INTRODUCTION
The Global Pediatric Education Consortium (GPEC) believes that pediatricians should be held accountable to quality standards of training; this should include end-of-training or final examinations. End-of-training assessment processes vary greatly from country to country and most training systems do not mandate a standardized and validated end-of-training assessment process. GPEC has provided the following recommendations towards the end of promoting standard approaches to end-of-training assessment in pediatrics. The guidelines can be implemented at a national level by governments or non-governmental credentialing/educational organizations or at a local level by regional agencies or institutional training programs.

Defining Certification
The systems that recognize and verify medical training are highly variable from country to country. There are various forms of licensure, registration, and certification and these activities are accomplished by both professional and/or governmental credentialing bodies. GPEC believes that a standardized and validated approach should be established that provides assurance to the public that a pediatrician has completed a specialized training program and is qualified to care for pediatric patients regardless of where they have trained. While a host of terms is used globally, we refer to this process as “certification”.

The definition of Certification that is espoused by GPEC is as follows:

Certification is the process whereby a pediatrician, having completed the requisite training in pediatrics, undergoes a review of his/her professional credentials and a substantive competency assessment of the content of completed training.

Goals of Certification
The GPEC Board of Delegates believes that pediatricians should undergo a standardized professional review and evaluation process at the completion of post-graduate training. This does not simply entail a final examination, but includes professional scrutiny at every level of training and practice. Certification in pediatrics can be an effective way of providing assurance to the public (e.g., patients, parents, hospitals and clinics, governmental regulatory bodies) that the pediatrician under scrutiny has gained specialized training and experience in the developmental aspects of childhood health, prevention, disease management, and other aspects of child health care, and that they have successfully completed a rigorous evaluation process. A certified pediatrician is qualified to care for neonates, infants, children, adolescents, and young adulthoods, in a manner that is more comprehensive and focused than that of the general undifferentiated practitioner. The certification program may be locally administered but it should be based upon national or international standards. It is for this reason that GPEC
has crafted these guidelines to assist those wishing to develop/improve and implement national or regional or even local physician certification programs.

Core Recommendations
Following are core recommendations based on best-practices from around the world and taking into consideration the experience of our delegate organizations.

Recommendation #1: A successful certification program is built upon a foundation of standardized training at the heart of which is a slate of measurable core competencies. A standardized, well designed, and focused curriculum should be the focus of specialized training in pediatrics. The same curriculum should apply to all certification applicants so that the process is fair and equitable.

Recommendation #2: A formal review of the individual pediatrician's education and training should be part of the certification process. Further, a pediatrician should be credentialed at an entry level of practice (ie, licensure/registration) before being allowed to undergo certification. Therefore, the certification review process should entail the confirmation of training as specified and that the individual holds the proper local and/or national credentials (ie, license/registration) to practice at a physician entry level.

Recommendation #3: A standard, valid, and reliable examination process should culminate the certification process. The examination process should entail the following:

(a) Whether written or practical, the entire examination process should be based on a standard blueprint. In situations where both written and practical examinations are used, they may each cover different aspects of the blueprint (eg, written examinations might assess the general knowledge base, whereas practical examinations are better suited to evaluate professionalism and clinical judgment). The training curriculum is one of the best means of developing a standard blueprint. Applicants to the certification process should have access to a written form of the testing blueprint in order to be fully informed of the breadth and depth of testing.

(b) Examinations, whether written or practical, should be developed by professionals in the field who have previously achieved certification status or its equivalent. Standardized measurement principals should be referenced and implemented into the examination development process.

(c) Each standard, or cutscore, used to make certification decisions should be based upon specified criterion and be psychometrically defensible. It is considered inappropriate by measurement professionals to make certification decisions based upon normative data because the certificate warrants that an individual has met pre-defined levels of competence. The standard should publicize that pre-defined level of competence.
**Recommendation #4:** The entire certification process, including the training experience, should attest to the satisfactory achievement of **all core competencies** deemed necessary for an individual to practice as a pediatrician (see Chapters 1-3). Some competencies are better evaluated in the supervised training environment (e.g., procedural skills, professionalism), whereas others are best assessed in a formal evaluative process (e.g., knowledge of patient care issues). See Chapter 4 on Assessment for detailed explanation of assessing competence throughout training and certification.

**Notes**

1. The user is referred to the reference list at the end of the chapter for more detailed information related to definitions and recommendations.

2. In a technical sense, certification differs substantially from licensure and registration in that it does not seek to protect the public at a “minimal” level, but rather, takes competency-based training and assessment to a higher and more specialized level. Licensure (or registration as it is also commonly referred to in many countries) is usually conducted by a governmental entity and is, therefore, a legislative or legal requirement that provides assurance to the public that an individual can safely practice at an entry level. Licensure creates a layer of protection for the public against gross incompetence, incapacity, ignorance, and fraudulent practice (Atkinson, 2000).

Certification, on the other hand, is typically voluntary, and rather than legislative it is usually non-governmental in its administration; certification attests to a level of specialized competence; successful completion of a certification process entails that the pediatrician has completed a standardized, specialized training program with an adequate level of supervised mentoring, assumes that they have achieved a level of competence in the specialty beyond that of the entry level general practitioner, and has been evaluated in a fair, unbiased, and valid manner by his/her colleagues in the profession.
References
