



PROCEDURE

1.0 Postpartum

1.1. Postpartum Autonomic Dysreflexia

- Women may continue to have uterine contractions postpartum (after pains), which may increase the risk of autonomic dysreflexia:
 - o Frequent blood pressure monitoring should continue after delivery, and with any signs of dysreflexia
 - o Leave the epidural catheter in place following delivery to allow for the periodic use of medication to block the signs and symptoms of dysreflexia, such as hypertension and headache.
 - o Avoid bladder distension (another common precipitant of AD). Short-term placement of an indwelling Foley catheter for first 12 hours after vaginal delivery and 24 hours after caesarean delivery may decrease this risk.
- Sore nipples from breast-feeding can also trigger AD.

1.2. Breastfeeding

- Support for breastfeeding is encouraged, even in women with high cervical lesions/ injury
- Helping place the woman comfortably and supporting the baby with pillows, or using the tray table of her wheelchair can be helpful to maintain a good position for breastfeeding
- Occasionally some women with SCI do not experience the "letdown" response with breast-feeding:
- Suckling-induced milk response to stimuli are absent in women with SCI above T4 and are reduced if the injury is between T4 and T6.
- Active mental imaging and relaxation techniques may be used to facilitate the let-down reflex.
- Referral to lactation consultant is recommended.

1.3. Handling Baby

- Modification cribs, change tables, strollers, and suggesting positions and other ways to handle the baby.

1.4. Bowel Care

- Bowel regimens should be resumed postpartum.
- A bowel program that relies on digital stimulation will need to be modified in the setting of a third- or fourth-degree laceration (tears of the anal sphincter or rectal mucosa) repair to permit adequate healing.

2.0 Self-catheterization

- Vaginal delivery may cause of bladder dysfunction in the general obstetric population. Care should be taken in women with SCI to avoid urinary retention to prevent deterioration of bladder function and to minimize the risk of urinary tract infection and autonomic dysreflexia.
- Frequent use of noncatheter techniques may be used, but catheterization is often necessary.
- In most SCI patients, bladder function returns to its previous state after delivery



3.0 Preventing Skin Breakdown

- Perineal pain/breakdown:
 - An increased incidence of disruption and infection of episiotomies may occur in women with SCI. Standard care with warm sitz baths and frequent perineal cleansing is appropriate.
 - After an episiotomy or tear, the increased pressure on the area from sitting in a wheelchair can lead to increased risk of breakdown. The area should be inspected frequently and the woman should rest in a more supine position (back or side) and change positions frequently to help reduce pain, swelling and pressure in this area. If the perineum starts to break down, the woman needs to get off of it as much as possible. This perineal breakdown may also be a trigger for AD.
 - Patients should be advised to change positions and perform pressure-relief manoeuvres regularly and to inspect equipment for appropriate fit and padding.
 - If there is evidence or concern for skin breakdown or potential injury, communication with the patient's physician is warranted.
 - Perineal repair, if necessary, can be accomplished with the usual techniques. Prior to application of ice, the patient must have a sensation test to determine perception of temperature. Ice must not be applied for longer than 10-15 mins. Heating pads should never be used.

4.0 Going Home After Baby

- Psychosocial:
 - Women with physical disabilities have higher levels of perceived stress and depressive symptoms compared with the general population; up to 35% of women with SCI self-reported experiencing postpartum depression, suggesting that close monitoring of postpartum mood is advisable.
 - Women with SCI have concerns about the physical demands of caring for an infant. Clinicians can play an important role in providing support as women make the transition to parenthood.
 - Consultation with physical and occupational therapists can identify strategies and adaptive equipment to facilitate independent parenting. Rehabilitation engineers, social workers, and lactation consultants can offer useful supports and solutions. It would be beneficial to initiate these early during pregnancy so that contact names and numbers are set in place when/if needed.

The following strategies have been collected from mothers with SCI:

- While the child is still small, consider using a wrap-around carrier for when leaving the house. Secure the child to the front so that movement is easier and the woman can have her hands free.
- Women with SCI often have the baby sleep very near to them for the first months so that when night feedings are necessary, the baby is already right there. "Co-sleepers" (bassinettes with one low side that nests against the mother's bed) have worked well for new mothers with SCI as they can reach their babies from their beds and tend to them during the night without having to arise and transfer to their wheelchairs.
- If the baby does not sleep in a place that is accessible from the mother's bed and a partner is available in the home, he or she can assist in the late night feedings to avoid the mother having to transfer in order to get to the baby.

5.0 Birth Control and Resuming Sexual Relations

- Discuss with women about birth control options and resuming sexual relations.
- Birth control pills can be taken after SCI and many women use them. However, oral contraception is associated with increased incidence of thromboembolism and must be prescribed with caution in



women with SCI. Oral contraceptives that contain only progesterone may be safer than medications that contain both estrogen and progesterone.

- IUD's may be associated with increased incidence of pelvic inflammatory disease and autonomic dysreflexia. In addition, women with SCI may not be able to perceive if the device has migrated out of the cervix.

DOCUMENTATION

Physician's History
Postpartum Pathway
Interprofessional Notes
Newborn Record Part 1 and 2

REFERENCES

1. Pregnancy in women with spinal cord injuries. (2012). Contemporary OB/GYN. Retrieved from <http://www.modernmedicine.com/modernmedicine/article/articleDetail.jsp?id=758904&sk=&date=&pageID=4>
2. Cross, A.L., Cross, L.L., Meythaler, J.M., & Tuel, S.M. (1991). Pregnancy following spinal cord injury. *The western journal of medicine.* 154(5). 607-611.
3. Ethans, K. (2002). Pregnancy in women with spinal cord injury. Retrieved from <http://www.scrs.umanitoba.ca/cpa/pregnancy.pdf>
4. Baker, E.R. & Cardenas, D.D. (1996). Pregnancy in spinal cord injured women. *Archives of physical medicine and rehabilitation.* 77(5). 501-507.
5. Cowley, K.C. (2005). Psychogenic and pharmacologic induction of the let-down reflex can facilitate breastfeeding by tetraplegic women: a report of 3 cases. *Archives of physical medicine and rehabilitation.* 86(6). 1261-1264.
6. Pregnancy and childbirth in women with SCI project. (2011). Pregnancy and childbirth in women with spinal cord injury: Bring home baby. Retrieved from <http://sci-pregnancy.org/pamphlets/Bringinghomebaby.pdf>
7. Craig Hospital. (2012). Sexual function for women after spinal cord injury. Retrieved from <http://www.craighospital.org/repository/documents/HeathInfo/PDFs/786.WomenandSexafteraSpinalCordInjury.pdf>
8. Ducharme S. (2012). Sexuality and Spinal Cord Injury. *International Encyclopedia of Rehabilitation.* Retrieved from <http://cirrie.buffalo.edu/encyclopedia/en/article/5/>
9. Ghidini, A. & Simonson, M.R. (2010) Pregnancy After Spinal Cord Injury: A Review of the Literature. *Topics in Spinal Cord Injury Rehabilitation,* 16(3), 93-103. doi: 10.1310/sci1603-93.