resident Appointment**
 - 4. Faculty and Personnel**
 - 5. Educational Program**
 - 6. Evaluation**

I. CORE CONTENT

A Core Content forms the foundation of the subspecialty but in practice is rarely the first document developed. This is because a subspecialty seldom develops through a pre-determined process. A group of interested physicians do not sit down one day and articulate a fully formed plan for a new subspecialty. Rather, a subspecialty develops from a series of small events that eventually attract enough academic and practical support to sustain its growth. A Core Content answers questions such as, what the boundaries of the subspecialty and the potential areas of overlap with other current or potential subspecialties are.

Ideally, Core Content should be grounded in data that describes the actual practice of the subspecialty. Practice is not the sole criterion as there are several other influences that are part of the process such as the complexity and importance of particular content areas or procedures.

A typical Core Content is constructed around a format that lists the clinical conditions and procedures that are part of the subspecialty. These lists may vary in detail but should be sufficiently defined to allow an understanding of the way the defined subspecialty might overlap with other subspecialties. There is a recent movement toward developing a Core Content using a more complex description of the subspecialty. This type of Core Content goes beyond the clinical conditions and procedures to define the additional variables that impact the practice of the subspecialty. At this stage of development, the UCNS does not expect a document of that complexity.

The following are examples of the Core Content from two specialties. These examples are not intended to be definitive but to provide a suggested format.

A. Examples

1. Neurology -- Clinical Neurology

- a. Epilepsy and related convulsive disorders
- b. Disease of the peripheral nerve, autonomic nerves, neuromuscular junction and muscle
- c. Loss and alteration of consciousness
- d. Headache and facial pain
- e. Neck and back pain
- f. Head and spinal cord trauma and injury
- g. Disorders of the special senses
- h. Inherited and acquired metabolic disorders
- i. Neurotoxicology and effects of drugs and alcohol on the nervous system
- j. Stroke and related disorders of brain ischemia
- k. Behavioral Neurology
- l. Neurology of aging
- m. Movement disorders
- n. Demyelinating disorders
- o. Neuro-intensive care

- p. Neuro-ophthalmology
- q. Neuro-oncology
- r. Neuro-otology
- s. Neuro-infectious diseases
- t. Sleep disorders
- u. Pediatric Neurology
- v. Neurosurgery
- w. Neuro-rehabilitation
- x. Psychiatry
- y. Pain management

Source: American Academy of Neurology Graduate Education Subcommittee, Residency Core Curriculum, American Academy of Neurology Website (http://www.aan.com/about/sections/core_curriculum.pdf), July 2003;3-4.

2. Internal Medicine -- Hematologic Disorders (Category 8 of 18)

- 8.1 Blood Transfusion
 - Complications
- 8.2 Hemostatic Disorders
 - Coagulation defects
 - Acquired
 - Hemophilias
 - Disseminated intravascular coagulation
 - Platelet disorders
 - Thrombocytopenia
- 8.3 Lymphomas
- 8.4 Pancytopenia
- 8.5 Red Blood Cell Disorders
 - Anemias
 - Aplastic
 - Hemoglobinopathies
 - Sickle cell disease
 - Hemolytic
 - Hypochromic
 - Iron deficiency
 - Megaloblastic
 - Polycythemia
 - Methemoglobinemia
- 8.6 White Blood Cell Disorders
 - Leukemia
 - Multiple myeloma

Source: Hockberger, RS, Binder, LS, Graver, MA, et al. The Model of the Clinical Practice of Emergency Medicine, *Annals of Emergency Medicine*, June 2001;37:764.

II. CORE CURRICULUM

A Core Curriculum is a document that normally evolves after training programs have been in place for some time. A Core Curriculum is most often the result of activity by current program directors who have a natural need to design their programs around a common standard. There is also the natural process of information sharing that occurs among training program faculty as they learn what others teach, how they teach it, and the systems that are used for evaluation.

A. Traditional Curriculum Components

A Core Curriculum should address the traditional curriculum components. These include:

1. **Program Content**
What is the subject matter upon which the program is based?
2. **Goals**
What is the overall intent of the educational program and its component parts?
3. **Objectives**
What specific skills or changes in behavior should the participants be able to demonstrate upon completion of the program?
4. **Methods of Training to be Used**
How will the skills or changes in behavior be taught?
5. **Methods of Evaluation**
How will program success be measured?
6. **Methods of Feedback**
How will information about the program's strengths and weaknesses be collected and used to improve the program?

