CME Article

Creating a Medical Home for Our Sexual Minority and Gender Non-Conforming Patients, Lurie, 6

Case Report

Non-Cardiac Pulmonary Edema in Heroin Overdose in a Teenager, Radhakrishnan, Radhakrishnan, 28

Retrospective Study

Concordance Over Time Between ESR and CRP in Pediatric Inflammatory Bowel Disease, Teitelbaum et al, 14

Resident Voice

Resident Wellness and the Need for Burnout Education, Samedi et al, 18

Legal

Absent Employees-How Long is Too Long for a Small Practice?, Newman, Romaniello, 26

Legislative

Budgets Bills, Lead and Pre-K PSI, 27

Resources

Pediatric Psychiatry Collaborative - Hospital-based Hubs in Your Area, Insert
Mental Health Billing Update, 33

Family Voices

What Families are Asking Pediatricians about Lead Poisoning, Agoratus, Docherty, 13
6 CME Activity
Creating a Medical Home for Our Sexual Minority and Gender Non-Conforming Patients
By Brian Lurie, MD, MPH

12 Childhood Lead in New Jersey: What Pediatricians Should Know
By Arturo Brito, MD, MPH
Puthenmadam Radhakrishnan, MD MPH, FAAP

13 Family Voices: What Families are Asking Pediatricians about Lead Poisoning
By Lauren Agoratus, MA
Maria Docherty

14 Concordance Over Time Between ESR and CRP in Pediatric Inflammatory Bowel Disease
By Jonathan E. Teitelbaum, MD
Gregory Callanan, Tina Rakitt MD, Joseph Jaeger DrPH

28 Case Study: Non-Cardiac Pulmonary Edema in Heroin Overdose in a Teenager
By Puthenmadam Radhakrishnan MD, MPH, FAAP
Aditya Radhakrishnan, MD, PGY1

34 Update: Pre-K Our Way
By Sam Crane

35 Preterm Infants at Highest Risk for Sudden Infant Death Syndrome
By Barbara M. Ostfeld, PhD
Thomas Hegyi, MD

New Jersey Pediatrics is published quarterly by NJAAP. For information about the publication including article submissions and advertising opportunities, please contact Michael Weinstein at mweinstein@njaap.org or by phone at (609) 842-0014

Advertisements in New Jersey Pediatrics do not imply NJAAP endorsement of the product, services, or claims made for any product by a manufacturer.

Advertisers in New Jersey Pediatrics do not influence articles, their content or the opinions expressed in this publication.
Looking Back, Moving Forward: What’s at Stake

In recent years, not since the Vietnam War era, has the country been so polarized. The presidential primaries have brought out folks on the extremes of both sides that are being stirred into waging a war on the status quo. The battles seem to be without rules; those inciting are often without boundaries and the consequences have not been thoroughly thought out. What is at stake is more than who will be the next President of the United States. We risk neutralizing or reversing many of the gains of the last fifty years with respect to civil rights, women’s rights and the progress we have made in respecting and honoring our nation’s all encompassing diversity. While things might have been great some fifty years ago, they had not been that way for all and the steps we have taken over the past half century to set it right should not be forgotten. Thankfully, the current generation does not have in their life experience blatant sexism and racial discrimination. The “bathroom wars” of the sixties were about separate facilities for whites and African-Americans - a thought that is unconscionable today. However, we should not take for granted that the country could not slide backwards. So called “political correctness” evolved for a reason: the disenfranchised, who were the victims of ignorant and yet endorsed callousness or even viciousness, finally got a voice.

At risk of being undermined is the principle that goes right to the heart of pediatrics, that is giving a voice to the voiceless. We as pediatricians care for and advocate for our most vulnerable populations - whether they are frail neonates, growing and developing children, children with disabilities and special needs, or teens that are depressed or without direction or purpose. We strive to protect children and to guide their parents to nurture them to their best potential to become young adults. At risk are the governmental and social resources that enable our efforts:

- the Affordable Care Act that is moving to make healthcare a right and not a privilege
- gay marriage that extends dignity to all our families
- laws and attitudes that respect rather than restrict our diverse populations
- immigrant children and their families who have sought refuge in our country and deserve our care as a basic human right
- health consequences of global warming and deregulation of existing environmental and pollution controls
- positive parenting skills that are being undermined by our potential leaders’ bullying, childish behavior and hate speech in an unprecedented primary season that is a national embarrassment

There is a symmetry between the practice of pediatrics and a functioning government that strives to help the marginalized, to offer hope and dignity and a path forward. We should not be lulled into complacency that this can never be taken away and that things will go on as usual. There is too much at stake.

This is an important election; it counts. It is not just about personalities. Have discussions with your colleagues, friends and your children. Do not let your silence be acceptance. Now more than ever, get involved. Get out the Vote!

Elliot Rubin, MD, FAAP
President, New Jersey Chapter, AAP

NJAAP 2016 Agenda for Children

Download the Agenda for Children from your favorite app store or go to http://mazdigital.com/webreader/37564 to read it now.
Executive Director’s Column

Fran Gallagher, MEd
Executive Director, NJAAP

My column is normally devoted to sharing updates on recent priorities, activities and programs with which the Chapter has been involved, such as our Annual Meeting, the expansion of the Pediatric Psychiatry Collaborative, the Children's Ball and others. But, the unimaginable and horrific tragedy in Orlando caused me to take a different approach. This event and its enduring sadness led me to contemplate more fully the Medical Home and how its role in the lives of children and families is now more important than ever, especially for those who are most vulnerable. While there is healing and picking up the pieces, we know we must work even harder to ensure all children are safe, happy, and healthy.

Care in a Medical Home is provided by a highly trained and compassionate team led by pediatricians. The mission: to assure every child achieves their optimal health and development regardless of ethnicity, religion, socioeconomic status and gender identification. And inclusion is at its very foundation. As the Orlando story continues to unfold, there is no doubt new and troubling details and challenges will emerge. Pediatricians are already taking the lead in addressing many of these serious concerns including developmental and behavioral concerns, sexual identity, sexual exploitation and substance abuse. While some of these issues are addressed in the Chapter’s Agenda for Children, among them: Access to Pediatric Care; Supporting a Culture of Safety and Mental Health, others are highlighted in the pages that follow:

• CME Activity, Creating a Medical Home for Our Sexual Minority and Gender Non-Conforming Patients (Page 6)
• Lead Screening Update (pages 12-13)
• Supporting a Culture of Safety (Prevention Matters, page 25)
• Pediatric Psychiatry Collaborative (insert)
• Heroin Overdose in Teenagers (Page 28)
• NJAAP Adolescent Committee (Now being formed)

Should your patients need mental, emotional, or behavioral health intervention services with support for their families, please check out New Jersey's Children's System of Care (www.performcarenj.org) for 24/7 access. Stay tuned, we will continue to pull together resources that are intended to be helpful to you and that center around access, quality, and the resources needed to support and sustain efforts. Your perspectives on what’s needed is key, please reach out as the NJAAP team always appreciates hearing from members and potential members – we’re in this together.

A special thank you to our outgoing President, Elliot Rubin, MD, FAAP and welcome to Jeff Bienstock, MD, FAAP as he begins his Presidency on July 1, 2016. Please visit www.njaap.org to see an updated slate of Officers and District Councilors. This is an exceptional group of leaders, who are working diligently on behalf of all children and their families and supporting pediatricians throughout New Jersey. It’s an honor to work with such great leadership and our stellar team of staff, who together, are focused on meeting the tough issues confronting pediatrics head on.

Linking Medical Homes and Schools can really make a difference for children with special health needs and/or those struggling with prejudices, exclusion, bullying, and animosity. Together, we can work to change this. The Annual School Health Conference will be a great opportunity to keep moving forward. I hope to see you at the Palace on October 18th! Bring a colleague.

Kind Regards,

Fran Gallagher
New Jersey continues its uphill struggle to develop systems that support pediatric providers in the prevention, early detection, and management of children with mental and behavioral health issues. Historically, this has long been perceived as forbidden territory among managed care and further compounded by Medicaid managed care carving out behavioral health from their contracts with pediatricians.

And yet, despite the carve out and the black box concerns of many common mental health pharmaceuticals manufacturers, pediatricians continue writing the majority of the prescriptions for mental health conditions—especially ADHD, which dominates the pattern. Numerous studies show the alarming reality that as many as 25 to 30% of children who come in for pediatric well child or sick care visits have mental health issues that are symptomatic enough to affect their daily function.

The major barriers to developing a more effective system for dealing with these staggering numbers persist:
- Very few child psychiatrists practice in New Jersey
- Only a scant few of those who do practice in New Jersey accept insurance
- Community-based mental health therapists are more plentiful, but it remains difficult to know their skill sets, and lastly
- Communication between mental health providers and pediatricians remains limited and sporadic

However, there is hope for creating a proven system in NJ and it is currently being piloted in 4 counties. The model, the Pediatric Psychiatry Collaborative, originally designed and implemented in Massachusetts and successfully replicated in multiple states, provides care management and child psychiatry support to pediatric practices who agree to utilize evidence-based screening (reimbursed by managed care).

To date in New Jersey over 500 children have been linked swiftly with community services through coordinated efforts by the pilot’s care managers.

The success will be duplicated in seven additional counties this summer, including Mercer and Middlesex counties with funding originating in the legislature and overseen by the Department of Children and Families (DCF).

However, the governor's budget does nothing to support the project’s momentum in the 2017 budget and DCF states they need more data to show the program's benefits, despite documentation of over 15,000 children having been screened by more than 160 pediatricians in the first year of the project.

This is perplexing. Perhaps because the original funding for the project came from the legislature and was approved by the governor, it has never been embraced by DCF, who seemingly, does not recognize it as being an important cog to their nationally and internationally renowned Children's System of Care.

Regardless, NJAAP is engaged in an all out, grass roots effort to secure sustainable funding to grow the Collaborative and we need your help. You can support our efforts by doing one of the following:
- Contact your representative and ask for their support.
- Sign the Change.org petition online at:
  - http://chn.ge/1Z5KiQZ
- Download the petition from the NJAAP website, sign it and fax back to NJAAP at 609.842.0015. We will forward it to the Governor and your legislative representative.

This is important and we would appreciate your demonstration of support to help make it happen.

Is your practice interested in achieving NCQA Recognition as a Patient-Centered Medical Home? Do you need help in getting started?

NJAAP proudly offers our NCQA Patient-Centered Medical Home Recognition “Warm Line”

Access the Warm Line anytime at (609) 842-0014 for technical assistance with:
- NCQA PCMH Recognition website navigation (www.ncqa.org/Programs/Recognition/Practices/PatientCentered-MedicalHomePCMH.aspx), tools and resources
- Eligibility and readiness assessment
- PCMH 2014 Standards and Guidelines questions
- Document review
- Available webinars/group trainings, and more!

For more information, please call Judie Grandjean, Program Director, PCMH CCE at 609-842-0014 or email her at jgrandjean@aapnj.org

Let NJAAP Help Your Practice Work Toward NCQA Recognition
Creating a Medical Home for Our Sexual Minority and Gender Non-Conforming Patients

Introduction

According to the AAP policy, the medical home should be accessible, continuous, comprehensive, family centered, coordinated, compassionate and culturally effective. It should also be delivered by well-trained physicians who help to manage and facilitate all aspects of care. Pediatric care should be a partnership of mutual responsibility and trust, which respects diversity. Sexual Minority and Gender Non-Conforming, also known as LGBTQ youth as a community are marginalized. Care for this population should be individualized and meet the needs of the patient regardless of social, educational, or cultural background. Competent care for our LGBTQ youth is a skill set that most providers are not trained in and do not have the life experience to make them aware of the issues. The LGBTQ community includes a very diverse group of people with varying challenges, vulnerabilities, assets and strengths. Individuals who may be LGBTQ and their families, often experience challenges when interacting with the health care system - challenges that often translate into disparities in the quality of care received. These disparities derive from systems that perpetuate structural stigma and providers who enact stigma attached to particular gender identities, sexual orientations, and sexual practices. Most importantly, we must be aware that being gay, lesbian, bisexual, transgender, or questioning is not a problem or risk behavior in itself and that despite the unique challenges faced by sexual minority and gender non-conforming youth, the majority grow up healthy and lead happy, productive lives with resilient adaptations to social biases and mistreatment.

