The 2004 National Med-Peds Residents’ Association (NMPRA) Annual National Meeting in San Francisco was a tremendous success! Over 50 Med-Peds residents and faculty joined us from across the nation. Located at the renowned restaurant Bacar, in the heart of San Francisco, it was the perfect atmosphere for the evening Med-Peds career development.

The event began with a brief overview of NMPRA, our continued growth (over 1100 members so far!), website www.medpeds.org that receives over 30,000 hits per month, and new programs such as “Invite a Med-Peds Speaker”. We discussed the “Med-Peds World”, with special comments from Dr. Friedland (President, Med-Peds Program Directors Association), Dr. Chamberlain (Out-going Chair, AAP Med-Peds Section) and Dr. Kan (In-coming Chair, AAP Med-Peds Section). Dr. Friedland also introduced the “Med-Peds Speakers Kit”, which has valuable statistics and information in promoting Med-Peds. We look forward to continued collaboration with both the MPPDA and the AAP Med-Peds Sections to further improve Med-Peds residents’ lives now and in the future.

New this year was the 1st Annual NMPRA Med-Peds Clinical Case Presentations. Two winning presentations were selected from many excellent abstracts. This year, Dr. Minal Vazirani from Good Samaritan Medical Center in Phoenix, AZ, spoke about “Mending a Broken Heart”, a case where a 14 year-old female with SLE was diagnosed with a mycotic aneurysm. Dr. Joseph del Castillo, from Geisinger Medical in Danville, PA, presented “Evaluating Cirrhotic Liver Disease in Cystic Fibrosis” (see page 3). We thank both of these residents for their hard work and excellent presentations. Keep an eye out for cases to submit for next year’s meeting in Washington DC! (continued on page 11...)

Golden Gate Bridge, San Francisco
This is a case of a 22-year-old white male with history of cystic fibrosis who was admitted to the hospital for pneumonia. His past medical history includes cystic fibrosis, genotyped homozygous delta F508, diagnosed at birth without meconium ileus. He has a history of Pseudomonas pneumonia, MRSA pneumonia, Diabetes Mellitus type 2 and osteoporosis. He presents to the emergency room with a week history of fatigue, productive cough and abdominal pain. He denies any fever, blood tinged sputum, vomiting, rash, or change in bowel or bladder habits. He does state that he has lost about 15 pounds over the past couple of months.

His cystic fibrosis has otherwise been well controlled with medications. He recently moved to Pennsylvania to live with his grandmother for personal reasons. He is a smoker with occasional marijuana use, denies any intravenous drug use or alcohol use. His medications include Zithromax, Albuterol, Tobramycin nebs, Pulmazyme nebs, Pancrease, Oscal, Boost, ADEKs vitamins and recently Insulin/Lantus. His last pulmonary function tests showed a moderate obstructive lung disease pattern, with an FEV1 of 50% of predicted and FEF 25-75 of 19% of predicted. He has no known drug allergies. Family history was non-contributory.

On admission his temperature was 37.5°C, heart rate 80 beats per minute, and blood pressure 105/63. His weight was 60.5 kg. He appeared well and was in no acute distress. There was no evidence of scleral icterus. His neck was supple without adenopathy or JVD. His lung exam revealed rhonchi, but no wheezes. His abdominal exam revealed normal bowel sounds, hepatomegaly approximately 6cm down below the costal margin and 7-8cm wide, firm without nodularity, and a palpable spleen tip. There was no peripheral edema, rash, spider angiomas, or jaundice. No asterixis was noted on neurological exam. He was admitted to hospital with a diagnosis of pneumonia and an incidental finding of hepatomegaly. His pneumonia was treated with IV antibiotics and a work up was done for his enlarged liver.

