



President:
William Storo MD

Vice President:
Steve Chapman, MD

Secretary/Treasurer:
Jennifer Lipfert, MD

Members At Large:
Tom Bisset, MD
Ashley Lamb, MD
Keith Loud, MD
Ashley Miller, MD
Kevin Petit, MD
Erik Schessler, MD
Gail Schumann, MD

Immediate Past
President:
Greg Prazar, MD

Secretary
Elizabeth Brown, MD
Treasurer
Tessa LaFortune-
Greenberg, MD

Executive Director:
Catrina Watson

GSP Editor:
Andrew J. Schuman
MD

Visit the Granite State
Pediatrician on the
World Wide Web:
<http://www.nhps.org>

New Hampshire's Home Pediatric Nursing Shortage

Keeping a medically complex child at home instead of lodged in a hospital has enormous advantages for the childN --and the whole family as well. This is why Medicaid pays for in-home nursing services for many such children state-wide. Their families need the support of several hours every day of skilled nursing delivered by pediatric Registered Nurses or Licensed Practical Nurses. Otherwise, imagine trying to provide the constant care and supervision that are needed 24/7 for a child with a tracheostomy or daily seizures or an implanted feeding tube.

But what happens when those approved nursing hours aren't filled? This is a problem for many in New Hampshire who can't find or retain qualified nurses to provide specialized pediatric home care. It doesn't matter that the hours come with guaranteed payment: there simply isn't a reliable supply of pediatric home nurses in large enough numbers to go around. One reason for this is that the hourly rate offered by Medicaid has been so low

that skilled nurses go elsewhere to work. Another reason is that the demands of working one-on-one in a home setting without the camaraderie and support that comes from having colleagues close by as in a hospital or office setting causes many wonderful nurses to decline home nursing positions. Sometimes it's a question of whether there is a good "fit" between the family needing services and the nurse available to provide them. Or a child receiving home nursing will be hospitalized with an acute illness and then the nurse looks for a position elsewhere in order to maintain a steady income. Or a superb nurse stays for a time with one family only to be moved on to another with what the nursing agency feels has more urgent needs.

If you have one of these children in your practice you are familiar with the value of highly specialized home-based nursing care for your patient and his or her family. Perhaps you know how difficult it is in some parts of our state for families to fill their allotted hours with a nurse who provides high-quality care and is easy to work with. This issue has come up before the Governor's Commission on Medicaid Care Management, thanks to the ad-

(Continued on page 2)



(Continued from page 1)

vocacy of several family members who have been speaking out at public meetings and contacting state officials to let them know about the home nursing shortage. In response, the Department of Health and Human Services has been hard at work to change things. Families are being contacted directly by the Department to work on short- and medium-term solutions and under Senate Bill 439, the state is developing a long-term plan to develop the nursing workforce. Stay tuned for further updates on how this committee does to remedy a problem we'd all like to see promptly solved.

- Wendy Gladstone MD

When a Child Loses a Parent To a Drug Overdose

Last year, over 400 people in New Hampshire died as a result of a drug overdose, many of them parents. How can we respond when such a tragedy affects our patients?

An immediate contact with the family to express your condolences is the best way to begin. Remaining family members will appreciate the offer to meet to discuss how to talk with children about what happened and how to support the family through the immediate and long-term grieving. A helpful place to begin is to review how children understand what death is depending on their developmental level:

Very young children are most aware of the separation from someone they depend on and disruption of their routines. Extra physical affection, maintenance of their routines and avoiding other separations are ways to help them.

Preschoolers need all of these supports as well as clear information that when someone dies they are not ever coming back, that death is different from going to sleep or being away temporarily, as on a trip. Regression and voicing feelings during play are common ways children in this age group express their grief. They need to know that surviving family members are healthy and that there will always be people who love them and will take care of them. School-aged children additionally need help finding words to express their feelings and many need some time to be ready to do so. They commonly feel that death hap-

(Continued on page 3)

Marijuana and Teens



With the advent of legal medical marijuana sweeping the nation, physicians are raising concerns about the use of marijuana by teens, especially the effects on their developing brains. Most of what I want to discuss here

concerns teens specifically, not young adults over the age of 20.

Colorado, which has completely legalized pot, may well be the poster state for the effect of marijuana on teens. Despite age restrictions similar to alcohol sales, we know that once something is legal and easily available, teens will also have access. Studies have shown that in states with legalized medical marijuana, one-third of teens get their pot from other people's prescription supply. Here in New England, medical marijuana is available and, as with narcotic pills in home medicine cabinets, it will get into the hands of teens looking to experiment.

