

OUTLINE 1

November 3, 2021

MJ Strauhal

The OASI care bundle quality improvement project: lessons learned and future direction. Jurczuk M, Bidwell P, Gurol-Urganci I, et al. Int Urogynecol J. 2021;32:1989-1995. Doi:10.1007/s00192-021-04786-y.

What is OASI? Obstetric anal sphincter injury (OASI) is a severe form of perineal trauma that can occur during vaginal birth. It is the collective term for third- and fourth-degree perineal lacerations.

- Third degree lacerations involve the external and/or internal anal sphincter muscles
- Fourth degree lacerations involves the anal sphincter muscles and the rectal mucosa
- The etiology of OASI is multifaceted
 - Known risk factors include birthweight > 4 kg, primiparity and an instrumental (assisted) vaginal birth (forceps, vacuum, midline episiotomy)
 - Other associated risk factors in the literature include birth position (occiput posterior), labor induction, labor augmentation, epidural, being Asian
 - Can cause significant long-term physical and psychosocial morbidities including anal and fecal incontinence, prolapse, perineal pain, sexual dysfunction, and post-traumatic stress disorder

Introduction: OASI led to a collaborative effort by the Royal College of Obstetricians and Gynaecologists (RCOG) and the Royal College of Midwives to develop and evaluate the OASI Care Bundle (OASI-CB). OASI-CB was implemented as part of a quality improvement project in 16 maternity units across Great Britain

- In the United Kingdom (UK) an estimated 85% of vaginal births result in some trauma to the genital tract, the majority of which heal well and cause no long-term sequelae
- The threefold rise in the reported rate of OASI in England between 2000 and 2011
- Among primiparous women the rate rose from 1.9% in 2000 to 5.9% in 2011 (one in 16 primiparous women sustained an OASI)
- Increased rates have been linked to 1) improved recognition of lacerations, BUT also to 2) variations in intrapartum practice, such as sub-optimal episiotomy use 3) differing approaches to perineal protection
- These findings called into question whether sufficient action was being taken to prevent this severe complication of vaginal birth
- OASI can have long lasting consequences on women's continence, sexual function, and mental health, all of which significantly impact on quality of life
 - More than half of women with OASI experience ongoing symptoms and approximately half report an impact on their future birth choices
- Obstetric anal sphincter injuries have significant resource implications for healthcare providers owing to the ongoing follow-up and can trigger negligence claims
 - The total value of OASI-related negligence claims in the National Health Service in England was an estimated £31.2 million between 2000 and 2010
 - These claims referred specifically to failure to perform or extend an episiotomy, failure to diagnose the true extent and grade of the injury, inadequacy of repair and failure to perform a repair

This paper summarizes the key findings, including strengths, limitations and lessons learned from the OASI QI project, and provides rationale for further evaluation of the OASI-CB

The OASI-CB comprises four practices (see Figure 2)

1. Antenatal discussion about OASI
2. Manual perineal protection
3. Mediolateral episiotomy at 60° from the midline (when indicated)
4. Recognition and diagnosis of lacerations- systematic examination of the perineum, vagina and anorectum after vaginal birth

(Original project design article (open access): Bidwell, P., Thakar, R., Sevdalis, N. et al. A multi-centre quality improvement project to reduce the incidence of obstetric anal sphincter injury (OASI): study protocol. *BMC Pregnancy Childbirth* 18, 331 (2018). <https://doi.org/10.1186/s12884-018-1965-0>)

Evaluation of the OASI-CB:

- OASI-CB demonstrated the potential for reducing perineal trauma during childbirth
 - The clinical outcomes evaluation including 55,060 singleton, live, vaginal births found a reduction of 20% in the risk of OASI after the introduction of the care bundle (adjusted odds ratio 0.80, 95% confidence interval 0.65–0.98)
- Table 1- Key enablers to implementation included observing positive outcomes related to care bundle use, organizational support, and an increased cohesion between midwives and obstetricians
- Table 1- The main barriers were a lack of perineal management skills, resistance to change/ standardization, and a reluctance to discuss perineal trauma with women in the antenatal period, as this was perceived to cause anxiety to women
- This study indicated that interviewed women did not experience any of the care bundle components as an intrusion of their physical integrity. Additionally, an urgent need was identified for more information about perineal trauma, in terms of risk, prevention and recovery (**Bidwell P, et al. Women's experiences of the OASI care bundle; a package of care to reduce severe perineal trauma. *Int Urogynecol J.* 2021**) DISCUSSED NEXT!
- The authors go on to discuss the topics of
 - Support of women's birth choices
 - Strong engagement with stakeholder groups
 - Limitations of OASI 1
 - Improving maternity services (can this be implemented in the USA?)
 - Fausett, M. B., Staat, B. C., Crosiar, J. D., & Deering, S. (2017). 54: SAFE PASSAGES implementation reduces perineal trauma. *American Journal of Obstetrics & Gynecology*, 216(1), S39.
 - Future directions: OASI 2 → how to achieve successful scale-up of OASI-CB will be studied in a RCT to compare 2 implementation approaches and the resources needed for success

Resources:

Basu, M., Smith, D., & Edwards, R. (2016). Can the incidence of obstetric anal sphincter injury be reduced? The STOMP experience. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 202, 55-59.

- STOMP is a simple and low cost series of measures that has led to a significant decrease in the incidence of third and fourth degree tears in a cohort of women in the UK
- Presented on August 9, 2017 to the Pelvic Physical Therapy Distance Journal Club by Trisha Jenkyns PT, DPT, WCS, Jenkyns Physical Therapy & Wellness; <https://www.jenkynsptwellness.com/>