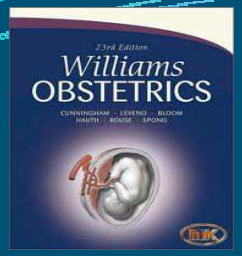
Università degli studi di Ferrara
Corso di laurea in Ostetricia

C.I. Patologia ostetrica e primo soccorso
Prof.Pantaleo Greco

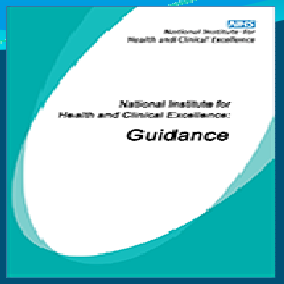
PARTO VAGINALE OPERATIVO

RIFLESSIONI IN OSTETRICIA



Royal College of Obstetricians and Gynaecologists

Setting standards to improve women's health



REFERENCES

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KEY POINTS

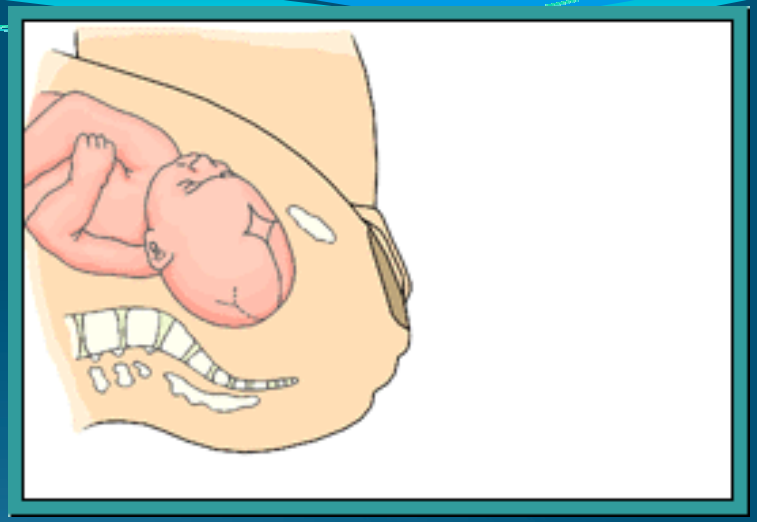
- ✓ Indications for operative vaginal delivery
- ✓Choice of instruments
- ✓Aspects of safe clinical practice
- ✓Risk of physical and psychological complications

EPIDEMIOLOGY

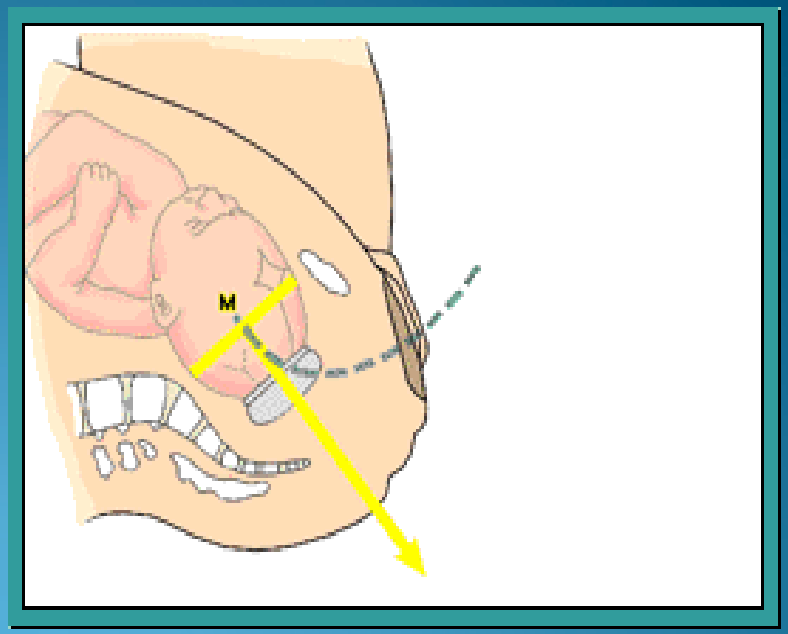
Operative vaginal delivery rates have remained stable at between 10% and 13% in the UK, yielding safe and satisfactory outcomes for the majority of mothers and babies.