So why is that of concern?

People using will become addicted, which doesn't sound bad when you look at the addiction rate of some narcotics being in the 90 percent range. But studies looking at adolescent use find an addiction rate of 17 percent to as high as 50 percent in regular, daily users. This translates into one out of six teens who use marijuana will become addicted. Users can suffer physical dependence and have withdrawal symptoms that last for weeks after use.

Perhaps this is due to today's marijuana being purer and more potent than it was in the 1970s. Also, 88 percent of all 12- to 17-year-olds in treatment for substance abuse use marijuana regularly.

Like cigarette smoke, marijuana smoke can also damage lungs, but even more concerning are the effects on the developing teen brain. In teens who regularly use marijuana before the age of 18, there is an eight-point drop in IQ that persists even after they quit smoking. Other changes in the brain affect motivation, attention and memory. No one

(Continued on page 3)

(Continued from page 2)

would willingly sign up to have attention problems, but using marijuana is setting a young person up to have these issues. This will definitely have an effect on school work and future college and workforce success. There is also the concern that pot use will trigger psychosis.

While data on psychosis are still being studied, some recent findings have shown as much as a 50 percent risk of psychosis in users compared with non-users. There have also been links found between heavy marijuana use in the teen years and a threefold increase in the risk of developing schizophrenia. At the very least, marijuana use contributes to paranoia, anxiety and irritability. Of course, some of the studies could be pointing out that people with mental health issues may be more likely to become involved with marijuana use, so more research is needed to see whether the association is real. But while the studies are ongoing, is it worth the risk of developing a mental illness? I think most of us wouldn't want to chance it.

Another concern is that marijuana use will lead to another form of impaired driving. Even when pot is legal, the consequences for impaired driving are not. It is a criminal offense.

Those are just a few of the evolving concerns and findings in regard to the use of marijuana in teens that we all need to consider as legal marijuana becomes the norm. While there are valid medical uses for marijuana, with more being found every day, it is a drug and needs to be treated as such. As with any other potent medication in the family medicine cabinet, it must be secured from our children and teens and used in a responsible and correct manner.

For more information, parents can turn to the American Academy of Pediatrics website and read the policy statement on marijuana use in teens. The AAP stands against the legalization of marijuana, opposes medical marijuana outside of the FDA regulatory process and outlines safety concerns for teens.

- Pat Edwards MD

(Continued from page 2)

pened because of something they did, or didn't, do or say. They need reassurance that they were not the cause of someone's death. They also need to hear repeatedly that their dead parent loved them but that death happens despite love. When children express the misunderstanding or wish that someone who has died will be coming back, it helps to gently explain that death is permanent but that our memories of those who are dead are permanent too. Making a scrapbook or a box of meaningful objects to help memorialize a lost parent is an age-appropriate way to express grief.

Adolescents are becoming capable of understanding abstract ideas like the meaning and purpose of life and they may have more complex feelings about guilt over what happened or how they related to the deceased parent. They will turn to peers for support in addition to that found at home and may be more vocal about their anger and distress. They may find more abstract ways to express grief and remember a parent through music, writing or other arts.

All children need to have the ongoing love and understanding of adults who can reassure them that they are loved and will be taken care of.

At the same time that children need extra support and expressions of love and caring, those around them are dealing with their own feelings of grief. Children of all ages notice when surviving family members are affected. You can encourage appropriate expressions of feeling as well as healthy coping behaviors. This way, children learn that life goes on and that it's possible to manage despite one's grief. Your community's local hospice group, Family Resource Center or mental health community can provide additional support for family members needing the extra help.

How families choose to explain a drug overdose to a child is a very individual decision. Your input may help adults find words that are honest and clear about the possible consequences of drug use and abuse while also being non-judgmental. This is not a time that children can cope with the additional stress of hearing negative things said about someone they have loved who is now lost. "Daddy was using something called 'drugs' to feel better. This was not medicine he got from a doctor. Taking drugs that way can be dangerous. The drugs can make a person sick or can even make them die. That's what happened to Daddy. He didn't know this was going to happen but it did." That is enough information to start with for younger children. Later, family members can build on that understanding to encourage children to avoid drug use themselves.