Laboratory tests were performed. His hepatitis panel, CMV, EBV IgM, IgG, anti-mitochondrial antibody, and ANA were negative. His anti-smooth muscle antibody titer was 1:160, AST/ALT were 160/190, total bilirubin was 1.1, alkaline phosphatase was 1361, albumin was 3.3, PT was 13.8 and INR was 1.07. An ultrasound of his abdomen showed an enlarged liver with heterogeneous echogenicity. The spleen was at the upper limits of normal and no evidence of gallstones or peri-cholecystic fluid were noted. A computed tomographic (CT) scan of his abdomen was done and showed a heterogenous nodular contoured liver compatible with cirrhosis (figure 1). A liver biopsy was performed which revealed focal biliary fibrosis and active cholangiolitis (figure 2).

The diagnosis of cystic fibrosis associated Liver Disease (CFLD) was made, and the patient was concurrently stated on ursodiol and propranolol. The future possibility of a liver transplant was also discussed.

Discussion

No achievement highlights the developments of the past few decades of cystic fibrosis care more than the remarkable growth of the adult cystic fibrosis population. First described in 1938 by Dr. Dorothy Andersen, median survival at that time was <1 year of age, now median survival in the US is 32 years of age. (cont. next page...)
Life expectancy of patient’s with cystic fibrosis has significantly improved due to better management and advances in pulmonary and nutritional strategies. Clinically significant CFLD has been increasing in prevalence. The onset of progression is during childhood; clinical signs appear late, when fibrosis is advanced. There is currently no reliable predictors or disease markers, making early intervention difficult. The abnormal CFTR protein has been identified in the biliary epithelium and characterized, but treatments to prevent progression or initiate regression of CFLD remains to be seen.

What can be done to identify who is at risk? There are contrasting reports as to whether or not male sex, late onset diagnosis of cystic fibrosis, severe genotype and a history of meconium ileus or distal intestinal obstruction syndrome are predictive of cirrhosis. Studies have shown that patients with more severe pulmonary disease and poor growth may be at greatest risk.

Ultrasonography of the liver, biliary tract, gallbladder, and spleen with Doppler measurements of hepatic flow are noninvasive and inexpensive. Data has shown that routine annual ultrasound may be a valuable marker of early CFLD. However, it is not fail safe. Ultrasound changes precede other manifestations of liver disease.

Ursodeoxycholic acid (UDCA) stimulates bile flow in non-CFTR biliary chloride channels and is known to protect hepatocytes from toxicity. Some studies show that UDCA may improve biochemical indices. However, there is little evidence that it alters the natural course of the disease.

Clinical suspicion of CFLD is essential in managing CF patients. Careful examination and measurement of liver and spleen by palpation and percussion should be performed at each clinic visit. A panel of liver blood tests should be obtained yearly in all patients with cystic fibrosis.

Update…

Unfortunately his medical problems continue. Weeks after the presentation of his CFLD, he returned to hospital with complaints of right lower quadrant pain. A CT scan of his abdomen and an upper and lower endoscopy was performed. The CT scan showed a possible intussusception. The upper endoscopy showed a grade 2 varices in the middle third of the esophagus, without stigmata of a recent bleed. A colonoscopy was done which showed a probable cecal volvulus. Surgery was consulted and a right hemicolectomy was performed to correct the cecal volvulus. He has recovered from his operation and is currently doing well. The status of his liver is being monitored carefully while he contemplates the possibility of a liver transplant.  

(see page 12 for references)
Eisenmenger Syndrome:

by Rodney A. Samaan, M.D, MPH
Med-Peds Resident
University Hospitals of Cleveland/Rainbows Babies Hospital

Case Vignette:

60 year old white male with a PMH of VSD and Eisenmenger Syndrome (diagnosed at 10 yrs of age), hypertension, and a-flutter (s/p cardioversion), presented to the Cardiology service with complaints of dyspnea on exertion for one week. On admission, the patient was found to have second degree AV block, liver congestion, and acute on chronic renal failure, which were thought to be due to Eisenmenger’s Syndrome.

