Management of Polyhydramnios

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1. Aims and Objectives

The aim of this guideline is to guide clinicians regarding the evidence based antenatal management of women with singleton pregnancies who have been diagnosed with polyhydramnios.

2. Background and Definition

Polyhydramnios is defined as excessive accumulation of amniotic fluid based on ultrasound evidence of a constant value DVP ≥ 8 cm across all gestational ages. The reported incidence of this condition is between 0.2 and 3.9%. Where the AFI (amniotic fluid index) is used the cut off is 25cm.

Clinical suspicion is based on rapidly increasing symphysis fundal height measurements, above the 90th centile on customised growth charts.

Polyhydramnios has been associated with a variety of adverse pregnancy outcomes including preterm premature rupture of membranes (PPROM), preterm Birth (PTB), cord prolapse and admission to neonatal unit. Maternal complications include increased risk of postpartum haemorrhage (PPH) and lower segment caesarean section (LSCS). Perinatal morbidity and mortality is higher if polyhydramnios develop at earlier gestation.

3. Aetiology

A wide variety of maternal, fetal and placental conditions are associated with polyhydramnios, and should be considered when the diagnosis is first made.

<u>Maternal</u>

- Uncontrolled diabetes mellitus (pre-gestational and gestational)
- Rhesus and other blood group isoimmunisation leading to immune hydrops
- Drug exposure, such as lithium leading to fetal diabetes insipidus.

<u>Fetal</u>

- Structural malformations such as trachea oesophageal fistula, oesophageal atresia, duodenal and intestinal atresia
- Chromosomal and genetic abnormalities, e.g. trisomies, Beckwith–Wiedemann syndrome, fetal akinesia dyskinesia syndrome,
- Congenital infections, e.g. toxoplasma, rubella, cytomegalovirus, and parvovirus
- Macrosomia
- Fetal tumours, e.g. teratomas, nephromas, neuroblastoma, and Haemangioma.

<u>Placental</u>

- Tumours such as chorioangiomas and metastatic neuroblastoma.
- Unexplained (50-60%)
- Unexplained Polyhydramnios refers to those cases where no maternal, placental or Fetal cause. It is a diagnosis of exclusion.

4. Classification and Diagnosis

- Mild Polyhydramnios (seen in 80%)

Single deepest pocket measuring between 8 and 11cms in vertical dimension or AFI between 25.0-29.9 cm.

- Moderate Polyhydramnios (seen in 15%)
  Single deepest pocket measuring between 12 and 15cms in vertical dimension or AFI between 30-34.9 cm

- Severe Polyhydramnios (seen in 5%)
  Single deepest pool >16cms or AFI >35cms
  Can also be classified as chronic (over a few weeks) or acute (within days) onset

5. Management

Women should be transferred to Obstetric Led Care. Women should be advised of the risks as above, and the need to report any suspicion of ruptured membranes or labour to triage as soon as possible. This should be documented in the maternity records.

5.1 Investigations

Consider GTT (If normal at 28/40 or beyond 34/40 refer to diabetes midwife for BM monitoring as GTT not appropriate in these cases)
Maternal blood-group status for any atypical red cell antibodies should be checked.

Do not perform infection screens unless indicated by history or by identification of ultrasound markers of infection other than polyhydramnios. In the presence of fetal hydrops or known exposure the patient should be tested for parvovirus B19.

Scan fortnightly in the absence of any other concerns (such as growth)
Karyotyping should be considered as advised by fetal medicine specialist

Indications for referral to fetal medicine consultant

- Suspected fetal anomaly
- Small for gestational age
- Concerns with fetal movement and rapid onset of polyhydramnios (could indicate muscular dystrophy)
- severe polyhydramnios

6. Labour and delivery

There is no quality data to guide timing of delivery for idiopathic polyhydramnios. Therefore, care should be individualised. Factors to consider include severity of the polyhydramnios, maternal symptoms, fetal size, lie and stability and previous obstetric history. Where possible aim for 38 - 39 weeks' gestation to aid fetal lung maturity.

In labour be mindful of the increased risk of cord prolapse. Continuous CTG monitoring is advised.

The neonatal team should be informed during labour and assess the need to pass a nasogastric tube post-delivery.

Maternity Services

Checklist for Clinical Guidelines being Submitted for Approval

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Chair of Group or Committee approving submission:	Antenatal Forum
Brief outline giving reasons for document being submitted for ratification	New policy
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