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Moving Forward, Remaining Engaged

As I pen my last President’s column I reflect back over the last two years and think about our future.

The New Jersey Chapter is now recognized as a leading authority for healthcare here in our state as well as nationally. Our Chapter is now recognized by our legislators and our state agencies as the source for information regarding the healthcare needs of infants, children, adolescents and young adults in New Jersey. The media looks to us to provide up to date, clinically proven informative facts for their readers and listeners.

Gun violence continues all around us and thus far in 2018, there have been nearly 50 school shootings. Over the last five years, gun violence has continued to rise and the AAP is leading the charge to put an end to this travesty. Gunfire at schools is just the tip of the iceberg—every year, over 2,700 children and teens are shot and killed, and nearly 14,500 are shot and injured. An estimated 3 million American children are exposed to shootings each year. Witnessing shootings—whether in their schools, their communities or their homes—can have a devastating impact. These children who are exposed to violence, crime, and abuse are more likely to abuse drugs and alcohol, suffer from depression, anxiety, and PTSD, fail or have difficulties in school; and engage in criminal activity. Thousands of individuals in New Jersey marched in unison with millions around the country to end gun violence at The March For Our Lives on Saturday, March 24th.

At the Legislative Conference/AAP Leaders Fly-In during April of this year, the AAP met in Washington DC, descended onto Capitol Hill and asked for: stronger gun laws, opposition against weakened gun laws, $50 million to fund research at the CDC to support a violence prevention program, and continued funding for the National Violent Death Reporting System nationwide.

We need to protect physicians in providing anticipatory guidance to patients about the health hazards of firearms and ensure that children and their families have access to appropriate mental health services, particularly to address the effects of exposure to violence.

The NJAAP, in concert with the national AAP appreciates that children are increasingly diverse with differences that may include: race, ethnicity, language spoken at home, religion, disability and special health care need, socioeconomic status, sexual orientation, gender identity, and other attributes.

During the last two years we have added three committees for our members: Climate Change, Adolescent, and Immigration. This will enable our members to stay abreast of the latest information and continue providing access to high quality healthcare for all of our patients.

As I end this column, I want to thank the National AAP and its leadership for its help over the last several years and recognizing our chapter as an Outstanding Chapter. I want to applaud our Executive Council and my fellow officers for their support and leadership. As I move to “Immediate Past President”, I want to assure each of you that our Chapter is in good hands and that Alan Weller and his officers will continue leading the charge that has been in place over the last several decades.

I want to thank the staff of the NJAAP, for its continuation in providing a strong voice on behalf of children, the adults in their lives and the pediatricians who care for them.

Finally, I want to give a big hug to our CEO, Fran Gallagher, for allowing me to lead our chapter as President during the last two years.

As we move forward, I vow to each of you that I will remain engaged in our chapter. I hope that you will as well.

Jeffrey Bienstock, MD, FAAP
President, NJAAP
NJAAP, in partnership with multiple key stakeholders, has contributed to successfully moving our agenda for children and their pediatricians forward. The NJAAP Agenda for Children advocates for pediatric health care prevention measures that keep children well and maximize optimal health for children with special needs through chronic care management. The conceptual framework, authored by our Government Affairs Committee, chaired by Alan Weller, MD, MPH, FAAP and Steve Rice, MD, MPH, PhD, FAAP and adopted by the Executive Council, guides the Chapter’s commitment to increasing children’s access to high quality pediatric health care and supporting the pediatric professional caring for them.

**Vision + Commitment = Fruition**

A decade long commitment to the vision of a statewide system of pediatric preventative mental health services has begun yielding tangible and sustainable results. This vision forged by a public and private partnership committed to developing, piloting and evaluating an innovative preventative system of pediatric mental, behavioral, and emotional health care linked to pediatric medical homes statewide, has led to the fruition that is the Pediatric Psychiatry Collaborative (PPC) and the data demonstrates its burgeoning impact.

Pediatricians across NJ now have access to regional PPC Hubs staffed with child and adolescent psychiatrists, psychologists, and licensed clinical social workers. The Hubs provide consultations, pediatric psychiatric evaluations in real time, if warranted, care coordination, resources and follow up—AND—it’s only a phone call or a fax away. The PPC supplements the NJ Department of Children and Families’ exceptional Children’s System of Care for mental health crisis intervention, inclusive of 24/7 mobile response services, by aiding pediatricians in their early identification of mental, behavioral and emotional health issues and linking families to the community services and supports required. Over 420 pediatricians are currently registered with the Hubs. Are you? If not, visit www.njaap.org/programs/mental-health/ to learn what services are available to you and your patients at no cost (yes – no cost). The Mental Health Collaborative Grant supporting the PPC is funded by the NJ Department of Children & Families. Hackensack Meridian Health is the lead agency in partnership with other NJ healthcare institutions. NJAAP serves as the strong advocate for its continuation and integration into state services and provides recruitment and educational support components of the program, including an ABP-approved Maintenance of Certification Part 4 Quality Improvement Program.

Also “above the neck”, and too often disconnected from overall children’s health, is preventative oral health care. We are in our 8th year of advocating for improvements in access, payments, and education to link oral health with medical homes. Improvements are on the horizon with new opportunities. Check out www.njaap.org/programs/oral-health/ to learn more. Drs. David Krol and Cathy Ballance have been pediatric champions for preventative oral health along with Juliana David, MEd, NJAAP Oral Health Program Director, dedicating their efforts towards the elimination of caries in children under 5 years.

As you can see by the mental and oral health priorities above—progress requires vision, continuity, endurance, and commitment. In concert with our leadership, our membership and staff and our stakeholders, we embrace these qualities. In terms of leadership, it is an honor and privilege to work with the NJAAP Executive Council (EC) and numerous other pediatricians, who serve in leadership roles on behalf of children and pediatricians. Jeff Bienstock, MD, FAAP, current president and 2018 NJAAP Pediatrician of the Year, has been an involved and effective leader. He has led the EC, our governing body, building on the accomplishments of previous presidents and forging new paths for the Chapter leaders by inviting and engaging all. He has also shown support and appreciation for the NJAAP staff who work diligently towards the NJAAP Mission. During his tenure as President, NJAAP brought home the national AAP Outstanding Chapter Award! On July 1, Dr. Bienstock will assume past president position and pass the torch to our incoming president Alan Weller, MD, MPH, FAAP, who has been engaged as VP, Co-Chair Government Affairs, and Planning Committee Member for Annual Meeting and School Health. With Dr. Weller’s expertise, commitment and passion, we look forward to building on accomplishments and forging new paths. I thank all of the outgoing EC Officers and Councilors and welcome our new members. Speaking on behalf of the NJAAP team, we are looking forward to working together! A special thank you to our staff and consultants who ensure events, programs, and business development continue to improve and provide value to our membership at large. If you’re a member—thank you and please share this publication with a colleague who is a potential future member!

Kind Regards,

Fran Gallagher, MEd

Chief Executive Officer

NJ AAP

New Jersey Pediatrics

Volume 43 • Issue 2 • Summer 2018

Editorial and Advertising Offices

50 Millstone Road

Building 200, Suite 130

East Windsor, NJ 08520

Office: (609) 842 0014

Fax: (609) 842 0015

www.njaap.org

Editors

Puthenmadam Radhakrishnan, MD, MPH, FAAP

Michael Weinstein

Marcela Betzer, MPH

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Jeffrey Bienstock, MD, FAAP

Vice President

Alan Weller, MD, MPH, FAAP

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Jeanne Craft, MD, FAAP

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Indira Amato, MD, FAAP

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Elliot Rubin, MD, FAAP

Medical Director

Steven Kairys, MD, MPH, FAAP

CEO

Fran Gallagher, MEd

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Sonia Varma, MD

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Michael Weinstein

Fran Gallagher, MEd

CEO Column

Chief Executive Officer

NJ AAP

CEO’s Column

NJ AAP
Medical Director’s Column

Steven Kairys, MD, MPH, FAAP
Chairman, Department of Pediatrics
Jersey Shore University Medical Center
Medical Director, K. Hovnanian Children's Hospital

Advocacy for the pediatrician

As NJAAP continues to expand its scope of work to include more focus on adolescent medicine, trauma based care, immigrant health, human trafficking, social determinants of health, evidence based mental health screening and management, evidence based screening protocols for development and autism, general care management and the patient centered medical home, oral health, and chronic disease care with Lupus as the target—it is easy to see that no one pediatric practice can absorb that much new content and easily implement the recommended care delivery changes.

The agenda listed above is important to children and families and will be a large part of the pediatric practice of the near future. The national movement toward population health and proactive management of a cohort of children rather than a focus on the individual needs of the child coming in that day for care will continue to expand. Currently, population health has focused on the elderly and adult cohorts but there are already signs of the changes rapidly filtering into the pediatric world.

Moreover, there is some potential support from the adult community since more and more data are emerging about the huge downside to adult health from Adverse Childhood Experiences and that therefore, money spent on prevention and early detection saves large amount of money.

One of the ongoing issues has been the need for a parallel shift by Medicaid and other insurers to support this expanded view of pediatric care. The current models do not pay for care management, pay little for mental health and trauma based care, disincent care of immigrants and vulnerable populations and do not support the community and school interactions so vital for the adequate care of children, especially vulnerable children.

NJAAP continues to try to make progress. There are ongoing discussions with members of the state executive and legislative branches to return Medicaid to parity with Medicare. There have been a series of discussions with insurers about care management payments and for elimination of the mental health carve outs so that pediatricians are paid for the mental health care that they now provide and the expanded care that we hope they will provide in the future. Moving practices to become NCQA-certified patient centered medical homes will also be a very useful adjunct to improved payment for services.

Stories and letters from you and from families could be extremely helpful in supporting our case with state decision makers. We did receive some stories from pediatricians about the increased care to vulnerable populations that they provided during the two years when Medicaid was paid at Medicare rates. We do receive sporadic letters from families. But because metrics are not easy to develop and the managed care companies are so unwilling to share their true networks and their access to care data, then we will need to develop the data and continue to reach out for supports from multiple sources. This is a crucial next step if we are to sustain current projects and advance in comprehensive care.

Zika virus infection during pregnancy has been linked with fetal loss and devastating birth defects in the newborn. The CDC affirms the need to continue to monitor Zika exposed infants. Our Essential Guidance for Infants with Possible Zika Virus Infection booklet includes testing, evaluation, management and family support information in one convenient resource.
CME Activity

Medical Home for Children and Adolescents with Lupus:

Farzana Nuruzzaman, MD, FACR
Assistant Professor of Clinical Pediatrics
Division of Pediatric Rheumatology
Department of Pediatrics, Stony Brook Children’s
Stony Brook, NY

Dalaya Chefitz, MD, FAAP
Associate Professor of Pediatrics
Chief, Division of General Pediatrics
Department of Pediatrics, Rutgers Robert Wood Johnson Medical School,
New Brunswick, NJ

Julie Cherian, MD, FACR
Assistant Professor of Clinical Pediatrics
Chief, Division of Pediatric Rheumatology
Department of Pediatrics, Stony Brook Children’s
Stony Brook, NY

L. Nandini Moorthy, MD, MS, FAAP
Associate Professor of Pediatrics
Chief, Pediatric Rheumatology Services at RWJUH- BMSCH
Department of Pediatrics, Rutgers Robert Wood Johnson Medical School,
New Brunswick, NJ

Dalya Chefitz, MD

Abstract:

Systemic lupus erythematosus (SLE) is a chronic inflammatory disease characterized by autoantibodies that can affect virtually all organ systems. Childhood-onset SLE (cSLE) is associated with more aggressive clinical course compared to adult-onset disease, frequent renal involvement and leads to more rapid damage accrual if not identified and treated in a timely manner. Children and adolescents with cSLE are on immunosuppressive medications longer than adults with SLE and suffer their undesirable side effects for longer durations. Caring for children and adolescents with cSLE often poses specific challenges for general practitioners. In this article, we will highlight practical aspects of the medical care of children and adolescents with cSLE not limited to vaccinations, anticipatory guidance regarding sun exposure and nutrition, ophthalmology monitoring, and evaluation for depression. This article will highlight the critical role that the general pediatrician plays in ensuring effective communication amongst various specialists involved in the medical home for these patients and families.

Introduction

Systemic lupus erythematosus (SLE) is a chronic fluctuating autoimmune disease affecting virtually all organ systems. Fifteen percent of SLE cases are of childhood onset, with a median age of 11-12 years. Childhood-onset SLE (cSLE) has an estimated annual incidence and prevalence of 2.22/100,000 children and 9.73/100,000 children, respectively. There are higher rates and more severe disease in non-White populations. Children with cSLE often present to primary care physicians with nonspecific symptoms, resulting in delayed diagnoses ranging from 6 months to 5 years. Timely referral to pediatric rheumatology for diagnosis and treatment is critical for appropriate management of these patients. Being a chronic disease, it is ideal for the pediatrician and the pediatric rheumatologist to collaborate in all aspects of the care of cSLE patients.