As pediatricians, to create a medical home for our patients who identify as a sexual minority or gender non-conforming, we first need to understand the definitions, developmental challenges, and health disparities faced by this population. Competency should include an understanding of sexual development, the ability to identify mental health issues, and familiarity with physical and sexual health issues related to sexual orientation or gender identity.

Definitions

Familiarizing ourselves with basic definitions will help pediatricians deliver culturally effective care and reduce health disparities. Please see Table 1 on page 9 for a list of important definitions to be aware of. As health care providers, we must be aware that sexual orientation and gender identity are separate concepts; they are non-binary, fall on a spectrum, and may change from visit to visit. Sexual orientation is defined as an individual’s pattern of emotional attractions to others that involves complex components of fantasies, feelings, and cultural affiliations. As pediatricians, we need to be aware that sexual orientation is a self-label and may not be the same as the information you receive in a detailed sexual history, sexual practices, and sexual feelings. It is fluid and can change over time. For males, the first awareness of homosexual attraction occurs at age nine, and for females, age 10. Most will identify with an LGBTQ identity at age 16.

Sex is the biology or anatomy that determines if a person is male, female, or has a variation of sexual development. Gender identity is a person’s internal sense of being male, female, both, neither, or another gender. Gender expression is the way a person acts, dresses, speaks, and behaves (i.e., feminine, masculine, androgynous). Gender expression does not necessarily correspond to assigned sex at birth or gender identity. Gender non-conforming describes a gender expression that differs from a given society’s norms for males and females. Transgender describes a person whose gender identity and assigned sex at birth do not correspond. It is also used as an umbrella term to include gender identities outside of male or female. Gender dysphoria is the distress experienced by some individuals whose gender identity does not correspond with their assigned sex at birth. This manifests itself as clinically significant distress or impairment in social, occupational, or other important areas of functioning and is considered a DSM-5 diagnosis. Awareness of gender identity happens very early in life. Between 1-2 years of age children become conscious of physical differences between the two sexes. By age 3, children can identify themselves as a boy or a girl and by age 4, gender identity is stable.

Developmental Challenges and Health Disparities

LGBTQ youth face the same developmental challenges that all adolescents face, including developing a personal identity, and navigating new social and sexual experiences. Most LGBTQ youth, however, face additional developmental challenges related to their sexual orientation and/or gender identity. Establishing a healthy and comfortable sense of one’s own sexuality or gender identity happens fairly smoothly for some. Others struggle to affirm and integrate their identity. The complexity of coping with an alternative sexual or gender identity puts LGBTQ youth at increased risk for a number of negative health behaviors, mental health disorders, and related issues that pediatricians need to be aware of. These disparities include increased rates of tobacco use, alcohol and substance abuse, homelessness, suicide, depression, anxiety, victimization and bullying. Sexual and reproductive health disparities exist including, earlier sexual exposure, increased rates of HIV and other STIs, and pregnancy.
LGBTQ youth also have increased rates of body dysmorphia and altered eating behaviors.\(^7\)

Heterosexism and homophobia may cause patients to have a decreased sense of self-worth and develop fears of rejection and marginalization. According to the CDC, by internalizing this stigma LGBTQ youth develop more troubling health behaviors than their heterosexual counterparts, as mentioned above.\(^8\)

Determining who and when it is safe to come out to is a struggle for many. It is particularly challenging for youth who live in communities that strongly oppose LGBTQ identities and lifestyles. Even those who live in communities that are relatively tolerant of LGBTQ people may not feel they have family, friends, or other adults who will provide support and understanding.

**Lack of Access to Care**

Many youths will delay care because they believe their providers are not familiar with or will not understand their LGBTQ needs. Patients may perceive a lack of confidentiality or fear the healthcare provider’s reaction upon disclosure. If the healthcare environment is perceived as unfriendly or if they believe the medical professionals are not knowledgeable, they may avoid accessing care. Homophobia itself can act as a barrier to healthcare. Moreover, those who are homeless or estranged from family will likely not have access to their family’s insurance plans, or have a regular means of transportation to the healthcare facility. Specifically, for transgender youth, they may have difficulty finding comprehensive medical and mental health services. Many pediatricians may not feel comfortable or knowledgeable to understand gender dysphoria, assist with transition, or provide necessary resources. Most insurance companies still do not pay for this care which is quite expensive.\(^2\)

Whether identified as LGBTQ or straight, adolescents are often uncomfortable with initiating discussions about sex including sexual orientation. Many adolescents report that they did not disclose their sexual orientation or gender identity to their pediatrician even if they described themselves as being out to almost everyone in their lives.\(^7\) Unfortunately, a survey done in 2010 found that most physicians reported that they did not discuss sexual orientation, sexual attraction, or gender identity. A majority indicated they would not discuss or address these topics even if their patients were depressed, had suicidal thoughts, or attempted suicide.\(^7\)

**What can Pediatricians Do?**

Since most adolescents do not feel safe disclosing their sexual orientation or gender identity, we must provide opportunities for those who are LGBTQ to discuss experiences in a confidential, nurturing, safe, and supportive environment. In addition to addressing specific needs related to sexual orientation and gender identity, primary care for LGBTQ patients should be sensitive, comprehensive and of high quality. Studies show that LGBTQ youth value the same health provider characteristics as other youth. They wish to receive private and confidential services, be treated with respect and honesty, be seen by providers who are well trained and have good listening and communication skills.\(^7\) Goals for treating LGBTQ youth are the same for all patients: promote health development, promote social and emotional well-being and promote and ensure physical health.\(^9\)

**Organizational changes**

The first question to ask is what message does your healthcare facility give to sexual minority and gender non-conforming youth as they enter? While working with LGBTQ youth and families it is important to create an open, understanding, and accepting environment. As primary care providers, we must provide opportunities for those who are sexual minority or gender non-conforming to discuss experiences in a confidential, nurturing, safe, and supportive environment. The degree of safety, comfort, openness, and respect that LGBTQ patients feel often has an impact on their future access to healthcare, risk reduction, and help seeking behaviors.\(^6\)

Clinical environments should include affirming posters and policies, and all staff must be educated to respectfully communicate with LGBTQ patients. As patients enter the office, the waiting rooms should be open and friendly. By demonstrating that our office space has an accepting and positive attitude about youth who are LGBTQ, you will promote a positive therapeutic relationship. Display posters or flyers that include LGBTQ youth, same sex couples, and symbols such as rainbow flags or Human Rights Campaign stickers in the waiting room. Have notices about resources and support groups easily accessible and in clear view.\(^2\) Offer single stall, gender neutral bathrooms. Display in clear sight, non-discrimination policies which include both gender identity, gender expression, and sexual orientation for both patients and employees.

Intake forms and questionnaires should not assume heterosexuality. Instead they need to reflect the diversity of LGBTQ people and their relationships. Forms should avoid gender specific terms, such as asking about husband/ wife, or mother/father. The forms should include a question about gender identity as well as the patient’s sex assigned at birth. Forms must ask about the patient’s preferred name and the pronoun they choose. There must be a system set up to ensure that all staff uses the preferred pronoun and name.

Creating a safe and welcoming environment is not just about the physical location but also the people.
Respectful communication and quality care depends on all staff receiving training on diverse LGBTQ identities, terminology, and health disparities. All need to learn how to avoid assumptions and stereotypes, and to communicate in a non-judgmental and welcoming manner.²

As with all adolescents, we must ensure confidentiality. Create confidentiality policies which are clearly displayed and shared with the patient, parent, and staff.² Many adolescents fear that the pediatrician will accidentally disclose their gender identity or sexual orientation, practices, questions, or concerns to their parents. This is of even more concern if the patient believes disclosure could lead to negative consequences at home, such as hostility, mistreatment, violence, or being denied shelter or economic support.⁶

Providers and their and office staff must identify their own personal biases as this can be damaging to the therapeutic relationship. Internalized homophobia and heterosexism may not be recognized by staff members but will inadvertently interfere with appropriate care.² It is an ethical obligation to refer a patient for appropriate care if you feel your bias will interfere with the care you can provide.

Communication

The patient interview is an excellent opportunity to set a comfortable tone and guide the patient in understanding relevant health topics. As such, it is important to treat it as a conversation and not as a checklist. Use a non-judgmental tone and body language and start the interview with a blanket statement that you ask all adolescents these questions in the exact same way. If patients feel that these questions are targeted specifically towards them because of their appearance, they may become apprehensive and guarded.² For LGBTQ youth, the pediatrician may be the only person with whom they feel comfortable expressing concerns and seeking help for some of the health disparities they may potentially encounter. As an accepting and supportive adult, pediatrics can facilitate their resilience to developing risk factors. By remaining non-judgmental, and by maintaining empathy, respect, and curiosity, we can create open and honest dialogues with our patients that help them feel safe and supported.⁶ It is not our role to identify who is a sexual minority or gender non-conforming. Patients may not disclose their sexual and gender identity to their clinician.⁴ Sometimes they reject labels, and may see their sexual or gender identity as fluid and may change over time. Allow patients to use their own terminology for their identity, even if it does not match their sexual behaviors and follow their lead. Also, avoid making assumptions about sexual orientation and gender identity based on the way a patient looks or by the behaviors and attractions they report at the visit.

As with all adolescents, the HEADSSS Screen (home, education, activities, drugs, diet, safety, sexuality, suicide), is a useful tool for taking a social history, but with LGBTQ adolescents, also concentrate on specific topics. Discuss the coming out process, who have they told, and if their parents are aware. Is there any family discord or rejection, religious condemnation, have they been forced to run away or evacuate the home? Ask specifically about school, whether there is victimization or bullying and if supports, such as a gay straight alliance, are available. Have they been victims of emotional or physical abuse based on their perceived sexual orientation or gender identity? Do they feel isolated or do they have support in their families or schools, both shown to be positive factors in producing a resilient young adult. Finally, ask specifically about risk taking behaviors such as a sexual practice, drug or alcohol use, depression, and suicide.⁶ When talking about sexual or relationship partners, use gender neutral language. Use the same language that a patient does to describe themselves, sexual partners, relationships, and identity.² Ask the patient to clarify any terms or behaviors with which you are unfamiliar.⁵ Equally important is keeping local referrals and resources on hand, and to increase your knowledge of the issues through reading and continuing education.⁶

Another critically important role of the pediatrician is to recognize that families may be struggling with understanding and accepting their child’s sexual orientation or gender identity. Assist the parents by offering services and resources.⁴ Explain to parents the negative impact of rejecting words and behaviors and suggest that parents support their child’s sexual orientation or gender identity as much as possible.⁶ For our transgender patients, be aware and understand gender dysphoria. Help families manage gender dysphoria and its uncertainty as to the outcome of their child’s gender. Make it clear to the family that all options remain acceptable and available as the child grows.²

Conclusion:

Health care providers must understand that the majority of sexual minority and gender non-conforming youth are healthy and well-adjusted and will grow up having overcome the stress created by stigmatization and will develop and possess remarkable strength and self-determination. By understanding the terminology, health disparities, lack of access to care, and challenges that our sexual minority and gender non-conforming youth face, we will be able to offer the culturally effective, comprehensive, compassionate, high quality care this population deserves. Making our offices friendly and accepting and addressing each individual using gender neutral and non-judgmental language, we will help decrease the mental and physical health disparities seen too often within this marginalized population and create a medical home where our patients feel comfortable discussing issues of sexual orientation and gender identity.

continued on next page
Agender (adj.) – Describes a person who identifies as having no gender.

Ally (noun) – A person who supports and stands up for the rights of LGBTQ people.

Asexual (adj.) – Describes a person who experiences little or no sexual attraction to others.

Assigned sex at birth (noun) – The sex (male or female) assigned to a child at birth, most often based on the child's external anatomy. Also referred to as birth sex, natal sex, biological sex, or sex.

