Shoulder Dystocia

**Background:**

* Shoulder dystocia is defined as a vaginal cephalic delivery that requires additional obstetric manoeuvres to deliver the fetus after the head has delivered and gentle traction has failed.
* Shoulder dystocia occurs when either the anterior, or less commonly the posterior, fetal shoulder impacts on the maternal symphysis, or sacral promontory, respectively.
* Incidences between 0.58% and 0.70%.
* Maternal morbidity includes postpartum haemorrhage (11%) and third and fourth-degree perineal tears (3.8%).
* Brachial plexus injury (BPI) is one of the most important fetal complications of shoulder dystocia, fewer than 10% resulting in permanent neurological dysfunction.

**Purpose and scope**

* Prediction, prevention and management of shoulder dystocia; it does not cover primary prevention of fetal macrosomia associated with gestational diabetes.

**Prediction**

* Clinicians should be aware of existing risk factors in labouring women and must always be alert to the possibility of shoulder dystocia.
* Risk assessments for the prediction of shoulder dystocia are insufficiently predictive to allow prevention of the large majority of cases.
* Infants of diabetic mothers have a two- to four-fold increased risk of shoulder dystocia compared with infants of the same birth weight born to non-diabetic mothers.

**Factors associated with shoulder dystocia**

Pre-labour Intrapartum

Previous shoulder dystocia Prolonged first stage of labour

Macrosomia > 4-5kg Secondary arrest

Diabetes mellitus Prolonged second stage of labour

Maternal body mass index >30kg/m2 Oxytocin augmentetion

Induction of labour Assisted vaginal delivery

**Prevention of Shoulder Dystocia:**

* Indusction of labour does not prevent shoulder dystocia in non-diabetic women with a suspected macrosomic fetus.
* Induction of labour at term can reduce the incidence of shoulder dystocia in women with gestational diabetes.
* Elective caesarean section should be considered to reduce the potential morbidity for pregnancies complicated by pre-existing or gestational diabetes, regardless of treatment, with an estimated fetal weight of greater than 4-5 kg.
* Either caesarean section or vaginal delivery can be appropriated after a previous shoulder dystocia. The decision should be made jointly by the woman and her carers.
* Recurrence rate of shoulder dystocia of between 1% and 25%.
* There is no requirement to recommend ellective caesarean birth routinely.

**Management of shoulder dystocia:**

* All birth attends should be aware of the methods for diagnosing shoulder dystocia and the techniques required to facilitate delivery.
* Birth attendants should routinely look for the signs of shoulder dystocia
* Timely management of shoulder dystocia requires prompt recognition. The attendant health carer should routinely observe for:
  + Difficulty with delivery of the face and chin
  + The head remainly tightly applied to the vulva or evan retracting (turtle-neck sign)
  + Failure of restitution of the fetal head
  + Failure of the shoulders to descend
* Routine traction in an axial direction can be used to diagnose shoulder dystocia but any other traction should be avoided.
* Shoulder dystocia should be managed systematically.
* Immediately after recognition of shoulder dystocia, additional help should be called.
* The problem should be stated clearly as ‘this is shoulder dystocia’ to the arriving team.
* Fundal pressure should not be used.
* McRoberts’ manoeuvre is a simple, rapid and effective intervention and should be performed first.
* Suprapubic pressure should be used to improve the effectiveness of the McRoberts’ manoeuvre.
* An episiotomy is not always necessary.
* Internal manoeuvres or ‘all-fours’ position should be used if the McRoberts’ manoeuvre and suprapubic pressure fail.
* All-fours’ technique: success 83%.
* Third-line manoeuvres should be considered very carefully to avoid unnecessary maternal morbidity and mortality, particularly by inexperienced practitioners.
* Birth attendants should be alert to the possibility of postpartum haemorrhage and severe perineal tears.
* The baby should be examined for injury by a neonatal clinician.
* An explanation of the delivery should be given to the parents.

**Risk management:**

All maternity staff should participate in shoulder dystocia training at least annually.