Diagnosis of SLE

Childhood-onset SLE should be considered in the differential diagnosis of patients with chronically vague symptoms: fever, fatigue, weight loss, joint pain, rashes or mouth sores. The American College of Rheumatology criteria for classifying patients with SLE require 4 of the 11 criteria including: malar rash, discoid rash, photosensitivity, mucosal ulcers, arthritis, pleuritis or pericarditis, renal disorder, neurologic disorder, hematologic disorder, immunologic disorder, and positive antinuclear antibody. The constellation of clinical symptoms and relevant laboratory findings is typically sufficient for the diagnosis of cSLE (consider starting with CBC and differential, complete metabolic profile, blood typing with antibodies and Coombs, ANA and a urine analysis).

Clinical Presentation of Childhood-Onset SLE versus Adult-Onset SLE

Childhood-onset SLE patients have more severe disease than their adult-onset lupus (aSLE) counterparts. Fever, thrombocytopenia, mucocutaneous involvement, urinary casts, seizures, and hemolytic anemia are all more commonly encountered in cSLE than in aSLE. Renal involvement is a major cause of morbidity and mortality in cSLE patients. Children with cSLE accumulate disease damage more quickly than adults. More aggressive disease course leads to increased exposure to immunosuppressive medications over a longer disease duration as long term survival rates improve in cSLE.

Drug Treatments of Lupus

Corticosteroids are first line drugs for treatment of SLE. While effective for disease control, steroids’ multiple side effects limit their prolonged use in the growing child and adolescent. Side effects of steroids include increased risk of infection, weight gain, acne, hirsutism, cushingoid facies, hypertension, diabetes, osteopenia, cataracts, mood changes, depression, and growth failure. Various immunosuppressive agents are used for maintenance therapy in lupus. Cyclophosphamide and mycophenolate are more often used as steroid sparing agents in childhood-onset than in aSLE. Hydroxychloroquine is a long-term immunomodulatory medication that is used to prevent disease flares.
Practical Aspects for the General Pediatrician

Practical Clinical Pearls for General Pediatricians Caring for Children and Adolescents with cSLE

Carefully evaluate patients with cSLE presenting with a fever.

Fever in patients with cSLE often poses a challenge to distinguish between a flare of disease and infection, particularly those patients on immunosuppressive medications (eg, mycophenolate, cyclophosphamide). A thorough history and physical examination should be done to assess for source of infection as these patients are at risk for bacterial, viral and fungal infections. Antimicrobial agents should be judiciously used. Certain immunosuppressive medications may need to be held during times of acute infection; discussion with the pediatric rheumatologist would be helpful in this situation.

Appropriately update immunizations for children with cSLE.

Routine office visits for cSLE patients, particularly those on immunosuppressive medications, should include updating their vaccinations, including administration of the 23-valent pneumococcal polysaccharide vaccine and annual influenza vaccine. These individuals, however, cannot receive live virus attenuated vaccines.

Encourage sun protection for children with cSLE.

Patients with cSLE, of all skin types, are susceptible to develop cellular damage from UV light exposure that can trigger an autoimmune response. Excessive sun or even certain fluorescent light exposure can trigger disease flares. These patients should apply an ounce of sunscreen lotion or cream with SPF >30 protective against UVA/UVB rays at least 20 minutes prior to going outside and are advised to reapply at least every 2 hours or after 80 minutes of sweating or swimming.

Educate and monitor for cardiovascular and diabetic risk factors in children with lupus.

Children and adolescents with SLE are at increased risk for atherosclerosis, osteoporosis, diabetes and sequelae of hypertension due to uncontrolled disease and chronic steroid therapy. Pediatricians are key to educate patients about lifestyle modifications (smoking cessation, weight control, exercise) that are likely to be beneficial for patient outcomes. Blood pressures should be measured at each office visit. Screening lipids and fasting plasma glucose should be performed every 2 years.

Educate and monitor cSLE patients regarding Vitamin D supplementation.

Both uncontrolled lupus and chronic exposure to corticosteroids increase the risk of osteoporosis and fractures in children with cSLE. Recent guidelines recommend for children ages 4–17, on steroid therapy for at least 3 months should increase their calcium intake (1,000 mg/day) and vitamin D intake (600 IU/day) and incorporate lifestyle modifications to optimize bone health.

Encourage ophthalmological surveillance.

Annual ophthalmological screening should be performed for patients on chronic corticosteroids and hydroxychloroquine as patients on these medications are at risk for cataracts and retinal toxicity, respectively.

Screen for mental health conditions and nonadherence in adolescents with cSLE.

As with any chronic medical condition, general pediatricians must consider the impact of the desire for a "normal life" as children with cSLE enter adolescence. Depression and anxiety are under-recognized in adolescents with lupus. Yearly depression screening is recommended by the American Academy of Pediatrics for the general pediatric population. Additionally, adolescents with cSLE may assert their increasing sense of independence from parents and medical authority figures by waning compliance. It is important to ensure proper follow-up with the various subspecialists whom the patient sees and to "normalize" seeking mental health assistance. Patients and families are more likely to accept such recommendations if the pediatrician notes that it is common for children with chronic disease to require psychosocial support.

Address special concerns regarding sexually-active adolescents with cSLE

While certain chemotherapeutic drug regimens may lead to infertility, general pediatricians ought to counsel adolescents with cSLE about sexual health and appropriate contraception as is recommended for routine adolescent visits. Gyneocologists and pediatric rheumatologists can help make specific recommendations regarding hormonal contraceptives and other forms of birth control in patients with cSLE depending on the patient’s disease status and complications. Sexually-active adolescents with cSLE ought to be made aware of additional concerns of unplanned pregnancies. Uncontrolled lupus and certain medications place both the pregnant patient and fetus at risk for poor health outcomes. There is a risk of neonatal lupus in the newborns of pregnant cSLE patients who are serologically positive for anti-Ro/anti-SSA antibodies. Pregnant adolescents with cSLE who are positive for antiphospholipid antibodies ought to be referred to high-risk obstetrics practices due to potential concerns of miscarriage and thrombosis.
CME from page 7

Conclusion

Care of children and adolescents with cSLE is multidisciplinary and complex. These preceding clinical pearls should not be viewed as encompassing all aspects of the management of these patients. By working together with pediatric rheumatologists, and other subspecialists such as nephrologists, social workers, child life specialists, and teachers, general pediatricians play a vital role in the creation and sustainment of the medical home for these patients.

References


continued on next page
1. A 12 year old African-American female presents with a malar rash, palatal ulcers, and arthritis. She is found to have an antinuclear antibody titer of 1:160 (done by IFA). Does this patient meet ACR classification criteria for SLE?
   a. Yes
   b. No

2. The following clinical features are more commonly seen in cSLE that in aSLE:
   a. Sicca
   b. Positive rheumatoid factor
   c. Pleuritis
   d. Urinary cellular casts

3. Children with cSLE generally should be vaccinated against encapsulated organisms, including pneumococcus, unless there are specific contraindications.
   a. True
   b. False

4. A 13 year old female with cSLE comes to you with a form to fill out for an outdoor summer camp. What additional counseling is important?
   a. Encourage her to eat a diet including saturated fats and cholesterol
   b. Encourage her to use sunscreen or sunshield clothing to protect herself against UVA and UVB exposure,
   c. Recommend that she avoid swimming in freshwater lakes
   d. Encourage her to use insect repellant to protect herself from ticks

5. What are side effects of corticosteroids?
   a. Acne
   b. Hirsutism
   c. Osteopenia
   d. Cataracts
   e. All of the above

6. There is a risk of neonatal lupus to the fetus if the mother is positive for which antibody?
   a. Anti-Scl-70
   b. Anti-dsDNA
   c. Anti-SSA
   d. Anti-smooth muscle

7. Patients on hydroxychloroquine should see this specialist at least annually for routine screening.
   a. Obstetrician
   b. Ophthalmologist
   c. Otolaryngologist
   d. Orthopedic surgeon

8. What vitamin level is recommended to monitor regularly in patients with cSLE?
   a. Vitamin A
   b. Vitamin B12
   c. Vitamin C
   d. Vitamin D

9. A patient with known cSLE who had elevated blood pressures for the past couple of office visits now presents with bilateral leg swelling. Which of the following subspecialty referrals would be the mostly urgently warranted?
   a. Allergist
   b. Pulmonologist
   c. Nephrologist
   d. Cardiologist

10. Children and adolescents with cSLE are at risk for depression.
    a. True
    b. False
Safe Infant Sleep and Sudden Unexpected Infant Deaths in New Jersey Asian Indians

Barbara M. Ostfeld, PhD
Sunanda Gaur, MD
Thomas Hegyi, MD
Department of Pediatrics
Rutgers-Robert Wood Johnson Medical School, New Brunswick, NJ

Abstract

Background: Asians have a very low rate of Sudden Unexpected Infant Deaths (SUID) compared to other population groups. However, there is very little research on the sub-groups within this culturally diverse population with respect to rate or to safe infant sleep practices. Such information is needed to enhance culturally sensitive public health messaging.

Objective: To determine if the SUID rate and sleep practices for the Asian Indians (AI), New Jersey’s largest subgroup within the Asian population, differ from other population groups, if higher rates are associated with lower compliance with safe sleep, and if there are differences in rate or practices between infants of US and foreign-born AI mothers.

Methods: The New Jersey State Health Assessment Data (NJSHAD) de-identified linked birth/infant death files were used to obtain aggregated 2000-2015 SUID rates. SUID is comprised of Sudden Infant Death Syndrome (SIDS), Accidental Suffocation and Strangulation in Bed, and Ill-defined and Unknown Causes. Safe sleep practices in living infants were derived from summary survey data from the NJ Perinatal Risk Assessment Monitoring System for 2012-2014. IRB approval was obtained.

Results: Infants of foreign-born AI mothers had a higher SUID rate compared to infants of US-born AI mothers, for whom no SUID deaths were recorded. Fewer risk factors were evident in the US-born AI than foreign-born AI maternal group, with 97% of the former compared to 69% of the latter citing use of a crib and with uniquely high supine sleep use in the US-born AI group compared to all other population groups. However, although foreign-born AI mothers were most likely of all groups to ever bed share, they had high compliance with supine sleep and a lower SUID rate compared to White, Black and Hispanic infants.

Conclusion(s): The absence of SUID in infants of US-born AI mothers may be associated with their uniquely high compliance with some safe sleep practices. While foreign-born AI mothers were most likely to ever bed share, compared to all other groups, their lower SUID rate compared to White, Black and Hispanic infants may reflect, in part, high compliance with supine sleep. Further research is needed to identify other compensatory factors.

Introduction

In both national and state level public health data, Sudden Unexpected Infant Death (SUID) rates are reported for the Asian population as a whole rather than for its culturally diverse sub-groups. Overall, the SUID rate for this population is lower than for all other groups. However, country of origin can affect the safe sleep practices that are associated with SUID rates. Risk reduction education is more effective when sensitive to cultural practices, but culture-specific birth outcome research on the Asian population is limited.

We therefore sought to examine SUID rates and safe sleep practices specific to Asian Indians, the largest sub-group within New Jersey’s diverse Asian population.

Methodology

For this population-based study, New Jersey State Health Assessment Data (NJSHAD) de-identified linked birth/infant death files were used to obtain aggregated 2000-2015 SUID rates. SUID is comprised of Sudden Infant Death Syndrome (SIDS), Accidental Suffocation and Strangulation in Bed, and Ill-defined and Unknown Causes. These data are specific to the first 12 months of life. Data on foreign-born and US-born AI births and mortality were obtained from de-identified survey data from the New Jersey Center for Health Statistics and Informatics. Safe sleep practices in living infants, such as the use of supine sleep placement and avoidance of bed sharing, were obtained from the NJ Department of Health, NJ Perinatal Risk Assessment Monitoring System for 2012-2014. IRB approval was obtained.

Results

SUID rates by population are presented in Table 1. New Jersey Infants of foreign-born AI mothers had a lower SUID rate compared to all other racial/ethnic groups, but a higher SUID rate compared to infants of US-born AI mothers, for whom no SUID deaths were recorded. Sleep-related practices are presented in Figure 1 on the following page. Foreign-born AI were the least likely of all groups to “never” bed share but were comparable to White non-Hispanic families and more compliant than Black non-Hispanic and Hispanic families in the use of supine sleep placement for their infants. US-born AI infants were more likely than all other groups to be placed supine to sleep. Sixty-nine percent of foreign-born AI mothers cited using a crib, and 73.3% cited using a firm mattress, in contrast to 97% and 81%, respectively, of US-born AI mothers.

