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Everything Matters In

Patient Care

Advancements in Critical Care

Nationwide Children's Hospital continues to make advancements in critical care thanks to our dedicated staff.

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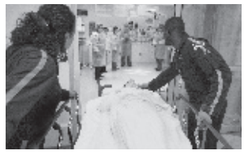

Articles

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Pictured left: Basal, a respiratory therapist, does his job with a smile to provide best care for all patients.

Critical Care Nursing

Linda Stoverock DNP, RN, NEA-BC,
Senior Vice President, Patient Care Services, Chief Nursing Officer

Frequently, when one says "Critical Care Nursing," thoughts of the Pediatric Intensive Care Unit come to mind. However, Critical Care Nursing has expanded in so many ways across the organization as patients become more complex. Critical Care Nursing now embodies the work of our Transport Team, Neonatal Units, the highest level of care in our Emergency Department, the Post Anesthesia Care Unit, Cardiac Intensive Care Unit and even some Homecare patients being maintained on ventilator support. One commonality nurses have across all of these areas is working with the patient and his or her family in the most vulnerable situations.

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There are the technical components to critical care nursing that makes the specialty challenging, from identifying very subtle moment-to-moment changes in the patient with limited reserves to neurological and other system failures that must be acutely monitored. This is in addition to managing a myriad of medications that keep the patient stable, as well as ventilator support. Critical Care nurses are the first line of defense to call the teams to the bedside to make rapid changes in the plan of care to stabilize their patient.

While the role of rapid assessment and communication with the team are extremely important, the Critical Care nurse also watches intently for the impact of the life saving measures on the child's emotions, rest, nutrition and skin to prevent further complications. It is no wonder that so much of the preventable harm is focused on these most vulnerable high-risk patients. From prevention of medication errors to pressure injuries and nosocomial infections, the Critical Care nurse applies all of the safety bundles to give her or his patient the best chance of recovering and stabilizing from their acute injury.

Critical Care nurses do all of this with grace and poise, while paying attention to the emotional struggles the family goes through as they see this infant or child struggle for life. The Critical Care nurse holds the hand, helps the parent have hope and stay in close proximity to their child. They are there as a family celebrates their recovery, but also there when they have to say goodbye.

What a gift to be a Critical Care nurse putting all of these skills to the test, never knowing as one comes to work what small victories will be celebrated, or hardships will be experienced. How fortunate are we at Nationwide Children's Hospital to have more than 1,100 nurses and nurse practitioners caring for our patients at their most vulnerable time in life. We celebrate those who focus their career as Critical Care nurses in this issue of *Everything Matters in Patient Care*. Hats off to you for the outstanding team member you are!

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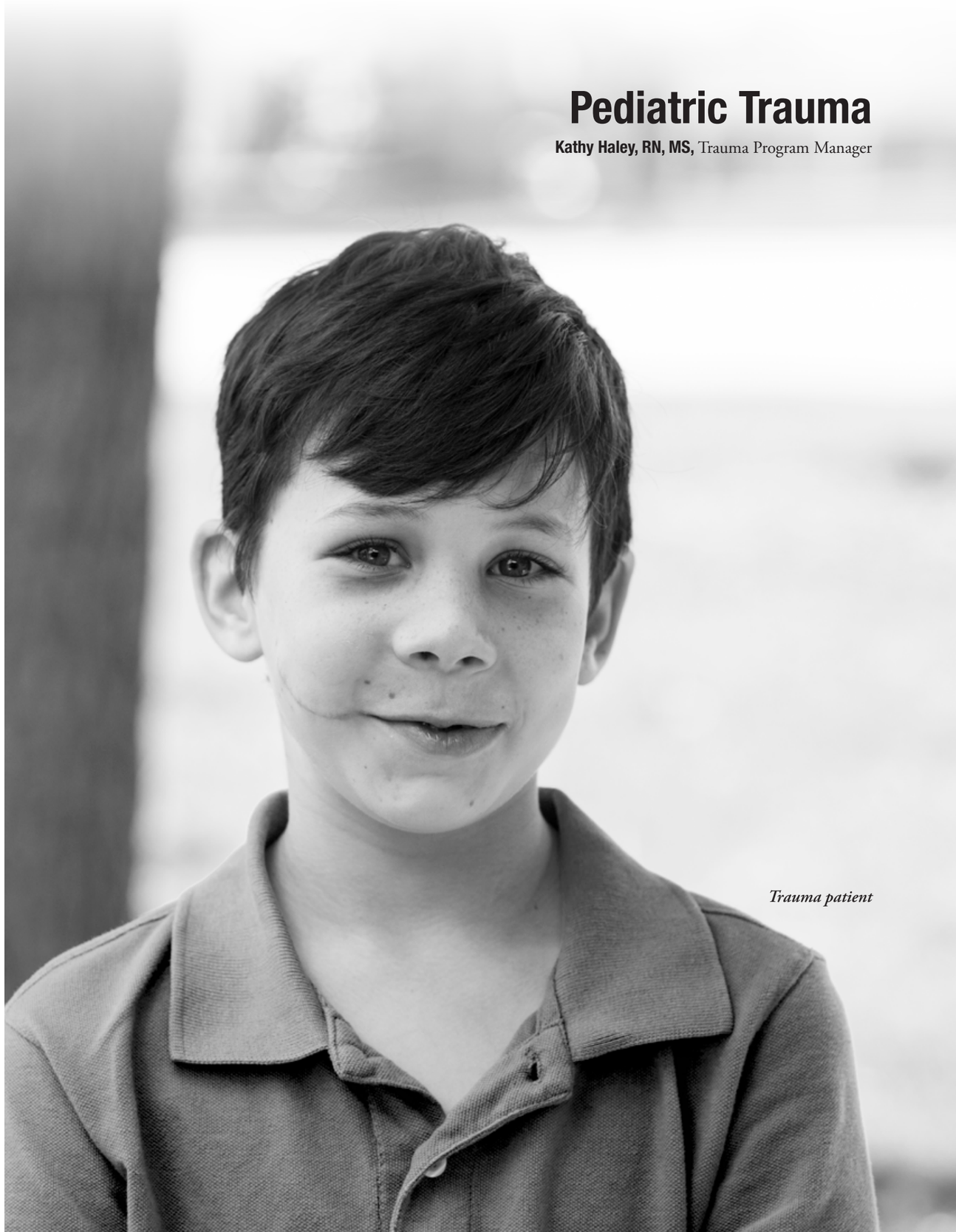
Pediatric Trauma

Kathy Haley, RN, MS, Trauma Program Manager

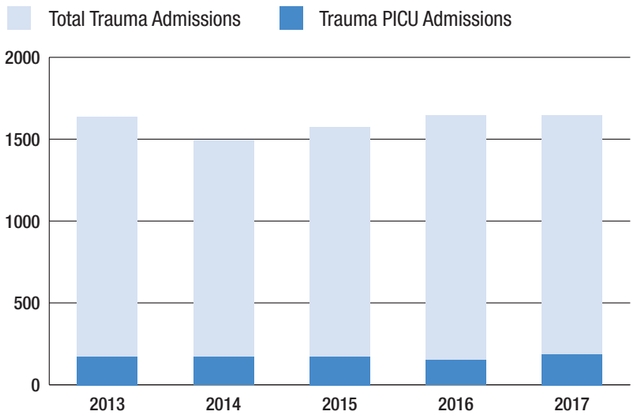


Trauma patient

Unintentional and intentional injuries cause more deaths in children and adolescents than all other causes combined.

