Influence of “GERD” Label on Parents’ Decision to Medicate Infants

Medications used to treat gastroesophageal reflux disease (GERD) are some of the most widely used medications in children younger than 1 year. There are strong indications that GERD is overdiagnosed and overtreated. The factors that drive overtreatment of GERD are not well understood, but it has been proposed that the use of the GERD disease label could perpetuate use of medication. In this study we find evidence for this possibility.


The incidence of childhood and adolescent melanoma has been significantly increasing up to 2004. Risk factors (fair skin, light-colored hair/eyes, female gender, presence of nevi, family history, increased number of sunburns, and exposure to UV radiation) are associated with melanoma. This study describes incidence trends of melanoma diagnosed between the ages of 0 and 19 years and from 1973 through 2009 by gender, stage and age at diagnosis, primary site, and exposure to UV radiation.

Extremely Low Birth Weight and Infant Mortality Rates in the United States

Infant and neonatal mortality rates in the United States decreased markedly during the twentieth century but have not decreased notably during recent years. There has been an increase in preterm and low birth weight births in recent years. The lack of decrease in infant and neonatal mortality rates in recent years is due in large part to the increasing proportion of preterm and low birth weight infants, particularly infants <500 g.

Parental Perceptions of Forgoing Artificial Nutrition and Hydration During End-of-Life Care

Forgoing artificial nutrition and hydration in children at the end of life is an acceptable practice under some circumstances. However, there is a paucity of pediatric evidence to guide health care providers’ and parents’ decision-making around this practice. This study describes experiences of parents whose children died after forgoing artificial nutrition and hydration. All parents were satisfied with their decision and believed their child’s death was peaceful. This study adds to the limited evidence to guide clinical practice.

Association of Procalcitonin With Acute Pyelonephritis and Renal Scars in Pediatric UTI

Prompt, high-quality diagnosis of acute pyelonephritis and later identification of children with scarring are important to prevent future complications. Examination by dimercaptosuccinic acid scan is the current clinical gold standard but is not routinely performed. Procalcitonin demonstrated a more robust predictive ability, compared with C-reactive protein or white blood cell count, to selectively identify both children who had acute pyelonephritis
during the early stage of urinary tract infections, as well as those with late scarring.

**Patterns of Inpatient Care for Newly Diagnosed Immune Thrombocytopenia in US Children’s Hospitals**

Clinically significant bleeding in pediatric immune thrombocytopenia (ITP) is rare. Evidence-based guidelines for the management of pediatric ITP recommend that patients with mild or no bleeding be followed with observation alone. Many pediatric patients with newly diagnosed ITP continue to be managed in the inpatient setting. Bleeding events are rare in this setting. Although geographic variability exists, intravenous immunoglobulin is the most commonly used inpatient ITP treatment in the United States.

**Sexual Initiation, Contraceptive Use, and Pregnancy Among Young Adolescents**

Among adolescents younger than 15, 18% have had sex and 16,000 pregnancies occur annually; among those aged 15 to 17, 50% have had sex and 252,000 get pregnant. Information on the youngest adolescents has not been previously published.

Sexual activity and pregnancy are rare among 10-, 11-, and 12-year-olds, and sex is more likely to be nonconsensual. This arguably represents a different public health issue than sex among older teens, who have a greater need for contraception.

**Differences in Health Care Access and Utilization Between Adolescents and Young Adults With Asthma**

Studies suggest that young adults have worse access to health care, use less primary care, and visit emergency departments more frequently than adolescents. Whether these differences are present between adolescents and young adults with asthma is unknown.

Young adults with asthma were less likely to have a usual source of care and use primary care. In contrast, they were more likely to use the emergency department. Adjusting for insurance coverage reduced these differences partially but not completely.

**The Effects of Music Therapy on Vital Signs, Feeding, and Sleep in Premature Infants**

Recorded music, parent voices, and sung lullabies have been shown to increase oxygen saturation, nonnutritive sucking, and weight gain in premature infants.

Parent-preferred melodies and entrained live rhythm and breath sounds can enhance quiet alert and sleep states, suck response, and oxygen saturation in premature infants and significantly reduce fear and anxiety perception in parents.

**Effects of Reduced Juice Allowances in Food Packages for the Women, Infants, and Children Program**

Juice consumption among 2- to 5-year-old children exceeds dietary recommendations. In 2007, the US Department of Agriculture revised the composition and quantities of prescribed foods in WIC food packages to align them with dietary guidelines. Juice allowances were reduced by approximately half.