Table 1: NJ Sudden Unexpected Infant Death Rates (2000-2015)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Deaths</th>
<th>Rate per 1000 live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>White non-Hispanic</td>
<td>321</td>
<td>0.4</td>
</tr>
<tr>
<td>Black non-Hispanic</td>
<td>431</td>
<td>1.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>207</td>
<td>0.5</td>
</tr>
<tr>
<td>Asian Indian US-born mother</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Asian Indian foreign-born mother</td>
<td>11</td>
<td>0.14</td>
</tr>
</tbody>
</table>

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Discussion

The Asian Indian population has the lowest rates of SUID in New Jersey, despite relatively more bed sharing. However, they have high compliance with supine sleep, particularly in the case of the US-born cohort. Supine sleep has been described as one of the seven leading research findings in pediatrics in the past 40 years and is associated with saving thousands of lives. Our findings are similar to the paradox found in a UK study of South Asians who had a low SUID rate despite a higher prevalence of some practices defined as risk factors by the American Academy of Pediatrics. In the UK study, highly evident compensatory practices included avoidance of smoking, a major risk factor, and one that further elevates the risk associated with bed sharing. Smoking status was not included in the present study, however, based on national data, relative to all other population groups, the US AI smoking rate is lower.

Bed sharing has been one of the most challenging risk factors to address. The National Infant Sleep Position study found that there was a continual increase in this practice in populations at highest risk for SUID. Cultural practices, competing parental concerns, conflicting messages, and personal preferences all contribute to choices about sleep location despite knowledge of evidence-based recommended practices. Therefore, the low rate of SUID in the foreign-born AI group with highest use of bed sharing merits further study. For example, the presence of concurrent risks has a multiplicative effect on risk. A study on New Jersey SIDS cases found that the majority had two or more present. Thus, studying the type of risk, the number of risks, and patterns of combinations as well as factors such as gestational age can help identify unique factors in this lower risk population.

With respect to safe sleep recommendations, the absence of deaths in infants of the US-born AI population suggests that once bed sharing is reduced, SUID rates may decrease further in an already low risk population. Safe sleep guidance should be sensitive to cultural preferences but still informative about the recommendations of the AAP. These guidelines indicate that bed sharing is particularly dangerous if an infant is under four months of age, preterm, of low birth weight, if bedding is overly soft or small, if there are multiple bed sharers, if parents are or were smokers, if a non-parent is in the bed, and if a parent’s capacity is diminished by fatigue, alcohol or drugs. The low use of alcohol and the cultural role of grandparents in reducing parental fatigue by assisting with infant care are examples of factors that may reduce risk in the AI population.

The AAP guidelines also state that if an infant is brought into bed for comforting, bonding and feeding, he or she should be returned to their Consumer Product Safety Commission approved crib, bassinet, portable crib or play yard once the parent is ready to sleep. The crib should be free of bumpers, pillows, blankets and stuffed animals. If warmth is needed, a size-appropriate wearable blanket can be used. The crib mattress should be firm, leaving no evidence of sagging where the infant had been, should fit the entire space and should be the mattress intended for the product being used. The crib should be in the same room as the parent, ideally for at least the first six months, and near the parental bed. Room sharing is associated with a lower risk of SUID and is supportive of breastfeeding. When the parent brings the infant into bed for a late-night feeding, care should be taken to keep pillows, duvets and other soft and loose items away from the baby, in case the parent briefly falls asleep with the baby before she returns him to his close-by crib. These recommendations also provide guidance as to what variables to include in future studies within the AI population.

Finally, there are several limitations in this study. As in previous studies on this population, only a small portion of births were to US-born AI mothers. In the period under study, there were 4,426 births in NJ to US-born AI mothers. Thus, this group may be underpowered to identify a death. In contrast, there were 78,950 births to foreign-born AI mothers with identified countries of origin. Further, this study did not include data on gestational age, mode of feeding, or smoking status, each of which may provide important data on compensatory mechanisms. Additional variables would be best examined in a larger regional or national cohort.

Conclusions

This study described the low rate of SUID in the AI community despite variable compliance with safe sleep. Future study is warranted to identify compensatory factors within this population group.

Figure 1: Compliance with Safe Sleep

<table>
<thead>
<tr>
<th>Asian Indian Foreign-born Mother</th>
<th>White non-Hispanic</th>
<th>Black non-Hispanic</th>
<th>Hispanic</th>
<th>Asian Indian US Born Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never Bed Share</td>
<td>54.4</td>
<td>19.9</td>
<td>43.1</td>
<td>15.8</td>
</tr>
<tr>
<td>Supine Sleep</td>
<td>78.8</td>
<td>52.4</td>
<td>61.6</td>
<td>76.5</td>
</tr>
</tbody>
</table>

continued on page 12
References
11. Mitchell EA, Thompson JM, Zuccollo J, MacFarlane M et al. The combination of bed sharing and maternal smoking leads to a greatly increased risk of sudden unexpected death in infancy: the New Zealand SUDI Nationwide Case Control Study. NZ Med. J. 2017;130:52-64.

The NJAAP Children with Disabilities Committee, chaired by Joseph Holahan, MD, FAAP is expanding committee membership and seeking general pediatricians and pediatric specialists. Interested in joining, finding out more, or contributing ideas to a new Committee Action Plan? If so, please join us at NJAAP headquarters in East Windsor (off Exit 8 of TP), September 5th, noon to 3:00 p.m., RSVP to Cortney Mott at cmott@njaap.org. At the September meeting the frequency of meetings going forward (e.g. quarterly, bi-monthly, etc.) will be determined, most will take place by conference call from 7:00–8:00 p.m. Not sure if this is for you? A perfect opportunity to check it out, hope to see you there!
Let’s be healthy together.

The Bristol-Myers Squibb Children’s Hospital at Robert Wood Johnson University Hospital
866.66.BMSCH

Children’s Hospital of New Jersey at Newark Beth Israel Medical Center
973.926.7280

Children’s Specialized Hospital
888.CHILDRENS

Matthew J. Morahan III Health Assessment Center for Athletes
973.322.7913

The Unterberg Children’s Hospital at Monmouth Medical Center
732.923.7250
Case Study: **Nephrotic Syndrome in a Teenage Boy With Multiple Osteochondromas**

Valeriya M. Feygina, MD  
Joann M. Carlson, MD  
Department of Pediatrics, Division of Pediatric Nephrology and Hypertension  
Rutgers Robert Wood Johnson Medical School/University Hospital

**Introduction**

Hereditary multiple exostoses (HME) is a rare disease with prevalence ranges from 1 in 100 in a small population of Chamorro in Guam to 1 in 100,000 in Europe, with average prevalence 1 in 50,000.1,2

HME is a disorder characterized by growth of multiple osteochondromas, benign bone tumors that mostly grow outward from growth plates of long bones. Osteochondromas can be associated with bone deformities, restricted joint movement, short stature, premature osteoarthrosis and peripheral nerve compression. The risk of osteochondroma malignant transformation is low, but increases with age. Most patients are diagnosed by 12 years of age, with median age of diagnosis of 3 years.1,3

It is not known how often there is an association between HME and nephropathy. Also, there are no established treatment guidelines for this condition.

We report a patient with HME associated with newly diagnosed nephropathy that presented with nephrotic syndrome and successfully achieved remission with steroid treatment.

**Case report**

17-year old, African American, boy with multiple osteochondromas after several resections over the previous years, presented with 2-day history of shortness of breath, epigastric pain, non-bilious, non-bloody, non-projectile vomiting and increasing facial swelling. He reported the facial edema started one week ago on his right side, then progressed to the left side of the face. He denied any fever, changes in quantity of daily urine, or bowel movements. He did not recall any history of swelling in the past.

His chest X-ray was significant for a left pleural effusion with concern for air pocket representing a loculation, and for a grossly deformed right proximal humerus (Fig1).

The boy was admitted to our hospital with concern for worsening respiratory distress, generalized edema, and suspected recurrence of osteochondromas and/or malignant transformation.

On admission his vitals were as follows: heart rate 66 beats/min; BP 140/89 mm Hg; respiratory rate 21 breath/min with oxygen saturation 93-95% on 4 L of oxygen via nasal cannula, temperature 98.3 F. On physical examination he had significant periorbital edema, pretibial and scrotal edema, diminished breath sounds on the left, non-tender distended abdomen and multiple exostoses in arms and legs. Rest of the physical examination was normal.

Laboratory data presented in the table on the following page significant for hypoalbuminemia, nephrotic range proteinuria, elevated D-dimers, fibrinogen, normal serum creatinine and complement.

CT of the chest and abdomen with contrast showed a moderate to large left pleural effusion, small right pleural effusion, atelectasis of the left lower lobe; filling defect in the right low lobe pulmonary artery concerning for pulmonary emboli; herniation of the gastric body to the left hemithorax through a diaphragmatic defect, generalized small and large bowel wall thickening, and osseous changes of the pelvic bones and bilateral proximal femur (fig2).
Several X-rays of the extremities were done to evaluate extensive exostoses. One example of his multiple osteochondromas is presented in (fig 3). A comparison with previous studies did not show any significant changes in osteochondromas, and the suspicion for malignancy on further investigation was low.

Renal ultrasound was significant for mildly echogenic kidney bilaterally, otherwise, normal.

Renal biopsy performed 2 days after admission demonstrated minimal glomerular alterations with a small deposition of fibrillary collagen in the mesangium and also segmentally along the capillary wall. The changes appeared to be early and mild but possibly representing changes that have been noted in this rare association of nephrotic syndrome with multiple hereditary exostoses (Fig.4).4

<table>
<thead>
<tr>
<th>Table 1. Laboratory values on admission</th>
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<tbody>
<tr>
<td>Test</td>
</tr>
<tr>
<td>Hemoglobin</td>
</tr>
<tr>
<td>hematocrit</td>
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<tr>
<td>leukocytes</td>
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<tr>
<td>trombocytes</td>
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<tr>
<td>Albumin</td>
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<tr>
<td>BUN</td>
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<tr>
<td>creatinine</td>
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<td>sodium</td>
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<td>potassium</td>
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<td>chloride</td>
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<td>bicarbonate</td>
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<td>calcium</td>
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<td>C3</td>
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<tr>
<td>C4</td>
</tr>
<tr>
<td>ANA</td>
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<td>protein C</td>
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<tr>
<td>protein S</td>
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<td>PT</td>
</tr>
<tr>
<td>PTT</td>
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<tr>
<td>INR</td>
</tr>
<tr>
<td>D-dimer</td>
</tr>
<tr>
<td>fibrinogen</td>
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<tr>
<td>Viral studies for Hepatitis A, B and C.</td>
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<tr>
<td>Urine analysis</td>
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<tr>
<td>Specific gravity</td>
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<tr>
<td>protein</td>
</tr>
<tr>
<td>RBC</td>
</tr>
<tr>
<td>hyaline</td>
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<tr>
<td>granular cast</td>
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<td>protein to creatinine ratio</td>
</tr>
</tbody>
</table>
Immunofluorescence microscopy showed negative glomerular staining for Ig G, IgA and C1 with trace mesangial staining for IgM and C3. Tubular epithelial cells were positive for IgG 3+; IgA 2+; C3 and fibrinogen 2+.

Of note, there is a strong family history of multiple exostoses on the patient’s father side, including the father himself but no signs of renal involvement or hearing loss.

The final diagnosis was: HME, nephrotic syndrome with generalized edema including ascites and pleural effusion, diaphragmatic defect with intrathoracic stomach herniation and pulmonary emboli.

The decision was made to treat nephrotic syndrome with the standard protocol for minimal change disease in children. He was started on methylprednisolone 60 mg intravenously. He responded to steroids appropriately with resolution of peripheral edema and proteinuria in 9 days. By that time, his random urine protein to creatinine ratio was 0.25 mg/mg and serum albumin 2.7 g/dL.

The boy had an intrathoracic endoscopic hernia reduction and diaphragmatic defect closure on day 12 after initial diagnosis. He did not have any respiratory distress after surgery. His chest X-ray normalized. The patient was started on enoxaparin for thrombotic event prophylaxis with the intention to continue for 6 months and most likely during relapses of nephrotic syndrome.

**Discussion**

Our patient presented with nephrotic syndrome associated with multiple osteochondromas. Although minimal change disease is the most common cause of nephrotic syndrome in children, there is a case report that described the very specific pathologic finding on a kidney biopsy from a patient with familial nephropathy in which steroid-sensitive nephrotic syndrome and glomerular deposition of fibrillary collagen are associated with multiple exostoses.