Biphobia (noun) – The fear of, discrimination against, or hatred of bisexual people or those who are perceived as such.

Bisexual (adj.) – A sexual orientation that describes a person who is emotionally and sexually attracted to people of their own gender and people of other genders.

Cisgender (adj.) – A person whose gender identity and assigned sex at birth correspond (i.e., a person who is not transgender).

Coming out (verb) – The process by which one accepts and/or comes to identify one's own sexual orientation or gender identity (to come out to oneself). Also the process by which one shares one's sexual orientation or gender identity with others (to come out to friends, etc.).

Gay (adj.) – A sexual orientation that describes a person who is emotionally and sexually attracted to people of their own gender. It can be used regardless of gender identity, but is more commonly used to describe men.

Gender dysphoria (noun) – Distress experienced by some individuals whose gender identity does not correspond with their assigned sex at birth. Manifests itself as clinically significant distress or impairment in social, occupational, or other important areas of functioning. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) includes gender dysphoria as a diagnosis.

Gender expression (noun) – The way a person acts, dresses, speaks, and behaves (i.e., feminine, masculine, androgynous). Gender expression does not necessarily correspond to assigned sex at birth or gender identity.

Gender identity (noun) – A person's internal sense of being a man/male, woman/female, both, neither, or another gender.

Gender non-conforming (adj.) – Describes a gender expression that differs from a given society’s norms for males and females.

Gender role (noun) – A set of societal norms dictating what types of behaviors are generally considered acceptable, appropriate or desirable for a person based on their actual or perceived sex.

Heterosexism (noun) – The assumption that everyone is heterosexual, and that heterosexuality is superior to all other sexualities.

Heterosexual (straight) (adj.) – A sexual orientation that describes women who are emotionally and sexually attracted to men, and men who are emotionally and sexually attracted to women.

Homophobia (noun) – The fear of, discrimination against, or hatred of lesbian or gay people or those who are perceived as such.

Lesbian (adj., noun) – A sexual orientation that describes a woman who is emotionally and sexually attracted to other women.

Men who have sex with men/Women who have sex with women (MSM/WSW) (noun) – Categories that are often used in research and public health settings to collectively describe those who engage in same-sex sexual behavior, regardless of their sexual orientation. However, people rarely use the terms MSM or WSW to describe themselves.

Pansexual (adj.) – A sexual orientation that describes a person who is emotionally and sexually attracted to people regardless of gender.

Questioning (adj.) – Describes an individual who is unsure about or is exploring their own sexual orientation and/or gender identity.

Trans man/transgender man/female-to-male (FTM) (noun) – A transgender person whose gender identity is male may use these terms to describe themselves. Some will just use the term man.

Trans woman/transgender woman/male-to-female (MTF) (noun) – A transgender person whose gender identity is female may use these terms to describe themselves. Some will just use the term woman.

Transgender (adj.) – Describes a person whose gender identity and assigned sex at birth do not correspond. Also used as an umbrella term to include gender identities outside of male and female. Sometimes abbreviated as trans.

Transphobia (noun) – The fear of, discrimination against, or hatred of transgender or gender non-conforming people or those who are perceived as such.
CME from page 9

<table>
<thead>
<tr>
<th>Heterosexist Questions</th>
<th>Gender Neutral Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have a girlfriend?</td>
<td>Are you dating anyone?</td>
</tr>
<tr>
<td></td>
<td>Are you attracted to men, women or both?</td>
</tr>
<tr>
<td>What do you and your boyfriend do together?</td>
<td>Do you have a partner? Tell me about them.</td>
</tr>
<tr>
<td></td>
<td>Are you sexually active? With men, women or both?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Table 2. Using Gender Neutral Terms in the HEADDSSS Assessment</td>
<td></td>
</tr>
</tbody>
</table>

References


CME Quiz on page 11

Commissioner’s Message

Dear Colleagues,

June is Lesbian, Gay, Bisexual, Transgender, Questioning, Intersex (LGBTQI) Pride Month, offering opportunities to become active in supporting the LGBT community.

DCF provides services to LGBTQI youth in our care and specialized training for caseworkers. DCF is the first state child welfare agency in the nation to earn the Seal of Recognition from the Human Rights Campaign’s (HRC) All Children-All Families (AC-AF) Initiative.

DCF is proud to serve LGBTQI youth and families and offer services and supports addressing their needs. We recently adopted a new policy guiding our work with LGBTQI youth and families. This new policy is part of our ongoing effort to create and support an inclusive organizational culture both inside and outside the department. We’re grateful to DCF’s LGBTQI Youth Committee for helping develop the new policy. Our LGBTQI Youth Committee is an advisory board that promotes education, awareness, and cultural competence regarding best practices for LGBTQI individuals.

Learn more about our LGBTQI resources by visiting http://nj.gov/dcf/adolescent/lgbtqi/ or www.njyrs.org.

Let’s continue to work to eliminate prejudice, embrace diversity, and ensure all youth and families have a safe, inclusive, and supportive environment.

Warm regards,
Allison Blake, PhD, LSW
Commissioner
NJ Department of Children and Families
CME Quiz

1. In males, first awareness of homosexual attraction occurs at age nine. In females, first awareness of homosexual attraction occur at age ten.
   a. True
   b. False

2. Gender dysphoria can manifest itself as clinically significant distress or impairment of:
   a. Occupational and social function
   b. Confidence
   c. Self esteem
   d. Bonding

3. Coping with an alternative sexual or gender identity can place LGBTQ youth at a greater risk for which of the following:
   a. Mental health disorders
   b. Substance abuse
   c. Suicide
   d. All the above

4. According to the CDC, LGBTQ youths are likely to develop more troubling health behaviors than their heterosexual counterparts
   a. True
   b. False

5. Studies demonstrate that LGBTQ youths value which of the following characteristics in their pediatrician?
   a. A good sense of humor
   b. A “business as usual” demeanor
   c. Respect and honesty
   d. Good memory

6. Beyond discussing sexual orientation and gender identity, primary care for LGBTQ patients should be:
   a. Sensitive
   b. Comprehensive
   c. Confidential
   d. All the above

7. Which of the following actions can practices take to convey an open and nurturing environment to LGBTQ youths?
   a. Display posters and flyers that include LGBTQ youths and same-sex couples
   b. Educate staff on ways to effectively communicate with LGBTQ patients
   c. Post information on LGBTQ local resources and support groups in clear view
   d. All of the above

8. Which of the following is the most effective for setting a comfortable tone during a visit with an LGBTQ youth?
   a. Have the patient fill out standard intake form that assumes heterosexuality
   b. Avoid all questions pertaining to gender identity
   c. Ask patient’s preferred name and pronoun
   d. Inquire into family’s acceptance of patient’s sexual orientation

9. It is important to discuss the LGBTQ patient’s coming out process as well as the family’s reaction.
   a. True
   b. False

10. Developing a greater understanding of the health disparities, the implications of lack of access to care and a keener understanding of the challenges confronting sexual minority and non-conforming youths, will empower pediatricians to:
    a. Offer more culturally effective care
    b. Provide more comprehensive care
    c. Deliver a higher quality of care within the contest of the Medical Home
    d. All the above

---

CME Instructions

Read the CME-designated article and answer the Summer issue, quiz questions above. Print your name and phone number and mail or fax this form within six months from the date of issue to: NJAAP CME Quiz, 3836 Quakerbridge Road, Suite 106, Hamilton, NJ 08619 • Fax: 609.842.0015

NAME _______________________________ PHONE _______________________________

EMAIL _______________________________

Submitter must answer 8 of the 10 questions correctly to qualify for CME credit

Accreditation Statement:

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Medical Society of New Jersey through the joint providership of Atlantic Health System and the American Academy of Pediatrics, New Jersey Chapter. Atlantic Health System is accredited by the Medical Society of New Jersey to provide continuing medical education for physicians. Atlantic Health System designates this live activity for a maximum of 1.0 MA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
This summer, the New Jersey Department of Health (DOH) will be addressing rule changes related to childhood lead levels and embarking on a campaign to better inform pediatric providers, families, and the public about the potential health effects of lead in children. The DOH is working in tandem with NJAAP to ensure uniform and widespread messaging.

Exposure to lead is well recognized for its negative impact on the neurological development in infants and children. According to the Centers for Disease Control and Prevention (CDC), “There is no safe blood lead level.” Children six months to two years of age are particularly susceptible to exposure because of their increased mobility and mouthing activities.

The current CDC reference blood lead level (BLL) is 5 micrograms per deciliter (mcg/dl), representing the 97.5th percentile BLL distribution in children 1-5 years of age. NJ proposes to lower this reference level from 10 mcg/dl to 5 mcg/dl. This proposed change will result in an increase in the number of children identified as having Elevated Blood Lead levels. The change will result in earlier and enhanced public health actions, including nurse case management and environmental inspections.

We will be relying on pediatric providers throughout the state to be cognizant of the new reference level and take appropriate actions to educate families about potential sources of lead, developmental implications of exposure, and effective prevention efforts. Pediatric providers are encouraged to visit the DOH website (www.state.nj.us/health) to learn more about anticipatory guidance, regulations and recommendations around screening, and actions different BLLs will require.

Over the past two decades, comprehensive education and screening efforts by public health officials and pediatric providers throughout New Jersey have helped to dramatically reduce lead’s damaging effects on children. In State Fiscal Year (SFY) 2015, 206,221 children in New Jersey were tested for lead, with only 989 (0.48%) found to have levels of 10 mcg/dl or higher. In comparison, in SFY1998, when only 10,213 children were tested, 1,500 (15%) had levels this high. However, many children in the state remain at-risk. Approximately 30% of homes in New Jersey were built prior to 1978 - the year lead-based paint was federally banned. Moreover, more than 20% of New Jersey residents are foreign-born, increasing chances of lead exposure to children from imported products such as candies, cosmetics, medicinal home remedies and frequent travel to and from countries of origin. Occupational exposure by family members also place children at increased risk.

When Should Children Be Screened?

- All children should be screened for lead at 12 and 24 months of age.
- If not completed before three years of age, children should be screened at least once before the sixth birthday.
- If identified as High Risk when using a comprehensive screening tool.
- If capillary lead levels are elevated, venous confirmation is required.

Take Home Points

1. As recommended by CDC, decrease elevated lead level to 5 mcg/dl
2. Use an updated, evidence-based screening questionnaire to reassess risk
3. Screen all children at age 12 and 24 months of age
4. Educate parents and families on prevention and management of elevated lead levels in children

References:

1. “Pediatric providers”, as used in this article, refers to pediatric health care providers who are responsible for the evaluation of infants and children in a primary care setting. As such, this includes primary care pediatric providers, family physicians, advanced practice nurses (APNs), pediatric sub-specialists, or any other providers who hold this responsibility.
3. Childhood Lead Exposure in New Jersey. New Jersey Department of Health Annual Report: www.state.nj.us/health
Families are becoming more aware of the prevalence of lead poisoning due to recent testing of school water. Governor Christie has funded lead removal from homes and testing of all school water. This issue is not restricted to our urban areas. Recently, Hamilton Township Schools, a suburban district in Mercer County, also had extensive findings of lead in their water. It is also known that lead can be found in soil, pesticides, water, paint, and dust. Pediatric providers are now seeing more children affected by lead poisoning and need the resources to answer questions from parents.

What Parents Need to Know from Providers

What is lead poisoning? How can it affect my child?

Even a small amount of lead in the body can cause serious problems. Lead can build up in the body over a period of months or years. Children under the age of 6 are especially vulnerable, because their mental and physical abilities are still developing. Lead has been reported to cause learning and developmental disabilities, decreased growth, hyperactivity, impaired hearing and brain damage.

How would I know if my child has lead poisoning?

Parents need to know that children usually do not have symptoms and providers can explain that they need a blood test.

Can lead poisoning be prevented? What can I do?

Pediatricians can educate families on the many sources of lead poisoning that go beyond just the more well-known culprit of paint chips. The Nebraska Department of Health has an excellent factsheet on this including dust, soil, water, products such as toys and jewelry etc. (see Resources.)

