



# Pedi Points

www.spaponline.org

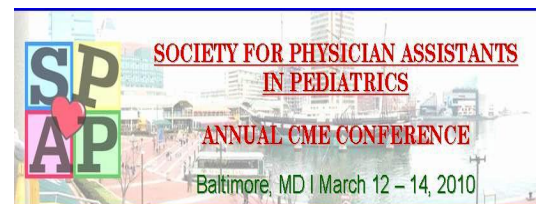
January 2010

Society for  
Physician  
Assistants in  
Pediatrics

## SPAP Conference 2010

The 1st Annual Society for Physician Assistants in Pediatrics Pediatric CME Conference is almost here! We are excited to pursue our first ever independent CME conference. We will be offering more than 20 CME/CEU lecture hours in addition to 4 two-hour hands-on workshops. The conference is scheduled for Friday, March 12<sup>th</sup> to Sunday, March 14<sup>th</sup>, 2010 at the Hyatt Regency on the Inner Harbor in Baltimore, Maryland.

SPAP's CME conference is a series of seminars focusing on the continuum of care for children of all ages with a variety of common medical problems. We will provide lectures and discussion forums on a variety of highly relevant topics such as orthopedics, surgical emergencies, cardiac disease, nutrition, and much more. The speaker faculty includes PAs, NPs, and MDs recognized as experts in their fields. Medical education is divided into various formats designed to maximize the learning experience for all attendees regardless of their specialty. We encourage attendees that not only practice in general pedi-



Hyatt Regency Baltimore on the Inner Harbor

Reserve your room by 2/20/2010 to take advantage of the SPAP discounted rate!!

atric or subspecialties to attend, but also those who practice family or emergency medicine in which a large portion of their patient population includes the pediatric age group. Please join us for our inaugural Pediatric CME Conference this spring in Baltimore!

You can learn more at [www.SPAPconference.org](http://www.SPAPconference.org)

### Special points of interest:

- President's Post
- Mitochondrial disease in Autism
- Pediatrics in Healthcare Reform

## Meet the BOD!

Tami Dolphens is the immediate past president of SPAP. She lives in Omaha, NE with her family and practices Pediatric Cardiology at the University of Nebraska Medical Center and Children's Hospital in Omaha. She has been with the same group of cardiologists for over 5 years and keeps herself busy with both inpatients, outpatients, and exercise stress testing. She also spends much of her time seeing children in the Preventive Cardiology Clinic and working in the HEROES Clinic or Weight-related Illness



Clinic at Children's Hospital. Her passion is preventive cardiology where you can really get to know the children and families and have an impact on their overall health for the future.



Rebecca "Joey" Soward  
PA-C

President

**"Medicaid rates average just 66 percent of Medicare rates for primary care services and are simply insufficient to cover all costs."**

## President's Post

Happy 2010 to all! It is time again to introduce the latest version of *Pedi Points*, the official newsletter of the Society for Physician Assistants in Pediatrics. The new format will focus more on member and organizational interests. Features will include information about members, student activities, subspecialty pearls, and the familiar update on "what's new" in pediatric medicine. I encourage ANY and ALL of you to send reports, information, and stories about what goes on during your life as a Physician Assistant caring for children.

Maybe you know of a PA working to increase access to care for pediatric patients. Maybe your school is hosting activities geared towards helping children (or those who care for them!). Maybe you just want to say "Hi" to the members of SPAP. Whatever the story, please send it along!

I also wish to say "Thank You" to all of our members for remaining dedicated to this organization. SPAP has undergone some significant changes this year, and I would ask for your

continued patience and support as the Board of Directors strives to take our organization from good to GREAT! Don't forget to check out our first ever Pediatric CME conference in Baltimore, MD this March. Information is available on pg. 1 I hope to see you all there, along with many of your friends and colleagues.

—Joey

## Healthcare Reform in Pediatrics

Yesterday (1/12/10) the American Academy of Pediatrics released the following statement regarding the disparity between payments to providers from the Medicare and Medicaid systems. As more than 20 million children are covered by Medicaid and State CHIP plans, this disparity can ultimately affect our ability to care for our pediatric patients. The full statement from AAP President Dr. Judith S. Palfrey

can be found at <http://www.aap.org/pressroom/medicaid.pdf>

"The American Academy of Pediatrics—a non-profit professional organization of 60,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents and young adults—is pleased to

join 117 consumer, physician and patient advocacy groups to urge

Congress to bring Medicaid reimbursement rates for primary care in line with comparable Medicare rates in the final health reform legislation. The Academy's highest priorities in health reform continue to be coverage for all children in the United States, age-appropriate benefits in a medical home, and appropriate payment rates and

Workforce improvements to allow access to covered services. Medicaid rates average just 66 percent of Medicare rates for primary care services and are simply insufficient to cover all costs. Children lose if Congress ultimately fails to address reimbursement disparities. Pediatricians and other health care providers need to be focused on treating and caring for our children, not worried about how to pay their bills. The Academy strongly believes that appropriate pay-

ment rates are needed to provide real access to care. The Academy supports House provisions to establish parity between payment for primary care codes in Medicare and Medicaid. There is solid evidence that appropriate payment of providers

will result in children having better access to comprehensive health services in a medical home. We are hopeful that as the health reform legislation evolves into a final, unified bill in the weeks ahead, our nation's

lawmakers will continue to prioritize coverage, benefits in a medical home and access through appropriate payment rates for child health services. Children cannot become a casualty of compromise. We must continue to make children's health needs our nation's highest priority."