Glomerular deposition of fibrillary collagen is not completely specific and might be seen to a minor degree in several chronic kidney diseases. It is worth mentioning that the boy was newly diagnosed with nephrotic syndrome and his renal biopsy did not show any chronicity. The finding of fibrillary collagen deposition is typical for kidney disease in nail-patella syndrome, collagen type III glomerulopathy and also was described by Roberts and Gleadle in their case report of familial nephropathy and multiple exostoses. As the aforementioned authors described in their paper, in cases of collagen type III glomerulopathy and familial nephropathy with multiple hereditary exostoses, fibrillary collagen accumulates in the mesangial and subendothelial areas and might cause basement membrane duplication. Lamina densa is preserved.

HME is a genetically heterogeneous autosomal-dominant disorder characterized by development of multiple osteochondromas. There are three HME loci known to date. Exostosin 1 (EXT1) located on chromosome 8q24, exostosin 2 (EXT2) located on chromosome 11p11-13 and exostosin 3 (EXT3) located on chromosome 19p. The recently published French study about genotype-phenotype correlation reported EXT1 and EXT2 are responsible for 90% of HME cases. The EXT1 and EXT2 genes encode glycosyltransferase required for heparan sulfate synthesis. The same study provided information that EXT1 mutation is responsible for more severe forms of the disease and also for malignant transformation of osteochondromas to chondrosarcomas.

It is not known how often there is an association between HME and nephropathy. The mechanism of proteinuria and steroid sensitivity in nephropathy with HME are not well understood. In the two other collagen deposition renal diseases, nail-patella syndrome and collagen type III glomerulopathy, proteinuria is usually steroid-resistant. In the case report presented by Roberts and Gleadle they speculate about the significant contribution of impaired heparan sulfate proteoglycan synthesis to impairment of glomerular basement membrane and therefore to nephrotic range proteinuria and steroid-sensitivity. They attributed these findings to the EXT1 gene mutation.

Our patient has not yet undergone genetic mutation analysis and has no family history of renal involvement or hearing loss in family members with multiple osteochondromas. We are planning on genetic evaluation in the near future. Our expectation is to find a mutation in either EXT1 or EXT 2 genes that explains multiple hereditary exostoses and the steroid-sensitive nephrotic syndrome association.

Of note, the patient presented with a diaphragmatic defect and stomach herniation to the thorax. Although, hemotorax, diaphragmatic rupture and bowel obstruction have been reported in the literature, it is not known if the diaphragmatic defect might be a primary feature of the disease, or results from inward growth of exostoses. Our patient does not demonstrate costal exostoses.

**Conclusion**

In general, HME is a disease characterized by multiple bone involvement with reported association of nephropathy. Future research is required to delineate possible other organ and tissue involvement, including kidney, considering the almost ubiquitous presentation of heparan sulfate in many tissues and organs.
Sixth Annual Protect Me With 3+ Adolescent Immunization Awareness Contest Draws 400 Artists from 12 NJ Counties

The Partnership for Maternal and Child Health of Northern New Jersey, in collaboration with the New Jersey Department of Health, hosted the sixth annual Protect Me With 3+ adolescent contest. The contest raises awareness about the importance of adolescent immunizations among preteens, teens and parents in an effort to increase vaccination rates for adolescent immunizations: tetanus, diphtheria, acellular pertussis (Tdap), human papillomavirus (HPV), meningococcal conjugate (MenACWY), and flu vaccination.

Finalists and winners and finalists from each category were honored at an awards ceremony and banquet held at The Conference Center at RWJ Hamilton Center for Health & Wellness on April 29, 2018. The top three winners in the poster and video categories received awards and the opportunity for their artistic creations to be distributed during statewide immunization awareness activities. The teachers from the classrooms with the highest number of eligible entries were also honored at the ceremony. The winning entries can be viewed at http://protectmewith3.com/.

This year, over 400 adolescents representing 12 counties and 23 middle and high schools in New Jersey were involved in the creation of the posters and videos. Thirty-three teachers across the state were involved in supporting and encouraging the students’ efforts. Public voting was held to determine the top three submissions among the finalists, logging over 5,000 votes.

This fall, the contest will launch its 7th annual competition. Please visit www.protectmewith3.com, or email info@protectmewith3.com for additional details. Additionally, copies of posters from prior winners are available upon request. To request posters, please call 609-826-3861.

References

Learning objectives:

Pediatricians will learn to recognize common skin conditions presenting during the summer months and manage them appropriately, while offering anticipatory guidance to patients and families.

Allergic/ Hypersensitivity Lesions:

1. **Rhus dermatitis** (Poison ivy, poison oak, poison sumac)

   This lesion, which results from contact with the leaves of the offending plant, is characterized by linear streaks of vesiculo-bullous lesions with intense pruritis (Fig. 1). It is a type IV, T-cell mediated delayed hypersensitivity response. The skin lesions manifest within 48 hours of initial contact and can last for 7-10 days with new crops of lesions from retained antigens. Immediate washing of the skin with soap and water is recommended after contact with plants. Treatment is mainly supportive with oral antihistamines. Short course of systemic steroids is indicated in severe cases or facial involvement.

   ![Figure 1](http://www.pediatricsconsultant360.com/content/photo-finish-acute-dx-what-cause-sudden-illness-rhus-dermatitis)

2. **Insect bites/ stings**

   Mosquito bites are a frequent occurrence throughout the summer and protection against bites is the best method of preventing mosquito transmitted diseases. Mosquito vector transmitted diseases include: West Nile virus, Zika, Dengue and Chikungunya viruses. Use of long sleeve clothing, long pants; hats and insect repellants are recommended as is the removal of standing water, which often serves as an ideal breeding location for mosquitoes.

   Papular urticaria is hypersensitivity response seen in children to a variety of bugs, including fleas, mosquitoes, mites, and chiggers. The lesion starts off as erythematous papules and can progress to vesicles, which can occur in crops over several weeks (Fig. 2). Lesions are usually seen in the exposed areas of the skin. Treatment is supportive. Oral antihistamines are usually sufficient, but severe cases may need topical steroids.

   ![Figure 2](http://www.pediatricsconsultant360.com/content/photo-finish-acute-dx-what-cause-sudden-illness-rhus-dermatitis)

   Stings are usually inflicted by insects from the Hymenoptra species, including: wasps, hornets, yellow jackets, honey bees, and fire ants, and can range from being localized cutaneous reactions to systemic symptoms.

   Cutaneous reactions are more common, usually urticarial rashes with local swelling and pain. For local reactions and generalized hives, the risk of anaphylaxis is < 1% with subsequent stings. Systemic allergic responses are attributed to type I IgE mediated responses and are usually seen in the first 24 hrs. Systemic reactions can range from generalized urticaria to anaphylaxis. Fatal anaphylactic reactions occur in 0.4-0.8% of children. Stingers should be removed by scraping—taking care not to squeeze the insect’s venom sac. Treatment involves cold compress at the site of sting and use of antihistamines. Anaphylactic reactions require the use of Epinephrine, close observation, and in severe cases, hospitalization. Education on prevention, use of an Epipen following a sting and referral for immunotherapy are also indicated for anaphylactic reactions.

   Spider bites usually cause local swelling and pain, which normally resolve within 24-48 hours. The brown recluse spider is found in the midwestern and southern US. This spider bite is initially painless, and then progresses to hemorrhagic vesicle with surrounding ecchymosis and necrotic lesion. Management involves ice therapy for the first 72 hrs and close monitoring for signs of secondary infection.

   ![Figure 2](http://www.pediatricsconsultant360.com/content/photo-finish-acute-dx-what-cause-sudden-illness-rhus-dermatitis)

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3. Water perils:

Swimmer’s itch is a hypersensitivity reaction seen after exposure to the schistosomal larvae found in fresh water lakes. The cercaria penetrates the human skin and causes intense pruritic, erythematous rash (Fig.3) which peaks 48-72 hrs after exposure and resolves within 1 week. Treatment is supportive with oral antihistamines and topical steroids.

Sea-Bather’s eruption is seen after exposure to certain species of jelly fish found in the Atlantic coast and Caribbean waters. The rash is erythematous, papular and pruritic, found in areas of skin under the bathing suit (Fig.4). The rash may be associated with systemic symptoms like fever, sorethroat and myalgia and resolves in 1-2 weeks. Treatment is supportive with oral antihistamines and topical steroids. Severe cases may need short course of systemic steroids.

Infections:

1. Viral: Enteroviral infections are seen in late summer/fall and are often associated with maculopapular rash. The most distinct rash syndrome is the hand-foot and mouth disease caused by Coxsackie virus A-16. The lesions consist of papules and vesicles, seen in the oral mucosa (posterior tongue, pharynx and soft palate) and on palms and soles (Fig.5). The oral and skin lesions spontaneously resolve in 7-10 days. Treatment is supportive and includes fever relief, pain control and in rare cases of poor fluid intake leading to dehydration may necessitate ED visit/hospitalization for intravenous fluid administration.

2. Lyme disease: In the United States, Lyme disease is caused by Spirochete Borrelia Burgdorferi and transmitted through infected tick vectors. Erythema Migrans is usually the first clinical manifestation of Lyme disease and can be associated with fever, headache and myalgias. It occurs after 7-10 days at the site of the tick bite. Ticks need to be present on the skin for > 24 hours to transmit Lyme disease. Ticks can be removed by firmly grasping with a tweezer and pulling it straight out without any squeezing. The rash is typically annular, erythematous with central clearing (Fig.6) and, without treatment, continues to expand up to 15cm in diameter. Erythema migrans is highly suggestive of early localized Lyme disease and treatment can be initiated in endemic areas. Serological testing is a 2-step process with initial enzyme immunoassay or immunofluorescent antibody followed by western immunoblot. During early disease, the sensitivity of serological testing is low and only ~ 30% of cases test positive. Treatment of early localized disease is oral doxycycline (8 years and older) and amoxicillin (<8 years) for 14-21 days. Multiple lesions of erythema migrans can be seen in early disseminated disease, in addition to cranial nerve palsies for which the treatment duration is 21 days.

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2. **Miliaria (heat rash):** This eruption is seen in hot, humid weather due to occlusion of sweat ducts and in infants who are dressed too warmly. Miliaria crystallina is seen frequently in newborns and is characterized by pin point clear vesicles over large areas of skin. Miliaria rubra is characterized by erythematous papules and vesicles localized to areas of skin folds (Fig. 9). Treatment is supportive with cooling and removal of excessive clothing.

![Figure 9](http://www.pediatricsconsultant360.com/content/pruritus-children-what%E2%80%99s-itching)

3. **Hot Tub Folliculitis:** These lesions are seen 8-48 hours after being in a hot tub and are characterized by pruritic erythematous papules and nodules, concentrated in areas covered by a bathing suit (Fig. 10). The causative organism is *Pseudomonas Aeruginosa* serotype O-11. Treatment is indicated only if systemic symptoms are present or if patient is immunocompromised.

![Figure 10](http://www.pediatricsconsultant360.com/content/dermatologic-perils-swimming-hot-tub-folliculitis)

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**Heat related:**

1. **Sun Burn:** Acute sun burn is the most common photosensitive reaction seen in children (Fig. 7,8). Prevention is the key by educating parents about harmful effects of ultraviolet radiation especially long term risks. Sun protection can be done by minimizing exposure, use of hats, shades and use of sunscreens with minimum of SPF of 15.

![Figure 7](http://www.pediatricsconsultant360.com/content/photoclinic-second-degree-sunburn)

![Figure 8](http://www.pediatricsconsultant360.com/content/photoclinic-second-degree-sunburn)

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ON BEHALF OF ALL CHILDREN IN NEW JERSEY, THE EXECUTIVE COUNCIL AND STAFF AT NJAAP WISH TO THANK PEDIATRICCARE ASSOCIATES FOR SPONSORING NJAAP’S FOOD INSECURITY EFFORTS AND THEIR CONTINUED SUPPORT OF THE CHAPTER
Legal Update: Physician Integration Models: CINs, MSOs and Integrated Group Practices

Daniel B. Frier, Esq., Co-Founding Member of Frier & Levitt, LLC

Although much is changing in the way healthcare is delivered—from MACRA to ACOs to private equity practice roll-ups to insurance company-owned practices to hospital-owned practices—one thing hasn’t changed: physicians are still the only participants in the healthcare system that actually treat patients (in addition to their mid-level counterparts). Although there may always be discrete geographic regions where time seems to stand still, and solo practicing physicians can still thrive, most experts believe these areas will be the rare exception to the general rule that physicians who wish to stay relevant (and busy, and paid decently) must align themselves with a larger organization of some type. Among other options, physicians may align with hospitals or private equity-owned companies, each of which has a specific agenda that may or may not align with the goals of physicians, but if physicians wish to remain relatively independent, these models may be less than ideal. This article briefly focuses on three models that offer alternatives for independent-minded physicians: Integrated Group Practices (IGPs), Clinically Integrated Networks (CINs) and Management Services Organizations (MSOs).