Unintentional and intentional injuries cause more deaths in children and adolescents than all other causes combined. Deaths caused by injuries account for more years of potential life lost in those younger than 18 years than sudden unexplained infant death, cancer and infectious diseases combined. An estimated 1 in 4 children sustain an unintentional injury requiring trauma care each year (Table 1). Children who sustain injuries can require complex care involving numerous and coordinated services. It is well documented that well-coordinated and skilled trauma care is key to optimizing best outcomes.

Table 1: Nationwide Children's Trauma Admissions and Trauma PICU Admissions



Nationwide Children's Hospital ensures emergent and critical care to match the injured child's needs in a timely manner. The Trauma Program at Nationwide Children's is well known nationally as a program providing comprehensive care for children with many types of injuries.

The care continuum begins in the emergency department with a three-tiered expert trauma team response. Seriously injured children are triaged to one of the level of alerts that best meet their need. The trauma team response is an organized group of care experts who respond to meet patient needs immediately. The three levels are called Level 1 Neuro, Level 1 and Level 2. Our ability to provide a broad range of pediatric services including the presence of pediatric emergency medicine providers, trauma surgeons, pediatric medical and surgical specialties, pediatric anesthesiology, pediatric critical care, neurosurgical and orthopedic trauma care, pediatric rehabilitation, social services, traumatic stress and substance abuse counseling and other specialized trauma care is important and impactful to patient best outcomes.

Nurses caring for trauma patients are held to requirements of a trauma nurse education plan. Unique to our center is a novel and nationally replicated fellowship program for nurses who have a distinct interest and skill set for pediatric trauma critical and emergency care – Trauma Nurse Leader in the Emergency Department (ED) and Trauma Nurse Resource in the Pediatric Intensive Care Unit (PICU). The fellowship for these programs is approximately one year and the positions are filled by application.

Another essential component of a pediatric trauma center is a well-equipped and staffed trauma room and PICU. Pediatric surgeons, pediatric critical care physicians, and anesthesiologists trained in the care of injured children working together are needed for optimal care of the severely injured and unstable patient in the critical care setting. Unlike other medical diseases, trauma is sudden and unpredictable. Resources for family members include but are not limited to pastoral care, trauma trained social workers, and psychological support services. All are required resources for our Level 1 Trauma Center care continuum. Injured children are screened for stress factors, alcohol and other drugs factors and provided resources as needed. Once the injured child is stable and the possibility of rapid deterioration is lessened a comprehensive evaluation for rehabilitation needs, pain management, school re-entry and many other needs is completed.

One Child's Story

The local fire department focused on a 10-year-old boy, whose face was bleeding heavily. The crew stabilized him, and he was flown to Nationwide Children's.

A Level 1 Trauma Alert Team thoroughly assessed the patient and stabilized him further in the trauma resuscitation bay. He suffered multiple injuries including a concussion, extensive facial fractures, an orbital hemorrhage and a deep laceration. After extensive surgical repair, he was taken to the PICU.

His mother commented on how swift the trauma team had initiated care, developed a plan and thoroughly explained the plan to her. The family was very impressed with the process. "By the time I came to his room, they had already run scans and tests and had all sorts of answers," his mother said. "The room was full of nurses and physicians, and they were explaining what they were going to do, what the possibilities were, what the risks were for all the things that might happen...they were just amazing."

Empowering Family

The family was met in the PICU by a team of therapists, social workers and psychologists whose goals were to ensure the patient and his family were prepared to return home safely.

One of the biggest concerns the family had was helping the patient learn to walk again. Family members were distressed about how to tell him of his injuries and the crash when he regained consciousness.

Nationwide Children's psychologists recommended approaches and role-played with the family and suggested ways to discuss the crash and the patient's injuries with his siblings. The family was relieved to discover that this was part of the healing process and remarked how comforting it was to have these specialists intervene.

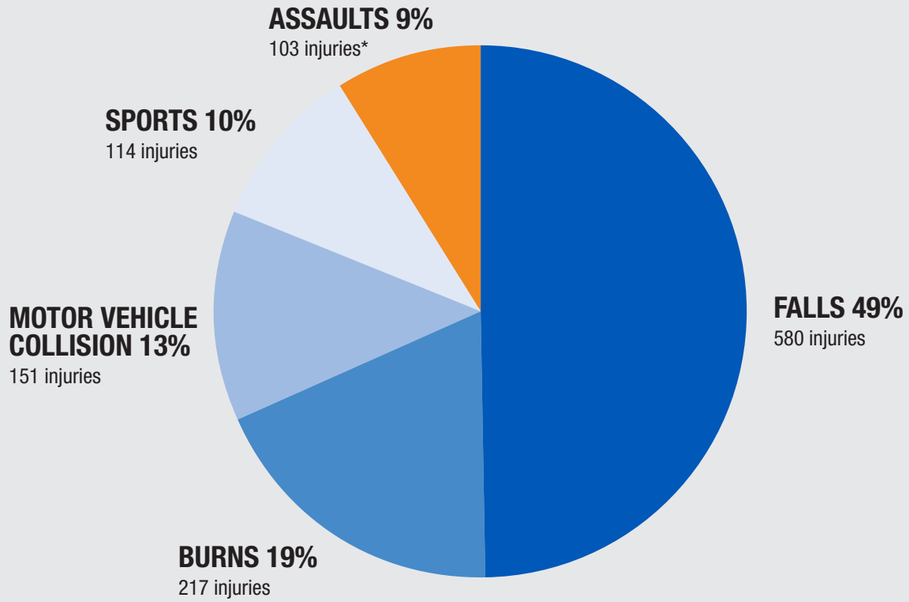
Empowering the Patient

During his post-operative period, therapists got the patient out of bed and walking. He needed support from his mother and a therapist to sit, stand and walk.

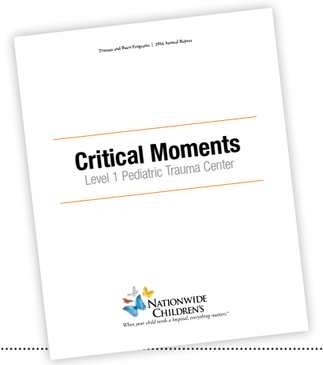
An occupational therapist brought him Legos®. As the patient stood and played, he increased his endurance and showed he could multitask. As he manipulated the pieces the therapist watched for cues revealing how he could grip a pencil and use scissors, his problem solving and motor planning, his ability to scan for needed pieces and his depth perception. She would also hold out a pinwheel for him to blow on to regain flexibility and coordination in his lips and mouth. By the time he left, he could chew a bite of hamburger and drink through a straw.