WIC participants purchased about a quarter less juice volume after implementation of the revised WIC packages. Large reductions in WIC-provided juice were only partly compensated for by extra juice purchases with non-WIC funds. Little compensation occurred for other beverages.

**Warts Transmitted in Families and Schools: A Prospective Cohort**

Current recommendations to prevent warts focus on limiting the personal spread of human papillomavirus and transmission in public places, such as swimming pools; however, evidence on risk factors for developing warts is limited.

Cutaneous human papillomavirus in primary schoolchildren is primarily transmitted in the family and school class. This suggests that recommendations should shift toward reducing transmission in families and school classes.

**Characteristics of Screen Media Use Associated With Higher BMI in Young Adolescents**

Rates of screen media use have risen in parallel with rates of obesity among young people. Identifying the specific characteristics of media use that are associated with obesity can help elucidate the explanatory processes and inform effective interventions.

This study examines the associations between BMI and characteristics of media use including the type of device, duration of use, and attention to the medium. The more that participants paid primary attention to television, the higher their BMI.

**Evaluation of an Office Protocol to Increase Exclusivity of Breastfeeding**

A gap exists with lack of programs to help mothers breastfeed. The 2012 American Academy of Pediatrics “Policy Statement on Breastfeeding and the Use of Human Milk” re-emphasized
breastfeeding as an important public health initiative rather than a lifestyle choice.

Families who receive care in a primary care setting that has implemented a “breastfeeding-friendly” office protocol may have increased rates of exclusive breastfeeding. This study evaluated an accepted clinical protocol in a large, diverse pediatric primary care setting.

Epidemiology and Predictors of Failure of the Infant Car Seat Challenge

The American Academy of Pediatrics recommends neonates born at <37 weeks’ gestation receive a predischarge Infant Car Seat Challenge, meaning up to 500,000 infants qualify annually. However, little is known about incidence and risk factors for failure in this group. This is the largest study to date to examine incidence and risk factors for failure of the Infant Car Seat Challenge. We sought to identify infants most at risk for failure to narrow the scope of testing.

Long-term Effectiveness of Varicella Vaccine: A 14-Year, Prospective Cohort Study

Varicella vaccine is known to be highly effective, with added benefit from a second dose. This study demonstrates the lasting effectiveness of varicella vaccine and the benefit of the second dose. Breakthrough varicella occurred soon after vaccination, varicella rates did not increase over 14 years, and there was no increase in zoster in the cohort.

The Impact of Social Networks on Parents’ Vaccination Decisions

Previous studies have suggested that health care providers, family members, friends, and others play a role in shaping parents’ vaccination decisions. Other research has suggested that the media can influence whether parents decide to vaccinate their children. Through the application of social network analysis, this study formally examines and quantifies how parents are influenced by the people and sources around them. Its findings suggest that social networks are important, particularly for parents who do not completely vaccinate.

Medication Errors in the Home: A Multisite Study of Children With Cancer

Children are taking more medications than ever before. Medication errors in the hospital are common. Less is known about the medication errors that occur in children’s homes, and there are no studies that examine the entire process. We reviewed 963 medications in the homes of children with cancer at 3 sites. We found 36 errors with injury and 36 errors with potential for injury per 100 patients. Interventions should target common and dangerous errors at home.

Kidney Function and Tobacco Smoke Exposure in US Adolescents

Active smoking and secondhand smoke are associated with chronic kidney disease in adults. No data are available for children. Secondhand smoke and active smoking were associated with decreased estimated glomerular filtration rate in US adolescents. These findings support that tobacco smoke effects on kidney function begin in childhood.

Incidence of Rash After Amoxicillin Treatment in Children With Infectious Mononucleosis

Antibiotics-induced rash in Epstein-Barr virus acute infectious mononucleosis, especially the aminopenicillins-induced type, was first described during the 1960s, with a reported incidence of 80% to 100%. This phenomenon was not further investigated but is well-established in pediatric textbooks. The main observation of this study is that rash induced by amoxicillin in confirmed Epstein-Barr virus acute infectious mononucleosis was found at a rate of ~30%, which is much lower than previously reported.

Sleep Duration and Adolescent Obesity

Short sleep may be an adolescent obesity risk factor, but most evidence is from cross-sectional studies. Three longitudinal studies have investigated the association between sleep duration and adolescent obesity, finding mixed results. Shorter sleep was associated with increases in BMI from age 14 to 18, especially at the upper tail of the BMI distribution. Increasing daily sleep to 10 hours per day could help to prevent adolescent obesity.