IGPs—Supergroups

Arguably the gold standard for physician integration, IGPs are entities (usually LLCs) consisting of multiple physicians (either single or multi-specialty) that operate as a single group medical practice and bill through a single TIN. Although the IGP is a single group practice, it consists of separate “Care Centers,” each of which constitutes a separate “satellite” office location or group operated by those doctor members of the IGP who are affiliated with that particular Care Center. Each formerly independent practice ceases to practice medicine as a separate company, and the doctors comprise their own separate and distinct Care Center of the IGP. In general, a Care Center’s professional collections are distributed to the Care Center, after subtracting its direct expenses (e.g., rent, payroll, insurance), and the Care Center’s allocable share of common overhead.

Although each doctor member/owner of the IGP will sign a single Operating Agreement and member services agreement detailing the rights and responsibilities of all members, the members of each Care Center will also execute distinct “Care Center Agreements” among themselves. The Care Center Agreements will replace the shareholder or operating agreements that formerly detailed the financial arrangements and commitments between the doctors of each former practice, or “Legacy Entity”. The Care Center Agreements will legally obligate each doctor member of the applicable Care Center to the same types of obligations set forth in the Legacy Entity documents. The doctors affiliated with each Care Center are responsible for treating patients at their Care Center office, and for making most decisions that directly impact the operation of the Care Center. Although each Care Center practices with a certain amount of autonomy, each member of a Care Center is legally a member of the IGP. The obligations and relationships between members and Care Centers are defined by the IGP’s Operating Agreement. Some important characteristics of the proposed IGP model include the following:

A. The former practice entities (e.g., each P.A., P.C., LLC, partnership, sole proprietorship) of the members (“Legacy Entity”) may remain in existence in order to serve as holding companies for the assets utilized at the corresponding Care Center (e.g., offices, equipment, computers, furniture, leases). The IGP may lease the assets from each Legacy Entity for use at the related Care Center, and the cost of the lease may be charged to the Care Center either through the management fee or directly. The name of each Legacy Entity may be licensed to the IGP so that the Care Centers can continue to operate under their former names.

B. All professional services will be performed through and billed by the IGP under its T.IN.

C. Administrative functions such as billing, collections, accounts payable, human resources, IT and payer contract negotiations, are centralized and performed by staff hired to work for the IGP at the central business office of the IGP.

D. By way of compensation, each Member will receive a regular draw and a monthly or quarterly true-up based upon his or her Care Center’s “profits.” The basic theory behind IGPs is that doctors will generally be in a better position to face the ever-changing and complex healthcare environment if they are part of a larger group of like-minded practitioners. Some potential advantages of an IGP include:

- An IGP may be in a better position to participate in value-based healthcare models which are becoming an important component of healthcare reimbursement. Exchanging data and best practices may be simpler in a single practice setting with common IT systems.
- An IGP may be able to invest in ancillary services and treatment modalities without violating the federal prohibition against self-referrals (“Stark”).
- AN IGP may be in a position either to participate in an ACO or CIN more effectively as a group, or form its own ACO/CIN at some point.
- An IGP may have increased leverage to negotiate lower professional malpractice premiums and other costs typically incurred by healthcare practices. This “group buying power” may also enable the IGP to negotiate more favorable deals for products and services such as bank financing, EMR and practice management software and medical supplies and equipment.

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Physicians will have the ability to share coding and billing practices in order to optimize collections. Depending upon the geographic scope of our practice, the formation of an IGP may enable practices to negotiate more effectively with local hospitals.

**CINs**

A CIN is a network of providers who are sufficiently integrated at the clinical level, allowing them to contract jointly with payers. Pursuant to DOJ and FTC Policy Statements going back as far as the 1990s, clinical integration involves a provider network’s “active and ongoing program to evaluate and modify practice patterns by the networks’ providers which create a high degree of interdependence and cooperation among the providers to control costs and ensure quality.”

Physicians may form a CIN while remaining separate and distinct medical practices, provided they are willing to take substantial steps over time to integrate their clinical functions in a manner that enables them to engage in value-based contracts with payers. Integration designed solely to leverage size in order to negotiate higher fee-for-service reimbursement raises serious federal and state antitrust concerns. This was the trap many IPAs fell into over the past twenty years.

Understanding and being able to implement value-based contracting will likely be critical to a provider’s ability to function and thrive in the coming years. Payers, which now include not only insurers, but self-insured employers, understand the limitations of fee-for-service reimbursement, and have begun to transition to reimbursement models that reward quality and cost-savings. Value-based reimbursement was tested by several payers in the late 1990s, but the available data was insufficient to accurately track and measure performance. Advances in data systems and data analytics has changed things dramatically.

We have started to see major players implement value-based models, including Medicare, through its Shared Savings Program, as well as major health insurance companies that have implemented similar models. In a shared savings model, providers are rewarded for reducing costs and improving quality over a defined patient population or based upon an “episode of care” (e.g., a hip-replacement, an obstetrical delivery or a chronic illness). The future will likely involve more advanced models, such as bundled-payments or even capitation, whereby providers take financial risk, and possibly even insurance risk, in the treatment of conditions or populations. These models will require networks of providers with a high degree of clinical integration. Forming a CIN may better enable independent physicians to participate in those models in the future.

Providers may opt for a CIN rather than an IGP for several reasons:

- CINs are simpler and less expensive to form from a legal perspective;
- CINs enable practices to remain independent while potentially benefiting from clinical integration with their colleagues;
- CINs may enable practices to work with one another and “date” before “marrying” into an IGP model.

**MSOs**

MSOs have been around for many years, and have taken on many forms and functions. For purposes of this article, an MSO means a legal entity that provides certain administrative and management services to medical practices that enable the practices to function. These services may include the provision of space, equipment, non-clinical staff, billing and collection, accounts payable, insurance credentialing and human resources.

MSOs have increased in popularity over the past several years because they enable groups of medical practices to share a single central business office in order to reduce costs through economies of scale, and start the process of integration without committing to the levels of integration required by a CIN or IGP. Additionally, because MSOs do not practice medicine, they may be owned by non-physicians. Because of this, MSOs are an attractive target for private equity funds seeking to invest in practice management companies, particularly in states with corporate practice of medicine prohibitions.

Because they require the lowest level of integration, MSOs are arguably the simplest to form of the three organizations described in this article. They may also be used in conjunction with a CIN, thereby enabling both clinical integration, and systems integration, without requiring the participants to practice medicine under a single TIN entity.

Daniel B. Frier, Esq. is a co-founding member of the law firm Frier & Levitt, LLC, and Chair of the firm’s Healthcare Departments. Frier Levitt is devoted entirely to the practice of health care and life sciences law throughout the country. Mr. Frier can be reached at dbfrier@frierlevitt.com, or at 973-618-1660.
Legislative Update: Mental Health, Marketplace Preservation, Reducing Hunger and Tightening Exemption Policies

Joe Simonetta
Public Strategies Impact

Tracie DeSarno
Public Strategies Impact

As we write this report, the Legislature has just concluded its review of Governor Murphy’s proposed budget for FY2019. Governor Murphy’s proposed Fiscal Year 2019 budget includes $5 million in additional funding for the statewide expansion of the mental health collaborative, which had been operating as a pilot program to address pediatric behavioral health issues. This successful program provides a collaboration of primary care physicians and mental health specialists aimed at improving the ability of primary care physicians to screen, care, manage and increase access to mental health services for children with behavioral health and substance abuse issues. The Legislature must adopt and the Governor must sign the state budget by July 1, 2018.

Governor Murphy signed two bills sponsored by Senator Joe Vitale and Senator Troy Singleton designed to help preserve the health care benefits of the Affordable Care Act by maintaining the viability of the individual mandate and establishing a reinsurance fund to help stabilize the insurance market. The law maintaining the mandate, S1877 / A3380, entitled the “New Jersey Health Insurance Market Preservation Act,” would continue the requirement that every New Jersey resident obtain health insurance coverage, essentially adopting the rules of the ACA. The companion law, S1878, will allow for a reinsurance program to bring more stability to an insurance market that has been destabilized by the actions and inactions of the Trump Administration. The law, entitled the “New Jersey Health Insurance Premium Security Act,” directs the Commissioner of Banking and Insurance to apply for a federal waiver of provisions of the ACA to support a reinsurance program to control premiums in New Jersey. It would establish a board that would work with the state insurance commissioner to design the plan. Banking and Insurance Commissioner Marlene Caride has begun the application process for the waiver. In New Jersey, the ACA enabled more than 800,000 additional residents to obtain health insurance, including 500,000 who qualified for expanded Medicaid coverage and 300,000 who purchased plans through the individual insurance market. Uninsured rates dropped from 13.2 percent before the law took full effect in 2014 to 8.7 percent, the lowest in three decades.

Governor Murphy signed a series of bills, supported by AAP, that would reduce child hunger in New Jersey—by ensuring that not only are eligible students able to access two meals a day at school, but that they also do not go hungry during the summer months. S1894 will require “breakfast after the bell” program in all schools with 70% or more of students eligible for free or reduced priced meals. Each district will be required to submit a plan for the establishment of a “breakfast after the bell” program within six months of the law’s effective date. No later than one year after submission of the plan, the district will be required to implement the program. S1895 will require school districts, with at least one school that qualifies for the “Community Eligibility Provision” to submit a report on nonparticipation. The (CEP) is a federally funded reimbursement alternative for eligible, high-poverty local educational agencies and schools participating in both the National School Lunch Program and School Breakfast Program. It allows the nation’s highest poverty schools and school districts to serve breakfast and lunch at no cost to all enrolled students without collecting individual household applications. S1897 expands summer meal program to all school districts with 50 percent or more of students eligible for free or reduced priced meals. The law requires each school district to become a sponsor of the Summer Food Service Program within two years of enactment. The “Summer Food Service Program” is a federal program that reimburses sponsors for administrative and operational costs to provide meals for children 18 years of age and younger during periods when they are out of school for 15 or more consecutive school days.

The Governor also signed A3653, legislation to require the Child Fatality and Near Fatality Review Board to study racial and ethnic disparities that contribute to infant mortality has been signed into law. The new law mandates the multidisciplinary board, which resides within the New Jersey Department of Children and Families, but operates independently, and reviews child fatalities and near fatalities to identify their causes, relationship to governmental support systems and methods of prevention, to shine a light onto the roles that race and ethnicity play in infant mortality.

In April, the Assembly Health and Senior Services Committee considered legislation, sponsored by Chairman Herb Conaway, that tightening state policies on exemptions from student immunizations was advanced Monday by the Assembly Health and Senior Services Committee. The bill, A3818, stipulates that state laws or regulations that require the immunization of students at an elementary or secondary school or an institution of higher education can provide for exemptions from mandatory immunization only upon one of the following:

- A written statement submitted to the school, as applicable, by a licensed physician indicating that the vaccine should not be given for a specific period of time based on valid medical reasons as determined by the Commissioner of Health and Senior Services; or
- Documentation submitted to the school, as applicable, by the student, or the student’s parent or guardian if the student is a minor, explaining how the administration of the vaccine conflicts with their bona fide religious tenets or practices.

The bill sets forth the specific elements that are required to document that the administration of a vaccine conflicts with the bona fide religious tenets or practices of a student, or a student’s parent or guardian. These include the following:

- A written statement, to be notarized, signed, and sworn by the person submitting the statement, and which includes:
  - an explanation of the nature of the person’s religious tenet or practice that is implicated by the vaccination and how administration of the vaccine would violate, contradict, or otherwise be inconsistent with that tenet or practice;
  - information that indicates that the religious tenet or practice is consistently held by the person, which may include, but need not be limited to, expression of the person’s intent to decline any vaccination;
  - a statement that the religious tenet or practice is not solely an expression of that person’s political, sociological, philosophical, or moral views, or concerns related to the safety or efficacy of the vaccination; and
  - a statement that the person understands the risks and benefits of vaccination to the student and the public health and acknowledges that the student may be excluded from attendance at the student’s school, as applicable, in the event of the occurrence of a communicable disease or condition or threat, which in the opinion of the Commissioner of Health requires such exclusion from attendance of unvaccinated students; and

- A signed statement from a physician licensed to practice in this State, or another individual as designated by the Commissioner of Health, that the person has received individual counseling from the physician, or other individuals as appropriate, concerning the risks and benefits of vaccination to the student and the public health.

The bill prohibits schools from exempting a student from a mandatory immunization unless the student, or the student’s parent or guardian, if the student is a minor, complies with all of the applicable requirements set forth in the bill.