He returns to Nationwide Children's for follow-ups from his surgeries and continuing care. His mother is very impressed with the care her son received here and was glad her son's care was here.

Top Leading Causes of Injury for 2017



**Assaults include gunshot wounds and stabbings that were not accidental or self-inflicted*



The Trauma Program has published an annual report for many years. The purpose of this publication is to educate health care providers about the impact of pediatric trauma in our region.

To view the Trauma Annual report please visit **NationwideChildrens.org/Trauma**

Social Media and the Health Care Setting

Jodi Mascolino, RN, BSN, CPN, Risk Manager, Department of Legal Services

We know that consumers are looking online for health care information, but we also know that there is a lot of misinformation on the Internet. As health care professionals, we have an opportunity to disseminate evidence-based messages through social media. Employees who advocate on behalf of Nationwide Children's Hospital help elevate our brand, highlight our research and improve consumer knowledge, but it's important to understand the risk involved with social media use. Social media forums such as Facebook, Twitter and Instagram have become popular sources of communication for many people. However, those working in the health care setting must be aware of the ramifications of inappropriate use of social media. When social media is not utilized appropriately, it can lead to legal implications, loss or suspension of professional licensure and potential termination of employment. Examples of inappropriate use include posting a picture of a patient, details about a patient experience or posting complaints about a co-worker or employer.

Nurses and other health care professionals must recognize they have ethical and legal obligations to protect patient privacy. The Ohio Board of Nursing's rules state that a licensed nurse shall delineate and establish professional boundaries with each patient (Ohio Admin. Code § 3701-4-06(I)). To maintain professional boundaries, nurses are prohibited from using social media, text or email messaging and other forms of communication to disseminate patient information for purposes other than providing care to the patient or otherwise fulfilling the nurse's assigned job responsibilities (Ohio Admin. Code § 3701-4-03(H)). The American Medical Association (AMA), the Federation of State Medical Boards and other health care professional boards have similar rules and standards regarding the use of social media and patient privacy.

The consequences of crossing boundaries through inappropriate use of social media could be costly to the health care professional and can adversely affect patients and families by disclosing private information. Therefore, it is up to each individual to be aware of his or her employer's policies, as well as, applicable professional licensing board's rules and regulations that relate to professional boundaries and the use of social media.

Most health care institutions have additional internal policies and guidelines regarding the use of social media. Administrative Policy V:34- Use of Social Media, is the policy at Nationwide Children's Hospital that outlines appropriate use of social media. Below are some of key points outlined in the policy:

- Creating a social media site for institutional purposes must be approved by both the Marketing and Legal Departments.
- Use of social medial should not interfere with employee assigned job responsibilities.

When using social media for personal use or for the institution, staff must not:

- Disclose any proprietary information, intellectual property or trade secrets such as ideas, inventions or discoveries.
- Post any photos, videos or other images of patients and/or their families.
- Interact with patient and/or family members on social media unless a social media relationship existed prior to the patient being treated at Nationwide Children's.
- Harass, humiliate, threaten or make disparaging remarks about Nationwide Children's patients, families other employees or the institution.
- Use his or her Nationwide Children's title, logo or brand to endorse product, opinion or cause.
- Provide medical advice that may appear as though it is endorsed by Nationwide Children's.

Helping Patients and Families Cope With the Click of a Button

Sarah See, MS, PC, CCLS, Child Life Specialist, Family & Volunteer Services
Sarah Klemann, RN, Clinical Leader, Pulmonary Unit

We carry out many invasive tests and procedures at Nationwide Children's Hospital, some of which may induce fear and anxiety for our patients and families. Patients and families are also faced with new diagnoses every day and are required to process complicated medical information within the stressful environment of the hospital. In order to provide better care across all Nationwide Children's service lines, a multidisciplinary team created personalized coping plans as a collaborative approach to support patients and families during their medical journey. This hospital-wide initiative aims to increase patient and family comfort and compliance during medical procedures, participation in their medical care, satisfaction with treatment and staff understanding of best teaching methods. The initiative also aims to provide an individualized plan that is transferable across all Nationwide Children's inpatient and outpatient settings.

The coping plan is created during the admission process. The nurse assesses whether the patient already has a coping plan, needs a coping plan or wishes to decline a coping plan. The nurse has the ability to complete the coping plan at that time or collaborate with their unit child life specialist to complete it later. The coping plan can also be updated at any time by either the nurse or child life specialist as new coping techniques and learning styles are assessed. Other disciplines are also encouraged to participate by sharing pertinent information to include in the coping plan. The unique difference about this coping plan is that it "lives" as part of the patient's profile in Epic™ and is available throughout any interactions at Nationwide Children's. This can be particularly helpful for patients and families who have frequent admissions and appointments, because they can communicate the information once and only update as needed. Patients and families also have the option to request a copy to use during medical experiences outside of Nationwide Children's.

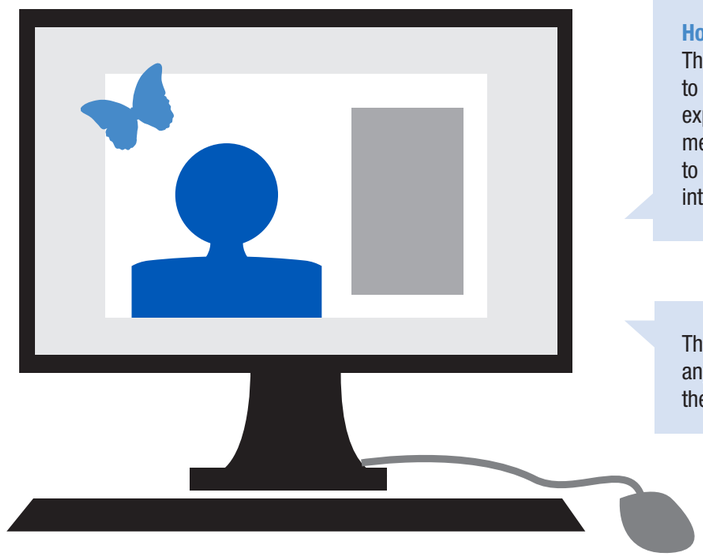
While completing the coping plan, patients and families are asked their preferences to help create a personalized plan. There are six components in the coping plan which were designed from evidence-based practices. The components are targeted to assess patient coping and identify strategies to increase positive outcomes. The questions pertaining to each component are listed below.

The coping plan was first launched to the inpatient units in July 2017 and is now available in all settings. Our multidisciplinary team continues to meet to review outcomes and assess educational needs to make this tool user-friendly. The coping plan was created to promote an environment where patients and families feel empowered to participate throughout their medical experiences, decrease fears and anxieties about medical procedures, increase knowledge in a developmentally appropriate way and provide tools to promote best outcomes.

What helps you cope during your hospital admission and medical procedures?
This can include distraction techniques, pharmacological or non-pharmacological pain management methods or environmental changes.

