



# QUALITY & SAFETY MATTERS

Volume 2, Issue 3

May 2019

## Solving Urinary Incontinence Among Primiparous Women

By: Bailey Breaux, Regan Batson, McKenna Selby and Jasmin Cisneros

More than 40 percent of women experience stress urinary incontinence (SUI), or involuntary loss of urine, due to an increase in intra-abdominal pressure following the birth of their first child. SUI occurs as a result of pelvic floor dysfunction secondary to the trauma of vaginal delivery. Women experiencing this debilitating condition encounter diminished self-esteem, stressed relationships, isolation and sexual dysfunction. Physically, stress incontinence leads to urinary tract infections, skin breakdown and sleep deprivation.

There are a few treatment options available to the women suffering from SUI following nulliparous delivery. Several surgeries are available to correct urinary incontinence but these invasive procedures require a large financial investment and demand long recovery periods. Medications are also an option to treat the symptoms of incontinence, unfortunately pharmaceutical options result in side effects and tremendous financial expenditures. Fortunately, noninvasive, cost effective methods such as Kegel exercises or Pelvic Floor Muscle Training (PFMT) provides women a more universal and readily accessible solution. Kegel exercises focus on strengthening the pelvic floor muscles that control the bladder. One systematic review found a 70 percent improvement in symptoms of stress incontinence following appropriately performed Kegel exercises. Ultimately, evidence supports education on and implementation of PFMT as the first-line management mechanism for stress urinary incontinence in primiparous women.

Our EBP team recommends initiating education on the benefits of Kegel exercises in prenatal clinics. The evidence found by the EBP team supports the use of Kegel exercises before, during and after pregnancy to treat and prevent SUI in nulliparous women compared to invasive surgical procedures. Educational meetings, written materials and provider-patient interaction are just a few ways this information can reach patients and provide optimal results. Regardless of the therapy method, the goal is the same: to improve not only the urinary problem but also the patient's quality of life. No woman should feel as though she has to choose between becoming a mother and remaining continent.

## Assessment of Child Abuse in the Emergency Department

By: Jordan Crippin, Sara Bueno, Annie Jones, Tara Kubsch and Sarah Sanders

Child abuse cases are under-reported and under diagnosed in children of all ages, but especially school-age children. This problem is partially due to the fact that there is not a set standard of care or set screening tool regarding child abuse. This leads to variation of care among different facilities. The lack of detection of child abuse cases is an issue because of the prevalence of child abuse cases, and the lasting effects of child abuse. The current practice is screening only upon suspicion of child abuse and there is no set screening tool used by all facilities.

The evidence shows that while most health care providers support using a screening tool for child abuse, there is not a universal screening tool used by all providers, and of the tools available, there is not one that screens for all types of abuse. There are also barriers to using the tools that prevent health care providers from adequately implementing the available screenings. Despite the lack of a standardized screening tool and the current barriers, multiple studies showed that the use of a screening tool increased child abuse detection rates in hospitals.

Based on the collected data, there are many inconsistencies and barriers that have yet to be addressed regarding a standardized screening tool. Therefore, further investigation is needed to develop a standardized screening tool for child abuse, as well as an education and training program for health care providers on its use. We recommend developing and testing a standardized screening tool and training program and implementing them on a smaller scale. Implementing these smaller steps beforehand would allow us to monitor the effectiveness of the tool and the training program, and understand the impact on child abuse detection rates. Based on the results, the screening tool and the training program could either be redesigned or implemented on a larger scale.

## **Non-Nutritive Sucking in Addition to Oral Sucrose in Reducing Premature Infant Pain During Heel Stick Procedures**

By: Taylor Coronado, Sydney Huchton, Hannah Palmer and Erin Ramsey

Although it was once believed newborns do not experience pain or that pain in the neonatal population had no long-term effects, research indicates that pain can lead to hyperalgesia and a decrease in neurodevelopment later in life. Additionally, pain that is not managed properly can “increase the risk of infection, the hospitalization period and the death rate of neonates.” With a specific focus on the premature infant in the Neonatal Intensive Care Unit, routine procedures are combined with diagnostic and therapeutic procedures, totaling to more than sixteen procedures per day. This places the premature newborn population at an even higher risk for uncontrolled pain and its consequences.

Pain, the fifth vital sign, is best assessed in a subjective manner, which is not possible for the neonatal population. There is no existing national standard on how to assess and treat neonatal pain. Currently, different pain scales, such as the Premature Infant Pain Profile and Neonatal Infant Pain Scale, are used across different neonatal units leading to variability in the first step of the process - determining neonatal pain severity. The next step, reducing the pain level, also has no accepted and implemented standard leading to more variability across units.

Non-nutritive sucking in combination with oral sucrose effectively reduces premature neonatal pain, as measured by the Premature Infant Pain Profile, compared to other methods such as positioning, therapeutic touch, swaddling and using non-nutritive sucking or oral sucrose alone in heel sticks and other routine newborn procedures. Non-nutritive sucking also decreased the length of stay related to the infant’s ability to gain weight.

Replacement of previous standards of care with the technique of using the combination of oral sucrose and non-nutritive sucking would reduce neonatal pain and the negative consequences that follow. In addition, educational courses to all staff involved in the care of neonates about the importance of pain management (including the short and long-term effects) using a standardized pain assessment scale and training how to effectively use the non-nutritive sucking with oral sucrose technique, is necessary for standardization and correct implementation across neonatal hospital units.

## **Improving Surgical Outcomes in Elective Colorectal Surgery with Enhanced Recovery Programs**

By: Erin Mulcahey, Erika Michelsen, Haziell Rivera and Emma Lynch

Colorectal surgery (CRS) has one of the highest risks for the development of a surgical site infection (SSI). In fact, around 15 to 30 percent of all post-colorectal surgeries develop surgical site infections. Based on a review of the literature, it is strongly suggested a standardized, coordinated enhanced recovery after surgery (ERAS) bundle be used for patients undergoing elective CRS. An ERAS bundle is used to improve surgical outcomes by reducing surgical site infection, decreasing length of stay and minimizing cost.

Currently, ERAS bundles are not standardized; however, the research supports using a chlorhexidine surgical site preparation; a mechanical bowel preparation with an oral antibiotic(s); prophylactic parenteral antibiotics; and topical antimicrobial scrubs to significantly reduce the risk of CRS surgical site infections. Some studies showed a reduction in SSI from 19.3 percent to 5.7 percent and reduction of hospital stays from 5.2 to 3.5 days after implementing an ERAS bundle compared to traditional hospital care.

The goal of this literature review was to find high quality evidence that evaluated the efficacy of implementing ERAS bundles in order to reduce surgical site infection rates in colorectal surgical patients. This assessment included the analysis of systematic reviews which strongly support the benefit of ERAS bundles. There was a significant decrease in SSI rates when ERAS bundles were used in adult and elderly patients. However, the literature suggests all patient populations benefit from these surgical bundles.

With improved surgical outcomes, the ERAS bundle may decrease SSI, patient morbidities, risk of sepsis, length of hospital stay and costs. Most importantly, it may improve patient surgical outcomes. The development of a standardized ERAS bundle would create increased awareness and stewardship among hospital staff. Rigorous implementation of a bundle consisting of several evidence-based approaches with cooperation from all perioperative staff and a high level of patient compliance should result in a significant reduction in surgical site infections.