Initial Labs:


On the following day, the patient was transferred to the CICU because he developed third degree AV block. He was noted to have a ventricular rate in the 30s. An ECHO demonstrated severe LV dysfunction and elevated PASP consistent with pulmonary hypertension. An MRI/MRA of the heart revealed a large membranous VSD. MRA was consistent with a type 1 truncus arteriosus. After one day in the CICU, he spontaneously converted back to 1st degree AV block and was transferred back to the Cardiology service. Five days later, the patient had a transvenous pacemaker placed by the pediatric cardiology EP service and was then observed overnight in the CICU. On the following day, the patient coded while on the floor and was transferred back to the CICU where he was briefly stabilized, but then subsequently recoded and died secondary to PEA. Prior to his death, a stat ECHO showed: overall left ventricular systolic function that was severely reduced with an EF at 10-20%. There was no pericardial effusion suggesting tamponade. Post-mortem was done, however the report does not indicate a specific cause of death.

Objective:
The goal of this paper is to discuss the pathophysiology, epidemiology of Eisenmenger Syndrome and to present some of the complications of this syndrome as well as the possible treatment options. Also, there will be a discussion of one major complication: CVA, as well as one treatment option: phlebotomy, which are both controversial issues for this syndrome.

Pathophysiology:
Unfortunately, the cause of death was never determined, however, the nature of the sudden death was by no means unorthodox for such patients. For example, in a study by Niwa et al., in which they followed 77 patients with VSD and truncus arteriosus for over 5 to 15 years, they found that over this period 35% of the patients died, and of the latter group, 63% of the deaths were sudden\(^1\). Also, the 25 year survival rate for patients with Eisenmenger Syndrome is 42%\(^2\). By understanding the pathophysiology and the likely complications of Eisenmenger Syndrome, one can posit an educated guess of this patient’s death. The figure 1 on the next page describes the pathophysiology the Eisenmenger Syndrome. (continued on next page...
The large VSD initially causes left to right shunting (systemic to pulmonary circulation), which leads to an increase in pulmonary blood flow and pressure to the pulmonary system. This increased blood flow eventually leads to morphologic changes in the microvasculature leading to pulmonary hypertension and eventual right to left shunting of blood (or pulmonary to systemic circulation). The latter causes hypoxia, which eventually leads to secondary erythrocytosis and an increase in red blood cell mass, thus increasing the risk for hyperviscosity.

Epidemiology of Eisenmenger Syndrome
It is important to emphasize that not all patients with an intracardiac shunt (i.e. ventricular septal defect (VSD), atrioventricular defect (AV defect), patent ductus arterio-sus (PDA), atrial septal defect (ASD), or D-transposition of the great vessels) will develop Eisenmenger’s syndrome. It is estimated that 50% of patients with an intracardiac left to right shunt secondary will develop Eisenmenger Syndrome. Furthermore, 50% of patients with a large VSD (> or =1.5 cm) and only 3% of patients with a small or moderate sized VSD (< or = 1.5 cm) will develop Eisenmenger Syndrome.

Complications of Eisenmenger Syndrome
As demonstrated in the figure on the next page, there are many complications of Eisenmenger Syndrome, which revolve around the fact that these patients are hypoxic, which leads to an increase in blood viscosity secondary to erythrocytosis. The purpose of this article is to focus on the later major complication of Eisenmenger Syndrome and its increased risk of cerebrovascular accidents. Whether Eisenmenger Syndrome increases the risk of CVA is controversial and has not been settled. In an article in 1993, Perloff and his colleagues followed patients from their Adult Congenital Heart Disease Clinic at UCLA where they retrospectively studied 112 cyanotic patients 19-74 years who were divided into 2 groups: those with compensated erythrocytosis and those with decompensated erythrocytosis, and found no difference in increased risk for stroke. He concluded: “Because a risk of stroke caused by cerebral arterial thrombosis was not demonstrated…and because of the untoward sequelae of phlebotomy-induced iron deficiency anemia, we recommend phlebotomy for the temporary relief of significant, intrusive hyperviscosity symptoms but not for the hematocrit level.” However, in 1996, Ammash et al., had followed 162 adults with congenital heart disease (at the Mayo Clinic) between 1995-1998. They followed patients for a longer period than Perloff et al (3135 vs 748 patient years) and also did not exclude patients who had independent risk factors for stroke such as atrial fibrillation, tobacco use, and hypertension. The authors conclude that “...the incidence of CVA in cyanotic adult patients is 13.6% and that there are four independent risk factors associated with the development of CVA in adults-systemic hypertension, atrial fibrillation, therapeutic phlebotomy, and iron deficiency anemia/microcytosis.” Finally, the authors also note that microcytosis (MCV<82) was the strongest risk factor for CVA events.
Treatment of Hyperviscosity Syndrome