Who helps support you during your hospital admission and medical procedures?
The American Academy of Pediatrics notes that having a support person present for the child contributes to their ability to remain calm and more cooperative during medical procedures. The choices consist of family members, caregivers and medical staff trained to provide procedural support such as child life and music therapy.

What is your preferred position of choice during medical procedures?
Some of the options include comfort hold techniques that range from sitting in a caregiver's lap to infants being swaddled. This is with the understanding that for specific medical procedures, a choice may not be available.



How do you prefer to learn information about your medical experiences?
This response can apply to both the patient and their family members. It is important to remember that the patient's developmental age, personality and previous experiences may impact how they cope and learn new information related to their medical experiences. The goal of this question is to identify best teaching techniques to decrease the patient's anxiety and increase their understanding of medical interventions or diagnosis.

How have your previous medical experiences been?
The patient and family are asked to rate their experience from extremely positive to extremely negative, also noting if this is their first medical experience. This question is very important as research suggests that the long-term implications of negative medical experiences can be profound including post-traumatic stress, increased fears and anxiety and decreased cooperation. If these issues are not addressed, the patient may continue to have negative experiences. This is an opportunity for staff to address the patient's specific stressors in an attempt to have a better understanding of the patient's potential responses to upcoming medical interventions and to help improve any future experiences.

The final prompt is open-ended in order to gather any other information that would be beneficial to the patient's care across hospital admissions.

What Not To Do at the End of Life

Zachary Rossfeld, MD, Fellow, Palliative Medicine
Lisa Humphrey, MD, Director, Hospice and Palliative Medicine

Each year in the United States, more than 24,000 children die while hospitalized. At Nationwide Children's Hospital, the *Journey to Best Outcomes* continues through the end of life as we seek to provide respectful, safe care. However, the many emotions and challenges presented by this reality can be significant stressors for hospital staff as defining the best outcome in this difficult period can vary widely from one patient to the next.

Nationwide Children's goal to provide respectful care at end of a patient's life means listening intently to patients and families while they are enduring the hardest moment of their lives. Working with patients and families to hear their hopes and worries helps to identify values with which providers are then able to align themselves and, with permission, make a recommendation for a plan of care. When communicating about next steps when there is no cure, it is important to outline sequentially both what will be done and what will not be done for the child.

Determining and carrying out a care plan in the face of a limited life-expectancy presents emotional and cognitive stresses and, possibly, even ethical dilemmas. When faced with end of life care, how do we enact the quality goals of "Do Not Harm Me" and "Navigate My Care?" As health care providers, we contribute medical knowledge about the benefits and burdens of interventions such as parenteral nutrition, lab draws, surgeries and more. Am I obligated to offer routine lab testing and vital sign surveillance or is it permissible to stop such interventions if they introduce burden with only minimal benefit? Why or why not? Who am I to decide? When asked to provide any or all of these by a patient or family, must I?

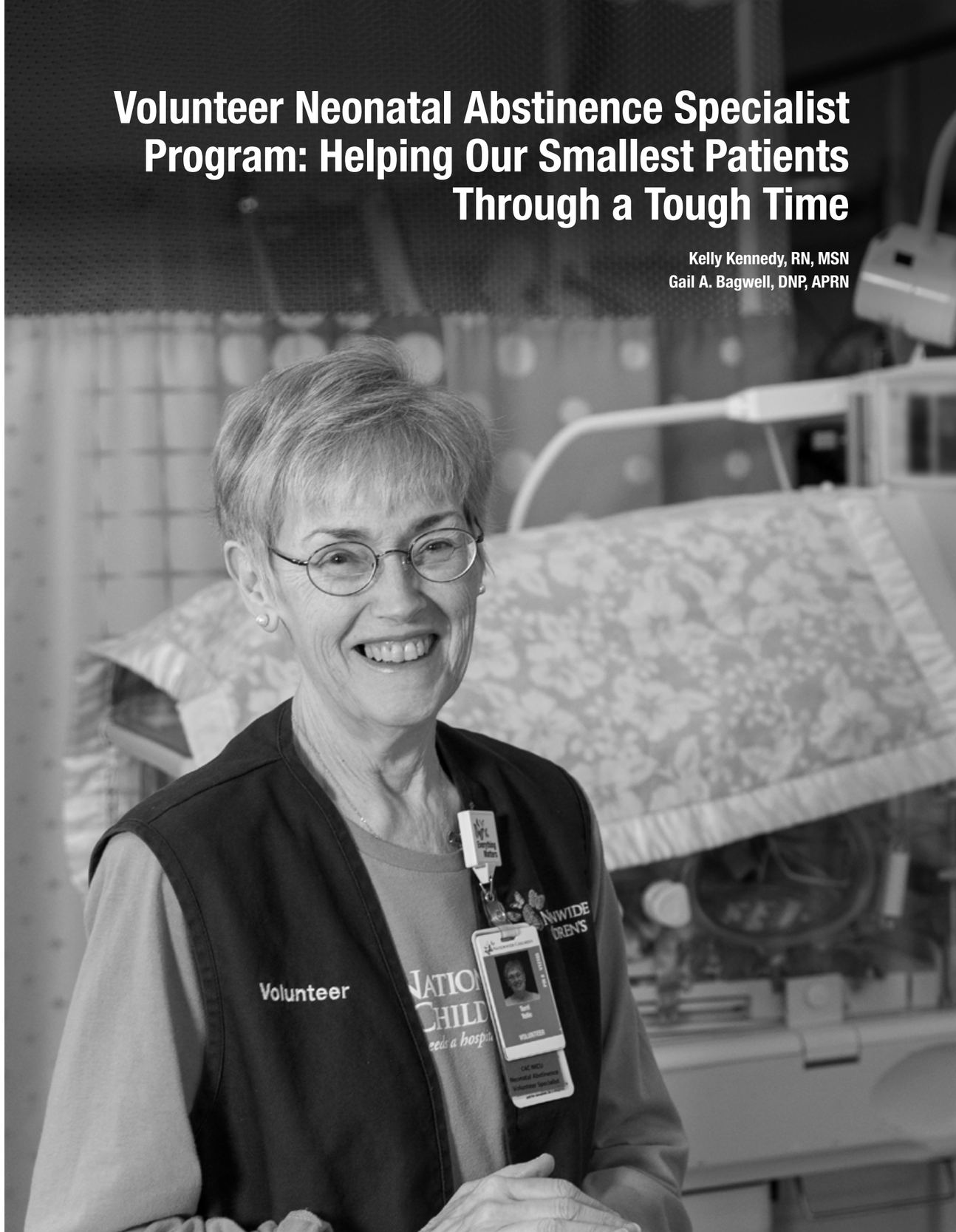
Even with the best interests and communicated values of the patient and family in mind, the path forward is often not clear. A common example of this is reconciling a parent's request for an intervention (e.g. checking a blood test) with the lack of medical indication for doing so. In an ethical sense, this is a conflict between autonomy and non-maleficence. Such an impasse can be sorted out by considering not only the identified ethical principles but also the particulars of the individual case. A prudent start is to outline the medical indications, patient/family preferences, impact on quality of life and contextual features (e.g. cultural, legal, practical) for the specific decision under consideration. This framework can allow the provider to see the true issue at hand. If next steps are still unclear, an ethics or palliative medicine consult may be helpful.

