Combined Internal Medicine & Pediatrics

Introducing Med-Peds

Versatile training for the 21st century physician

Created by Allen Friedland, MD in conjunction with the Med-Peds Program Directors Association and National Med-Peds Residents' Association
# Residency Programs

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Training Length</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics</td>
<td>3 years</td>
<td>Medical</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>3 years</td>
<td>Medical</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>3 years</td>
<td>Medical</td>
</tr>
<tr>
<td><strong>Med-Peds</strong></td>
<td><strong>4 years</strong></td>
<td><strong>Medical</strong></td>
</tr>
<tr>
<td>Ob-Gyn</td>
<td>4 years</td>
<td>Surgical</td>
</tr>
<tr>
<td>General Surgery</td>
<td>5 years</td>
<td>Surgical</td>
</tr>
</tbody>
</table>
What is a Pediatrician and What is an Internist?

**Pediatrician**
- A physician who specializes in the development, care and diseases of children
- Infants, children, adolescents and young adults from birth to age 21
- Focuses on prevention, detection and management of physical, behavioral, developmental and social problems
- Developmentally oriented

**Internist**
- Doctors who focus on adult medicine - the prevention and treatment of adult diseases
- Specially trained to solve puzzling diagnostic problems
- Equipped to deal with all problems rare or common, simple or complex
  - Handle severe chronic illnesses
  - Situations where several different illnesses may strike at the same time
What is Med-Peds / Who We Are

- Physicians for children (pediatrics)
- Board Certified Pediatrician (children)
- 2 years of training instead of 3

- Physicians for adults (internal medicine)
- Board Certified Internist (adults)
- 2 years of training instead of 3
History of Med-Peds

1949 Two year rotating internship at University of Rochester

1960’s One year combined internship at North Carolina Memorial Hospital

1967 Boards approve combined training

1977 North Carolina formalizes training

1982 University of Rochester formalizes training
History of Med-Peds

1989  First formal training guidelines
1991  Program Director’s Association formed
       Med-Peds section of AAP created
1997  National Med-Peds Residents’ Association is created
1997  Congress supports med-peds training pay
       AAP/AMA/ACP support dual listing
2006  Accreditation of med-peds programs
       Med-Peds program requirements
Versatile Med-Peds Physician

Survivors of chronic health conditions from childhood

Treat common diseases

Global Health
Versatile Med-Peds Physician

Prevent disease in families

Adolescents have special needs

ICU settings
## The Changing Epidemic

### Child diseases in adulthood
1. Congenital heart disease
2. Cystic fibrosis
3. Sickle cell disease
4. Childhood malignancies
5. Spina Bifida
6. Autism

### Adult diseases in childhood
1. Diabetes
2. Obesity
3. Hypertension
4. Sleep apnea
5. Hyperlipidemia
Med-Peds Requirements

Accredited Programs

- Transitions
- Resident Practice
- General Ped & General Med
- ICU time
- Subspecialty Electives
- Required specialties
- Med-Peds Time
<table>
<thead>
<tr>
<th>Internal Medicine</th>
<th>Number of months</th>
<th>Pediatrics</th>
<th>Number of months</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Inpatient Medicine</td>
<td>8</td>
<td>General Inpatient Pediatrics</td>
<td>5</td>
</tr>
<tr>
<td>Medical Intensive Care Unit</td>
<td>1-2</td>
<td>Pediatric Intensive Care Unit</td>
<td>1-2</td>
</tr>
<tr>
<td>Cardiac Intensive Care Unit</td>
<td>1-2</td>
<td>Neonatal Intensive Care Unit</td>
<td>2-3</td>
</tr>
<tr>
<td>Geriatrics</td>
<td>1</td>
<td>Newborn Nursery</td>
<td>1</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>1</td>
<td>Emergency Pediatrics and Acute Illness Pediatrics</td>
<td>3</td>
</tr>
<tr>
<td>Outpatient Med-Peds continuity</td>
<td>36 clinics per year</td>
<td>Behavioral-Developmental Adolescent Medicine</td>
<td>2</td>
</tr>
<tr>
<td>Subspecialty experience (e.g. Infectious Diseases, Nephrology, etc.)</td>
<td>4</td>
<td>Subspecialty experience (e.g. Infectious Diseases, Nephrology, etc.)</td>
<td>4</td>
</tr>
<tr>
<td>Overall Ambulatory Experience (minimum)</td>
<td>33%</td>
<td>Overall Ambulatory Experience (minimum)</td>
<td>40%</td>
</tr>
</tbody>
</table>
Med-Peds Match 2013 (77 programs with 366 positions)

- NE: 2 spots
- MI (6): 26 spots
- MN: 12 spots
- KY (2): 10 spots
- IN: 14 spots
- OH (4): 25 spots
- WI (2): 8 spots
- IL (5): 24 spots

