

Pediatric residency and sub-specialty training

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Pediatricians care for the physical, social, and emotional health of children from birth to young adulthood. They are trained to provide a gamut of service from preventive health maintenance to the diagnosis and treatment of acute and chronic diseases. The impact of disease and dysfunction on the developing child is a major focus of care. As more children survive the neonatal period with physical disabilities, pediatricians, pediatric subspecialists, and rehabilitation specialists will be collaborating more intimately. Usually the referral process is general pediatricians to pediatric physiatrist or other specialist, but as disease complexity increases the pediatric physiatrist, physical therapist, or occupational therapist might uncover other needs requiring additional subspecialty attention. This article is an attempt to summarize information about the training of pediatricians and various pediatric subspecialists which should be of interest to rehabilitation specialists including occupational therapists, physical therapists, and speech therapists. The Graduate Medical Education Directory published yearly by the American Medical Association is an excellent reference for further detail, and was used for much of this mini-review [1]. More current information is available in the Accreditation Council for Graduate Medical Education (ACGME) and American Board of Pediatrics websites [2,3].

Trainees entering accredited pediatric residencies in the United States must be graduates of a medical school that has been accredited by the Liaison Committee in Medical Education (LCME) in the US, by

the Royal College of Physicians and Surgeons of Canada (RCPSC) or by the American Osteopathic Association (AOA). An applicant who is a graduate of a medical school outside the US or Canada may apply if the school is listed by the World Health Organization and the candidate has a standard certificate from the Educational Commission for Foreign Medical Graduate, (ECFMG). Pediatric Residency programs are 3 years in length. All programs must be accredited by the Accreditation Council for Graduate Medical Education (ACGME) (council that oversees the majority of graduate medical training) and the Residency Review Committee (RRC) for Pediatrics. Each specialty in ACGME has an RRC of appointed experts in their respective fields that oversee the training requirements for each field [1]. There are currently 201 accredited pediatric programs in the United States and over 8,211 active residents/fellows (average 41 per program). 69% of current pediatric trainees are female. Approximately 25% are international medical graduates [2,4].

As in most other types of medical training programs the training is divided into 3 levels: Post graduate level (first year after medical school) PL-1; PL-2; and PL-3. PL-1 refers to the first postgraduate year and is characterized by general comprehensive inpatient and outpatient pediatric training. Increasing responsibility for patient care and supervision of more junior residents and medical students occurs in the PL-2 and PL-3 levels. Supervising experience is a necessary requirement of training. The last 24 months must include at least 5 months of direct supervising responsibility. Upon completion, the American Board of Pediatrics must approve application for admission to the certification exam. In 2007, there were 2,328 PL-1 positions offered in the US 72.8% were filled by US graduates and 97.3% of the slots were filled overall. Ten percent of US senior medical students enter pediatrics [4].

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Table 1
Pediatric subspecialty programs accredited by the ACGME

| | # of Accredited Programs |
|---------------------------------------|--------------------------|
| – Adolescent Medicine | 25 |
| – Developmental/Behavioral Pediatrics | 31 |
| – Neonatal/Perinatal Medicine | 97 |
| – Pediatric Cardiology | 48 |
| – Pediatric Critical Care Medicine | 62 |
| – Pediatric Emergency Medicine | 45 |
| – Pediatric Endocrinology | 68 |
| – Pediatric Gastroenterology | 51 |
| – Pediatric Hematology/Oncology | 62 |
| – Pediatric Infectious Disease | 61 |
| – Pediatric Nephrology | 34 |
| – Pediatric Pulmonology | 43 |
| – Pediatric Rheumatology | 26 |
| – Pediatric Sports Medicine | 8 |
| – Sleep Medicine | 25 |

*Listed in the Graduate Medical Directory 2006–2007; American Medical Association.

There are currently 6 types of combined training programs that have been established by the American Board of Pediatrics and other boards to allow candidates to complete training in pediatrics and another specialty in less time than it would take to complete separately. They are combined dual board programs in Medicine/Pediatrics (there are 99 accredited programs in the US); Pediatrics/Dermatology; Pediatrics/Emergency Medicine (3 programs); Pediatrics/Medical Genetics; Pediatrics/Physical Medicine and Rehabilitation; and Pediatrics/Psychiatry/Child and Adolescent Psychiatry (10 programs).

The Residency Review Committee (RRC and ACGME) currently reviews and accredits pediatric subspecialty programs. These subspecialists have extensive training (3 years beyond the 3 years of pediatric residency). Subspecialty programs accredited by the ACGME are listed in Table 1. In addition, the American Board of Pediatrics issues subspecialty certificates or certification of added qualifications for the subspecialties listed as well as medical toxicology, hospice and palliative care medicine, neuro-developmental disabilities, and pediatric transplant hepatology. Copies of program requirements and lists of accredited programs can be obtained from the Residency Review Committee for Pediatrics, 515 N. State Street, Chicago, Illinois 60610 or the ACGME website.

Certification in the Pediatric Subspecialties first requires certificates in general pediatrics by the ABP,

valid licensure to practice medicine in the US, verification of the appropriate training and documentation of scholarly activity during fellowship training. This may include a meaningful accomplishment in research which is generally a requirement of most subspecialty training today.

Pediatric training and subspecialty training is a unique component of medical education. Pediatricians are trained to care for not just the child's health, but also the complicated psychosocial aspects and interactions of the child, the family and society. Children with complex medical problems and those with disabilities frequently require a comprehensive, interactive and team approach to provide them with the best medical and psychosocial outcome. As we see more complicated children survive longer, a PM&R/pediatric team approach will be critical. There also needs to be more funding available nationally to train other pediatric subspecialists to contribute to this team.

References

- [1] Graduate Medical Education Directory. 2006–2007; American Medical Association, 2006.
- [2] <http://www.acgme.org>.
- [3] <http://www.abp.org>.
- [4] National Resident Matching Program; Results and Data. 2007. Main Residency Match. April 2007, 1–83.