When a patient's goals shift from cure to comfort, everything that is done for the patient's care matters and, at the same time, each and every thing that is not done also matters.

When a patient's goals shift from cure to comfort, everything that is done for the patient's care matters and, at the same time, each and every thing that is not done also matters. Through thoughtful conversations and active collaboration between patients, families and health care providers, care at the end of life can minimize harm and optimize respect: quite an outcome, considering.

Volunteer Neonatal Abstinence Specialist Program: Helping Our Smallest Patients Through a Tough Time

Kelly Kennedy, RN, MSN
Gail A. Bagwell, DNP, APRN



Opiate use disorder is a growing problem in the United States and has reached epidemic proportions. This disorder can affect anyone, including pregnant women. A consequence of this epidemic is that newborns are born with drug dependence and many will experience Neonatal Abstinence Syndrome (NAS).

The number of newborns born with NAS has increased greatly over the past 10 years in both Ohio and the nation. In 2000, there were only 1.3/1000 live births diagnosed with NAS and in 2012, the most recent year for national data, there were 5.8/1000 live births in the United States. That is one newborn being born every 25 minutes with NAS. Ohio has not been immune to this epidemic and in 2015 had 15.5/1000 live births, almost three times the national average. Nationwide Children's Hospital's Newborn Intensive Care Unit (NICU) began noticing an increase in newborns admitted for drug withdrawal in 2009 and developed an NAS taskforce to address the problem. The NAS taskforce used quality improvement methods and has implemented many initiatives to help decrease the length of stay for the NAS patients and improve their outcomes.

2000
1.3/1000
live births diagnosed with NAS in the U.S.

2012
5.8/1000
live births diagnosed with NAS in the U.S.

One of those initiatives is the Nationwide Children's Volunteer Neonatal Abstinence Specialist Program. This program was developed in July 2014 because of the increasing number of constant hours the NICU was using, especially on night shift. NAS babies have many different signs of withdrawal including crying and irritability. Constant attendants were being utilized to help comfort the babies when the parents were not available to assist the RN with the non-pharmacological care. The goal is to utilize as many non-pharmacological interventions as possible to help control withdraw minimizing pharmacological treatment.

The first volunteer training was in January 2015. The training is a four-hour class offered on a Saturday morning several times throughout the year. The class consists of a pretest to assess the volunteer knowledge of the subject. The topics covered are information on the current opioid crisis in Ohio and the United States, what an opiate use disorder is, what NAS is, the current treatment for pregnant women with opiate use disorder, the signs of NAS, the NAS assessment tool and the current treatment. The volunteers are also taught about having a non-judgmental and compassionate attitude, how to care for these babies by performing proper swaddling and proper safe sleep positioning, and how to work with the mothers. A hands-on portion is included at the end of the class to give the volunteers an opportunity to practice the correct swaddling and positioning techniques. At the conclusion of the training, there is a posttest. After passing the posttest, the volunteers receive a purple badge buddy that denotes them as a neonatal abstinence volunteer specialist. Volunteers are required to complete a form that details their interactions with the infant and/or mother. The form includes the length of time they held the neonate as well as any non-pharmacological intervention that the volunteers performed for the NAS patient.

Every 25 minutes one infant is born with Neonatal Abstinence Syndrome.

The neonatal abstinence volunteer specialists have several requirements in order to participate. They must be at least 21 years of age, a Nationwide Children's volunteer for at least one year, complete the training and

> “THIS IS ONE OF THE MOST IMPORTANT THINGS I DO IN MY LIFE EVERY WEEK.”
>
> *– Neonatal Abstinence Volunteer*

Neonatal Abstinence Volunteer Specialists Requirements:

- Must be at least 21 years of age
- A Nationwide Children’s volunteer for at least one year
- Complete the training and pass the posttest
- Commit to six months of the program
- Commit to one volunteer shift per week
- Demonstrate an understanding of the hospital and unit emergency codes and procedures

pass the posttest, commit to six months of the program, commit to one volunteer shift per week and demonstrate an understanding of the hospital and unit emergency codes and procedures.

While no final data are available to see if there is a correlation with the use of our volunteer specialists and a decrease in length of stay or medication usage, our volunteers as well as family and staff have verbalized an appreciation for the program. The volunteers have stated that the increase in knowledge and tools helps them to better assist with the comforting of the NAS population. The nursing staff appreciates the extra help to care for this special population as well. “This is one of the most important things I do in my life every week,” reported a volunteer discussing the value of the program.

Since the inception of the program, 45 volunteers from six of our nine Nationwide Children’s newborn units have been trained. The goal of the program is to have at least two to three classes a year and to continue to grow. The opioid crisis in Ohio and the United States show no signs of slowing down. The Neonatal Abstinence Volunteer Specialist Program is an important component of non-pharmacological care that we provide our NAS babies on our journey to best outcomes.

Since the inception of the program,

45 VOLUNTEERS

from six of our nine Nationwide Children’s newborn units have been trained.

We Hear You: The Safety Attitudes Questionnaire (SAQ) Spurs Change

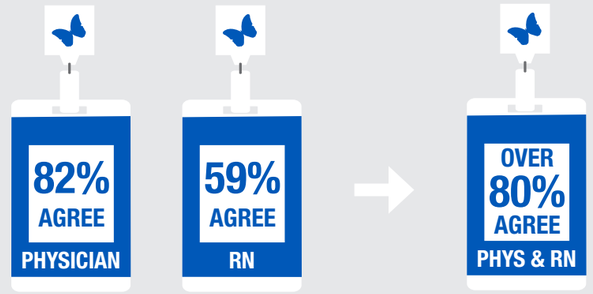
Michael T. Brady, MD, Co-Medical Director for Patient Safety
Sharon T. Dooley, RN, MA, NE-BC, Co-Medical Director for Patient Safety

The Safety Attitudes Questionnaire (SAQ), a valid and reliable measure of health care providers’ attitudes about issues related to patient safety, has been administered at Nationwide Children’s Hospital every other year since 2009. The survey is standardized, undergoing little change from year to year. There have been statistically significant improvements in both safety climate and teamwork climate scores each time it is administered. The results can be analyzed to examine individual units and professional groups (e.g. doctors, nurses, respiratory therapist and others) as well. Thus, we can track how a specific unit is faring over time. After each survey, we undertake a debriefing process to share survey results with professional groups from units where survey results suggest there may be risks concerning safety and teamwork. While the debriefing process has evolved over time, the purpose remains the same: To determine actionable items we can use to improve the culture in units that show either poor safety or teamwork, or both, based on survey results. We listen to what front line personnel have to say and we take it seriously.