The hearing on the bill was several hours long and quite contentious, with opponents out in full force. In spite of the opposition, the bill was released by the Committee and as of this writing awaits action by the full Assembly.
Manish has been practicing accounting and taxation since 1994, 24 years now! His extensive experience affords him the ability of providing value added services to his clients. The wide range of clients that he serves include physicians, home healthcare agencies, ambulatory surgery centers, dialysis units, imaging centers, cancer centers, etc. He is also accountant to lots of non-profits and medical associations.

Manish assists clients with issues concerning operations of their practice, purchase or sale of practices, practice valuations, exit strategy formulation, cost reduction analysis for the clients, etc.

With the kind of experience and expertise that Manish has, with the kind of clientele that he caters, he has been able to truly contribute towards catering and streamlining the accounting and taxation needs for all his clients in a major way and has been able to help them save a lot of taxes, legitimately. With premium service, he exactly knows what they need to do not only for their taxes, but also with regards to their asset protection, estate planning, retirement planning etc. He also has extensive knowledge and experience with international accounting, foreign bank account reporting, foreign income and tax reporting, captive risk management strategies, etc.

After graduating with a major in Auditing and Financial Accounting, Manish went ahead to become a Cost Accountant. He was a Professor teaching Accounting, Auditing and Taxation to graduate students. He then pursued his career as a CPA.

He operates out of offices in Garden City (Long Island) and Brick (South New Jersey).
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School Breakfast and Lunch

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**USDA’s Summer Food Service Program Can Help**

School meals can help children get the nutrients they need for growth and development. This is especially true for the 1 in 6 who live in a food insecure household.¹ The dilemma is that those children who ate nutritionally balanced meals during the school year may be at risk of food insecurity in the summer. That’s where USDA’s Summer Food Service Program offers a solution: Free, nutritious meals for kids in the summertime.

**Collectively we will work together to:**

- Increase awareness of the important role Summer Meals can play in helping to nourish children and keep them healthy not hungry, in the summer
- Engage and empower families and communities to embrace, promote and use the Summer Food Service Program
- Provide resources to help schools, sponsors, communities and the media to champion summer meals

Find out about free summer meals for children in your community, and how you can help, at www.summerfood.usda.gov


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The New Jersey Vaccine for Children Program and 317-Funded Adult Program Provider Manual provides an overview of the VFC and 317 programs and summarize requirements and responsibilities. It is not meant to replace any of the other materials or trainings provided by the VFC program or the CDC.

The New Jersey Department of Health, VFC program appreciates the efforts of providers who administer vaccines and recognizes the vital role providers play in serving the needs of our underserved and at-risk populations. Ensuring that all children, adolescents, and adults are vaccinated in accordance with the ACIP-recommended schedule is the best way to protect individuals and communities against vaccine preventable diseases. The VFC and 317 programs make vaccines available to children, adolescents, and adults who might otherwise go unvaccinated because of an inability to pay for the vaccine. The New Jersey VFC program works to ensure that processes are as streamlined as possible and that providers have timely access to vaccines for their patient populations.
Helmet Safety in Elementary Schools: Medical Students as Teaching Liaisons

Amanda L. Herrmann, MD* (c), Colleen E. Stalter, MD* (c), Melissa A. Calt, MD* (c) Rutgers Robert Wood Johnson Medical School, Class of 2018, 675 Hoes Lane West Piscataway, NJ 08854
a Rutgers Robert Wood Johnson Medical School, 675 Hoes Lane West Piscataway, NJ 08854
b Rutgers School of Public Health (SPH), NJ Safe Schools Program, 683 Hoes Lane West, 3rd Floor SPH Building-Suite 399, Piscataway, NJ 08854
c Department of Environmental and Occupational Health, Rutgers SPH, 683 Hoes Lane West, 3rd Floor SPH Building-Room 384, Piscataway, NJ 08854
d Exposure Measurement and Assessment Division, Environmental and Occupational Health Sciences Institute, Rutgers Biomedical and Health Sciences, Piscataway, NJ
e Child Health Institute of New Jersey, Dept. of Pediatric Neurology, 89 French Street New Brunswick, NJ 08901

Abstract:

Background: Learning to teach is a vital component of medical education and contributes to the development of more knowledgeable, humanistic, and patient-centered physicians. However, understanding the specific community health benefits resulting from medical students acting as teaching liaisons has not been equally emphasized in the literature. This study explores those benefits via a partnership between medical trainees and the community through the implementation and analysis of a traumatic brain injury (TBI) prevention education program in 2nd grade classrooms.

Methods: Workshops were conducted in 2nd grade classrooms by teams of four to six medical students trained in a Helmet Safety Education program addressing various topics in brain functionality and helmet safety. Efficacy of the program was analyzed using data from pre- and post-test evaluations of students’ helmet safety knowledge, behaviors and perceptions. Results: Average summed Total Knowledge Score, reflecting factual knowledge about helmet safety, significantly improved after participating in the Helmet Safety Workshop. Further, students expressed increased willingness to wear a helmet while riding a bike in the future, as well as increased perception of personal knowledge about helmet safety after taking part in the Helmet Safety Workshop presented by medical student teaching liaisons. Conclusions: Medical students are effective teachers of helmet safety and TBI prevention in 2nd grade classrooms. In a broader sense, this study demonstrates the value of medical trainees as community health educators and liaisons. The unique partnership between medical students and members of the community should be optimized for the promotion of health awareness and primary disease prevention.

Keywords: Community, Education, Health, Medical Student, Helmet Safety, Traumatic Brain Injury

1. Background:

In the academic medical setting, teaching occurs not only between healthcare providers and their patients, but also among physicians and trainees of all levels. Opportunities for students and resident physicians to be educators are being integrated across all levels of medical education. Teaching knowledge or skills to others helps students to become better communicators, develop a greater understanding of the needs of others, and perfect their own comprehension of the topic or skill they teach.1,2,3

Following medical school, students step into the role of the resident physician, where the “resident-as-teacher” model has become ubiquitous within US residency training programs.4,5,6,7 Nearly one-third of medical students’ learning in the clinical setting comes from residents.4,5 In turn, residents report better knowledge acquisition and communication skills when they take on an active teaching role.6 Trainees committed to their role as “educator” continue to hone teaching skills that they will use throughout their entire careers. The specific benefits beyond physician development, however, have not been equally emphasized in the literature.

It is critical to recognize that medical students as community health educators can provide a quantifiable reciprocal benefit to public health and wellness. To test this, we designed a community health intervention utilizing medical students to target a significant public health concern: traumatic brain injury (TBI) in children. According to the Brain Injury Association of America, TBI is the leading cause of disability and death in children and adolescents in the US.8 Approximately 511,257 children between the ages of 0-14 suffer TBIs each year, resulting in 473,947 Emergency Department visits, 35,136 hospitalizations and 2,174 deaths.9 Wearing a helmet is the single most effective method of preventing head injuries, brain damage, and long-term effects of injuries following a bicycle accident,10 yet a national survey conducted in 2012 reported that less than half of children ages 5-17 years consistently wear a helmet while riding a bicycle.11

We engaged 2nd grade students in an interactive classroom-based curriculum to educate them about brain safety and empower them with knowledge and habits that provide long-term health benefits. The purpose of the study is to evaluate the efficacy of medical students as community health educators of helmet safety and TBI prevention in 2nd grade classrooms through pre- and post-test evaluation of students’ factual knowledge, perception of knowledge, and willingness to change safety practices.

continued on next page
2. Methods:

Workshops were conducted in 2nd grade classrooms by teams of four to six medical students trained in a Helmet Safety Education Program adapted from the Epilepsy Foundation of New Jersey’s Heads Up For Safety Curriculum. Students were given a 10 question pre-test to assess baseline knowledge. Students then participated in a 30-minute interactive workshop addressing various topics in brain functionality and helmet safety including importance of the brain in common daily activities, purpose of the skull, risks of not wearing a helmet, who should wear a helmet, when to wear a helmet, and proper helmet fit. New helmets were provided to the students and evaluated for proper fit. Students were offered the opportunity to decorate their helmets to generate excitement about helmet safety. A post-test evaluation was distributed to assess the impact of the workshop on helmet safety knowledge, behaviors, and perceptions. (Supplemental Figure 1 on the next page)

2.1 Statistical Analysis:

Questions #1-8 were graded with 1 point awarded for a correct answer and 0 points awarded for an incorrect answer. A total summed score for Questions #1-8, or “Total Knowledge Score,” was calculated for all pre- and post-tests. Mean and standard deviation of the Total Knowledge Score was calculated for all pre- and post-tests. Statistical significance was assessed using a two-tailed t-test. McNemar’s test was used for components of Questions #1 and #4, as well as questions #2-3 and #5-8. For Questions #9 and #10, numerical values (1-4) were assigned to answer choices according to a Likert Scale model based on ordinal qualitative responses selected by students. Statistical significance was assessed using the Wilcoxon signed-rank test.

3. Results:

As shown in Figure 1 on the following page, the distribution of the Total Knowledge Score (Questions #1-8) is skewed to the right with a large number of students achieving perfect scores of 25 points on both the pre- and post-tests. The right-ward shift in post-test scores demonstrates an average improvement between 0 and 4 points. Figure 2 on the following page shows the actual changes in distribution of scores between pre- and post-tests. This improvement in the average Total Knowledge Score was statistically significant (p<0.001) with an average pre-test score of 21.1 (95% CI 20.8 – 21.4) compared to 22.3 (95% CI 22.0 – 22.6) on the post-test.

Differences in percent correct between pre-test and post-test results were analyzed across individual questions as well (Table 1, next column).

<table>
<thead>
<tr>
<th>Question</th>
<th>Pre-training test (%)</th>
<th>Post-training test (%)</th>
<th>% change</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>77.9</td>
<td>85.6</td>
<td>+7.7</td>
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<tr>
<td>2.</td>
<td>79.3</td>
<td>82.7</td>
<td>+3.4</td>
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<td>94.3</td>
<td>94.4</td>
<td>+0.1</td>
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<td>92.1</td>
<td>+6.0</td>
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<td>83.1</td>
<td>+2.2</td>
<td>0.3143</td>
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<td>7.</td>
<td>94.2</td>
<td>93.6</td>
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<td>0.7423</td>
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<tr>
<td>8.</td>
<td>89.2</td>
<td>85.1</td>
<td>-4.1</td>
<td>0.0327</td>
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</table>

Question #1 assessed students’ knowledge of which specific activities require the use of a helmet. There was a significant improvement in the number of correct responses on the post-test versus the pre-tests (p<0.01) for all activity choices, with the exception of “Bicycle,” “Sleeping,” and “Eating.” The change seen was driven by the options “Baseball/Softball,” “Skiing,” and “ATV/Quad,” which had 18.7%, 15.3%, and 15.2% increases in correct responses, respectively (Figure 3 on the following page).

Significant improvement was also seen for questions assessing helmet wearing technique (#4) and the link between helmet use and brain injury (#5). Question #4 required students to circle pictures of proper helmet use. The two most commonly circled pictures were options “C,” in which the helmet is not properly buckled, and “E,” the only correct answer. Differences between the pre- and post-test responses were statistically significant for these options, with an improvement of 8.77% and 2.05% for C and E respectively (Table 2 below). Question #5 demonstrated a statistically significant increase in correct responses (p <0.001) with 86.1% correct pre-test and 92.1% correct post-test (Table 1).

<table>
<thead>
<tr>
<th>Question</th>
<th>Wrong---&gt;</th>
<th>Right---&gt;</th>
<th>Wrong---&gt;</th>
<th>Right---&gt;</th>
<th>Wrong---&gt;</th>
<th>Total</th>
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<td>a. 1.87</td>
<td>a. 1.66</td>
<td>a. 95.2</td>
<td>a. 1.24</td>
<td>a. 100</td>
<td></td>
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<tr>
<td></td>
<td>b. 19.9</td>
<td>b. 3.73</td>
<td>b. 60.4</td>
<td>b. 16.0</td>
<td>b. 100</td>
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<tr>
<td></td>
<td>c. 3.32</td>
<td>c. 3.32</td>
<td>c. 94.2</td>
<td>c. 1.04</td>
<td>c. 100</td>
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<tr>
<td></td>
<td>d. 3.73</td>
<td>d. 3.73</td>
<td>d. 32.8</td>
<td>d. 44.8</td>
<td>d. 100</td>
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<tr>
<td></td>
<td>e. 3.11</td>
<td>e. 3.11</td>
<td>e. 71.0</td>
<td>e. 8.71</td>
<td>e. 100</td>
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<td></td>
<td>f. 1.04</td>
<td>f. 2.28</td>
<td>f. 96.1</td>
<td>f. 0.62</td>
<td>f. 100</td>
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<td>11.91</td>
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<tr>
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<td>4c. 3.51</td>
<td>4c. 80.99</td>
<td>4c. 6.73</td>
<td>4c. 100</td>
<td></td>
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<tr>
<td></td>
<td>4e. 2.05</td>
<td>4e. 4.68</td>
<td>4e. 92.11</td>
<td>4e. 1.17</td>
<td>4e. 100</td>
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<tr>
<td>5.</td>
<td>9.44</td>
<td>3.43</td>
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<td>4.51</td>
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<td>6.</td>
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<td>73.45</td>
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<tr>
<td>7.</td>
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<td>4.27</td>
<td>89.96</td>
<td>2.14</td>
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</tr>
<tr>
<td>8.</td>
<td>5.63</td>
<td>9.74</td>
<td>79.44</td>
<td>5.19</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

continued on page 32
Questions on the necessity of bike helmets (#2, 6, 7), proper fit (#3), and their use by adults (#8) did not show statistically significant improvement (Table 1). However, a positive trend was identified for questions #2, 3, and 6 (Table 1). Questions #7 and #8 unexpectedly showed a decrease in correct response rate. For Question #8, “It is not important for adults to wear helmets,” the correct response rate decreased by over 4%.