What should I do if my child does have lead poisoning?

Medical treatment of lead poisoning has remained unchanged. A level of 10 micrograms per deciliter (mcg/dL) or above is considered unsafe and could require chelation.* For more information, the NJAAP has posted a webinar for identification and management of lead and asthma, including CME credits.

What resources are available for me?

Here are some resources that pediatricians can share with families:

- CDC Factsheet for families
- National Lead Information Center in English and Spanish
- NJ Poison Control Center information for families, including an online interactive module
- Parent Center Hub overview of what lead poisoning is, how to test, etc.
- Lead poisoning is listed as OHI (Other Health Impaired) in the NJ Administrative Code if children need special education services.
- Catastrophic Illness in Children Relief Fund may cover lead abatement if eligibility requirements are met.

It is essential that pediatricians are aware that only 10% of at risk children under age 3 have been tested nationally. As more schools test water, and more parents become concerned and may request blood tests, pediatricians will need to have resources available to address those concerns.

Resources

Centers for Disease Control and Prevention-information for parents
www.cdc.gov/nceh/lead/parents.htm

Catastrophic Illness in Children Relief Fund
Family Information Line: (800) 335-FUND (3863)
www.state.nj.us/humanservices/cicrf/home/

National Lead Information Center
www.epa.gov/lead or Spanish https://www.epa.gov/lead/plomo

NJ Poison Control Center
hotline (800)222-1222 www.njpies.org
Interactive Lead Learning Center for families www.njpies.org/lead/

Parent Center Hub
www.parentcenterhub.org/repository/ohi-lead/

Sources of Lead - NE Dept. of Health and Human Services
dhhs.ne.gov/publichealth/Pages/LeadSources.aspx

*Updated recommendations on reference blood lead level will soon be issued by NJDOH.
See Childhood Lead in New Jersey: What Pediatricians Should Know on Page 12

continued on page 33
Concordance Over Time Between ESR and CRP in Pediatric Inflammatory Bowel Disease

Introduction

Inflammatory bowel disease (IBD) is a chronic disorder in which there is inflammation of the gastrointestinal tract and is typically divided into Crohn disease (CD), ulcerative colitis (UC) and indeterminate colitis. While endoscopy is becoming the gold standard test to determine disease activity\(^1\), physicians continue to use various less invasive modalities to monitor a patient’s disease activity including clinical assessments, physical exam and blood analysis. Classically, clinicians have utilized non-specific acute phase reactants including most commonly the erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) as data points to aid in assessing disease activity.

The ESR is defined as the rate in mm/hour at which erythrocytes suspended in plasma settle when placed in a vertical tube. The ESR is an indirect measurement of serum acute phase protein concentrations, particularly fibrinogen. As such, the ESR has been included in the calculation of the pediatric Crohn disease activity index (PCDAI) among other clinical and hematologic tests\(^2\).

CRP consists of five identical, non-covalently associated subunits arranged symmetrically around a central pore, and is thus considered a pentraxin\(^3\). CRP has both pro-inflammatory and anti-inflammatory actions and plays a role in clearance of necrotic and apoptotic cells.

Various studies have evaluated the utility of ESR and CRP in predicting disease activity in IBD. However, most of these studies are hampered by small numbers, retrospective design, and inconsistent definitions of disease activity with most relying on disease activity scores rather than endoscopic scores. Some showed good correlation\(^4,5\) others show poor correlation with endoscopic disease\(^6,7\). Thus, their utility as independent factors to predict disease activity is at best unproven. Their utility is further brought into question by studies suggesting that obesity may increase ESR and CRP\(^7,8\) as well as a study finding that medications such as 6MP may increase ESR\(^9\).

Anecdotally, it has been noted that at a given time point the ESR and CRP may not be “in agreement” such that one may be normal while the other is elevated. The reason for this is unclear as both values are thought to reflect “inflammation”. Furthermore, it is unclear whether one of these two markers may be a more reliable indicator of inflammation for a given individual over time. If, in some individuals, one marker is never elevated, or the 2 markers always are concordant, it would obviate the need for determining both the ESR and CRP at every time point in that individual.

Abstract

Background: In assessing patients with inflammatory bowel disease (IBD), clinicians have traditionally used both the erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP). Experience has shown that these inflammatory markers are not always “in agreement.” We sought to determine if these inflammatory markers were concordant over time in pediatric patients (IBD).

Methods: For each IBD patient, retrospective abstracting of ESR and CRP values obtained on the same day were recorded over time. A maximal number of 10 time points per patient were obtained. Values were recorded as either being normal or elevated. Patients were grouped into categories (concordant, ESR elevated, CRP elevated, discordant) based on the laboratory values over the entire time course. The use of 6MP and presence of obesity were analyzed as potential confounders.

Results: 133 patients were included in the analysis (86 Crohn, 43 ulcerative colitis, 4 indeterminate colitis). Of the 1028 laboratory evaluations, both ESR and CRP were elevated in 21.5%, both were normal in 55.3%, the ESR was elevated and CRP normal in 11.2% and the CRP elevated and ESR normal in 12.1%. The 129 individuals with at least 2 values were placed in the following groups: 37 (28.7%) were concordant, 29 (22.5%) were elevated ESR, 39 (30.2%) were elevated CRP, and 24 (18.6%) were discordant. Neither 6MP use nor obesity had a significant effect on concordance.

Conclusion: Clinicians can consider this information when ordering serial laboratory investigations in pediatric IBD patients and thus determine the utility of ordering both ESR and CRP.

Key words: Crohn disease; ulcerative colitis; 6-mercaptopurine; azathioprine; obesity

continued on next page
Turner et al\(^1\) suggested that the ESR and CRP in a given individual were concordant based on a study of pediatric patients with ulcerative colitis in which two points in time were analyzed. We therefore sought to determine if this was true in both pediatric Crohn and ulcerative colitis over longer periods of time with greater numbers of data points. We also looked to see if obesity or 6MP affected this data. As we did not perform endoscopy at each data point we could not determine if these inflammatory markers accurately reflected the individuals’ disease activity at the time.

**Materials and Methods**

In the summer of 2014, patients with inflammatory bowel disease were identified by searching ICD9 codes for Crohn disease, ulcerative colitis and inflammatory bowel disease among those outpatients seen in the Pediatric Gastroenterology program at Monmouth Medical Center. The Pediatric Gastroenterology program at Monmouth Medical Center consists of two full time board-certified pediatric gastroenterologists in Long Branch, New Jersey.

Demographic data extracted from the chart included gender, IBD type (Crohn, ulcerative colitis, or indeterminate colitis). Inflammatory marker values (ESR and CRP) were then recorded chronologically for each patient for a maximum of ten time points. Each time point needed to have both the ESR and CRP recorded on the same day. All data points were obtained during outpatient evaluation as this is when the clinician is seeking to determine if there is occult disease activity, or if less specific complaints are related to mucosal inflammation. Those occasions in which only the ESR or the CRP was obtained were not included for analysis. Time points needed to be at least one month apart. Values were recorded as either being normal or elevated. Patient’s body habitus was recorded as normal or obese, with obese being defined as a body mass index equal to or greater than the 95\(^{th}\) percentile for age and gender. In addition, notation was also made as to whether the patient was on 6-mercaptopurine (6MP) at the time of the laboratory analysis. Of note, as a matter of preference neither physician uses azathioprine as an immune modulator. The use of other medications was not recorded, as to our knowledge these have not been described to affect ESR or CRP values.

Patients were grouped into categories based on the laboratory values over the entire time course. The individuals were labeled as: “concordant” if both the ESR and CRP were always normal or elevated for every time point; “ESR elevated” if the laboratory values had at least one time point where the ESR was elevated and CRP normal and no values where the CRP was elevated and ESR normal; “CRP elevated” if the laboratory values had at least one time point where the CRP was elevated and ESR normal; “discordant” if at one time point the ESR was elevated with a normal CRP and a separate time point where the CRP was elevated with a normal ESR.

Statistics were performed using GraphPad software®. Catagorical variables were analyzed using Chi-square test. A priori a value of p<0.05 was considered statistically significant.

A HIPPA waiver was granted by the IRB at Monmouth Medical Center to allow retrospective collection and analysis of data with intent to publish the findings.

**Results**

A total of 135 patients were identified. Of these, two were excluded (one female with CD and one female with UC) because no data points had both ESR and CRP values. Of the remaining 133 patients, 75 were males. Among these, 86 had Crohn disease (51 males), 43 had Ulcerative colitis (23 males), and 4 had indeterminate colitis (1 male).

A total of 1028 unique laboratory evaluations (including both ESR and CRP) were analyzed, for an average of 7.23 per patient (range 1-10).

Both ESR and CRP were elevated in 21.5%, both were normal in 55.3%, the ESR was elevated and CRP normal in 11.2% and the CRP elevated and ESR normal in 12.1% (Table 1*).

<table>
<thead>
<tr>
<th></th>
<th>CRP Elevated</th>
<th>CRP Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESR Elevated</td>
<td>221</td>
<td>115</td>
</tr>
<tr>
<td>ESR Normal</td>
<td>124</td>
<td>568</td>
</tr>
</tbody>
</table>

ESR (erythrocyte sedimentation rate); CRP (C-reactive protein)

In analyzing for individual discrepancy over time, 4 patients were excluded as they only had single time points available for analysis (2 female UC patients with normal ESR and CRP, 1 CD male with normal ESR and CRP, and 1 CD patient with an elevated ESR and normal CRP). Among the remaining 129 individuals, labs over time placed them in the following previously defined groups: 37 (28.7%) were concordant, 29 (22.5%) were elevated ESR, 39 (30.2%) were elevated CRP, and 24 (18.6%) were discordant.

continued on page 16
The data was then subcategorized by disease type and gender (Table 2*).

Table 2*
Data from 133 patients divided by disease type and gender

<table>
<thead>
<tr>
<th></th>
<th>Concordant</th>
<th>ESR Elevated</th>
<th>CRP Elevated</th>
<th>Discordant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>40</td>
<td>30</td>
<td>39</td>
<td>24</td>
</tr>
<tr>
<td>Males</td>
<td>21</td>
<td>17</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>Females</td>
<td>19</td>
<td>13</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>Crohn Disease</td>
<td>20</td>
<td>19</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>Males</td>
<td>10</td>
<td>13</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Females</td>
<td>10</td>
<td>6</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Ulcerative Colitis</td>
<td>19</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Males</td>
<td>11</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Females</td>
<td>8</td>
<td>7</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Indeterminate Colitis</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Males</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Females</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Concordant= both ESR and CRP were either elevated or both normal for all evaluations
ESR Elevated= at least one set of values in which the ESR was elevated and the CRP was normal, but never had a value in which the CRP was elevated and the ESR was normal
CRP Elevated= at least one set of values in which the CRP was elevated and the ESR was normal, but never had a value in which the ESR was elevated and the CRP was normal
Discordant= on at least one occasion the ESR was elevated and the CRP was normal, while at another time the CRP was elevated and the ESR was normal

Of the 133 patients, 39 (29.3%) were on 6MP at some point during the study period. These 39 patients had 369 laboratory evaluations, 270 (73.2%) while on 6MP. In comparing the values on 6MP versus off 6MP; they were both elevated in 76 (28.1%) vs 41 (41.4%); both normal in 141 (52.2%) vs 28 (28.3%); ESR only elevated in 33 (12.2%) vs 16 (16.2%) (p=0.76); CRP only elevated in 33 (12.2%) vs 14 (14.1%); respectively. Among the 758 data points in patients off 6MP, 82 (10.8%) had an elevated ESR with normal CRP, similar to the 12.2% on 6MP (p=0.45).

Of the 133 patients, 9 (6.8%) were obese (6 males, 7 UC and 2 CD). All of the obese patients had an elevated BMI at the time of each laboratory assessment. One of the obese patients had been on 6MP. Among the obese patients there were a total of 76 data collection points: both values were elevated in 9 (11.8%), both normal in 42 (55.3%), ESR alone elevated in 15 (19.7%), and CRP alone elevated in 10 (13.2%).