To illustrate this process, let’s look at a situation in one particular inpatient unit which we will call Unit X. For two consecutive surveys, safety and teamwork climate scores were low compared to the rest of the hospital. In addition, significant differences existed between how physicians and nurses on the same team and same unit perceived the culture. For example, when asked to evaluate the statement: The physicians and nurses in this unit work together as a well-coordinated team, 82 percent of physicians agreed with that statement, while only 59 percent of nurses in the same unit concurred. These two professional groups clearly had different views of how their team was functioning. Through the debriefing process with nurses, physicians and others, it became apparent that the significant management issues were at play, and staffing levels and patterns were causing concern. As a result, changes were made on this unit including a new nurse manager and increased staffing. In 2017, the SAQ scores in the Unit X reflected those changes: scores for almost all the teamwork culture questions were well above 80 percent goal. Further, only minor discrepancies now exist between the physicians and nurses’ perceptions regarding the teamwork culture on the unit. In other words, they are now on the same page. Most importantly, we know high teamwork culture scores significantly correlate with less patient harm. So everyone wins – especially our patients.

In conclusion, we know these surveys take time, and if you are in a unit that has been identified as having an opportunity to improve on your scores, the debriefing process may be a challenge. Leadership listens to what you say and hopefully the end result will be an improved safety and teamwork culture, which in turn is more fulfilling for everyone working on the unit and a safer environment for all our patients. Our aspiration to eliminate preventable harm through our Zero Hero program is dependent upon reaching our safety and teamwork goals in ALL areas of the organization.

Evaluate the statement:
The physicians and nurses in this unit work together as a well-coordinated team.



OUR FAMILY FOUND

hope and healing

DURING THE MOST VULNERABLE OF DAYS

A Parent Perspective

Jennifer Bobbitt, parent

We found ourselves in a very unexpected and unfamiliar place five years ago when our youngest child collapsed and suddenly lost movement on his left side. The chain of events that followed, and the days and nights that would turn into weeks and months in the hospital seemed daunting to our family. However, within the walls of Nationwide Children's Hospital, our family found hope and healing during the most vulnerable of days.

Our son, Andrew, had recently turned 13 and our family of five was preparing to go to church and buy a Christmas tree later that day. In addition, we were looking forward to a family trip to Disney World at the end of the month. The holiday plans took a drastic turn when Andrew was rushed to the hospital and lost consciousness. He was suffering from a ruptured brain aneurysm that resulted from a congenital birth defect called an atrioventricular malformation or AVM. Until this diagnosis, we had no idea what an AVM was, let alone that one was waiting to cause chaos in Andrew's brain.

Everything matters in patient care at Nationwide Children's, including the support team around the patient. Upon arriving at the hospital, a hospital counselor and pastoral care met and supported our two older children in one room as my husband and I met the surgeons who would perform the first surgery. Nurses held me up as I collapsed under the fear and trauma of what was happening. As our family and friends gathered, they were met with compassion and a comfortable place to wait and pray. We never lost faith in the hospital team that supported us through three major brain surgeries and several minor surgeries.

The months we spent in the hospital were joyful. We quickly became welcomed by our new community. From the maintenance staff to the patient care assistant (PCA), to the food workers, to the nurses, doctors and surgeons, every single person we encountered was compassionate and positive. During our entire hospital stay, we never heard a negative word spoken about Nationwide Children's. All hospital staff that checked in on us always exited with the same comment, "Is there anything I can get for you?" This contributed to our well-being, which allowed us better support for Andrew as he healed and learned to walk, talk and recover basic skills. We did not make it to Disney World, but we were together in an amazing place, with a very happy and uplifting cast of characters. We found that everyone matters at Nationwide Children's.

Resources for a Healthy Recovery: Facilitating a Positive Experience for Burn Survivors

Rebecca Heigel, BS, CCLS, Certified Child Life Specialist, Burn/Ortho/Trauma Unit, Family and Volunteer Services
Sheila A. Giles, BSN, RN, CPN, Burn Program Coordinator

Nationwide Children's Hospital Burn Program admits more than 200 acutely burn injured patients annually to the hospital and treats hundreds more less severely injured children in the outpatient burn clinic. Many of these injuries are the result of exposure to scalding liquids, flames or contact with extremely hot surfaces. Nationwide Children's multidisciplinary burn team is committed to caring for and supporting children and adolescents who have experienced a burn injury. Reintegrating back to the community after a burn injury is a challenge for the patient with an acute burn injury.

Returning to school and interacting with peers can be a significant and overwhelming experience in a young burn survivor's recovery. Burn survivors often have visible scars, which alter their observable appearance and can affect their ability to carry out normal daily activities. The burn survivor might wear customized compression garments over their scars or skin grafts to promote healing, which may be noticeable to classmates or peers. These differences may illicit questions and reactions from their peers and community members which the burn survivor may have difficulty answering. Burn survivors may also experience decreased self-confidence and ability to interact socially. In seeking to achieve best outcomes for the burn survivor, the Burn Program supports and provides specialized resources and education through uniquely tailored school re-entry programs as well as an annual survivor and family integrated burn camp experience.

The school re-entry program is designed to facilitate a positive transition back to the school environment. This process consists of a multidisciplinary approach to identify academic, physical, social, and emotional needs of the burn survivor. A certified child life specialist and burn program coordinator obtain permission from the parent to communicate with the school in order to offer a specialized educational presentation to the school. Each presentation is unique in content and materials to meet the developmental and injury specific needs of the student and classroom audience of their peers.

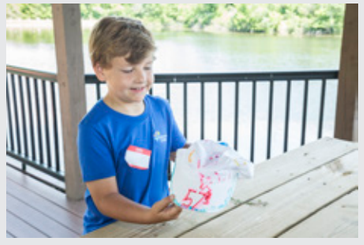
The goals of the school re-entry program are to:

- Assist with the physical and emotional transition back to school
- Empower the student and enhance their social skills related to his burn injury
- Inform and demystify the impact of the burn injury for the students
- Familiarize fellow classmates with student's burn experience and continued recovery
- Teach classmates appropriate and positive ways to interact with the returning student
- Encourage empathy and tolerance to all unique differences
- Provide information on burn prevention

The annual camp for burn survivors and their families is held at Recreation Unlimited in Ashley, Ohio and involves a day of team building and family activities facilitated by the multidisciplinary burn team staff. At camp, burn survivors and their families connect with others who have had a similar experience inspiring a healthy healing environment. Burn survivors and their families are encouraged to return to camp each year to continue strengthening relationships with peers. The camp has grown annually with burn survivors and their families returning yearly along with recently burn injured children and their families.

The goals of burn camp are to:

- Focus on building a dynamic community that strengthens family bonds through support and discovery which generates additional ways to thrive and grow.
- Engage in recreation and leisure activities, socialization and therapeutic interventions that enhance the healthy healing process.
- Provide a supportive environment for parents/caregivers to stimulate open and candid discussions that encompass the progress and challenges within their family system.
- Educate and facilitate social skills training to promote continued healthy re-integration into the community.