## Member of the Month Charlene Morris PA-C

When asked by Advance for Physician Assistants to recall the evolution of the Physician Assistant profession, SPAP CME Chair Charlene Morris had this to say, "After three decades of practice as a PA, the changes I have observed are both remarkable and heartening. My career choice was based on a leap of faith; at the time, no one knew if the PA profession would succeed. In the 1970s we were as driven as students today but, perhaps, not as academically prepared. Computers were used rarely and then only for select course projects such as biostatistics. Today, jobs are abundant and pay extremely well. PAs are trained

in master's and PhD programs. Although employed in more specialty practices, PAs still maintain the ability to change practice setting or locale if the opportunity arises. PAs run their own practices and companies; find employment worldwide; and are commissioned officers in all branches of the military. Furthermore, PAs participate and exact change in government affairs. Truly, PAs have become a powerful and productive part of the health care workforce PA students: I'd like to share with you the "three Vs credo" I developed and follow.

Value: PAs offer worth beyond aug-

menting a practice. Our abilities, training and compassion equate to high-quality patient access and care.

Visibility: For professional strength, PAs must be well-known and respected. Become involved in your community, state or even internationally. Write, mentor, speak and volunteer--explore talents yet to be discovered.

Viability: With burgeoning numbers of practicing PAs, the public should know who we are and understand what we do. Changes to health care



From <http://physician-assistant.advanceweb.com/Article/Ask-the-Editorial-Board-4.aspx>

in the 21st century must include PAs. Indeed, PAs will survive, thrive and drive the future of medical practice.

## From AAPA President-Elect Patrick Killeen PA-C

The following article was shared with SPAP by AAPA President-Elect (and former SPAP President!) Patrick Killeen:

### Mitochondrial Oxidative Phosphorylation (OXPHOS) Dysfunction:

#### A newly emerging category of Autistic Spectrum Disorder

#### Information for Primary Care Physicians

December 2009

Mitochondrial disease is currently greatly under-recognized. Disorders of energy metabolism are thought to affect roughly 1:4000 people and recent statistics suggest it might be as high as 1:1000 people.

Mitochondrial Oxidative Phosphorylation (known as OXPHOS) is a disorder of energy metabolism and is emerging as a new category of autistic spectrum disorder (ASD) per Dr. Natowicz, a geneticist, at the Cleveland Clinic. Dr. John Shoffner, one of the leading diagnosticians in the field of mitochondrial medicine has said, "When you consider the frequency of autism in the general population, and you take 20% of that as a rough estimate of the proportion of children that may have these

biochemical markers (of mitochondrial dysfunction), it begins to raise some interesting questions about how to approach diagnosis, mechanism of disease, and patient management in what could turn out to be significant numbers of individuals." (from "Mitochondrial Dysfunction May Play a Role in Autism Spectrum Disorders Etiology")

"Recently, Oliveira and colleagues published a population-based survey of school age children with ASD. They found that 7% of those who were fully tested met criteria for definite mitochondrial respiratory chain disorders and were also clinically indistinguishable from other children with ASD." (from "Mitochondrial Disease in Autism Spectrum Disorder Patients: A Cohort Analysis")

For thousands of children that have been diagnosed ASD, this could mean new treatment options. Although OXPHOS is not thought to be curable at this time, children that have OXPHOS symptoms can be helped and/or managed by taking a "mito. cocktail". If OXPHOS children can be identified sooner, medications and supplements would then be made available to a whole group of children (ASD and non-ASD children with atypical or unusual clinical

presentations) that may currently be getting no biochemical treatment or metabolic support.

There is currently very little knowledge of these disorders in the general medical community as they were once thought to be rare. Knowing that this is no longer true, the top pediatric specialists in the field of mitochondrial medicine are now asking for early screening to occur by primary care physicians. The road to a diagnosis is often a long and difficult one for many families as the presentation of these disorders is often varied and complex. "It is hoped that greater familiarity among primary care physicians with the manifestations of mitochondrial disease will facilitate proper diagnosis and management of this growing cohort of pediatric patients across all specialties" (from Mitochondrial Disease: A Practical Approach for Primary Care Physicians, [www.mitosoc.org](http://www.mitosoc.org))

Mitochondrial disease should be considered in any patient with unexplained multi-system involvement and an unusual clinical presentation or regressive autism. Fatigue is a hallmark symptom.