It is important to recognize that patients with an increased risk for hyperviscosity are those patients with microcytic (low MCV), hypochromic (low MCH) erythrocytosis because the iron deficiency causes the red blood cells to be less deformable as they move through the vasculature. Thus, it is important that one not phlebotomize patients with elevated hematocrits, which would cause further iron deficiency anemia. One must first correct the iron deficiency anemia (with low dose ferrous sulfate 325mg/day) and then replace the phlebotomized blood with colloids. Of note, one should also not phlebotomize based on the hematocrit greater than 65% if asymptomatic, but should consider phlebotomy (removal of 500 ml of blood in 30-45 minutes) with exchange transfusion (infusion of an equal volume of isotonic saline, dextran, salt free albumin) if one has symptoms of hyperviscosity (i.e. headaches, fatigue, visual changes, lethargy, and dizziness) and have a hematocrit of greater than 65%\(^7\). Iron replacement should be discontinued once the hemoglobin begins to rise.

_Above: Complications of Eisenmenger's Syndrome_  
_Above: Approach to various conditions in Eisenmenger’s Syndrome_

_A special thank you to Dr. Beck for help in thinking about the issues in managing a patient with Eisenmenger syndrome, Dr. Askari for help in identifying this patient, and Dr. Dorostkar for help in identifying the controversial areas of stroke prevention in Eisenmenger patients with hyperviscosity._

References

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Clinician’s Corner...

**Transition Healthcare: Med-Peds 1001 uses and counting...**

Christopher P. Sobczak, M.D.
Assistant Clinical Professor, Internal Medicine & Pediatrics
Medical College of Wisconsin

Children with chronic illnesses are living longer lives. One out of every 10 pediatric patients will have a chronic medical condition. Cystic fibrosis now has a median survival well into the 30’s. In the 1970s spina bifida patients used to have a survival rate less than 20%, and now more than 90% of these children are reaching adulthood. Technology and advances in medical care are wonderful. Children with multiple complex congenital health problems now are able to lead productive lives as young adults. Nationally over 500,000 children with special healthcare needs turn 18 each year. Locally, each year in Milwaukee, about 80 to 200 complex and medically fragile young adults require a transition from a pediatric to an adult healthcare provider. An ideal and logical solution is Med-Peds. As a local Med-Peds physician, I have taken a special interest in the successful transition of children with special healthcare needs to adult model healthcare systems.

I firmly believe that the transition of children with special healthcare needs should begin with primary care. Every team needs a leader. Primary care should fill this role. These patients have multiple subspecialists that contribute to their health. A Med-Peds provider can help connect and direct the transition to adult subspecialists. We often are familiar with specialists in both the pediatric and adult arenas. Knowledge and familiarity with specialists’ style, personality and areas of expertise can help direct parents and patients to the appropriate providers. Familiarity and rapport with pediatric specialists can help bridge difficult times and questions for providers in times of stress or uncertainty on the part of parents. Admitting privileges at both pediatric and adult facilities can help ease families anxiety about new procedures, nurses and protocols in new places. In my practice I have been able to transfer patients from the pediatric to the adult hospital for specific procedures and testing that they required.

Transition should be a gradual process. The process should begin with a pediatric provider summarizing a patient’s medical history and writing a letter for the new provider to review. Other forms of data, such as latest labs, tests, x-rays, nutrition and therapy plans are also helpful to review. An office visit with the patient and the family should be allowed some extra time. It is helpful to schedule appointments near the end of the day or right after lunch. There needs to be a time of adjustment to understand patients and family preferences and treatment plans. I also question information about end of life care, and code status. It is best to allow overlap of six to twelve months where the pediatrician and adult provider can address health concerns and acute illness situations until families are comfortable with the new adult healthcare provider. Being Med-Peds is a huge advantage because of the familiarity with pediatrics medications, treatment regimens for disease processes such as cystic fibrosis. However, as is essential in transitional care, it is important to incorporate adult treatment options for coronary disease prevention, hypertension, osteoporosis and diabetes that many of these patients begin to develop.