Through these activities the Burn Program team members support patients with burn injuries and their families, facilitating best possible outcomes by a promoting a confident burn recovery and a comprehensive reintegration into their school and community.

Preventing Unplanned Extubations in the Intensive Care Unit: An Interdisciplinary Approach

Gregory Ryshen, Service Line Coordinator
Anthony Lee, MD, FAAP

Patients hospitalized in the intensive care units frequently require respiratory support through an endotracheal tube connected to a mechanical ventilator. These critically-ill children are at risk for adverse events including infections, lung trauma and unintentional dislodgement of the endotracheal tube (ETT). An unplanned extubation is the accidental removal or displacement of the endotracheal tube at a time other than the time chosen for removal by the health care team. For these patients already requiring respiratory support, this event can lead to potential patient harm, including periods of hypoxia, hemodynamic instability, cardiovascular collapse or death.

Although having zero events is ultimately the goal, the rates for unplanned extubation range widely among hospitals, with one event or less per 100 patient ventilator days considered within national standards.

Although having zero events is ultimately the goal, the rates for unplanned extubation range widely among hospitals, with one event or less per 100 patient ventilator days considered within national standards. Prior to 2008, the unplanned extubation rate in the Nationwide Children's Hospital Pediatric Intensive Care Unit (PICU) was greater than this national standard. A multidisciplinary team was assembled and quality improvement interventions were implemented that resulted in a decrease of this rate to less than 0.5 per 100 ventilator days. The following year, these same interventions were spread to the Cardiothoracic Intensive Care Unit (CTICU) with similar improvements.

In 2014, a hospital-wide effort began to eliminate all unplanned extubations.

In 2014, a hospital-wide effort began to eliminate all unplanned extubations. The team included representatives from the all of the intensive care units. Each multidisciplinary team consisted of a quality improvement coordinator, and champions from nursing, medicine and a respiratory therapy. Each team developed and implemented their own best-practice bundle based upon their unique patient population and standards of care. Compliance to each bundle is audited regularly and the unplanned extubation events are reviewed at bedside huddles with the staff. In the PICU and CTICU, the bundle focuses primarily upon assessing each patient daily to ensure they are comfortably sedated with medications. This was the focus in this area since agitation and excessive movement are associated with increased unplanned extubation events. In addition, daily X-rays are performed to ensure that the ETT is in the correct position.

The intubated neonatal population presents a very unique set of challenges. In comparison to the PICU and CTICU patients, the Neonatal Intensive Care (NICU) patients commonly require mechanical ventilation primarily due to their prematurity. The extremely short airway in premature babies puts them at increased risk for accidental extubation. Since NICU babies may require a mechanical ventilator for very prolonged periods of time, the use of continuous sedation medications and restraints to prevent the accidental removal may be prohibited and detrimental to the neurologic development. In this population, allowing the newborn baby to be awake and able to move is beneficial. The NICU bundle primarily consists of measures to ensure the ETT securement device is appropriately applied, maintained and at the correct depth. Additionally, kangaroo care, or skin-to-skin holding is highly encouraged even when the neonates have an ETT in place. The benefits of kangaroo care are abundant and outweigh the risk of the unplanned extubation. Some of the developmental benefits include improved oxygen saturations, improved sleep for the baby, enhanced parental bonding and increased breastmilk supply in new mothers. Anytime a baby is transferred for kangaroo care from the crib to a parent for holding or feeding, the ETT may become dislodged if not overseen properly. Accounting for this risk, the NICU team is developing a timeout to assure the airway is secure prior to transfer. Because of the low margin for error of ETT depth, the staff must ensure the baby is optimally positioned to obtain an accurate and reliable X-ray. These two interventions, along with ensuring the tube is adequately secured, are critical in reducing the unplanned extubation rate in the NICU.

Anytime a baby is transferred for kangaroo care from the crib to a parent for holding or feeding, the ETT may become dislodged if not overseen properly.

The hospital-wide unplanned extubation committee continues to meet monthly. Typically, meetings consist of reviewing the unplanned extubation data and the review of the events that occurred during the preceding month. This monthly collaboration allows for a multi-disciplinary approach to solving the problem, sharing of ideas across different specialties and the inclusion of many disciplines to determine a solution. The hospital-wide rate at the beginning of the collaborative effort was approximately 1.5 events per 100 ventilator days that required immediate intervention and re-intubation. Currently the rate requiring re-intubation is slightly above 1.0 per 100 ventilator days. In 2016, Nationwide Children's joined the Solutions for Patient Safety's collaborative in an effort to further reduce unplanned extubation events. Participating in this collaborative allows the organization to work with the other children's hospitals to share information and learn from each other to improve patient safety. Nationwide Children's continues to be a leader in this effort but ongoing work still needs to be done to further eliminate all of these events.

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Why a Mother's Milk is So Important

Cindy Jensen, RD/LD, ALC, Clinical Nutrition and Lactation

This year, the Nationwide Children's Hospital Lactation Program celebrates its 16th anniversary. Prior to 2001, mothers providing human milk were cared for by non-certified personnel in addition to their other duties. As a result, many mothers did not understand the benefits their milk could provide; hence, not surprisingly, very few mothers provided human milk for their infants during this time. Our primary goal is to inform all mothers about the benefits of human milk for their sick or preterm infant. Human milk is the perfect nutrition with more than 200 ingredients. We educate families about how human milk helps their babies grow, develop and be protected from infection. We promote the tag line "Mom's Milk is Medicine and Every Drop Counts" to emphasize not only the value of human milk, but also quality compared to quantity. Even if a mom does not establish a full milk supply or decides to never put her baby to the breast, small amounts of breast milk are beneficial. We will ensure she is supported in her breastfeeding journey.

The NICU has developed and implemented a program called Breastfeeding Milestones to guide a mom through the process of establishing a milk supply and ultimately direct breastfeeding, if that is her goal. It begins with pumping. Early initiation of pumping within the first hour of birth, and frequent pumping during the first two weeks with a hospital grade pump is crucial in establishing a good milk supply. Next is kangaroo care or skin-to-skin holding. Kangaroo care increases milk supply, maternal infant bonding and greater breastfeeding success. Mothers who hold their infants skin-to-skin identify baby's feeding cues better. Even infants in the NICU can and should be held daily, with few exceptions.