Unfortunately, children who have experienced substance abuse by a family member are at higher risk for drug involvement themselves. Rather than feel that this is inevitable, family members can be encouraged to use this knowledge preventatively. There are protective factors that have been shown to help children avoid drug use. These include strong parental support and supervision, good communication skills, positive peer relationships and self-efficacy. When children are seen to have difficulty with aggression,

(Continued on page 5)



CHaD Welcomes New Providers

Dr. Steven Ringer has joined CHaD as the section chief of Neonatology. Dr. Ringer earned his MD and PhD at Case Western Reserve University and completed his residency in pediatrics at Rainbow Babies and Children's Hospital in Cleveland. He followed with a fellowship in Neonatology at the Beth Israel Deaconess Medical Center and also completed a Medical Ethics Fellowship at Harvard Medical School in 2007. Dr. Ringer has spent the majority of his career with Harvard Medical School working as a Neonatologist at the surrounding children's hospitals including Children's Hospital Boston, Massachusetts General Hospital, North Shore Children's Hospital and Brigham and Women's Hospital. Dr. Ringer was the chief of Neonatology at Brigham and Women's Hospital from 2004-2012, and in 2013 he took on the broader role of Director of Labor and Delivery Newborn Services.

Dr. Ringer has served on numerous regional, national, and international committees. He has had a long-term commitment to improving neonatal resuscitation practices, and since 2013 has served as the Co-Chair of the AAP's Newborn Resuscitation Program Steering Committee.

We are thrilled that Dr. Ringer has joined CHaD! He will take a leading role in developing our regional programs. In addition to leading the section of Neonatology, Dr. Ringer will practice at CHaD's intensive care nursery in Lebanon.

Dr. Ringer is in CHaD's section of Neonatology – you can reach him at (603) 653-6063.

Save the Date!

Shield Our Children from Harm Professional Conference:
Prevention and Early Intervention
April 19, 2016 – Dartmouth-Hitchcock Medical Center, Lebanon, NH

Join us for the thirteenth annual Shield Our Children conference, an invaluable resource in detection of hidden abuses before they become recurrent, investigation of crimes, and laying the groundwork for prevention. Faculty include:

Dr. Lynn Sheets, Keynote Speaker, MD, FAAP – Medical Director, Child Protection Services, Children's Hospital of Wisconsin
Tanisha Knighton, PHD – Consultant, National Criminal Justice Training Center
Hope Love, BSW, ADC – Lund Regional Partnership Program Clinician
David Melnick, LICSW – Director of Outpatient Services, Northeastern Family Institute Vermont.

Target Audience: Professionals in healthcare, child protection, mental health, law enforcement, and others who care for children and families.

April 27, 2016 8:00 - 9:00AM Pediatric Grand Rounds: The Ethics of Transgender Treatments for Adolescents - Dartmouth-Hitchcock Medical Center, Auditorium E, Lebanon, NH

Featuring internationally prominent speaker:

Dr. Norman P. Spack - Associate Clinical Professor of Pediatrics, Harvard Medical School and Associate Physician in Medicine; Emeritus, Gender Management Service, Boston Children's Hospital, Boston, MA

When to suspect Sleep Apnea!



The prevalence of sleep apnea in children is estimated to be 1.2-5.7%, but in certain groups, is much

higher. Recognition of sleep apnea is important in children, as it is associated with behavioral, neurocognitive, learning and cardiovascular problems. Importantly, these adverse effects are reversible with treatment of sleep apnea such as adenotonsillectomy or positive airway pressure therapy. Sleep apnea can be considered as either obstructive or central in nature, and different underlying factors may predispose some children toward each type.

Obstructive sleep apnea (OSA) is due to upper airway collapse during sleep despite persistent respiratory effort. Sleep apnea in children is much more commonly obstructive than central. In otherwise healthy pre-school age children, this obstruction is frequently related to adenotonsillar hypertrophy, and responds well to treatment with adenotonsillectomy. In addition to possible adenotonsillar hypertrophy, children with other underlying disorders may be at increased risk for OSA through mechanisms including airway narrowing, other causes of airway obstruction

(Continued on page 5)