Source: Society for Academic Emergency Medicine and Council of Emergency Medicine Residency Directors, Model Curriculum Task Force, Model Curriculum for Emergency Medicine Residency Training, University of Arizona Health Sciences Center Website (<http://www.emergencymed.arizona.edu/educ-train.html>);3-4.

III. PROGRAM REQUIREMENTS

Program Requirements are the foundation upon which the program accreditation process rests. They are the criteria that the UCNS Accreditation Council uses to make an accreditation decision. The Program Requirements should be thought of as the common training standards of the subspecialty, enhanced by the input of the larger medical community. The development of or changes in program standards normally includes the major organizations in the subspecialty.

Traditional program standards have focused on process issues such as the number of faculty, the presence of specific resources, and the training of the faculty. Recently, there has been a movement towards using outcomes-based criteria. These criteria focus on the residents and measuring the actual behavioral changes that occur during their residency.

The requirements generally describe a process to be undertaken (e.g., a yearly evaluation of faculty involving a specific group of people), a concrete standard to meet (e.g., a library available to fellows in the primary clinical institution), and an outcome to be obtained (e.g., the successful completion of 10 attending observed pediatric cut downs for IV placement as measured by a standardized evaluation form).

This template is intended to provide a suggested outline for the program requirements. Each subspecialty should use the elements of the template that fit its needs. When constructing the program requirements, the subspecialty should carefully consider each of the elements to determine applicability.

The template does not provide the specific language for each element but only provides a suggestion for the scope of that language.

The specific language for each element should be constructed by the subspecialty. It is suggested that the subspecialty consider language used in current ACGME-approved specialties and subspecialties, particularly in neurology. The text of those requirements can be found on the ACGME Website at www.acgme.org, under Program Requirements.

A. Components

The content of the Program Requirements must be developed by each subspecialty and must address a number of specific areas. The following template has been developed to assist subspecialties to accomplish that development process.

1. Introduction

This section should contain a short narrative description of the subspecialty training to be defined in the program requirements.

2. Institutional Support

a. Sponsoring Institution

Define the criteria for a sponsoring institution. Include characteristics and responsibilities of the single institution that assumes the ultimate responsibility for the program.

b. Participating Institutions

Define the criteria for one or more participating institutions. Include characteristics and responsibilities of the additional

institutions that will play a major role in the training. This section should also define the relationship and specificity of the relationship to the Sponsoring Institution.

3. Duration of Training and Resident Appointment

a. Minimum Length of Training and Number of Residents

Define the minimum length of required training in months and the number of residents to be trained.

4. Faculty and Personnel

a. Program Director Qualifications

Define the qualifications of the program director. This section should address elements such as certification, experience, etc.

b. Program Director Responsibilities

Define the primary responsibilities of the program director.

c. Faculty Qualifications

Define the qualifications of the faculty. This section should address elements such as certification, experience, etc.

d. Faculty Responsibilities

Define the primary responsibilities of the faculty members.

e. Other Program Personnel

Define the type, qualifications, and responsibilities of other program personnel. This would include faculty from other disciplines and additional professional, technical, and clerical personnel.

5. Educational Program

a. Role of Program Director and Faculty

Define the responsibilities of the program director and faculty related to the development and implementation of the educational program for residents.

b. Competencies

This area would normally address the development and review process for the curriculum and the process for delivering the curriculum to residents. It should also include a general description of the primary competencies required of residents for successful completion of the program.

- c. Didactic Components**
This area should address the curriculum elements that will be addressed by a didactic process.
- d. Clinical Components**
This area should address the curriculum elements that will be addressed in a clinical or practice setting.
- e. Scholarly Activities**
This area should address the curriculum elements that will be addressed through scholarly activities.
- f. Program Resources and Facilities**
This area should contain a clear definition of the minimum educational, clinical and practice resources that would be required to train residents in this subspecialty. Examples of such resources would include laboratories, equipment, computers, libraries, number and types of patients or cases, office space, etc.
- g. Resident Duty Hours and Working Environment**
If the subspecialty requires patient care as part of the curriculum, resident duty hours and the working environment should be outlined. These requirements should conform to the current ACGME requirements.

6. Evaluation

- a. Resident Evaluation**
This area should define the evaluation process for residents including the notice, frequency, groups involved, responsibility, and formats to be used.
- b. Faculty Evaluation**
This area should define the evaluation process for faculty including the notice, frequency, groups involved, responsibility, and formats to be used.
- c. Program Evaluation**
This area should define the evaluation process for the program elements including the frequency, groups involved, responsibility, and formats to be used.