- ME: 3 spots
- NY (4): 18 spots
- MA (4): 19 spots
- CT: 4 spots
- RI: 4 spots
- PA (4): 16 spots
- PA (4): 16 spots
- NJ (2): 5 spots
- DE: 4 spots
- DC: 4 spots
- MD: 8 spots

CA (4): 18 spots
UT: 3 spots
AZ: 6 spots
OK (2): 6 spots
AR: 6 spots
TX (2): 14 spots
LA (3): 14 spots
MO (3): 13 spots
KS: 2 spots

CA (4): 18 spots
UT: 3 spots
AZ: 6 spots
OK (2): 6 spots
AR: 6 spots
TX (2): 14 spots
LA (3): 14 spots
MO (3): 13 spots
KS: 2 spots

VA: 6 spots
WV (3): 6 spots
TN (2): 14 spots
SC (2): 8 spots
Where are the med-peds grads?

Data: courtesy of the American Board of Pediatrics; Feb. 2009 (Total 4207 initially certified)
Choosing a Career in Combined Internal Medicine and Pediatrics: Insights From Interns

Alternate careers considered by Med-Peds interns prior to residency

### Choosing a Career in Combined Internal Medicine and Pediatrics: Insights From Interns

<table>
<thead>
<tr>
<th></th>
<th>MP</th>
<th>IM</th>
<th>Peds</th>
<th>FM</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considered as a career</td>
<td>86.8%</td>
<td>55.2%</td>
<td>50.7%</td>
<td>33%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Contacted programs</td>
<td>93.8%</td>
<td>30.6%</td>
<td>29.9%</td>
<td>20.8%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Applied</td>
<td>94.8%</td>
<td>18.4%</td>
<td>17.4%</td>
<td>8.3%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Interviewed</td>
<td>94.8%</td>
<td>16.7%</td>
<td>14.2%</td>
<td>5.9%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Ranked</td>
<td>94.3%</td>
<td>12.9%</td>
<td>11.4%</td>
<td>3.6%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

# The Effect of Dual Training in Internal Medicine and Pediatrics on the Career Path and Job Search Experience of Pediatric Graduates

<table>
<thead>
<tr>
<th>Senior Residents</th>
<th>Med-Peds</th>
<th>Pediatrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equally prepared for primary care in both specialties</td>
<td>80%</td>
<td>77%</td>
</tr>
<tr>
<td>Equally prepared for fellowships in both specialties</td>
<td>90%</td>
<td>87%</td>
</tr>
</tbody>
</table>

The Effect of Dual Training in Internal Medicine and Pediatrics on the Career Path and Job Search Experience of Pediatric Graduates

<table>
<thead>
<tr>
<th>Senior Residents</th>
<th>Med-Peds</th>
<th>Peds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would choose same specialty again</td>
<td>90</td>
<td>93</td>
</tr>
<tr>
<td>Primary Care Career</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>Subspecialty Career</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Hospitalist Career</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>Other Career</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

The Role of the Med-Peds Physician in a Changing Medical World

- Editorial on the 40th birthday of med-peds
- Shift in career plans during residency
- Hospitalist
- “… med-peds graduates are well positioned to adapt to a changing medical landscape”.

Impact on Categorical Programs

- **40%** of pediatrics programs have a med-peds program. Of all pediatric residents, med-peds residents are approximately **14%** of the total.

- **20%** of medicine programs have a med-peds program. Of all categorical medicine residents, med-peds residents are approximately **9%** of the total.
The Med-Peds Puzzle

Complete both
Learn both
Pass both
Practice both
Is It Possible to *Complete* Both? (1998-2002)

Is it Possible to *Learn* Both?

- **Fundamental clinical skills** in common: (history and physical, communication, organization)

- **Advanced clinical skills** in common: (information processing, reasoning, hypothesis testing, deduction, epidemiology)

- **Some differences:** manifestations/incidence of same conditions at different ages, nuances of treatment, neonatology and first two years of life

John Chamberlain, MD 2002
The passage rate for med-peds graduates on the American Board of Internal Medicine and American Board of Pediatrics examinations in 2011 and 2012 is equivalent.

American Board of Pediatrics and American Board of Internal Medicine personal communication at 2013 Med-Peds Program Director’s Association Meeting
Is it Possible to *Practice* Both?