(Continued from page 4)

and decreased airway tone. Examples of disorders associated with airway narrowing include Apert syndrome or Treacher-Collins syndrome. Macroglossia, seen in conditions such as Beckwith-Wiedemann, or glossoptosis, seen in Pierre Robin sequence, may also contribute to obstruction. Children with Down syndrome are well known to be at increased risk for OSA, and this is likely due to a combination of low airway tone, airway narrowing (due to mid-face hypoplasia) and obstruction related to relative macroglossia. An additional group at high risk is children with mucopolysaccharidoses, due to deposition of glycosaminoglycans obstructing the airway. In general, there should be a high suspicion of obstructive sleep apnea in all children with craniofacial abnormalities, particularly those associated with mid-face hypoplasia or retrognathia/micrognathia. Treatment of OSA in these populations must be tailored to the underlying disorder. Standard treatments such as adenotonsillectomy or positive airway pressure therapy may be effective in some children, however some disorders may respond well to surgical and orthodontic procedures that lead to increased airway size. Examples of this include rapid mandibular expansion, palate expansion or mandibular distraction osteogenesis. In certain cases, tracheostomy may be necessary to treat the OSA.

Central sleep apnea (CSA) occurs when there is an absence of respiratory effort, but no airway obstruction. This may be due to a central nervous system problem, or due to muscular weakness affecting the diaphragm and other respiratory muscles. Central nervous system control of respiration is mediated through the dorsal respiratory group (located in the medulla) and ventral respiratory group (extending from the medulla to the first cervical segment of spinal cord). Any injury in this area can therefore disrupt respiratory control and result in CSA. Arnold-Chiari malformations are a relatively common cause of this, due to impingement of the medulla. Children found to have type 1 Arnold-Chiari malformations may present with headaches, but are also at risk for central sleep apnea, and should be screened for related symptoms such as morning headaches, unrefreshing sleep or daytime hypersomnolence. Children with myelomeningocele are at risk for CSA related to type 2 Arnold-Chiari malformation. Children with myelomeningocele also appear to be at an

(Continued on page 6)

(Continued from page 3)

poor self-control or school difficulties, early intervention with praise for better behavior, specific attention to learning issues and professional assistance as needed can be life-altering.

Don't forget the follow-up. Your ongoing relationship with affected children will provide opportunities to check in with them and family members to ask: are they feeling well? Sleeping and eating ok? Able to attend school (or day care) and enjoy their friends? You might also ask how your patients think other members of the family are doing. In speaking alone with caregivers, you can ask if any behavior issues have come up that they might need help with. And how are they managing with their own feelings? If the family has no appointments that are happening anyway within a few weeks, it would be a good idea to call just to see how things are going. Anniversaries of important dates like the deceased parent's birthday (if you know it), Mother's or Father's Day, other major holidays and the date of the parent's death can be times of particular difficulty. A call from a concerned professional can be especially comforting then.

Good resources on these topics can be found at your local hospice, your local Family Resource Center and the following websites:

The American Academy of Pediatrics www.AAP.org

The AAP resource HealthyChildren.org, particularly <https://www.healthychildren.org/English/healthy-living/emotional-wellness/Building-Resilience/Pages/How-Children-Understand-Death-What-You-Should-Say.aspx>

The National Institute on Drug Abuse <https://www.drugabuse.gov/>

The Centers for Disease Control <http://www.cdc.gov/drugoverdose/index.html>

The American Academy of Child and Adolescent Psychiatry: http://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Grief-008.aspx

The Dougy Center <http://www.dougy.org/grief-resources/how-to-help-a-grieving-child/>

- Wendy Gladstone, MD

(Continued from page 5)

increased risk for OSA as well, thought to be related to impaired central nervous system control of airway musculature. Children with achondroplasia have a similar high risk of CSA due to brainstem compression from foramen magnum bony stenosis, and are at high risk for OSA as well due to mid-face hypoplasia. Children with muscular dystrophy syndromes are at high risk for CSA, OSA and sleep-related hypoventilation. This is due to underlying muscle weakness that affects both respiratory muscles, as well as airway musculature. The onset of apnea is dependent upon the underlying dystrophy, with some children presenting with apnea in infancy (i.e. spinal muscular atrophy), and others may not develop sleep apnea until teenage years (Duchenne muscular dystrophy). Treatment for children with CSA is generally PAP therapy, however children with brainstem compression (such as an Arnold-Chiari malformation) may benefit from neurosurgical procedures.

In general, there should be a high suspicion of sleep apnea in all children with craniofacial malformations, brainstem abnormalities, or muscular weakness. Given the known benefits of treatment of sleep apnea in children, early recognition of sleep apnea in these at-risk children is likely to result in significant improvements in their long-term health.

**From American Academy of Sleep Medicine
Daniel Combs, MD and Sairam Parthasarathy, MD**