

# Obstetric Haemorrhage and the NASG



# Obstetric Haemorrhage

Definition: ***obstetric haemorrhage*** is heavy bleeding during pregnancy, labor or the postpartum

- Bleeding in excess of 500mL or in any amount that causes changes in vital signs
  - Blood Pressure decreases
  - Pulse increases
- Woman may go into hypovolaemic shock

# Obstetric Haemorrhage: Causes

WHEN IN PREGNANCY BLEEDING OCCURS	HAEMORRHAGE DIAGNOSIS OR ETIOLOGY
<b>Antepartum Haemorrhage</b>	Placenta Previa
	Abruption
	Ruptured uterus
<b>Postpartum Haemorrhage</b>	Uterine atony
	Retained placenta/tissue
	Lacerations
	Placenta accreta
<b>Early Pregnancy Haemorrhage</b>	Ectopic pregnancy
	Molar pregnancy
	Complications of abortion
	Retained placenta/tissue
Any of the above etiologies can contribute to the woman developing DIC, disseminated intravascular coagulopathy	

# Signs of Hypovolaemic Shock

A woman in shock may show one or more of the following signs:

- Increased pulse/tachycardia
- Decreased blood pressure/hypotension
- Pallor (pale skin)
- Sweating/diaphoresis
- Clamminess
- Cold extremities
- Confusion or agitation
- Loss of consciousness
- May or may not have heavy external bleeding

# Obstetric Haemorrhage and the NASG

- The NASG helps in the management of patients with obstetric haemorrhage and hypovolaemic shock.



# The NASG



NASG FOLDED



NASG OPENED

# NASG's Unique Role in Obstetric Haemorrhage and Hypovolaemic Shock

- Used with haemorrhage therapies, uterotonics, massage, vaginal procedures, even surgeries
- Does **not** compete with other approaches: Not an either/or situation
- Buys time to access definitive treatment
- A technology that can be used when patient does not respond to uterotonics
- Only technology that reverses shock, until blood transfusions are available



# Mechanism of Action

**In decompensatory shock, the heart, lungs and brain are deprived of oxygen as blood accumulates in the lower part of the body**



**In obstetric haemorrhage, blood also leaves the body through the vagina or pools in the retroperitoneal area**



**Circumferential compression of the abdomen and legs reduces the volume of blood in the compressed areas while expanding central circulation, reversing shock**



**Decreases the radius of blood vessels. When the radius of a blood vessel is decreased, blood flow through the vessel is decreased**



# Effects of the NASG

- The NASG provides efficient, simple, and safe circumferential counter pressure
- Reduces haemorrhage in lower body
- However, the NASG is not a tourniquet, it does not completely cut off blood supply to lower limbs
- Decreases arterial perfusion pressure to uterus, comparable to ligation of the internal iliac arteries
- Overcomes pressure in capillary and venous system (15-25 mmHg)
- Reduces transmural pressure, vessel radius, and blood flow

# Use of the NASG

- Stabilizes patient while evaluating, transporting, or preparing for definitive surgical treatment
- Can be safely and comfortably used up to 48 hours
- May help avoid unnecessary emergency hysterectomy for intractable uterine atony
- May decrease need for or number of blood transfusions



# What the NASG does NOT do:

- The NASG does not avert the necessity for:
  - Evaluation to identify causes of shock
  - Uterotonics if the patient has uterine atony
  - Fluid and blood replacement
  - Therapy for coagulopathy
  - Standard care for treatment of hypovolaemic shock

# Contraindication

- Do not use the NASG with:
- A viable fetus (unless there is no other way to save the mother's life and both mother and fetus will die)
- Bleeding above the diaphragm
- Open thoracic wounds



# When to Apply the NASG

- When a woman shows signs of hypovolaemic shock from obstetric haemorrhage
- Applying the NASG before inserting an IV may improve access to veins
- Use the NASG along with standard treatment protocols (the NASG does not replace them)