Question #9 assessed students’ willingness to change helmet use behaviors by asking them to rate how frequently they currently wear a helmet on the pre-test, and how often they will wear a helmet on the post-test. There was a statistically significant improvement between pre- and post-test (p<0.001) from 53% to 60% for the option “all of the time.” (Figure 4 on the following page).

Question #10 assessed perceived knowledge of helmet safety practices, allowing students to assess their helmet safety knowledge as being “a lot,” “some,” “a little,” or “nothing.” Analysis demonstrated a statistically significant improvement between pre- and post-test (p<0.001) for this question, with the percent of students reporting they know “a lot” about helmet safety increasing from 38% to 62%. The percent of students who felt that they knew “nothing” about helmet safety decreased from 7% to 4%. (Figure 5 on the following page).

4. Discussion:

This study emphasizes that medical students are effective teachers of helmet safety and TBI prevention within the community as evidenced by quantitative assessment of knowledge gained, perception of understanding, and willingness to change behaviors among 2nd grade students before and after a Helmet Safety Workshop. These findings demonstrate how an educational intervention influences not only factual knowledge, but also attitudes and behaviors surrounding helmet usage.
Furthermore, we propose that the specific use of medical students as teachers of our workshops creates an environment conducive to engaged learning. In a collaboration between the John A. Burns School of Medicine and the State of Hawai‘i Department of Education, community high school students showed increased knowledge following various community health lessons taught by medical students. A greater preference was seen for medical students as health educators compared to traditional health teachers due to their unique dual role as both students and future physicians.13

Dartmouth’s Partners in Health Education (PHE) is a contemporary example of a medical school elective that pairs medical students with elementary school classroom teachers.14 The primary goal of the program is to improve medical student communication skills, however, analysis of secondary outcomes suggests that programs such as this one empower children to take charge of their health and to make healthy choices. Specifically, children in classrooms with medical student teachers reported learning more about health and were able to list more ways to be healthy than children in comparison groups with no medical student teachers.15 Again, this highlights the potential for mutually beneficial outcomes when medical students act as teaching liaisons in the community, and the unique impact that student-to-student teaching can have on both knowledge and behaviors in the early childhood education setting.

4.1 Limitations:

Our study has several limitations:

Many questions, including question #7, had a very high correct response rate on pre-test. A similar bicycle safety intervention implemented in New Jersey targeting children ages 8-12 also found a high correct response rate for certain pre-test questions, and deemed these questions to be either too simple, or to represent systematically understood concepts.16 Importantly, our program serves not only to introduce students to new facts about the brain and helmet safety, but also to reinforce commonly known facts. Even a slight increase in the number of correct responses may translate into meaningful knowledge gained on an individual level and potential safety outcomes.

In a similar intervention conducted by kindergarten teachers in Canada, a significant increase in factual knowledge was noted between pre- and immediate post-test results after students took part in a 30-minute workshop focusing on the importance of wearing a properly-fitted helmet to prevent head injuries.12 Authors attributed this trend to an effective workshop that allowed students to acquire necessary knowledge for improvement. The large improvement in the Total Knowledge Score observed in our own intervention reflects similar findings.
For question #8, the incorrect response rate increased after the workshop, a pattern also observed by Lachapelle et al\textsuperscript{16} and attributed to poor question quality, or poor training on that topic. Given the age and developmental stage of our study population, students may have been challenged by the “double-negative,” as the question required them to identify the statement, “it is not important for adults to wear helmets,” as false.

Because this particular intervention targets underserved elementary schools in an effort to reach those most in need, outcomes may misrepresent population statistics. Students of lower socioeconomic status may have decreased access to education and resources (i.e., lack of adults at home wearing helmets) that might be more common in other populations.

Lastly, this intervention only tests immediate retention of knowledge, and long-term evaluation at 3 or 6 months for knowledge retention or impact on actual behaviors would be a valuable future study.

5. Conclusion:

The idea of a “Community-Academic Partnership” in physician training is a paradigm shift from the mid-20th century model that viewed the community simply as a consumer of healthcare.\textsuperscript{17} The partnership model is founded on the idea that when trainees take part in community health care and education, they provide important services to the community and gain knowledge and perspective to more effectively contribute to the overall health of the communities they serve. Learning to teach in medical school is a means of becoming a more knowledgeable, humanistic and patient-centered physician. Perhaps more importantly, however, medical students as community health educators provide a strong reciprocal benefit to community health, supporting a mutually beneficial partnership between physicians in training and the community.

Early education is critical for highly preventable conditions such as traumatic brain injury. We feel that our results demonstrate that the unique partnership between student doctors and members of the community, particularly impressionable youth, can be optimized for the promotion of lifelong healthy living and primary disease prevention.

Acknowledgements:

1. This project was funded by Kessler Foundation, Special Projects Program mechanism (2014-2017, Principal Investigator D. G. Shendell).
2. Workshop curriculum was adapted from the Epilepsy Foundation of New Jersey’s Heads up for Safety Program with their approval and support.
3. We thank our Teaching Liaisons (volunteer medical students): Alissa Michel, Joanna Kinney, Joshua Gilens, Chloe Philips, Andrew Brennan, Alessandra Angelino, Brett Yarusi, Gloria Chen, David Luor, Elizabeth Day, Bryan Green, Suwaiba Asghar, Michael Rallo, Megan Hazel, Erin Kern, Ava Hunt, and Ashley Landsman.

Bibliography:

Supplemental:

Contents of Pre- and Post-Survey. Participants circled answers. Correct answers to true/false questions are in bold, italicized font.

1. Circle all of the activities during which you should wear a helmet.

   Bicycle    Scooter    Skateboard    Rollerblades    Skiing
   ATV/Quad Riding    Ice Hockey    Sleeping    Snowboarding
   Horseback Riding    Baseball/Softball    Football    Skates    Eating

2. It is okay to ride a bike without a helmet sometimes.     True     False

3. All helmets fit the same: the size or placement on your head does not make a difference as long as you wear it.     True     False

4. Circle all of the pictures that show a good way to wear a helmet.

5. If you fall off of your bike, scooter, skateboard, or skates then you can hurt your brain.     True     False

6. The skull is hard enough to protect your brain without a helmet.     True     False

7. Helmets are the best way to protect your brain.     True     False

8. It is not important for adults to wear helmets.     True     False

9. How often do you (*will you) wear your helmet when you are on a bike?
   a. All the time    d. Never
   b. Most of the time    e. I don’t ride a bike
   c. Sometimes

10. How much do you know about helmet safety?
   a. I know a lot    c. I know a little
   b. I know some things    d. I don’t know anything

* Question adaptation for post-test
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As a parent of a child with special needs, you are committed to ensuring that your child receives the services and supports needed to have a successful school year. Your child’s Individualized Education Program (IEP) is the path to that success. This article provides you with tips and tools that you can use to ensure an effective IEP that will make all the difference to your child in the year to come.

**POSITIVE STUDENT PROFILE**
You can complete a Positive Student Profile Form in preparation for your IEP meeting and at the beginning of the new school year. It will help you share information about your child’s strengths, challenges and successes with the IEP team and your child’s teacher. The template at [www.spanadvocacy.org/sites/g/files/g524681/f/files/START_Positive_Student_Profile_.pdf](http://www.spanadvocacy.org/sites/g/files/g524681/f/files/START_Positive_Student_Profile_.pdf) can be adapted to fit your individual family needs. Headings and categories may be changed to include the information that you feel is most important to share with the people working and interacting with your child. The idea is to help them to see the strengths and positive attributes of your child. If your child is old enough, you can also help them to complete the Positive Self-Profile. This process helps them identify their own strengths and needs and begins the process of self-advocacy.

**PREPARING FOR THE IEP MEETING**
Another great tool to use to prepare for your child’s IEP meeting can be found at [http://www.spannj.org/START/tools1.htm](http://www.spannj.org/START/tools1.htm). Here you can find a collection of tools for parents, students, and educators – all critical members of the IEP team. These IEP preparation tools provide the team with a common focus for IEP development and implementation, as well as a vehicle for sharing individual perspectives. The student tools can be used to prepare youth for participating in the IEP meeting and building self-advocacy skills. These tools include Questions for the Collaborative Team; Parent Preparation for the IEP Meeting; Student Preparation for the IEP Meeting; and Teacher Preparation for the IEP Meeting.

**FIRST IMPRESSION:** A Positive Student Profile is a great way to introduce your child to teachers at the beginning of the school year.

You can also review the document, Selection of Supports in General Education Classrooms: Guiding Questions, to prepare for the placement component of the IEP meeting. This document provides parent and educators with ideas about curricular/instructional modifications or specialized instructional strategies, materials, equipment and technology that may be needed to support your child’s success in the general education classroom. You can find this tool at [http://www.spannj.org/START/tools1.htm](http://www.spannj.org/START/tools1.htm).

**LITERACY ISSUES**
Literacy is important for all children, including children with disabilities. The Literacy Pages for Families guide, found at [www.spanadvocacy.org/sites/g/files/g524681/f/files/START_Literacy%20Pages.pdf](http://www.spanadvocacy.org/sites/g/files/g524681/f/files/START_Literacy%20Pages.pdf), gives you concrete activities that you can use at home to support the development of your child’s literacy skills. For each activity, the guide includes the skill focus, the materials you will need, step by step directions to follow with your child, and suggestions that address your child’s specific interests and strengths.

If you still have questions, or just want to talk to someone about the IEP process, or how to make your child’s school year successful, contact your local Parent Training and Information Center.

**BY DIANA AUTIN**

continued on next page
ADDRESSING BEHAVIOR CHALLENGES

If your child has challenging behavior in school, it is important to ensure completion of a Functional Behavioral Assessment (FBA) and development of a Positive Behavior Support (PBS) plan as part of the IEP. You can find out more about FBAs and PBS plans at www.spanadvocacy.org/content/functional-behavior-assessment-positive-behavior-supports-guide.

TRANSITION TO ADULT LIFE

IDEA requires that students with disabilities be involved in their own IEP development and have a transition to adulthood plan in their IEP starting no later than age 16, and earlier if appropriate. (Note: Your state may require transition planning to start at age 14.) You can find useful information about transition-related goals and services at www.parentcenterhub.org/repository/transition-goals/. To engage your youth in their own transition planning, check out the National Dissemination Center’s guide, Relish is for More than Hot Dogs: A Student’s Guide to Making Your Own Sweet Success, found at http://nichcy.org/wp-content/uploads/docs/st3.pdf. Another good resource on transition are Centers for Independent Living which help students with disabilities with activities of daily living, independent living skills, and maximizing independence and can be found at: http://www.ilru.org/html/publications/directory/index.html

THE IEP MEETING

The Individuals with Disabilities Education Act (IDEA), the federal law that governs special education, provides a specific process that should be used at the IEP meeting, starting with an identification of your child’s strengths and needs, and your priorities for your child’s development, and then moving to identification of goals and objectives tied to the general curriculum, the specific services and supports that will be provided to your child, how your child’s progress will be assessed, and how you will be informed of this progress. The IEP also includes the “placement,” the specific setting in which the IEP will be implemented. IDEA requires that, to the maximum extent appropriate, your child be educated in the general education classroom with needed supports, services, accommodations, and modifications, and with non-disabled peers. The IEP Meeting Checklist for Parents can be used to ensure that you discuss all of the areas that should be part of the IEP conversation. You can find the Checklist at www.spanadvocacy.org/sites/g/files/g524681/f/files/IEP%20MEETING%20CHECKLIST%20FOR%20PARENTS.pdf.

