



NASG ▪ PROCEDURES/SURGERY

# NASG PROCEDURES & SURGERY



Performing Procedures & Surgery  
for Women in the NASG

**DISCLAIMER:** We highly recommend using the training materials as part of a hands-on training program led by an experienced trainer with NASG expertise. Neither UCSF, nor any of its employees, makes any warranty, express or implied, including warranties of merchantability and fitness for a particular purpose, or assumes any responsibility for the accuracy, completeness, or usefulness of any information from this website or from any websites referenced by this website. **Any use of this document is an agreement that you have read, understood, and accept the terms above.**



## Performing Procedures & Surgery for Women in the NASG

In this unit, the trainer will be discussing how to manage a patient in the NASG during the various vaginal, genital, and urinary procedures and abdominal surgeries that are most commonly performed on women in hypovolemic shock secondary to obstetric haemorrhage. It is very important to emphasize that the NASG is designed so that all procedures should be performed with the NASG in place. Inform the clinicians that removing the NASG may endanger the woman as she may rapidly revert to profound shock. After presenting the materials on procedures and surgery, ensure that the trainees understand the procedures and surgeries that are common among women placed in the NASG. The questions listed under the “[Knowledge Assessment](#)” section below are designed to help you evaluate if the clinicians understood the material.



### OBJECTIVES:

***By the end of this session, trainees should be able to:***

- Identify vaginal procedures and abdominal surgeries that are common among patients in hypovolemic shock secondary to obstetric haemorrhage.
- Recognize that the NASG is designed so that it does not need to be removed for vaginal procedures or to place urinary catheters.
- Understand that for abdominal surgeries(hemostatic surgeries), only segments #4,# 5, and #6 should be opened immediately before the first incision, and then replaced as soon as the surgery is complete.





## NASG ▪ PROCEDURES/SURGERY

To train this unit you may want to have on hand:

- At least one NASG for demonstration purposes,
- [PowerPoint presentations](#) for this unit
- A downloaded copy of [Saving Mother's Lives: The NASG Training Video](#)
- Any other regular training materials you use.

***Note: The following materials are written so that they may be given directly to trainees if the trainer wishes to give printed materials as trainee handouts.***

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## Performing Procedures and Surgery for Women in the NASG

### Vaginal Procedures with the NASG Applied

The NASG is designed to permit complete perineal access. The source of most obstetric haemorrhage can be located and treated while the garment maintains the woman's pulse and blood pressure, decreases blood loss, and maintains tissue oxygenation. Urinary catheterization can also be performed with the NASG in place.



**NASG permits complete perineal access**

**The following vaginal, genital or urinary procedures can be performed on a woman in the NASG:**

1. Placement of straight catheter or indwelling urinary bladder catheter
2. Placement of balloon tamponade
3. Repair of episiotomy or vaginal and cervical lacerations
4. Manual removal of the placenta
5. Bimanual compression (external or internal)
6. Dilation and curettage (D&C) or Dilation and evacuation (D&E)
7. Manual vacuum aspiration (MVA)





**Any vaginal procedure can be performed with the NASG in place**

## Abdominal Surgery with the NASG Applied

If the patient requires surgery, she should remain in the NASG for the surgery. The abdominal and pelvic segments (#4, #5, and #6) may be opened, but only immediately before the first incision. The anesthesiologist or anesthetist needs to be ready to administer boluses of IV fluids for any blood pressure drop when the abdominal segment is opened.

**Hemostatic surgeries that can be performed with the NASG in place, but abdominal segments opened, may include:**

1. Cesarean section (of a non-viable fetus)
2. Repair of ruptured uterus
3. Hysterectomy
4. Salpingectomy/salpingostomy
5. Ligation of arteries
6. Laparotomy
7. Laparoscopy
8. Removal of placenta accreta
9. Repair of broad ligation hematoma
10. B-Lynch or other uterine compression sutures



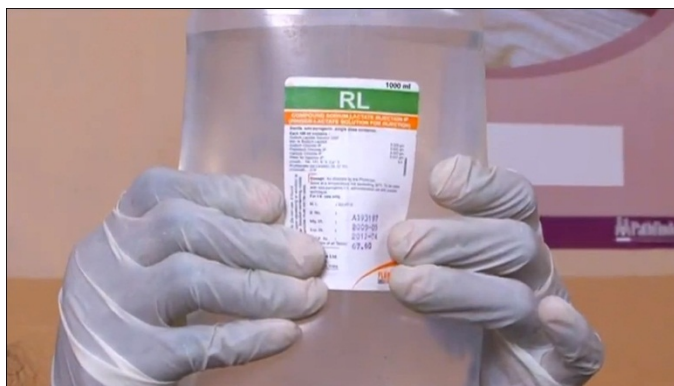


# STEP 1

Clinicians (such as circulating nurse or surgery technicians) should open segments #4, #5 and #6 immediately before surgery. When these segments are open, the patient may go back into shock. The anesthesiologist/anesthetist may need to give IV fluid boluses to maintain blood pressure until hemostasis is achieved.



**Open segments #4, #5, and #6 immediately before surgery**



**Anesthetist/anesthesiologist should be prepared to give IV boluses when the NASG is open**





## STEP 2

If necessary, the staff should place the patient in Trendelenberg position.

## STEP 3

The clinician should perform the surgical procedure(s).

## STEP 4

The clinician should replace segments #4, #5, and #6 as soon as the surgery is complete.



**Replace segments #4, #5, and #6 as soon as the surgery is complete**

## *Materials for Practice*

1. NASG Video (procedures/surgery training are in the NASG training video at the 5 minute and 36 second mark (5:36))
2. Procedure and Surgery PowerPoint





## Knowledge Assessment

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Trainees should be able to answer the following questions. See below for correct answers. Review any incorrect responses with trainees to ensure they have understood the material.

1. Urinary catheterization cannot be performed with the NASG in place. **(True/False)**
  
2. Which of the following vaginal procedures are possible with the NASG in place? (Tick all that apply.)
  - a. Repair of vaginal/cervical lacerations
  - b. Manual removal of placenta
  - c. Bimanual compression
  - d. D&C or D&E
  - e. MVA
  
3. The NASG should be completely removed for surgery. **(True/False)**
  
4. The abdominal segments should be opened immediately before abdominal surgery. **(True/False)**
  
5. When should the abdominal segments be closed after surgery?
  - a. Two hours after surgery
  - b. Immediately after surgery
  - c. The abdominal segments should not be closed after surgery







## Knowledge Answers

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1. Urinary catheterization cannot be performed with the NASG in place. **(True/False)**

**Answer: False. Urinary catheterization CAN be performed with the NASG in place.**

2. Which of the following vaginal procedures are possible with the NASG in place? (Tick all that apply)

- a. Repair of vaginal/cervical lacerations
- b. Manual removal of placenta
- c. Bimanual compression
- d. D&C or D&E
- e. MVA

**Answer: ALL of the listed procedures can be performed with the NASG in place. ANY vaginal procedure can be performed with NASG in place.**

3. The NASG should be completely removed for surgery. **(True/False)**

**Answer: False. Only the pelvic and abdominal segments (#4, #5, and #6) should be opened immediately before abdominal surgery begins.**

4. The abdominal segments should be opened immediately before abdominal surgery. **(True/False)**

**Answer: True**

5. When should the abdominal segments be closed after surgery?

- a. Two hours after surgery
- b. Immediately after surgery
- c. The abdominal segments should not be closed after surgery

**Answer: b. Immediately after surgery**