One golden rule is to never transition healthcare during a crisis situation such as an acute illness or hospitalization. Healthcare has been a major component of the lives of children with special healthcare needs. Families are very loyal and connected to their providers, and it is wrong to play the “hero” role to save the day. One does not swoop in as a consultant and present a new plan of care, change antibiotics or feeding regimens because that is “how we do it on the adult side.” It will always backfire. It is best to provide advice and direction in the background communicating with pediatric providers until a time of healthy stability arises. Transition should occur with the care, support and encouragement of prior providers for adult oriented physicians. Being Med-Peds helps again because of the knowledge providers and pediatric disease processes to understand relative times of stability. (cont. next page...
Some of the obstacles to transition have been discussed in the pediatric literature. A common one is the lack of adult providers willing to accept children with special healthcare needs. As Med-Peds providers we need to identify ourselves in the community as very capable of handling this population of patients. Another obstacle is the fear that adult providers lack knowledge of primarily pediatric illnesses. Med-Peds seems to be the logical answer here. Finally, there is the fear of letting go of this population of patients. Med-Peds needs to work with our pediatric colleagues to assist them to take on new challenges in the future.

On a personal note, I have found this group of patients extremely challenging and at the same time very rewarding. As is inherent in many Med-Peds physicians, the harder the work the more gratifying the reward. This is a very time consuming patient population, and the growth of this population in my practice has been largely limited by availability of support staff and care coordinators. I always imagine taking on more, and I continue to do so. A controlled growth in ones practice is key, and as I gain familiarity with each patient it gets easier and easier to take on the next complex young adult. I love being a Med-Peds physician and look forward to the challenges of each new day.
Exposure of Medical Students to Med-Peds

By: Allen Friedland, MD, FACP, FAAP
President MPPDA
Program Director, Med-Peds Program,
Christiana Care Health System

The Med-Peds Program Directors Association (MPPDA) has a number of initiatives with the National Med-Peds Residency Association (NMPRA), American Academy of Pediatrics (AAP) and American College of Physicians (ACP) to highlight med-peds as a career choice to medical students.

In 2003, the Association of American Medical Colleges (AAMC) with MPPDA surveyed U.S. medical students who applied to at least one med-peds program. From this survey, it was clear that the majority of students apply to med-peds residencies when there is an advisor at their institution that is knowledgeable about the field; most often this is a med-peds physician. Most students applying to med-peds also state that their medical school had an affiliated med-peds program.

Currently there are approximately 4000 graduates of med-peds programs. There is no accurate database of med-peds residency graduates listing where they practice and if they work with medical students. Fifty percent of medical schools do not have a med-peds program, and half of all med-peds programs are located only in 5 states (NY, MI, OH, IL, and NJ). When one overlays the map of medical schools with the map of med-peds programs, there is a lot of distance between the two groups. This makes recruiting a tough proposition especially when cost is an issue.

In order to increase the size of the applicant pool, we have worked on a number of projects. By using the web and by building a network of practitioners and directors from all over the country we are better able to advise students about residency choices and offer mentors in our field. We welcome you to e-mail us with potential med-peds mentors at your institution who are not considered faculty at your institution.

The National Med-Peds Residency Association at [www.med-peds.org](http://www.med-peds.org) has a very popular web site for medical students and residents alike. We have been working with your organization closely, and you have designed web content very useful to applicants:

- Ask a Med-Peds Program Director: allows us to tailor responses to specific medical students’ questions
- Med-Peds Student Guide: 17 page PDF comprehensive document that is updated every other year by MPPDA.
- Invite a Med-Peds Speaker: interested people can invite med-peds speakers on a variety of topics
- Med-Peds Pamphlet: updated each year with fast facts

Coming soon: Video and audio clips of directors, practitioners and residents answering questions about Med-Peds.