- About **50-60%** of graduates go into primary care practice. The majority (between 77-93%) provide care for both adults and children.
  - 40% also have an academic appointment with a medical school
- About **18-25%** of graduates pursue fellowship and **50%** provide care for both adults and children.
  - 60% also have an academic appointment with a medical school

Results from the National Ambulatory Medical Care Survey

Age Distribution of Patient Visits to Primary Care Providers Recorded in the National Ambulatory Medical Care Survey from 2000-2006

Fellowships and Subspecialties

• Qualify for ANY IM or Pediatric fellowship.
• Ideal preparation for sub-specialization
• Equally competitive with categorically trained candidates.
• Added maturity derived from an additional year of training and discipline
• Combined fellowships: subject to negotiation.
Fellowships After Med-Peds

1. Adolescent Medicine
2. Allergy-Immunology
3. Cardiology
4. Child Abuse
5. Clinical Cardiac Electrophysiology
6. Critical Care
7. Developmental-Behavioral
8. Emergency Medicine (peds only)
9. Endocrinology
10. Gastroenterology
11. General Medicine
12. General Pediatrics
13. Genetics
14. Geriatrics
15. Hematology-Oncology
16. Hospice and Palliative Care
17. Infectious Disease
18. Interventional Cardiology
19. Medical Informatics
20. Nephrology
21. Neurodevelopmental Pediatrics
22. Perinatology
23. Pulmonary
24. Rheumatology
25. Sleep Medicine
26. Sports Medicine
27. Toxicology
28. Transplant Hepatology
**Fellowship Choices: 1998-2002**

<table>
<thead>
<tr>
<th>Subspecialty</th>
<th>Number</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>33</td>
<td>13</td>
</tr>
<tr>
<td>Infectious Diseases</td>
<td>29</td>
<td>17</td>
</tr>
<tr>
<td>Allergy/Immun</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Primary Care</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Endocrinology</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Adult Pulm/CC</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Peds ICU</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Nephrology</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Heme/Oncology</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Adolescent Med</td>
<td>11</td>
<td>N/A</td>
</tr>
<tr>
<td>Rheumatology</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Pulmonary</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Unknown</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>65</td>
<td></td>
</tr>
</tbody>
</table>

### Fellowship Choices: 2003-2004

<table>
<thead>
<tr>
<th>Med-Peds (91)</th>
<th>Peds (196)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infectious Disease</strong>: 19% (17)</td>
<td><strong>Neonatology</strong>: 16.3% (32)</td>
</tr>
<tr>
<td><strong>Allergy</strong>: 11% (10)</td>
<td><strong>Emerg. Med</strong>: 11.2% (22)</td>
</tr>
<tr>
<td><strong>Critical Care</strong>: 9.9% (9)</td>
<td><strong>Heme/Onc</strong>: 7.7% (15)</td>
</tr>
<tr>
<td><strong>Endocrine</strong>: 9.9% (9)</td>
<td><strong>Infect Disease</strong>: 7.6% (15)</td>
</tr>
<tr>
<td><strong>Neonatology</strong>: 1.1% (1)</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Med</strong>: 3.3% (3)</td>
<td></td>
</tr>
</tbody>
</table>

Why Medical Students Chose Med-Peds?

1. Age spectrum
2. Variety & depth of training
3. Liked both
4. Flexible career
5. Primary care focus
6. Ability to specialize
7. Role models
8. Did not want OB/Surg
9. Transition & adolescent
10. More Pediatrics

Robbins BW, Ostrovsky, D, and Melgar, T. Factors in Medical Students’ Selection and Ranking of Combined Medicine-Pediatrics Programs. Academic Medicine. 80 (2), February 2005;199
Medical Students Who Choose Med-Peds

Do you have someone advising you about Med-Peds?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>70%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Was your advisor Med-Peds?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>62%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Does your school have a Med-Peds affiliated with it?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>79%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Robbins BW, Ostrovsky, D, and Melgar, T. Factors in Medical Students’ Selection and Ranking of Combined Medicine-Pediatrics Programs. Academic Medicine. 80 (2), February 2005;199
Med-Peds Student Electives (www.med-peds.org)

Arizona:
  Banner Good Samaritan

California:
  U.C.L.A.

Delaware:
  Christiana Care Health System

District of Columbia
  Georgetown

Illinois:
  Rush & University of Chicago

Kentucky:
  University of Kentucky

Louisiana:
  Tulane

Maine:
  Maine Medical Center

Massachusetts:
  Baystate & Univ. of Mass

Michigan:
  Michigan State @ Grand Rapids
  Michigan State @ Kalamazoo
  William Beaumont Hospital

Missouri:
  St. Louis University

New York:
  Albany
  Stony Brook
  University of Rochester

North Carolina:
  East Carolina University
  Univ. of North Carolina

Ohio:
  Case Western Reserve
  Metro Health

Pennsylvania:
  Geisinger Health System

South Carolina:
  Greenville Hospital System

Texas:
  Baylor
How Students Chose a Med-Peds Program

- Intuitive feel (55%)
- Resident satisfaction (48%)
- Location/family (36%)
- Med-Peds clinic (32%)
- Coordination/cooperation (30%)
Summary of Med-Peds

• Depth and breadth of two disciplines that allows flexible career goals without Surgery and OB training. The perfect “double major”
• Four years of training that is rigorous but humane; gives added maturity to your career
• Wide variety of practice styles and settings; effective with variety of patient problems
• Dual board certification in Internal Medicine and Pediatrics that is unique
• Niches of special populations; cross fertilization of knowledge
• 40 years of rich history in Med-Peds