The one patient who was on 6MP had 1 value where they were both positive, 1 both negative before 6MP and 3 positive, 2 negative, and 3 elevate ESR while on 6MP. As a group the 9 obese individuals would be grouped as follows in assessing their data over time: 2 concordant, 3 elevated ESR, 2 elevated CRP and 2 discordant. Comparing the 9 obese to the 120 non-obese in each of these categories: concordant (22.2% vs. 29.2%), elevated ESR (33.3% vs. 21.7%), elevated CRP (22.2% vs. 30.8%) and discordant (22.2% vs. 18.3%).

Discussion
To our knowledge this is the largest study to determine the behavior of ESR and CRP as inflammatory markers over a prolonged period of time among children with inflammatory bowel disease. The analysis of the 133 patients yielded a robust amount of data such that 1028 unique couples of ESR and CRP were analyzed. Overall the ESR and CRP were concordant, both normal or both elevated, 76.8% of the time. However if one looks at these markers in a given individual over time they are concordant in only 28.7% of patients.

Presumably if one can do multiple measurements over time in an attempt to define a given patient as an individual in whom the ESR or CRP would be reliable then 81.4% could be so categorized (adding the 28.7% concordant to the 22.5% ESR and 30.2% CRP). Clinicians can thus consider this information when ordering serial laboratory investigations in pediatric IBD patients and thus determine the utility and financial implications of ordering both ESR and CRP.

This is very similar to the results described by Turner et al11 in which he evaluated ESR and CRP in pediatric UC patients. In his study a total of 451 patients were evaluated, of which 75 had longitudinal data to evaluate the “stability” of the ESR and CRP over time. Unlike our study, Turner’s study also correlated these inflammatory markers with disease activity. The study noted that overall the ESR was superior in differentiating remission from mild disease while CRP was superior in differentiating moderate from severe disease. Furthermore CRP correlated better with colonoscopic appearance than ESR.

They also found that in one third of patients, one test was reflective of disease activity at a time when the other was “non-informative”. Within a group of 75 patients who had two data points in time, they found that the ESR and CRP values reflected disease activity based on PUCAI score in 75% and 72% of the patients at the baseline visit.

continued on next page
However, only 59% had both ESR and CRP in the correct category, 13% had ESR alone in the correct category, 16% had CRP alone in the correct category and 12% had neither in the correct category. At the second visit 78% and 82% of the ESR and CRP were in the appropriate category. They concluded that while the ESR and CRP were moderately stable over time (about 70 to 80%), if either performed well in a given patient it will likely remain so over time. Thus using 2 data points, once it is determined which inflammatory marker is associated with disease activity in a particular patient, in 85% of patients ESR or CRP alone is sufficient to reflect disease activity, very similar to the 81.4% found in our study using an average of over seven data points in time. It is worth noting however, that taken as a whole, Turner et al concluded that both ESR and CRP have only a fair correlation with colonoscopic inflammation in pediatric UC patients.

Our study also evaluated whether 6MP affected the inflammatory markers by comparing the values among the 39 patients who had laboratory points on 6MP. If one specifically looks at the values in which ESR alone was elevated on 6MP (12.2%) versus off 6MP (16.2%) there is no statistical difference. Indeed if one compares those on 6MP with an elevated ESR and normal CRP (12.2%) this is similar to the analysis of the 758 data points in patients off 6MP in which 82 (10.8%) also had elevated ESR with normal CRP. This is contradictory to the findings of Barnes et al who identified 120 pediatric patients with IBD treated with azathioprine or 6MP. Of these, 12 were noted to have discordant ESR and CRP such that the CRP was normal while the ESR was elevated on at least three separate occasions during the course of a year. Eleven of these 12 were in remission based on a PCDAI score of less than 10. It is however worth noting that while those patients described by Barnes were largely in remission; our study did not record disease activity index or endoscopic evaluation at the time of the laboratory analysis. Thus the presence of an elevated ESR in a patient on 6MP needs to be considered as potentially reflective of active disease. Further studies evaluating the ESR in such patients and comparing values with the gold standard of endoscopy would likely provide a greater insight.

Based on data from previous studies suggesting that ESR and CRP can be elevated in obese children, we sought to see if this was true in our population as well. Not surprisingly, based on the fact that IBD is often associated with weight loss or poor weight gain, the number of obese children in our study was relatively small. Among the nine obese patients, both markers were normal in 55.3%, suggesting that obesity by itself did not elevate these markers in the majority of data points. Overall the numbers were too small to do meaningful statistical analysis. Clinicians can consider obesity as a confounder in interpreting ESR and CRP in this population, however our limited data suggests it is not a significant factor.

Our study further sought to evaluate the difference in ESR and CRP based on disease type and gender. Such subgroup analysis is limited by small numbers; however gender does not appear to influence these inflammatory markers in a meaningful way. As previously suggested however, it does appear as though CRP may be a better indicator of inflammation as compared to ESR in the pediatric Crohn disease patient.

Here 34.9% of Crohn disease patients were categorized as CRP elevated versus 22.1% as ESR elevated.

A greater percentage of CRP elevated patients was not seen in our UC group as 18.6% were in the elevated CRP group versus 23.3% in the ESR elevated group. Of note, Turner found that inflammatory markers poorly correlated with disease activity in UC patients.

The study is limited by the fact that endoscopy was not performed at each laboratory data point to accurately define disease activity and thus better correlate with these inflammatory markers. Such a study, however, would be impractical. Also, as the data was obtained during outpatient evaluations, it is unclear if the data would be similar in cases of severe disease that would require hospital admission. However, it should be noted that in cases of severe disease exacerbation, one does not rely on serologic inflammatory markers to determine if there is active disease.

The presence of anemia, a potential confounding factor for ESR was not recorded for each data point in the study. While Barnes study suggests that this is not a major confounder, future studies may be able to address this question more definitively.

Additionally, other factors including disease type, age, hypoalbuminemia, other medications may also affect the ESR and CRP and could be evaluated in future studies. Finally, while our study analyzed data over many time points (maximal ten), it is unclear if the behavior of these values would continue to follow the same pattern over an even greater time period.
Introduction

The Accreditation Council for Graduate Medical Education (ACGME) has had increasing attention and efforts towards improving resident wellness. According to ACGME policy, the residency program must educate residents to recognize the signs of fatigue and sleep deprivation, to manage alertness, and execute fatigue mitigation processes in order to decrease the potential negative effects of fatigue on patient care and learning. Due to the possible implications of burnout on physician empathy and patient safety, the ACGME has suggested implementation of special wellness programs for dealing with issues related to stress and burnout that will arise during residency. Several studies show burnout rates up to 60% among residents across all specialties and an association between burnout, depression, and decreased quality of life with increased likelihood of self-reported medical errors among internal medicine residents.

Our Pediatric Residency program focuses on residents’ wellness and has created a formal Wellness Committee and Fatigue Policy. We have started a program wide running club, and have yoga sessions and team building exercises during our block conference several times a year. We strive to foster a culture of wellness, positivity, and camaraderie among faculty, staff, and residents. However, we recognized the need for development of a specific curriculum regarding burnout in our Pediatric Residency Program at Rutgers Robert Wood Johnson Medical School. We conducted a survey study to assess pediatric residents’ knowledge regarding burnout symptoms specific for burnout and depression, the relationship of burnout and empathy, the risk for burnout in association with the different patient care units, as well as perceived factors associated with stressful working environments. After the first set of questions, a brief group educational session was given focusing on burnout definition and symptoms, depression diagnosis and symptoms, and resources currently available to residents regarding mental health and psychological support. Post-educational assessment was done to identify the perceived usefulness of the presentation. The project was approved by the Rutgers IRB as a research project.

Study Results

We had a total of 30 pediatric resident responses. There was an almost equal distribution of the three different groups: 33% PGY-1, 27% PGY-2, and 40% PGY-3/4. A large number of the residents correctly identified burnout as related to the burnout symptoms, particularly the symptoms of reduced sense of personal accomplishment and emotional exhaustion (Figure 1).

However, the majority also identified depression symptoms as symptoms related to burnout. More than 90% of residents recognized fatigue, decreased appetite, difficulty concentrating, and suicidal ideation as symptoms of burnout. From this, we concluded that for the majority of residents, symptoms of burnout are related to symptoms of depression (Figure 2 on following page).
In conclusion, the absolute concordance rate among ESR and CRP is modest, however the absolute discordance rate of 18.6% is relatively low. Obesity and 6MP use do not appear to be significant confounders. Clinicians can thus consider this information on an individual basis to determine the utility and financial implications of serially following both ESR and CRP over time.

References:


Concordance Over Time, continued

When given the same list of symptoms, but asked to identify symptoms of depression, most of the residents identified the depressive symptoms successfully, and still a large number of them 63-67% perceived the symptoms of burnout (reduced sense of personal achievement and emotional exhaustion) as depression symptoms.
This was consistent with the previous question- the residents feel that burnout symptoms are very much related to depressive symptoms (Figure 3).

We found that 90% of residents felt that burnout is associated with decreased empathy. When we asked towards whom, they felt that empathy decreases towards all of the given choices: patients, other physicians, nursing staff, family, and friends. This is consistent with the systematic review of 18 studies using the Interpersonal Reactivity Index\(^5\), which showed that empathy significantly declines in medical school and residency training. In addition, other studies have shown that physician empathy can help diagnostic accuracy and patient compliance and satisfaction, further indicating the importance of the interaction between burnout and empathy (Figures 4A and B).

When residents were then asked which units they perceive as the most stressful, there was a statistically significant difference between the perceived “most stressful environment” among the post graduate training levels. The PGY3 were significantly less likely to identify the floor rotation as stressful than the PGY1 (p<0.01). In this case, it may be that the perceived stress is related to level of exposure, as the PGY3s have had more experience on the floor rotation. For the Emergency Room (ER) rotation, there was no difference, as the majority of residents perceive the ER as stressful. All of PGY 2-4 identified PICU as stressful. It was interesting that most of the PGY-1 also perceived PICU as stressful, even though they have not yet done the PICU rotation. (Figure 5)

The residents perceived that the acuity of patients, the number of hours worked, and the number of patients greater than 5 was associated with stress. There was no difference among the PGY levels. EMR was less likely perceived as associated with stress among the residents (Figure 6 next page).

On the question “Do you feel you are able to recognize symptoms of burnout in your colleague residents?” 60% of residents replied “yes”, 40% replied “no” or “not sure”.

continued on next page
Although 40% of residents stated they were not able to identify symptoms of burnout in colleagues, 100% of the residents identified the need for education on how to handle stress and burnout. We then asked, “Who do you feel is best suited to educate residents on stress and burnout?” The residents perceived that an outside party, someone not affiliated with the program, would be best suited to educate residents about stress and burnout. The 2nd most popular choice was chief residents (Figure 7).

Interactive group workshops and group sessions were perceived as the most effective technique to educate residents about burnout, as opposed to an online module or lecture style (Figure 8).

All residents agreed that it is essential to be educated on how to deal with stress and burnout in residency. They felt more prepared to recognize symptoms of stress and burnout in their colleagues and more equipped with knowledge of resources available to deal with stress and burnout after the educational session.

Conclusion

Burnout among physicians and residents is common, and not surprising given the nature and rigors of our jobs, but we will continue to strive to increase awareness, mitigate burnout when and where we can, and develop and share coping skills together. Depression and burnout are related, but different. Burnout is fundamentally a social construct, the definition of which is intrinsically enmeshed with a person’s social and organizational context [6]. Depression has an implication for social relationships. It essentially reflects personal thoughts and emotions. Research to date has established that burnout and depression are correlated with one another. However, unlike burnout, depression is a psychiatric diagnosis with symptoms which have a global impact – not limited to an occupational context. Depression is potentially a severely debilitating condition, affecting many areas of the person’s life.

Our present study was designed to assess the pediatric residents’ perception regarding burnout and associated factors in their working environment. Despite the limitations, including small sample size and lack of collection of residents’ demographics, we have concluded that:

1. There is a need for specific education of residents to be knowledgeable about, and differentiate symptoms of burnout and depression. The majority of residents recognized that burnout impacts their empathy toward patients, other residents, physicians, and nursing staff as well as their family and friends.