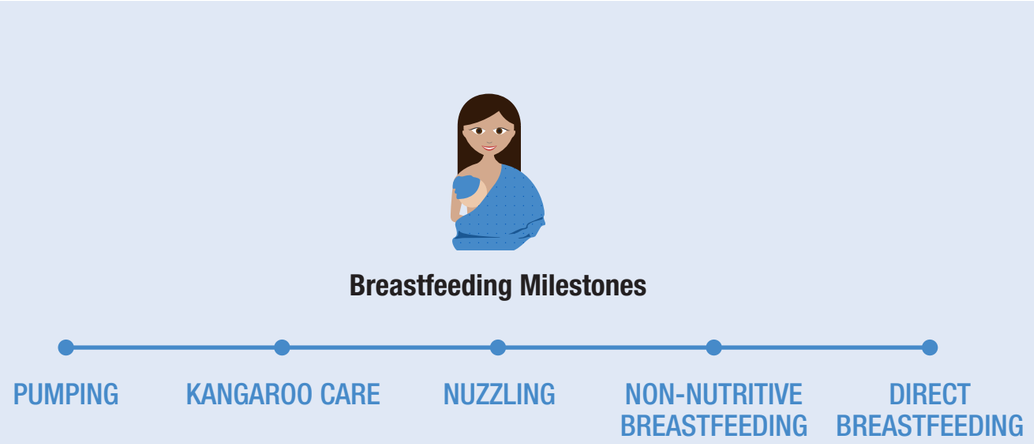
Once an infant is extubated, they begin nuzzling. Nuzzling is holding a baby skin-to-skin at an angle in close proximity to the breast. This allows the infant to experience many sensory aspects involved in breastfeeding, including the smell of human milk, the touch of mom's skin on the mouth and the sounds of her voice. When an infant is 28 weeks gestation and medically stable, non-nutritive breastfeeding begins. This allows an infant to practice breastfeeding while being gavage fed. Non-nutritive breastfeeding helps to associate the feeling of satiety at the breast and is a great opportunity for learning breastfeeding positioning.

The final milestone is direct breastfeeding, which is when an infant latches to a mother's breast to be nourished with mother's milk. In the NICU, infants are individually assessed to determine when they are ready to begin direct breastfeeding, same as cue-based feeding. These milestones are discussed with each mother and communicated to the medical team with a Breastfeeding Bedside Plan located at the infant's bedside. It includes the mother's goal and her infant's progress. This communication tool provides staff and family members a reminder to praise and support mom throughout their journey.

The many benefits of human milk are still introduced to the youngest and sickest of our patients with maternally provided breast milk oral care. Mom expresses milk at the bedside and uses a small amount for oral care. This allows antibodies and growth factors to be absorbed in the oral mucosa, even if the infant cannot receive feeds. This is a special way that mom contributes to her infant's care.

Under the leadership of a multidisciplinary team, our Lactation Team continues to grow. Subsequently, the number of infants receiving human milk in our NICU has improved to 65 percent at discharge. While we emphasize the unique value that human milk brings to infants, we understand the variability inherent in a mother's journey and the importance of supporting all mothers with their personal goals.

Our mission has become to educate, advocate and empower mothers to meet their breastfeeding goal. Working with these mothers has indescribable rewards. To see the mother of a 24-week critically ill infant establish a milk supply, work through the breastfeeding milestones and go home successfully breastfeeding after months of dedication is nothing short of a miracle.



Assessing the Utility of the WAT-1 Scoring Tool in the NICU

Jackie Magers, PharmD, BCPS

The Nationwide Children's Hospital Neonatal Intensive Care Unit (NICU) has a diverse patient population, ranging from extreme premature infants to toddlers outgrowing their chronic lung disease (CLD). Such a wide age range can lead to issues in weaning analgesia and/or sedation given the vast differences in exposure, organ maturity and disease state. In an effort to standardize the care of patients, the NICU is evaluating the utility of the Withdrawal Assessment Tool (WAT-1), a scoring method that helps to objectively assess the pediatric patient to help determine if they are tolerating the weaning of certain medication(s) appropriately. The Pediatric Intensive Care Unit and Cardiothoracic Intensive Care Unit at Nationwide Children's have both been using this scoring system for several years.

The WAT-1 tool is initiated on the first day of weaning any opioid and/or benzodiazepine on any patient who received one or more of these medications via continuous infusion or scheduled doses around the clock for longer than five days. The bedside nurse obtains the score every 12 hours during the tapering period up to 72 hours following the last taper dose. The score is calculated based on answers from a series of questions (Table 1).

Based on answers to the questions above, the patient's nurse would either continue monitoring as is, increase the frequency of assessment or notify the weaning service immediately of the patient's status.

The spectrum of patients admitted to the NICU can vary greatly. An extremely premature infant may not be able to physically manifest some of the signs mentioned in Table 1. On the opposite end of the spectrum, Nationwide Children's has an entire unit dedicated to the care of CLD patients. CLD patients may exhibit one or several of these signs at baseline or when other therapies (respiratory support, steroid doses, and/or nutrition) are modified making it difficult to pinpoint whether it was the taper change versus the other variable that had the effect on the patient score. Similar to other tools used for iatrogenic withdrawal monitoring, the WAT-1 scoring system has not been not validated in the NICU-specific population. However, it is the best tool available for use and it has been implemented by NICUs at other pediatric hospitals across the country. Before the WAT-1 can be routinely used in our NICU, given the large number of CLD patients that we care for, the current questions being asked need to be evaluated to see if they are appropriate for the broad scope of patients admitted here.

Table 1 WAT-1 Assessment Questions[1]

Symptom Category	Symptoms	Score	Symptom	Score
Information from patient record, previous 12 hours				
Any loose/watery stools	No	0	Yes	1
Any vomiting/wretching/gagging	No	0	Yes	1
Temperature >37.8C	No	0	Yes	1
2 minute pre-stimulus observation				
State	SBS[2] ≤0 or asleep/ awake/calm	0	SBS2 ≥1 or awake/ distressed	1
Tremor	None/mild	0	Moderate/severe	1
Any sweating	No	0	Yes	1
Uncoordinated/repetitive movement	None/mild	0	Moderate/severe	1
Yawning and sneezing	None or 1	0	≥2	1
1 minute stimulus observation				
Startle to touch	None/mild	0	Moderate/severe	1
Muscle tone	Normal	0	Increased	1
Post-stimulus recovery				
Time to gain calm state (SBS2 <0)	< 2 min	0	2-5 min.	1
			> 5 min.	2
Total Score (0-12)				

[1]*Franck LS, et al. Pediatr Crit Care Med. 2008;9(6):573-580.*

[2]*State behavioral scale. Curley, et al. Pediatr Crit Care Med. 2006:7(2):107-114.*

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Nationwide Children's Hospital
700 Children's Drive
Columbus, Ohio 43205-2696

Daisy Award

Tonette Brown, RN

The 20th Annual Nationwide Children's Hospital Daisy Award was presented to Tonette Brown, RN of Behavioral Health. The Daisy Award is given in appreciation of the important difference our nurses make in the lives of our patients and families at Nationwide Children's.

Tonette, who works in Behavioral Health, ensures all runs smoothly in her area, especially as the psychiatry field continues to expand and change. Says a co-worker: "Toni consistently goes above and beyond to make sure new nurses are precepted appropriately and that those nurses who are not so new understand the changes. She participates in service recovery when families are distraught. She surprises her co-workers with food. If she does not know the answer to a question, she will find someone who does. She is committed to excellence."

To learn more about our Daisy winners, and read their full nomination, visit **NationwideChildrens.org/Daisy-Award**

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