RCOG 2011 Operative vaginal delivery

Normal Birth Mechanism



Operative delivery



Indications for OVD

No indication is absolute and each case should be considered individually

Table 2. Indications for operative vaginal delivery[24]

Type	Indication
Fetal	Presumed fetal compromise (see text)
Maternal	To shorten and reduce the effects of the second stage of labour on medical conditions (e.g. cardiac disease Class III or IV*, hypertensive crises, myasthenia gravis, spinal cord injury patients at risk of autonomic dysreflexia, proliferative retinopathy)
Inadequate progress	Nulliparous women – lack of continuing progress for 3 hours (total of active and passive second-stage labour) with regional anaesthesia, or 2 hours without regional anaesthesia
	Multiparous women – lack of continuing progress for 2 hours (total of active and passive second-stage labour) with regional anaesthesia, or 1 hour without regional anaesthesia
	Maternal fatigue/exhaustion

* New York Heart Association classification

No indication is absolute and each case should be considered individually

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Oxytocin for reducing operative births in women with epidurals in labour

Costley PL, East CE

Published Online: May 16, 2012

Overall, there was no significant difference between the rates of operative deliveries in women with epidurals who were given oxytocin compared with those who received the placebo. However, as there were limited data available, in order to fully determine whether augmentation of women with epidurals reduces the rate of operative deliveries and therefore reduces the complications associated, further studies are required.

Instrumental delivery

Operative vaginal delivery through use of :

Forceps

Vacuum extraction

How Should Operative Vaginal Delivery Be Defined?

A standard classification of operative vaginal delivery should be used **(Evidence level D)**

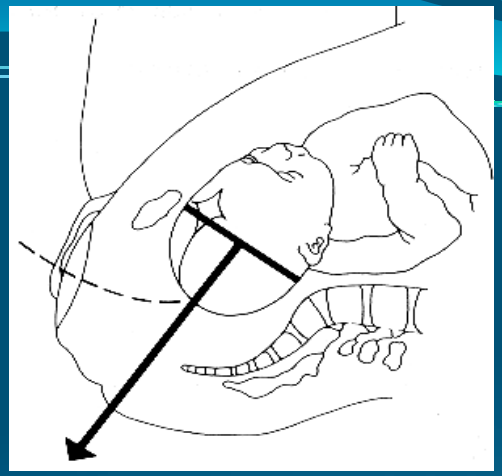
- The ACOG criteria for Classification of Operative Vaginal Delivery by the station and position. (Evidence level IV)

Table 1. Classification for operative vaginal delivery

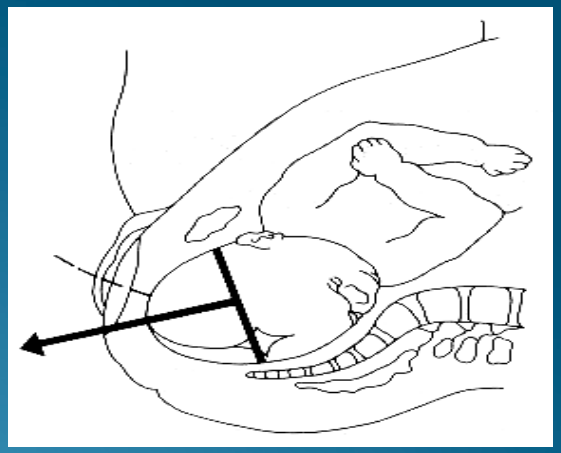
Outlet	Fetal scalp visible without separating the labia Fetal skull has reached the pelvic floor Sagittal suture is in the anterio-posterior diameter or right or left occiput anterior or posterior position (rotation does not exceed 45°) Fetal head is at or on the perineum
Low	Leading point of the skull (not caput) is at station plus 2 cm or more and not on the pelvic floor Two subdivisions: • rotation of 45° or less from the occipito-anterior position • rotation of more than 45° including the occipito-posterior position
Mid	Fetal head is no more than 1/5th palpable per abdomen Leading point of the skull is above station plus 2 cm but not above the ischial spines Two subdivisions: • rotation of 45° or less from the occipito-anterior position • rotation of more than 45° including the occipito-posterior position
High	Not included in the classification as operative vaginal delivery is not recommended in this situation where the head is 2/5th or more palpable abdominally and the presenting part is above the level of the ischial spines

Adapted from the American College of Obstetrics and Gynecology, 2000[23]

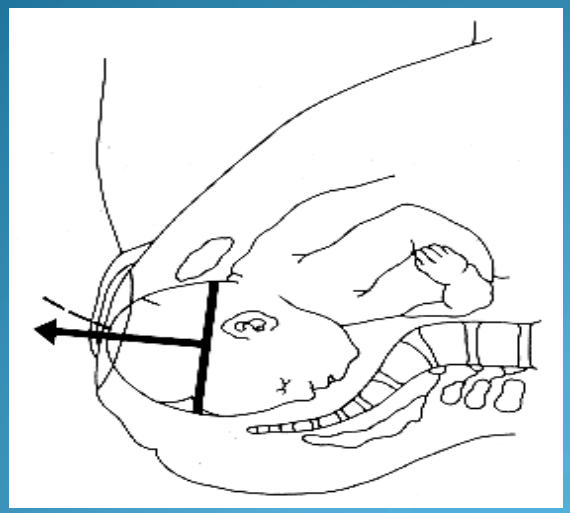
Mid Pelvis



Pelvic Floor



Outlet



Can operative vaginal delivery be avoided?