2. The recognition of a stressful environment was associated with year in residency: for PGY I residents, the inpatient floor rotation and the NICU rotation were perceived as stressful; and for senior residents, ER and PICU. Perhaps we can try to have elevated vigilance for burnout among those on higher risk rotations such as PGY-1 on the inpatient floor or residents rotating in the PICU.

3. The acuity of patients’ condition, increased number of patients per resident, hours of work, as well as attending physicians are factors that the majority of residents identified in association with stressful environment in the unit.
Two Hundred and thirty pediatricians and affiliated healthcare professionals congregated in the Palace at Somerset Park for the New Jersey Chapter, American Academy of Pediatrics Annual Meeting. This year’s meeting featured an impressive assemblage of speakers, a record number of respected exhibitors and the introduction of the Chapter’s new mobile event app, all of which received enthusiastic reviews from Conference attendees.
3. The acuity of patients’ condition, increased number of patients per resident, hours of work, as well as attending physicians are factors that the majority of residents identified in association with stressful environment in the unit.

4. Around 60% of residents feel able to recognize symptoms of burnout in their colleague residents. The majority of residents felt that interactive group workshops provided by a professional outside the residency program would be best suited to educate them on stress and burnout.

References:


May 25, 2016

Mr. Elliott Rubin, MD
American Academy of Pediatrics
3836 Quakerbridge Road
Suite 106
Hamilton, New Jersey 08619

Dear: Mr. Rubin, MD

The purpose of my letter is to update the American Academy of Pediatrics regarding the State’s efforts to re-enroll or "re-validate" NJ FamilyCare (NJFC)/Medicaid providers who participate in the NJFC/Medicaid fee-for-service (FFS) program.

A new requirement of the Patient Protection and Affordable Care Act (PPACA) of 2010, commonly called the Affordable Care Act (ACA), 42 CFR Subpart E, Section 424.515, mandates that the New Jersey Division of Medical Assistance and Health Services (DMAHS) complete a re-enrollment, also referred to as a "re-validation," of all enrolled NJFC FFS providers every 5 years. NJFC/Medicaid providers were last re-enrolled in July 2004. As a result of the new ACA requirements, DMAHS must complete the current re-enrollment process by no later than September 2016.

In May 2014, the Division initiated its current re-enrollment process. Providers received an initial re-enrollment application followed by multiple reminder letters and outreach calls to encourage that they return a completed provider re-enrollment application. Many providers have not responded to our requests and have not returned their re-enrollment application.

The Division is sensitive to the fact that many providers currently enrolled as FFS providers may have chosen to serve our beneficiaries as managed care providers. This may explain, in large part, the lack of responsiveness to our re-enrollment request. That being said, the Division intends to terminate FFS providers who have not returned the re-enrollment application later this year in order to ensure the State’s compliance with ACA requirements. This decision may impact managed care providers who rely on the State’s recipient eligibility verification systems to access recipient eligibility and HMO enrollment information.

Having exhausted Division efforts to outreach FFS providers, any efforts on the part of your organization to share with your members the importance of returning the re-enrollment application would be appreciated.

Thank you for your anticipated cooperation. If you have any questions or need additional information, please contact Thomas Lind, M.D., our Medical Director, at 609-588-2739.

Sincerely,

Meghan Davey
Director

MD.EJV"v
As the first healthcare providers to examine a baby’s mouth, pediatricians are well positioned to spot early signs of dental caries. This was the main focus of the May 18th expert panel discussion at Zufall Health Center in Dover, NJ.

“Oral Health in Latino community – An integrated care model to address Pediatric Oral Health needs in Latino community” panel discussion was hosted by Sam Wakim, DMD, MPH, Chief Dental Officer at Zufall Health Center. Dr. Wakim presented a case study of an 18-months-old child with severe Early Childhood Caries (ECC). This child had been seen by his pediatrician 5 times, but had never been evaluated for oral health conditions.

NJAAP Oral Health Champion, Cathy Ballance, MD, FAAP, from Jersey Shore Family Health Center, examined the concept of Dental Home by Age 1 in pediatric patients and discussed the classification of Caries risk assessment factors. She also stressed that applying fluoride varnish has been a very effective method to prevent or even arrest incipient decays in pediatric population and is recommended to be part of the child well visit.

For over a decade the American Academy of Pediatrics (AAP) has overseen development and dissemination of Bright Futures Guidelines, which encourages pediatricians to provide oral health screening as a routine part of every child’s well visit. Fluoride varnishing, as part of the well-child visit, is also recommended as an effective approach to preventing or arresting incipient decay in the pediatric population.

Other presentations included:
- Promising statistics on Head Start Oral Health Treatment by Susan Longcor, RN, NORWESCAP, Head Start & Early Head Start Health & Nutrition Manager
- ECW Template Created for easy documentation of Assessment, Plan and Billing information by Amy Kotler, MD, FAAP IBCLC FABM, Zufall Staff Pediatrician
- Community Health Workers (CHWs) offered details on their oral health education & Project REACH outreach efforts, citing 1:1 oral health education/referrals to 304 pregnant women and facilitation of 172 initial dental appointments since January 2015. Presented by Nettie Mendez, MS,NCC, CSW
- Changing cultural traditions and educating parents on best practices for improving oral health in children was addressed by Yamileth Rios, MS, MSN, CPNP

Wrapping up the evening, Antonella Maietta, DMD, and Zufall staff dentist, presented Application of Silver Diamine Fluoride.

Chapter Supports Pediatric Efforts to Prevent Child Abuse and Neglect

The NJAAP Child Abuse and Neglect (CAN) prevention team recently launched three activities supporting the efforts of pediatricians and their practice teams to reduce and prevent the maltreatment of child in New Jersey.

Utilizing anticipatory guidance, evidence-based screening tools, family education materials and referrals to family-strengthening resources, practices learn and employ quality improvement strategies for assisting families in advance of crisis.

In May, the CAN team presented the Chapter’s inaugural MOC Part 2 program, Good 4 Growth at the Chapter’s Annual Meeting. The prevention-focused program provided essential information on the connection between early adverse events, toxic stress and social/emotional skills and the potential impact on health, mental health, academic achievement and economic outcomes. The program also detailed steps for helping pediatricians build skills for helping to enhance parent/child relationships. Participating pediatricians attended a two-hour live training session, which was followed by an online Post Self-Assessment to gauge practice gains. Two additional opportunities to complete this training were scheduled; one during the Goryeb Children’s Hospital weekend retreat on May 15th and one at the NJAAP School Health Conference in October. The initial two sessions were presented by Dr. Robert Murray from the Ohio Chapter, AAP.
Legal Update: Absent Employees—How Long is Too Long for a Small Practice?

Small physician practices are often faced with a dilemma when an employee is out of work for an extended period of time on disability, sick leave or family leave. The practice, by virtue of the fact that it is a small employer, usually cannot properly operate without all of its employees.

The first thing the practice should do is request medical documentation for the leave. Next, the practice should consult their employee handbook, as extended leaves of absence are commonly addressed by policies contained in employee handbooks. The practice should also consider whether the employee can elect to apply any accrued vacation, personal or sick days to the extended leave.

If the issue is not addressed in the employee handbook, the practice should then see if there are any legal requirements for holding an employee's job open. Unless one of those laws is applicable, the employee has an employment agreement or a policy has been put in place, an employee is considered an employee at-will and does not have a right to return to his or her job after a period of disability.

The Family Medical Leave Act (“FMLA”) is a Federal law which entitles eligible employees of covered employers to take unpaid leave for family and medical reasons, and which requires the employer to guarantee the employee his or her original job or an equivalent job with equivalent pay and benefits upon termination of the leave. Generally, under the FMLA, employees will be eligible to take twelve (12) weeks of unpaid leave during a twelve (12) month period for medical reasons such as the birth of a child, a serious health condition which rendered the employee unable to perform his or her job or the serious health condition of a spouse, child or parent. For private-sector employers, the employer must have fifty (50) or more employees in order for the FMLA to apply. The Family Leave Act, which is New Jersey’s version of the FMLA, mirrors the legal requirements of the FMLA, and also only applies to employers with fifty (50) or more employees.

The Federal Americans with Disabilities Act (“ADA”), which applies to employers with fifteen (15) or more employees, prohibits discrimination against employees with disabilities.

The New Jersey Law Against Discrimination (“LAD”), which is New Jersey’s version of the ADA, applies to all employers regardless of size. The LAD prohibits discrimination against employees with disabilities or who fall into another protected class.

The LAD has a very expansive definition of “disability,” which includes physical and psychological disabilities. Employers are required to provide reasonable accommodations to employees with disabilities, unless it would cause the employer undue hardship.

There are a number of other factors for small practices to consider before terminating an employee on an extended absence. For example, if another employee experienced a similar extended absence, the practice should be consistent in its treatment of similar situations to avoid the perception of impermissible discrimination. Practices should document all communications with the employee. Requests for medical documentation should also be in writing. Practices of any size should always consult with legal counsel prior to terminating any employee, especially those out on medical and/or disability leave, to assess and, in some cases, proactively quash any potential legal claims that may arise.

Footnotes


Visit the MEMBERS ONLY section at NJAAP.org

To learn more about the free legal services provided by Augustine Conroy & Schoppmann, PC

And don’t overlook the other money-saving benefits
As we write this report, the Legislature has just concluded its review of Governor Christie’s proposed budget for FY2017. Both the Office of Legislative Services and the Treasurer provided revised revenue estimates to the Assembly and Senate Budget Committees. The Administration is projecting a revenue decline of $602 million in FY2016 and $240 million in FY2017 for a total decline in revenue of $842 million. This compares to the total decline in revenue projected by the Office of Legislative Services of $1.1 billion; $486.8 in the current fiscal year and $621.6 million in FY2017.

The Treasurer proposed three main programmatic changes for Fiscal 2017 to make up the shortfall: slowing the implementation schedule of the conversion of BEIP grants into tax credits, which impact businesses who received the grants; reducing the State share of charity care by $25 million which reduces charity care payments to hospitals by $50 million since the program is a state/federal match and proposing legislation to increase the Gross Income Tax withholding schedule for Lottery jackpot winners.

The Legislature must pass and Governor Christie must sign a budget by July 1, 2016.

On the Legislative front, the Legislature has spent a significant amount of time addressing lead issues. The Legislature passed S996 which makes a FY 2016 supplemental appropriation from the State General Fund of $10,000,000 to the Department of Community Affairs for the Lead Hazard Control Assistance Fund. The Lead Hazard Control Assistance Fund provides funding for programs to address lead-based paint in New Jersey in a comprehensive and focused manner. Governor Christie conditionally vetoed the bill both because he does not support supplemental appropriation bills outside of the budget process and because he recently has committed $10 million from existing 2016 budget funds to support a new program that will utilize modern approaches to address lead paint hazards.

The Governor also called for $10 million in the FY 2017 budget to fund a new mandate for schools to test for lead in water, and announced that the Department of Health will lower its threshold for public health interventions when lead is detected in children.

The Senate passed S1830 which amends the State statutes related to childhood lead poisoning to require that Department of Health regulations regarding testing for, and responses to, elevated blood lead levels in children are to be consistent with the most recent recommendations of the federal Centers for Disease Control and Prevention. In 2012, the CDC revised its benchmark for when elevated blood lead levels in children should trigger responsive action, lowering the action level from 10 micrograms of lead per deciliter of blood to five micrograms per deciliter. This bill requires DOH to revise its regulations to make them consistent with the current CDC benchmark, and further requires DOH, within 30 days after the bill’s date of enactment and on at least a biennial basis thereafter, to review and revise its rules and regulations to ensure that they comport with the latest CDC guidance. The bill requires DOH to promulgate regulations concerning the responsive action to be taken when a child’s blood lead level tests above the CDC benchmark, including performing environmental follow-up, providing notice to the child’s family, performing additional screening of family members, providing case management services, and providing medical treatment, such as chelation therapy. The bill further specifies that the current DOH public information campaign on lead screening is to: (1) highlight the importance of lead screening and encourage parents to have their children screened for lead poisoning at regular intervals, consistent with the age-based time frames established by DOH; and (2) provide for the widespread dissemination of information to parents and health care providers on the dangers of lead poisoning, the factors that contribute to lead poisoning, the recommended ages at which children should be tested for lead poisoning, and the elevated blood lead levels that will necessitate responsive action. The bill additionally provides that DOH will be required to revise and reissue the information disseminated through the public information campaign within 30 days of making revisions to its blood lead regulations to remain consistent with current federal recommendations. NJAAP supported this bill and Dr. Radhakrishnan provided testimony to the Senate Health Committee.