Guided Self-Help for the Treatment of Pediatric Obesity

Clinic-based weight control programs for pediatric obesity are time and personnel intensive and not accessible to a large proportion of the population. This is the first study to reveal the efficacy of a low-intensity, 5-month, guided self-help treatment of childhood obesity with
effects on the target child’s weight immediately posttreatment and 6 months later.

**Food-Related Parenting Practices and Adolescent Weight Status: A Population-Based Study**

Despite numerous studies, evidence of the association between food-related parenting practices and child weight remains equivocal. Examination of this association within a sample of diverse adolescents is needed to inform anticipatory guidance provided by physicians working with parents of adolescents.

The current study explores associations between food-related parenting practices and weight status in a population-based sample of parent-adolescent pairs. This diverse sample allows for an in-depth examination of the role of gender, race/ethnicity, socioeconomic status, and grade level in this association.

**Plate Size and Children’s Appetite: Effects of Larger Dishware on Self-Served Portions and Intake**

Research has shown that dishware size influences self-served portion sizes and meal intake in adults. In children, larger bowls led children to request more food, but whether larger dishware affects children’s self-served portions or intake at meals is not known.

We assessed the effect of increasing dishware size on self-served portions and intake in young children. Larger plates and bowls resulted in larger self-served portions, and indirectly promoted greater intake, emphasizing the importance of age-appropriate dishware.

**Timing of Solid Food Introduction and Obesity: Hong Kong’s “Children of 1997” Birth Cohort**

Some Western studies show early introduction of solid food is associated with subsequent obesity. However, introduction of solid food and obesity share social patterning, making these observations vulnerable to residual confounding.

In a non-Western developed setting, there was no clear association of the early introduction of solid food with childhood obesity. Studies in populations with a different confounding structure may be valuable in clarifying and reconciling potentially confounded epidemiologic associations.

**Validity of the Ages and Stages Questionnaires in Term and Preterm Infants**

The Ages and Stages Questionnaires (ASQ) has been validated in many countries and translated into numerous languages. In most publications, it has been reported that the ASQ is accurate in detecting true problems in apparently healthy children and even in children with biological risk factors.

This report compares the third version of the ASQ and the Bayley Scales of Infant and Toddler Development, Third Edition, assessments. Psychometric properties showed a tendency to improve with testing age and when comparing term versus extremely preterm children.

**Developmental Scores at 1 Year With Increasing Gestational Age, 37–41 Weeks**

Cognitive and motor developmental test scores of preterm and late preterm infants increase with gestational age. Developmental test scores in full-term infants have not previously been considered to relate to gestational age.

In a cohort of healthy, full-term infants, 37 to 41 weeks, 12-month mental and psychomotor scores on the Bayley Scales of Infant Development increased with gestational age, suggesting that neurodevelopment is optimal in infants born at 39 to 41 weeks.

**Heated, Humidified High-Flow Nasal Cannula Versus Nasal CPAP for Respiratory Support in Neonates**

Heated, humidified high-flow nasal cannula (HHHFNC) is a noninvasive mode of respiratory support that is commonly used in the majority of US NICUs. No large randomized trial has evaluated safety or efficacy of HHHFNC.

This large randomized controlled trial suggests that HHHFNC is as effective as nCPAP for noninvasive respiratory support and can be safely applied to a wide range of neonates.

**Tracheostomy for Infants Requiring Prolonged Mechanical Ventilation: 10 Years’ Experience**

Advances in the treatment of critically ill infants have increased survival of extremely low/very low birth weight and medically complex infants. Improved survival can result in prolonged mechanical ventilation and sometimes tracheostomy. Current tracheostomy rates for these infants are unknown.

This long-term review of infants discharged from a NICU with tracheostomies is the first to describe tracheostomy rates specifically in extremely low/very low birth weight infants. It focuses on long-term clinical outcomes and comorbidities rather than surgical complications.

**Yield of Chest Radiography After Removal of Esophageal Foreign Bodies**

Perforation in the setting of retained esophageal foreign body is rare, but can be catastrophic. The role of imaging in screening for injury after removal has not previously been studied.
The rate of esophageal injury among children with retained esophageal foreign body is 1.3%. Intraoperative findings suggestive of injury are predictive of perforation. Routine chest radiography is not warranted in those who do not meet this criterion.

Temporal Trends in Survival Among Infants With Critical Congenital Heart Defects

Pulse oximetry testing in newborns can detect asymptomatic cases of critical congenital heart defects and has been added to the US Recommended Uniform Screening Panel. However, the impact that earlier diagnosis may have on survival in this population is unclear.

One-year survival for infants with critical congenital heart defects has been improving over time, yet mortality remains high. Survival has been greatest for those diagnosed after 1 day of age and may increase more with screening using pulse oximetry.