The American Academy of Pediatrics at [www.aap.org](http://www.aap.org) has sections for students, residents, and med-peds trainees and practitioners. Items on their web site that are of interest for medical students are:

- Med-Peds 101: [www.aap.org/sections/med-peds/101.htm](http://www.aap.org/sections/med-peds/101.htm). This document discusses how it is possible to learn both disciplines and derive professional satisfaction while doing both.
- Pediatrics 101 has facts about Med-Peds and the web-site is [www.aap.org/profed/career.htm](http://www.aap.org/profed/career.htm).

Other recruiting items:
- Speakers Kit: This kit now contains a 50-slide Power Point presentation with a full set of speaker’s notes and referenced tables. This kit contains information about internal medicine and pediatrics, the board guidelines, curriculum details, job search and fellowship training. This can be modified to the need of the participants and presenter(s). Since the schools are generally far away from programs and program directors, we will utilize practitioners nearby to the school. These speakers can act as local mentors to the students. This will work well with the NMPRA’s “Request A Speaker” site. (Cont. next page...)
• Med-Peds Elective: Currently there are 20 programs in 11 states offering ambulatory and inpatient representatives with med-peds practitioners in multiple settings.


Over the past 18 months, we have visited 9 Medical Schools that do not have med-peds programs. As described above, these schools have traditionally had few applicants for med-peds residencies. The response from the students with whom we met has been very positive. Approximately 175 students participated in our presentations and we have seen a lot of them apply to our programs over the past year. In addition, we make use of our academic meetings and visit local medical schools at the time of AAP, NMPRA, APPD and APDIM meetings. In spring 2004, we were in New Orleans and had 45 students from Tulane and LSU come to a dinner meeting. This spring we plan to meet with Washington, D.C. area medical students in conjunction with the Program Directors meeting.

Between 2003 and 2004, med-peds had an increase of 39 US graduates (about 10%) match in med-peds with an overall US graduate fill rate of 73%. We anticipate continuing to have about 400 intern spots be offered each year through the match.

Our organization and membership truly appreciates the hard work and leadership your organization has offered to the med-peds community and the med-peds community to be. We hope to continue to contribute excellent housestaff in the future and work closely with your membership and leadership.

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**WATCH FOR THE NEWLY ELECTED NMPRA BOARD MEMBERS-AT-LARGE ANNOUNCEMENT IN THE SPRING 2005 NEWSLETTER**

**HAPPY HOLIDAYS!**

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*Above: Ranya Sweis, M.D., Pres.-elect, and Heather Toth, M.D., President, enjoy Bacar’s appetizers at the NMPRA Annual Meeting.*

*NMPRA Board Members @ Bacar: Restaurant in SF: (From L. —> R.): Drs. Tommy Cross, David Kaellner, Heather Toth, Lari Porter, Ranya Sweis, Sarah Caruthers, & Emery Cleng*
Visit To Medical Students @ UCSF

By Heather Toth, M.D., NMPRA President

On October 11th, 2004, Representatives from NMPRA, Med-Peds Program Directors Association (MPPDA), and AAP Med-Peds Section visited medical students at the Parnassus Campus of the University of California, San Francisco Medical Center. Students eagerly gathered over the lunch hour to learn more about Med-Peds from Dr. Allen Friedland (President, MPPDA), Dr. Sarah Corathers (NMPRA Member-At-Large and Vice-President, AAP Med-Peds Resident Section), Dr. Scott Holliday (AAP Med-Peds Section Executive Committee) and Dr. Heather Toth (President, NMPRA). While enjoying pizza, students had the opportunity to ask questions as they consider Med-Peds for residency and a future career choice. If you know of any medical schools that would appreciate a visit from Med-Peds residents or practicing physicians, please visit our website at www.medpeds.org and click on the “Invite a Med-Peds Speaker” link under the Especially for Medical Students section.