WHAT IF WE DISAGREE?

In every important relationship, there will be disagreements! You care deeply about your child’s future. You bring that passion to the IEP meeting and to your relationships with the teachers and other professionals who work with your child. The US Department of Education has funded a technical assistance center, the National Center on Dispute Resolution in Special Education (CADRE). They have an array of resources and tools, written and on video, in English and Spanish, at www.directionservice.org/cadre/, on how to strengthen parent-professional partnerships. They also have a series of parent guides on each of the formal dispute resolution processes under IDEA, from mediation to complaint investigation to due process hearings. You can access these excellent guides at www.directionservice.org/cadre/DR/parentguides2014.cfm.

OTHER TIPS, TOOLS, AND RESOURCES

You can find many other tips, tools and resources about preparing for your IEP meeting, and the new school year, on the website of the new Center for Parent Information and Resources. Check out all their resources in English and Spanish at www.parentcenterhub.org/resources/.

If you still have questions, or just want to talk to someone about the IEP process, or how to make your child’s school year successful, contact your local Parent Training and Information Center. Parent Centers are funded by the US Department of Education under IDEA to provide you with information about your rights and the rights of your child in the special education process, how the process works, evidence-based practices that will maximize your child’s learning, and strategies to partner with professionals in decision-making. Parent Centers are staffed by parents just like you who have children with special needs and who have been trained to help you be the best advocate for your child! Find the Parent Center near you at www.parentcenterhub.org/find-your-center.

ABOUT THE AUTHOR:

Diana Autin is the Executive Co-Director of the Statewide Parent Advocacy Network (SPAN), NJ’s Parent Training and Information Center; Family-to-Family Health Information Resource Center; Family Voices and Federation of Families for Children’s Mental Health chapters; Statewide Parent to Parent program; and Military Family 360 Support Project among other programs. Autin codirects N-PACT, the Region 1 Parent Technical Assistance Center, providing technical assistance and capacity-building to the federally-funded parent training and information centers and community parent resource centers in the Northeast United States.
PUBLIC BENEFITS
A HOLISTIC GUIDE FOR FAMILIES WHO HAVE A LOVED ONE WITH SPECIAL NEEDS

Many important benefits are outlined below, but not all. Also, effort has been made to point out important aspects of the programs, but outlining every detailed exception, rule, etc., is beyond the scope of this informational guide. For context, most of these programs are “means-tested,” which means they are usually not available until the child turns 18 because up until that point the parents’ assets and income are taken into account, which is often too high to qualify.

BY CALEB HARTY CFP®

1) SUPPLEMENTAL SECURITY INCOME
• Individuals may be eligible for SSI if they do not have “substantial gainful activity” (SGA) and a disability. SGA is defined as earning less than $1170/month (or $1950/month if blind).
• SSI payment is up to $735/month. It can be less for various reasons such as the individual living at home. Some states also have a state supplement program (SSP) which gives the SSI recipient a smaller additional payment.
• Individual usually cannot have more than $2,000 in their name to qualify (there are certain items not counted, such as a car, home, burial plot, and other permitted items).
• Note: $20 of unearned income (a gift from a parent for example) is permitted and the first $65 of earned income also does not reduce benefits, per month. There is a $1 reduction in benefits for every $2 earned after the $65 exclusion
• Rent subsidies and food assistance does not count against SSI.
• Qualifying for SSI can provide automatic eligibility for Medicaid in some states.

2) MEDICAID
• Comprehensive healthcare for low-income individuals and those with disabilities.
• Like SSI, individuals in many states usually cannot have more than $2,000 in their name.
• Medicaid covers much more than just health insurance; various home and community-based services are only available via Medicaid. For this reason, even if other health insurance is available through a parent, etc., it is often recommended to qualify for Medicaid if possible.

3) SECTION 8
• Also called federal “Housing Choice Voucher” program (HCV).
• Housing vouchers for low-income individuals.
• To qualify, the individual must have an income of 50% of the “area median income”. If already qualified for SSI, he/she will most likely also be eligible for Section 8 based on income.
• No asset limits for qualification, but interest earned on assets counts towards income limit.
• Several different variations of the program, but the most common is when the individual pays approximately 1/3 of

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their income towards housing rent, Section 8 voucher covers the remainder.
• It is often recommended as soon as the child turns 18, to get on the Section 8 waiting list (which can reportedly be as long as 7-10 years). Even if not sure the child will need it, it can always be turned down if approved in the future.

4) SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM
• Supplemental Nutrition Assistance Program ("SNAP"), formerly referred to as “food stamps.”
• Food assistance programs to individuals with low income.
• Individual cannot have more than $3,250 in countable assets.
• Income limitations similar to SSI (if already receiving SSI however the individual will qualify).
• For single individuals for example, the monthly allotment is $194 – 30% of net income.

5) PERSONAL CARE ATTENDANT
• Funded through Medicaid.
• Program in which the individual with needs hires a PCA to help with Activities of Daily Living (ADL’s) such as bathing, dressing, transfers, etc.

6) SOCIAL SECURITY DISABILITY INSURANCE
• Program similar to SSI, administered through the Social Security Administration (SSA).
• Once a parent begins collecting Social Security (usually at retirement), their child with disabilities is eligible to receive half of that payment, which is typically higher than SSI payments.
• After the parent passes away, the payment the child is receiving goes to 3/4 of the parent's Social Security payment.
• Unlike SSI, not “means-tested” meaning there is no asset restriction. There is also no limit on unearned income, however, earned income above the SGA limit as outlined in section 1 for SSI would disqualify the individual from receiving SSDI payments.
• Disability onset has to be before age 22 and be continuous through the time the person is claiming benefits.
• It’s possible to receive SSDI and SSI simultaneously, but not typical.
• After he/she is getting SSDI for 2 years or more they are eligible for Medicare and can have this in addition to their Medicaid.

7) ABLE ACCOUNTS
• Result of the Achieving a Better Life Experience Act in December 2014.
• Investment account for eligible individuals with special needs for “qualified disability expenses” (QDE) such as housing, education, transportation, and many other items.
• Funds grow tax-free and are distributed tax-free.
• Disability onset must have occurred before individual turned 26.
• Accounts up to $100,000 do not impact a person’s SSI benefits.
• Maximum contribution per year is $14,000 from all sources. Individual can only have one ABLE account.
• There is a payback provision, meaning if the individual with the account passes away, any remaining funds are used to payback Medicaid benefits the person received.

*2017 figures
Note: This guide is only intended to be informational in nature. There is no assurance of complete accuracy. Please visit the public benefits government websites directly for more detailed information on eligibility, amounts, etc. Caleb Harty and Harty Financial do not provide legal or tax advice and any information in this guide is not intended to be interpreted as such.

To receive a free public benefits resource guide and/or more information email your name to caleb@hartyfinancial.com and include “resource guide” in the subject line or call 978-972-5961.

Web Resources
1) https://www.ssa.gov/oact/cola/sga.html
2) http://www.mass.gov/eohhs/consumer/insurance/more-programs/
5) https://www.fns.usda.gov/snap/eligibility
6) http://www.thearcofgnh.org/web/services/2/adult-family-care-afc/
7) http://www.mass.gov/eohhs/consumer/insurance/masshealth-member-info/prca/
9) https://secure.ssa.gov/poms.nsf/lnx/0501130740

ABOUT THE AUTHOR:
Caleb Harty CFP® is the Principal of Harty Financial. He specializes in helping parents plan financially for their children with disabilities as well as retirement planning. He lives in North Reading, MA along with his wife Amanda and can be reached at (978) 972-5961 or Caleb@hartyfinancial.com
Cytomegalovirus (CMV) is a member of the herpes virus family. Almost all of us will be infected at some time in our lives. Like all herpes viruses, CMV stays with you for life. Once infected, a person will intermittently shed virus in saliva, urine, blood, semen for men, and cervical secretions and breast milk for women. Between 0.5 and 1% of newborns are infected in utero. During infancy and young childhood, children readily spread the virus to other children and to their parents as they tend to share their saliva. As children develop more hygienic behavior and stop exploring the world with their mouths, transmission of the virus decreases. When children reach adolescence, they again begin to share saliva and with it cytomegaloviruses. If a pregnant woman has been infected with CMV in the past, she may reactivate the viral infection or become infected with a new strain of CMV during the pregnancy. The virus can cross the placenta and infect the fetus; usually this results in an asymptomatic infection. If a pregnant woman is infected for the first time during the pregnancy, i.e. has primary infection, she is far more likely to transmit the virus to her fetus and the baby is more likely to have symptoms. Infections acquired earlier in gestation are more likely to cause symptoms and organ damage.

The vast majority of children and adults who become infected with CMV have no symptoms at all. Some adolescents and adults will have a mononucleosis-like illness with sore throat, adenopathy, fever and fatigue. Immunocompromised people often develop illness associated with CMV; a multitude of organs can be involved. Infections include chorioretinitis, encephalitis, pneumonia, myocarditis, gastroenteritis, hepatitis, and bone marrow infection with suppression. In patients who have undergone organ transplantation, CMV may be transmitted with the organ; this can lead to organ dysfunction as well as systemic infection.

Most babies infected in utero have no symptoms or physical findings; this is probably because the fetus is exposed to maternal antibodies as well as to the virus. If a mother has primary cytomegalovirus infection, she is more likely to transmit the virus to her baby and the baby is more likely to have symptoms. When the infection occurs during the first trimester, severe infections can occur. Overall, only about 10% of babies infected in utero will have any signs of infection. These can include prematurity, growth restriction, jaundice, extrahepatic hematopoiesis with skin lesions, hepatitis, splenomegaly, microcephaly, periventricular calcifications, retinitis, sensorineural hearing loss, pneumonia, and diaphragmatic paralysis. Symptomatic infants are likely to have developmental delay; both retinitis and deafness can be progressive. About 10 to 15% of asymptomatic babies will develop sensorineural hearing loss over time; more than half of these infants do not have hearing problems at birth and thus are not detected by newborn screening.

The standard way to diagnose congenital CMV is to identify the virus in saliva or urine; urine is considered the confirmatory test. Remember that CMV is often present in breast milk, so testing saliva in breastfed babies can result in false positives due to breast milk left in the mouth. It is best to collect the saliva more than an hour after a breast feeding. Specimens should be collected within the first 2 or 3 weeks of life so that congenital infection can be distinguished from perinatally acquired infection (from cervical secretions, breast milk or horizontal transmission). Serology is less useful as it is complicated by the presence of maternal antibody, false positive IgM tests and perinatal infection.

There are antivirals which are effective at controlling replication of CMV; however, the antivirals do not eliminate latent virus. Thus infection can be controlled but not cured. Immunocomprometent patients with CMV rarely require antiviral therapy. Immune compromised hosts often require therapy. Studies in babies with symptomatic congenital CMV have shown that newborns treated with 6-months of valganciclovir therapy had better hearing and developmental outcomes than those who received placebo. However, the antiviral causes bone marrow suppression with neutropenia. Close monitoring is required and dose adjustments are often needed. The 2018 Red Book recommends that antiviral therapy be limited to newborns with moderate to severe symptomatic congenital CMV disease. Newborns with mild disease or isolated sensorineural hearing loss should not receive antiviral therapy since there is a lack of data suggesting benefit for these infants.

All newborns diagnosed with congenital CMV infection should have repeated audiology evaluations and ophthalmologic examination. These children are at risk for developmental delay. They should be evaluated and referred for early intervention if delays, hearing or visual losses are detected.

Prevention of CMV infection is difficult since it is so common and so prevalent in body secretions. Pregnant women can decrease their risk of infection by limiting exposure to saliva and urine, particularly the saliva and urine of young children. This can be done by not kissing children on the face or hands and by washing hands after changing diapers. This will not totally eliminate risk but it is likely to decrease it. There is no currently recommended treatment for pregnant women who develop CMV infection. No licensed vaccines are available now, but several are being developed and studied.
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- Have your families expressed frustration over long delays in accessing mental/behavioral health services?
- Can your practice benefit from learning the best methods and strategies for screening, identifying, referring and care-managing children and adolescents with mental/behavioral health issues?

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Connect you with Psychologists and Licensed Social Workers to support care management and identify resources for children in your practice

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- 423 pediatric primary care providers are participating in 8 Hubs across NJ.
- 77,234 patients have been screened for mental/behavioral health concerns.
- 4,198 patients have been provided services for mental/behavioral health concerns.

Pediatric Psychiatry Collaborative
Regional Hubs

Legend

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- Atlantic Health Hub @ Goryeb Children’s Hospital
- Hackensack Meridian Hub @ Hackensack University Medical Center
- Hackensack Meridian Hub @ Palisades Medical Center
- Hackensack Meridian Hub @ Saint Peter’s Family Health Center
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