All women should be encouraged to have continuous support during labor **(Evidence level A)**

- use of upright or lateral positions,
- avoiding epidural analgesia
- Delayed pushing in primiparous women with an epidural.

Will decrease the need for operative vaginal delivery **(Evidence level Ib)**

When should operative vaginal delivery be offered?

✓Operators should be aware that no indication is absolute and should be able to distinguish ‘standard’ from ‘special’ indications. **(Evidence level D)**

✓A vacuum extractor should not be used at gestations of less than 34+0 weeks days. The safety of vacuum extraction at between 34 weeks +0 days and 36 weeks +0 days of gestation is uncertain and should therefore be used with caution. **(Evidence level D)**

Prerequisites for operative vaginal delivery

Full abdominal and vaginal examination	Head is ≤1/5th palpable per abdomen
	Vertex presentation.
	Cervix is fully dilated and the membranes ruptured.
	Exact position of the head can be determined so proper placement of the instrument can be achieved.
	Assessment of caput and moulding.
	Pelvis is deemed adequate. Irreducible moulding may indicate cephalo–pelvic disproportion.
Preparation of mother	Clear explanation should be given and informed consent obtained.
	Appropriate analgesia is in place for mid-cavity rotational deliveries. This will usually be a regional block. A pudendal block may be appropriate, particularly in the context of urgent delivery.
	Maternal bladder has been emptied recently. In-dwelling catheter should be removed or balloon deflated.
	Aseptic technique.
Preparation of staff	Operator must have the knowledge, experience and skill necessary.
	Adequate facilities are available (appropriate equipment, bed, lighting).
	Back-up plan in place in case of failure to deliver. When conducting mid-cavity deliveries, theatre staff should be immediately available to allow a caesarean section to be performed without delay (less than 30 minutes). A senior obstetrician competent in performing mid-cavity deliveries should be present if a junior trainee is performing the delivery.
	Anticipation of complications that may arise (e.g. shoulder dystocia, postpartum haemorrhage)
	Personnel present that are trained in neonatal resuscitation

Where should operative vaginal delivery take place?

✓Operative vaginal births that have a higher risk of failure should be considered a trial and conducted in a place where immediate recourse to caesarean section can be undertaken **(Evidence level C)**

Higher rates of failure are associated with:

- maternal BMI > 30
- EFW > 4000 gr
- occipito-posterior position
- mid cavity delivery

What instruments should be used for operative vaginal delivery?

Instruments for assisted vaginal delivery

O'Mahony F, Hofmeyr GJ, Menon V

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The results showed that the forceps was the better instrument in terms of achieving a successful delivery. However, it was also associated with higher rates of complications for the mother. These were perineal trauma, tears, requirements for pain relief and incontinence. There were risks of injury to the baby with both types of instrument.

Comparisons between different types of ventouse revealed that the metal cup was better at achieving successful delivery than the soft cup,.but with more risk of injury to the baby. There were no significant differences between the handheld and the standard vacuum.

Decisions as to which instrument is best will, therefore, depend upon individual situations where the urgency with which the baby needs to be delivered will be balanced against potential risks to the mother and baby.

- *RCOG audit standard says that "vacuum is the first choice of instrument for instrumental vaginal delivery".*

Advantages Of Vacuum over forceps

- Can be used with local anesthesia or with no anesthesia.
- Can be used for rotation and extraction by single application.
- Less traumatic to mother.
- Less traumatic to fetal head.

When should opertaive vaginal delivery be abandoned?

✓Operative vaginal delivery should be abandoned where there is no evidence of progressive descent with moderate traction during each contraction or where delivery is not imminent following 3 contraction of a correctly applied instruments by an experienced operator **(Evidence level B)**

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What is the role of episiotomy for operative vaginal delivery?

✓In the absence of robust evidence to support routine use of episiotomy in operative vaginal delivery, restrictive use of episiotomy, using the operator's individual judgement, is supported **(Evidence level B)**

Should prophylactic antibiotics be given?

✓There are insufficient data to justify the use of prophylactic antibiotics in operative vaginal delivery **(Evidence level A)**

RCOG 2011 Operative vaginal delivery

Totale dei parti OORR Foggia 2011: 2688

- 1625 P.S. (60.4%)
- 71 P.O. (V.E.) (2.6 %)
- 992 T.C. (36.9%)

% P.O. senza partoanalgesia

- ✓Totale parti vaginali senza partoanalgesia: 1264
- ✓ Parti operativi senza partoanalgesia: 46

Totale dei parti con partoanalgesia: 482 (17.93% dei parti totali)

- ✓ 25 P.O. (V.E.) → 5.19 %
- ✓ 50 T.C. (10.38 %)
- ✓ 407 P.S. (84.43 %)

Totale dei parti con partoanalgesia: 482 (17.93% dei parti totali)