Above: UCSF Students who attended the Introduction to Med-Peds Meeting

Above: From Left to right: Dr. Friedland, President MPPDA, Dr. Scott Holliday, AAP-Med-Peds Section, Dr. Sarah Corathers, NMPRA Member at Large, and Dr. Heather Toth, President of NMPRA.

Above: Dr. Blount and his wife enjoy themselves at the NMPRA Dinner after sharing his medical experience on the Indian Reservation.

Continued from page 1...

Dr. Tommy Cross, NMPRA Non-Resident Advisor, spoke about Med-Peds Combined Fellowships, and the Fellowship Guide that is found at www.medpeds.org. Dr. David Kaelber, NMPRA Board Advisor, gave an update on the www.MedPeds.org Jobs Website with a reminder that NMPRA holds the largest Med-Peds Job Postings in the world! Our final guest was Dr. Blount who visited us from the Indian Health Service. He showed amazing photos along with clinical histories and everyday life as a Med-Peds physician on the Indian Reservation.

Overall, we enjoyed an evening of educational talks, networking, and socializing in a fabulous setting with excellent food. Many residents took advantage of the NMPRA discounted airline and hotel accommodations to attend the meeting. We are already looking forward to next year’s meeting in Washington D.C on Saturday, Oct. 8th 2005!
References (from page 3)

We thank our NMPRA Member Programs!

Albany Medical Center Lantham, NY
Albert Einstein Medical Center Philadelphia, PA
Baylor College of Medicine Houston, TX
Baystate Medical Center Springfield, MA
Case Western Reserve University (MetroHealth) Cleveland, OH
Christiana Care Health Services Newark, DE
Creighton University Omaha, NE
Duke University Medical Center Durham, NC
East Carolina University Greenville, NC
Geisinger Medical Center Danville, PA
Georgetown University Washington DC, DC
Grand Rapids Medical Education & Research Center/ MSU Grand Rapids, MI
Greenville Hospital System Greenville, SC
Harvard University Boston, MA
Indiana University School of Medicine, Indianapolis, IN
Loma Linda University Loma Linda, CA
Louisiana State University Medical Center New Orleans, LA
Loyola University, Maywood, IL
Maine Medical Center Internal Medicine-Pediatrics Residency Portland, ME
Marshall University Joan C. Edwards School of Medicine Huntington, WV
Marshfield Clinic- St. Joseph’s Hospital Marshfield, WI
Medical College of Wisconsin Milwaukee, WI
Michigan State University Kalamazoo, MI
Mount Sinai NYC New York, NY
Newark Beth Israel Medical Center Program Newark, NJ
Ohio State University Columbus, OH
Orlando Regional Medical Center Orlando, FL
Phoenix Hospitals Program Phoenix, AZ
Rhode Island Hospital Providence, RI
Rush-St. Luke's Medical Center Chicago, IL
St. Louis University St. Louis, MO
Staten Island University Staten Island, NY
Summa Health System Akron, OH
SUNY at Buffalo Buffalo, NY
Tulane University New Orleans, LA
University of Alabama at Birmingham Birmingham, AL
University of California-Los Angeles Los Angeles, CA
University of Cincinnati Cincinnati, OH
University of Connecticut Farmington, CT
University of Illinois College of Medicine at Peoria Peoria, IL
University of Kentucky Lexington, KY
University of Massachusetts Worcester, MA
University of Miami Miami, FL
University of Michigan Ann Arbor, MI
University of Minnesota Minneapolis, MN
University of North Carolina Chapel Hill, NC
University of Pennsylvania Philadelphia Health System Philadelphia, PA
University of Rochester Rochester, NY
University of South Florida, St. Petersburg, FL
University of Southern California Los Angeles, CA
University of Texas at Houston, Houston, TX
William Beaumont Royal Oak, MI

The above programs have renewed their memberships for 2004-2005 (as of 11/15/04).

Has your program renewed?

To view the latest active program list, go to www.medpeds.org/Membership/ResidencyDir.asp
To renew your program’s membership, go to www.medpeds.org/Membership/Membership_Renew.htm