NJAAP also supported the efforts of Pre-K Our Way in advocating for expansion of preschool in New Jersey. Chapter Executive Director, Fran Gallagher, testified at the Senate Education Committee hearing on a package of bills sponsored by Education Chair M. Teresa Ruiz that would expand high-quality preschool programs to additional school districts, establish full-day kindergarten in all public school districts in the state, and fund wrap-around services for preschool children in former Abbott districts. The legislation would also create a ‘pay-for-success’ pilot program that would allow non-governmental entities to help pay the cost of expanding early childhood education programs.

continued on page 29
Non-Cardiac Pulmonary Edema (NCPE) is now recognized to occur in overdose from a number of drugs, especially heroin. NCPE was first described by William Osler in 1880 during an autopsy of a patient that died of narcotic overdose (heroin). Today, ready access to purer forms of heroin have led to rising incidences of heroin overdose deaths in New Jersey, earning the state the dubious distinction of being ranked 6th in the country in drug overdose deaths in the 12-25 year-old age group. Attention is therefore being drawn to a complication that is seen in less than 2.4% of heroin overdoses and rarely discussed in presentations of substance abuse in pediatrics.

Case Presentation: A 16 year old female is brought into the emergency department by paramedics after suspected heroin overdose. The patient was found at home in an unresponsive state and foaming at the mouth. 911 was called and the patient was given intranasal naloxone, following which the patient was transported to the Emergency Department. Upon arrival to the ED, she was alert and responsive with GCS score 15. Patient admitted to a history of Heroin and Percocet use for a few months. Patient states that before EMS was called, she “snorted” 3 bags of heroin and denies any intake of alcohol, or other drugs during this encounter. In terms of her medical history, she has dysmenorrhea treated with oral contraceptives. On physical exam her temperature was 97.0 F, blood pressure was 93/49, pulse was 119, respiratory rate was 20, and pulse oximetry showed 93% on room air. Her pupils were miotic and sluggish. Lungs were clear and showed good air entry. Heart was in normal sinus rhythm with no murmurs. Skin did not show any track marks. Ninety minutes after the patient arrived, the patient developed an intermittent productive cough with pink frothy sputum and complained of chest pain radiating to the back. Pulse oximetry at this time showed saturation in the high 80’s and patient was tachypneic. EKG showed mild QT prolongation. A STAT x-ray showed bilateral fluffy infiltrates consistent with pulmonary edema. She was given naloxone again with one dose of IV furosemide. ABG showed acidosis, hypoxia and hypercarbia with PaO2 of 79%.

She was placed on bipap FiO2 100% which brought her saturation up to 97% over the course of 10 minutes. Repeat ABG showed improving numbers. Urine drug screen returned later showing opiates and cannabinoids.

The patient was evaluated and transferred to the pediatric ICU for management.

Discussion: Heroin is derived from the poppy plant providing a product that can be smoked, insufflated, or injected. As street level heroin becomes purer and cheaper, smoking and intranasal use have risen in the popularity. Heroin found on the streets coming from South America or Mexico may be as pure as 98% in New Jersey region. Since 2000, the death rate from opiate overdose has increased 200% and deaths from heroin have more than tripled in the past 4 years. Heroin overdose deaths have doubled as per the CDC from 2010 to 2012.

Heroin overdose is diagnosed clinically upon an examination revealing a person with altered mental status, depressed respiratory drive and pinpoint pupils. Patients are usually treated first by EMS, who immediately administer naloxone to counteract resultant CNS and respiratory depression. New Jersey, along with a number of states, has enacted laws that make it possible for people to obtain and administer naloxone in instances of an overdose.

Approximately 50% of the time, there is the comorbid use of cocaine and/or alcohol with heroin. This high rate of cointoxication in users makes surveillance of potential complications of overdoses even more important.

One notable known complication of opiate overdose is noncardiogenic pulmonary edema. Literature suggests that the incidence of NCPE is from 0.8 up to 2.4% in heroin overdose cases. There were higher rates in the past, but a significant decrease transpired following the introduction of naloxone. Although its etiology is not definitely known, NCPE is thought to be caused by the increased pulmonary capillary permeability secondary to hypoxia. In animal studies, high doses of morphine increased pulmonary artery pressures leading to pulmonary edema and antihistamine blunted this increase in PA pressure. This points to the release of histamine being a possible catalyst to NCPE.

The stereotypical patient who develops this is a less experienced, male user in his 40’s. The first sign of NCPE presents as a variable combination of tachypnea, hypoxia, pink frothy sputum and chest pain occurring on average within the first 4 hours of overdosing.
The center-piece bill in the package, S997, would expand early childhood education in the state, as contemplated under the 2008 School Funding Reform Act. The legislation directs the Commissioner of Education to provide state aid to up to 17 qualified districts for the purpose of providing free access to full-day preschool for all three- and four-year-old children residing in the school district, giving priority to districts with the highest concentration of at-risk students. The bill would dedicate $103 million to the Department of Education for the expansion.

At that same hearing, Dr. Stephen Rice, provided testimony in support of Senate bill 757 which provides that a student enrolled in a school district who sustains a concussion must receive an evaluation by a physician or other licensed health care provider trained in the evaluation and management of concussions and written clearance from one of these physicians in order to return to school. In the event that the physician provides notice that the student requires restrictions or limitations, the school district 504 team must immediately implement the restrictions or limitations and notify all teachers and staff with contact with the student of the restrictions or limitations. The bill also provides that a student enrolled in a school district who sustains a concussion is prohibited from engaging in any physical activity at school including, but not limited to, recess, physical education, or intramural sports. The student may not participate in any physical activity until he is evaluated by a physician or other licensed health care provider trained in the evaluation and management of concussions and he receives written clearance from the physician to participate.

Finally, there have been a number of bills introduced that deal with the issue of opioid addiction. A3424 and S2156 require health care professionals with prescribing authority to discuss the addiction potential of certain prescription medications prior to issuing a prescription for the medication to a patient who is under 18 years of age. The prescriber is to have this discussion with the patient, if the patient is an emancipated minor, and with the patient’s parent or guardian if the patient is not emancipated. The discussion will be required prior to issuing a prescription for any Schedule II controlled dangerous substance and any medication which is a prescription opioid. The prescriber will specifically be required to discuss the risks of developing a physical or psychological dependence on the medication and, if the prescriber deems it appropriate, any alternative treatments that may be available. The prescriber will be required to obtain a written acknowledgement of the discussion using a form to be developed by the Director of the Division of Consumer Affairs in the Department of Law and Public Safety and to include this written acknowledgement in the patient’s medical file.

The director will additionally be required to develop, and make available to prescribers, guidelines for the discussion required under the bill. S2188 and A3803 require health care practitioners prescribing opioid medications on a first-time basis, or to minor children, to limit the amount of prescribed medication to a seven-day supply, except in certain circumstances. The bills would specify, in particular, that the first time a health care practitioner prescribes an opioid medication to an adult patient, for outpatient use, and whenever a health care practitioner prescribes an opioid medication to a minor patient, the health care practitioner will be prohibited from prescribing more than a seven-day supply of the medication. They would also require a health care practitioner, before prescribing opioid medication under the bill’s provisions, to discuss with the adult patient, or with the parent or guardian of the minor patient, as appropriate, the risks associated with opioid use, and the reasons why the opioid medication is necessary. The bills would specify, however, that if a prescribing health care practitioner determines, in the practitioner’s professional medical judgment, that the prescription of more than a seven-day supply of opioid medication is necessary to treat an adult patient’s or minor patient’s acute medical condition, or is necessary to provide the patient with appropriate management of chronic pain, treatment of pain associated with a cancer diagnosis, or palliative care, the health care practitioner will be authorized to issue a prescription, consistent with all other applicable state and federal prescribing requirements, for the quantity of opioid medication that is needed to treat such acute medical condition, chronic pain, cancer-related pain, or pain experienced while in palliative care. The condition triggering the prescription of more than a seven-day supply of opioid medication would need to be documented in the patient’s medical record, and the health care practitioner would be required to indicate that a non-opioid alternative was not appropriate to address the medical condition.

Join the Effort to Support Funding of the Pediatric Psychiatry Collaborative in the 2017 state budget.

Sign the Petition and Declare Your Support for the children of New Jersey

Our kids are our future.

Sign the Petition here: http://chn.ge/1Z5KiQZ
Non-Cardiac Pulmonary Edema in Heroin Overdose, continued

Most cases of NCPE due to heroin overdose respond to oxygen therapy whether that be by non-rebreather, BIPAP or endotracheal intubation based on severity. When treated, the symptoms usually resolve within 24 hours. 

This case represents one uncommon but serious latent finding in the setting of opiate overdoses. Clinicians should be sure to not assume that once the effects of heroin are reversed by the naloxone that the patient is out of danger. Recommendation to discharge patients as early as 1 hr after arrival to the emergency department will result in missing serious complications of heroin overdose. Surveillance for other complications needs to continue and though the incidence of NCPE in heroin overdose is less than 2.4%, not understanding the condition may lead to an error in diagnosing the pulmonary edema as cardiac in nature. Because of the possibility of NCPE developing, classic wisdom in caring for patients with a history of respiratory arrest secondary to opiate overdose calls for a minimum of 4 hours before discharge based on past case studies. This time period facilitates the identification of and proper intervention in those few patients who might develop complications, including NCPE.

References

8. Increases in Heroin Deaths - 28 States, 2010 to 2012. ... (MMWR). October 3, 2014 63(39);849-854
One patient whom I will never forget, on the brink of death traveled to the hospital and slept overnight in the lobby waiting for what to some is only a simple electrocardiogram and echocardiogram. Unfortunately, this particular patient was found to be in severe heart failure and passed away shortly after she was seen.

There were a quite a variety of cardiac conditions seen over the span of five days in the regions of Gressier, Mirebalais, and St. Damien. A total of 91 children were evaluated and conditions from patent ductus arteriosus to double outlet right ventricle, absent pulmonary valve, and tetralogy of fallot walked in one after the other. What caught me by surprise however was the number of patients we had seen who had succumbed to the cardiac effects of rheumatic disease. Here in the United States, something mostly heard of and taught in textbooks was a common diagnosis among children unable to access medical care, let alone access antibiotics. There were a handful of children who we could only offer medical management and if they were not in a third world country would be on a transplant list. A country like Haiti however does not offer such an opportunity.

Despite the sadness of such cases, one could not deny the hope that filled the room while speaking with, examining, and treating each patient and family with whom we interacted with. My family is from Haiti and I speak the native language of Creole, and the gentle smile and warmth that I would receive once a mom or dad realized I could understand and communicate with them made my heart want to explode with happiness each and every single time. Every day was an opportunity to touch a family, to change a child’s life and to make steps towards providing reliable, sustainable care. The only alternative is to stand back and allow these children, who have so much to overcome already, get to a point where they are beyond care. My heart won’t allow that and while this trip was meant to help their little hearts, they most certainly filled a part of mine.

Thank you to every patient, their family, the amazing cardiac team and the organizations we worked with and sponsored us, from whom I’ve learned so much. And a special thank you to Dr. Joseph Gaffney and Dr. Indira Amato, for the wonderful opportunity and a dream come true, to help heal children all over the world.

A Mission to Haiti continued

Plusoptix Vision Screeners: your missing piece for AAP policy compliance and CPT Code 99177 reimbursement.