**"Mitochondrial Oxidative Phosphorylation...is emerging as a new category of autistic spectrum disorder..."**



...Continued on page 4

## Continued from page 3

"The parts of the body that need the most energy, such as the heart, brain, muscles and lungs, are the most affected by mitochondrial disease. The affected individual may have strokes, seizures, gastro-intestinal problems, (reflux, severe vomiting, constipation, diarrhea), swallowing difficulties, failure to thrive, blindness, deafness, heart and kidney problems, muscle failure, heat/cold intolerance, diabetes, lactic acidosis, immune system problems and liver disease. An undiagnosed child may exhibit feeding problems, be unable to fight typical childhood infections or have repeated infections and fevers without a known origin. A "red flag" for mitochondrial disease is when a child has more than 3 organ systems with problems or when a "typical" disease exhibits atypical qualities." (from www.umdf.org)

The Mitochondrial Medicine Society lists the following as **red flag symptoms** (from www.mitosoc.org):

Additional possible symptoms can be found at:

<http://www.umdf.org/site/c.dnJEKLNqFoG/b.3042177/k.D869/fontfont.htm>

<http://www.umdf.org/site/c.dnJEKLNqFoG/b.3042207/k.C54C/>

[Symptoms of Mitochondrial Cytopathies.htm](http://www.umdf.org/site/c.dnJEKLNqFoG/b.3042207/k.C54C/Symptoms_of_Mitochondrial_Cytopathies.htm)

For more information visit:

[www.mitosoc.org](http://www.mitosoc.org)

The Mitochondrial Medicine Society lists the following as **Findings Suggestive of Mitochondrial Dysfunction** (from www.mitosoc.org):

### Neurologic

1. Cerebral stroke-like lesions in a nonvascular pattern
2. Basal ganglia disease
3. Encephalopathy, recurrent or with receiving valproate
4. Neurodegeneration
5. Epilepsia Partialis Continua
6. Myoclonus
7. Ataxia
8. MRI findings consistent with Leigh disease
9. Characteristic MRS peaks
  - a. Lactate peak at 1.3 ppm TE at 35 and 135
  - b. Succinate peak at 2.4 ppm

### Cardiovascular

1. Hypertrophic cardiomyopathy with rhythm disturbance
2. Unexplained heart block in a child
3. Cardiomyopathy with lactic acidosis (> 5 mM)
4. Dilated cardiomyopathy with muscle weakness
5. Wolff-Parkinson-White arrhythmia

### Ophthalmologic

1. Retinal degeneration
2. Ophthalmoplegia/paresis
3. Fluctuating, dysconjugate eye movements
4. Ptosis
5. Sudden- or insidious-onset optic neuropathy/atrophy

### Gastroenterologic

1. Unexplained or valproate induced liver failure
2. Severe dysmotility
3. Pseudo-obstructive episodes

### Other

1. Exercise intolerance out-of-proportion to weakness
2. Delayed waking from general anesthesia
3. Episodes of acute rhabdomyolysis
4. Unexplained hypotonia, failure-to-thrive, and acidosis

The Mitochondrial Medicine Society lists the following as **initial tests** (from www.mitosoc.org):

Metabolic Screening (in all patients)	Metabolic Screening in spinal fluids (for patients with neurologic symptoms)	Characterize Systemic Involvement	Clinical Neurogenetic Evaluation (for those with developmental delays)
<ul style="list-style-type: none"> <li>• Basic Chemistries</li> <li>• Liver enzymes &amp; Ammonia</li> <li>• Complete Blood Count</li> <li>• Creatine Kinase</li> <li>• Blood Lactate, &amp; Pyruvate</li> <li>• Quantitative Plasma Amino Acids</li> <li>• Quantitative Urine Organic Acids</li> <li>• Plasma Acylcarnitine Profile</li> </ul>	<ul style="list-style-type: none"> <li>• Lactate &amp; Pyruvate</li> <li>• Quantitative Amino Acids</li> <li>• Neurotransmitter studies</li> <li>• Routine Studies including glucose, protein, &amp; cell count</li> </ul>	<ul style="list-style-type: none"> <li>• Echocardiogram</li> <li>• Electrocardiogram</li> <li>• Ophthalmic exam</li> <li>• Auditory exam</li> <li>• Brain MRI</li> </ul>	<ul style="list-style-type: none"> <li>• Karyotype</li> <li>• Fragile X testing</li> <li>• Neurology Consult</li> <li>• Genetics Consult</li> </ul>
<p>Negative results have a high false negative rate; If mitochondrial disease is suspected, refer the patient to a mitochondrial disease center</p>			

## Findings Suggestive of Mitochondrial Dysfunction

### Amino Acids (plasma/CSF)

- a. Elevated alanine
- b. Alanine/Lysine ratio > 3
- c. Elevated glycine, proline, tyrosine or sarcosine

### Organic Acids (urine)

- a. TCA intermediates
- b. Ethylmalonate
- c. 3-methylglutaconate
- d. Dicarboxylic Acids

### Acylcarnitines (plasma)

- a. Low free carnitine
- b. Elevated acyl:free carnitine ratio
- c. Elevations suggesting disrupted fatty acid oxidation