Survival of Patients With Spinal Muscular Atrophy Type 1

Survival of children with spinal muscular atrophy type 1 is determined by treatment choice: tracheostomy with mechanical ventilation, noninvasive mechanical ventilation, or a palliative approach. Few data are available on life expectancies with different approaches.

The present study provides data comparing therapeutic strategies that affect life expectancy. Clinicians involved in the care of patients with spinal muscular atrophy type 1 should be aware of survival trends while awaiting more definitive therapeutic strategies.

Benefits of Universal Gloving on Hospital-Acquired Infections in Acute Care Pediatric Units

Health care–associated infections cause considerable morbidity and mortality among hospitalized children. Simple barrier precautions such as universal gloving of health care workers’ hands may reduce transmission of infectious agents between patients.

Mandatory use of gloves during respiratory syncytial virus season in pediatric units prevented other health care–associated infections such as central line–associated bloodstream infections, particularly in intensive care settings. These secondary benefits suggest continuing mandatory gloving throughout the year.

Cluster (School) RCT of ParentCorps: Impact on Kindergarten Academic Achievement

At least half of the achievement gap for low-income, minority children is present at kindergarten entry; however, there are no population-level early childhood interventions that effectively engage and support families and teachers to ameliorate the impact of adversity on achievement.

This study evaluated ParentCorps, a family-centered, school-based intervention to promote self-regulation and learning for all children entering school in disadvantaged, urban neighborhoods. ParentCorps results in higher kindergarten achievement among low-income, minority children.

Association Between Total Duration of Breastfeeding and Iron Deficiency

Previous studies have found a relationship between exclusive breastfeeding for ≥6 months and iron deficiency. Little is known about the relationship between total breastfeeding duration, including the period after the introduction of complementary foods, and infant iron status.

Our results suggest that infants with longer total breastfeeding duration may be at risk for iron deficiency. Our findings highlight a clinically important association warranting additional investigation that may inform future guideline updates regarding assessment of risk for iron deficiency in young infants.

Early Readmission of Newborns in a Large Health Care System

Early readmission of apparently healthy newborns may result from inadequate assessment of a newborn’s readiness for discharge. Knowledge of the frequency, causes, and variation in the rate of newborn readmissions may assist in developing quality improvement interventions.

Feeding problems and jaundice, both potentially preventable, are the leading causes of readmission. Late preterm and early term newborns are more likely to be readmitted and should have close follow-up after discharge from a well baby nursery.

Galactose-α-1,3-galactose and Delayed Anaphylaxis, Angioedema, and Urticaria in Children

Delayed anaphylaxis, urticaria, and angioedema to mammalian meat products were first described in the adult population in 2009. Patients with this syndrome who consume mammalian meat typically develop symptoms 4 to 6 hours after ingestion.

Specific diagnoses for children who develop urticaria, angioedema, and idiopathic anaphylaxis are few and far between. We have now shown delayed anaphylaxis, urticaria, and angioedema due to mammalian meat products in the pediatric population.
Oropharyngeal Dysphagia and Gross Motor Skills in Children With Cerebral Palsy

Oropharyngeal dysphagia (OPD) prevalence is 19-99%. OPD based on parent-report is associated with gross motor skills in children with cerebral palsy (CP), however this underestimates prevalence. Almost all children with severe CP have dysphagia; little is known about mild CP.

The prevalence of directly assessed OPD in preschool children with CP is 85% (70% in GMFCS I; 100% in GMFCS V). OPD was prevalent even in mild CP. Gross motor functional capacity is strongly related to dysphagia severity and prevalence.

Change in Adoption of Electronic Health Records by US Children’s Hospitals

Electronic health record (EHR) uptake by US hospitals has been slow, including among children’s hospitals. The Health Information Technology for Economic and Clinical Health program, which began in 2011, offers incentives for adoption and meaningful use of EHRs.

Using an annual survey, we evaluated how children’s hospitals have progressed in EHR adoption from 2008 through the start of the Health Information Technology for Economic and Clinical Health program and assessed their ability to meaningfully use EHRs.

A Cough Algorithm for Chronic Cough in Children: A Multicenter, Randomized Controlled Study

Parents of children with chronic cough have poor quality of life and often seek multiple consultations. There are few randomized controlled trials on the management of cough or on the efficacy of management algorithms outside of inpatient settings.

In a multicenter trial, we found that the management of children with chronic cough, in accordance with a standardized algorithm, improves clinical outcomes. Earlier application of the algorithm leads to earlier cough resolution and improved parental quality of life.

See the table of contents of this issue to learn more about these articles.