Pediatric opthalmologists recommend Plusoptix vision screeners because of their accuracy, fast acquisition time, and easy-to-use, automated measurements.

To find out more about the complete line of vision screeners by Plusoptix please visit www.plusoptix.com or call 800-488-6436

(A-P) Kesse Acceme, (Haiti Cardiac Alliance, Patient Coordinator), Rob Raylman, (Gift Of Life International CEO) Dr. Joseph Gaffney (Pediatric Cardiologist); Margaret Challenger (Echocardiogram Sonographer); Mickey Wilder (Pediatric CCU Nurse) Dr. Daphney Kernizan (Rutgers RWJ PGY II Pediatric Resident); Owen Robinson (Haiti Cardiac Alliance, Executive Director)
**New Jersey Breakfast Forum Focuses on the Whole Child, Whole School, Whole Community**

Stacey Jackson, MS, RDN, CDN
Nutrition Specialist
American Dairy Association and Dairy Council, Inc.

“There is no greater issue than the health and well-being of our children,” Dr. Katie Wilson, USDA Deputy Under Secretary for Food, Nutrition, and Consumer Services told participants at a New Jersey breakfast forum, hosted by American Dairy Association North East on March 22, 2016, at MetLife Stadium in East Rutherford. The forum, themed, The Invisible Thread “Mending the School Environment for Academic Excellence,” brought together an influential audience to work together to ensure and improve the physical/mental health and wellness of the students of New Jersey as an effective means to support their overall development and academic success.

“We all heard it growing up, ‘Breakfast is the most important meal of the day.’ Time and again, research has demonstrated the value and the necessity of breakfast,” said Dr. Wilson. Among school children, breakfast is associated with better academic performance, better attendance and certainly better overall health. When children skip breakfast, they miss out on important nutrients. “School meals are sometimes the only meal that these children eat during the day,” said Rose Tricario, Director of the New Jersey Department of Agriculture’s Division of Food and Nutrition, who also presented at the forum. With each school breakfast, children receive one-fourth of the Recommended Daily Value of protein, calcium, iron, and vitamins A and C from milk. Beginning the school day with nutritious foods including dairy, whole grains and fruits, enables their ability to concentrate and learn. By offering school breakfast after the bell, schools give all students access to a nutritious school breakfast.

Through its statewide Breakfast After the Bell program, New Jersey continues to build on the number of children receiving school breakfast, rising to be the 23rd ranking state this year from 48th just four years ago according to Food Research Action Network School Breakfast Scorecard School Year 2014-2015. For more benefits of eating school breakfast, visit www.BreakfastEveryDay.org or contact American Dairy Association registered dietitian nutritionist Stacey Jackson at 914-615-9286 or email sjackson@adadc.com.

(Left to Right) Former Mayor of Bayonne, Mark Smith; USDA Deputy Under Secretary for Food, Nutrition, and Consumer Services, Dr. Katie Wilson; President of American Dairy Association, Richard Byma; Newark Superintendent of Schools, Christopher Cerf; and, American Dairy Association North East CEO, Rick Naczi, at the Mending the School Environment for Academic Excellence Forum at MetLife Stadium

**Three Servings of Milk Delivers A Unique Nutrient Package**

The Dietary Guidelines for Americans recommends three servings of dairy products each day.*

Milk’s essential nutrients can be difficult to replace in a healthy dietary pattern. Three 8-ounce cups provides as much of each nutrient as:

- **PROTEIN**
  - 50% DV
  - 4 hardboiled eggs

- **CALCIUM**
  - 90% DV
  - 36.15 cups of raw kale (about 7 bunches)

- **POTASSIUM**
  - 29% DV
  - 3 small bananas

- **VITAMIN D**
  - 90% DV
  - 8 oz. of sardines (about 15 sardines)

- **RIBOFLAVIN**
  - 60% DV
  - 1 lb. pork chops, broiled (about 3, 6-oz. chops)

- **PHOSPHORUS**
  - 50% DV
  - 2 ½ cups kidney beans

- **VITAMIN A**
  - 30% DV
  - 2 cups of cooked green beans

- **VITAMIN B12**
  - 60% DV
  - 6 oz. of sardines (about 15 sardines)

- **VITAMIN A**
  - 30% DV
  - 2 cups of cooked green beans

*The 2015 Dietary Guidelines for Americans recommends three servings of low-fat or fat-free dairy products for Americans 9 years and older.

NJAAP has been working with NJ Medicaid to clarify how pediatricians can bill and receive payment for the behavioral mental health care they provide to their patients.

In the near future, members can expect updated information from the Chapter pertaining to usage of proper coding for many of these behavioral services including, but not limited to: the Evaluation and Management of Depression, Anxiety, ADHD and other health conditions.

Keep visiting NJAAP.org for the most up-to-date information on this and other issues of the utmost importance to pediatric practices.

Lauren Agoratus M.A. Counseling is the parent of a youth with multiple disabilities and is the NJ Coordinator of Family Voices, the national network that “works to keep families at the center of children’s health care.” She also serves as the Central/Southern Coordinator for the NJ Family-to-Family Health Information Center (F2FHIC). In NJ, Family Voices and F2FHIC are housed at the Statewide Parent Advocacy Network (SPAN), www.spanadvocacy.org. Maria Docherty is the Director of Technical Assistance at the Statewide Parent Advocacy Network.

References

1  www.nj.com/politics/index.ssf/2016/04/christie_commits_10m_to_remove_lead_from_old_homes.html
2  www.nj.com/politics/index.ssf/2016/05/christie_all_school_water_fountains_to_be_tested.html
3  www.nj.com/mercer/index.ssf/2016/04/lead_above_acceptable_levels_at_5_more_hamilton_sc.html
4  www.njpies.org/Household/Lead.aspx
5  www.njpies.org/lead/facts.htm
6  njaap.org/programs/lead-asthma-care/webinars/
8  www.aap.org/en-us/aap-voices/Pages/Lead-Poisoning-Before-and-Beyond-Flint.aspx
The legislature recognized this deficiency – and unfairness – by passing a 2008 law designed to expand the program to more school districts. Sadly, it was never funded or implemented.

As a New Jersey nonprofit, nonpartisan organization, Pre-K Our Way values NJAAP’s strong support for pre-k expansion, and appreciates its past few months of representation at local meetings with leaders and residents from numerous communities in support of pre-k. Expanding and maintaining New Jersey’s high-quality preschool program begins to address the inequity of access being defined by ZIP code, not by need. In the past year, Pre-K Our Way has identified more than 20,000 supporters of pre-k expansion; watch as our voice and visibility grow exponentially in the coming months and throughout 2017 as part of the gubernatorial discussion and debate process. Pre-k for more 3- and 4-year olds is an investment that supports good health, and is an investment in New Jersey’s future. Please encourage your patient families, colleagues and community leaders to visit www.prekourway.org to learn more about how to bring high-quality pre-k to 100+ more communities – and to tens of thousands of our state’s 3- and 4-year olds.
Preterm Infants at Highest Risk for Sudden Infant Death Syndrome

Barbara M. Ostfeld, PhD  
Professor, Department of Pediatrics,  
Rutgers Robert Wood Johnson Medical School  
Program Director, SIDS Center of New Jersey  

Thomas Hegyi, MD  
Professor and Vice-Chair of Pediatrics,  
Rutgers Robert Wood Johnson Medical School  
Medical Director, SIDS Center of New Jersey  

Preterm infants remain at higher risk for Sudden Infant Death Syndrome (SIDS) compared to term infants, despite declines in its rate in each group.1 Both endogenous and exogenous factors play a role in elevating risk for the preterm infant.2 The latter include disparity in compliance with the sleep position placement and sleep setting guidelines of the American Academy of Pediatrics.3,4 While endogenous factors cannot be modified, and pose a unique risk for the preterm infant, sleep environment factors such as supine placement can provide a degree of compensation in many instances.5 By reducing the disparity between term and preterm infants in the use of safe sleep guidelines, the disparity in the occurrence of these deaths should also diminish.

New Jersey’s SIDS rates are lower than national rates. However, both share the pattern of higher rates of SIDS in infants less than 37 weeks gestational age. In the US, from 2008-2012, the SIDS rate for preterm infants was 0.98 per thousand live births, more than double the rate of 0.44 for term infants.6 Similarly, in New Jersey, the preterm rate of SIDS in this time period was 0.8, in contrast to a rate of 0.3 for term infants.7 The disparity in rates also is reflected in the disproportionate percentage of preterm births in cases of SIDS compared to all births in New Jersey from 2008-2012 (26% vs 9.6%, respectively).

Among endogenous differences that may play a role in the disparity in SIDS rates between term and preterm infants is the greater variability in cerebrovascular control exhibited in the latter when placed in the prone position.8 The supine position appears to compensate for such preterm-specific endogenous risk factors which, in turn, offer mechanisms to explain how supine placement reduces risk in this group. The multiplicative effect of prone sleep and preterm birth on the risk for SIDS was dramatically demonstrated in the Nordic Epidemiological SIDS Study in which the odds ratio for SIDS in preterm, prone-sleeping infants was 48.8 (95%CI 19,128), compared to the referent group of supine sleeping term infants, but only 2.9 (95%CI 0.79,10) for preterm infants placed supine.5 Given the importance of supine sleep as a potential source of compensation for endogenous risk factors in preterm infants, it is of concern that a disparity in the use of this position continues to exist.9 In addition, preterm infants are also more likely to bed share in contrast to the American Academy of Pediatrics’ recommendation that infants share the caregiver’s room and be proximate to the adult bed but not in it.4 The guideline indicates that parents can bring the infant into bed for feeding, bonding, and comforting but that it is safest to return the infant to the proximate crib once the parent is ready to sleep.9

While parents of preterm infants are advised about safe infant sleep practices before leaving the NICU, it is important for pediatricians to reinforce that advice in the multiple visits that occur after discharge. Studies indicate that the physician’s guidance increases compliance.4

References:

2. Moon RY, Hausck FR. SIDS Risk: It’s more than just the sleep environment. Pediatrics 137:e20153665

The SIDS Center of New Jersey (SCNJ) is funded by a grant from the New Jersey Department of Health to Rutgers Robert Wood Johnson Medical School and a grant from the CJ Foundation for SIDS to Hackensack University Medical Center. The program was established in 1988 to provide bereavement support to families whose infants have died suddenly and unexpectedly, to study the risk factors associated with these deaths and to provide risk reduction education to health, child care and social service providers and the public consistent with the guidelines of the American Academy of Pediatrics. To facilitate education for parents of term and preterm infants, the SCNJ conducts statewide safe sleep education for nurses in birthing hospitals through its program Nurses LEAD the Way. To obtain educational flyers or to arrange for a presentation at your office site, please contact the SIDS Center at 1-800-545-7437, Dr. Ostfeld at ostfelba@rwjms.rutgers.edu or Dr. Hegyi at hegyith@rwjms.rutgers.edu.
New Jersey Chapter, American Academy of Pediatrics presents

25th Annual School Health Conference

Where pediatricians and school nurses come together…
strengthening medical home and school linkages

Tuesday, October 18, 2016
The Palace at Somerset Park, Somerset, NJ

Topics to Include:
HPV | Lead in Schools | Concussion: Return to Learn
Mental Health | School Rules & Regs
Medical Emergencies | Food Insecurities | MOC Part II: Good4Growth
Obesity Prevention | LGBTQ | Oral Health

Visit www.NJAAP.org for more details

Conference Planning Committee: Alan Weller, MD, MPH, FAAP, Committee Chair; Allyson Agathis, MD, FAAP; Jeffrey Bienstock, MD, FAAP; Jeanne Craft, MD, FAAP; Myriam Hernandez, PNP; Elliot Rubin, MD, FAAP; Michael Segarra, MD, FAAP; Pamela Schrum, RN, CSN; Neha Saraiya, MD, FAAP; Pauline Thomas, MD, FAAP; Kristen Walsh, MD, FAAP; Judith Woop, MEd, RN; Wayne Yankus, MD, FAAP; Fran Gallagher, MEd; Cortney Mott, MEd; Bert Mulder