Worcestershire Acute Hospitals NHS Trust

POLYHYDRAMNIOS GUIDELINE

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Key Amendment

Date	Amendment	Approved by
2nd February 2021	New guideline	
May 2021	Appendix 1 minor amendment	Anna Fabre-Gray

Introduction

Polyhydramnios is defined as the accumulation of excessive amniotic fluid, this may be suspected clinically if the abdomen is tense and SFH is >3cm larger than expected. It is diagnosed using ultrasound as a deepest vertical pool (DVP) >8cm at any gestation. The deepest vertical pool measurement is defined as the largest visible cord- and limb-free pocket of amniotic fluid.

Further sub-categorisation to mild (DVP 8-12cm), moderate (DVP 12-15cm), and severe (DVP > 15cm) polyhydramnios may be of value with regard to the investigation and management.

The reported incidence is between 1-2% of pregnancies.
There is an association between the severity of the polyhydramnios and the risk of congenital anomaly. Severe polyhydramnios is associated with congenital anomaly in >70% cases, however in the absence of ultrasound differences the risk of congenital anomaly is much less (11%).

The amount of amniotic fluid volume present at any one time reflects a balance between the production and removal. The factors affecting production are: fetal urine production, secretions from the respiratory tract and oral secretions. The factors affecting removal are; fetal swallowing, fluid dynamics across the membrane and intramembranous flow (i.e. transfer across the placenta).

Abnormality in any of the above mechanisms leads to excessive accumulation of amniotic fluid.
There are various aetiologies, both maternal and fetal, these include; congenital fetal anomalies, fetal aneuploidy, maternal diabetes or infection (see below).
Importantly >50% of cases remain idiopathic.

Box 1. Causes of polyhydramnios in a singleton pregnancy

Maternal

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

Fetal

- Structural/congenital malformations (see Table 1)
- 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 haemangiomas

Placental

- Tumours such as chorioangiomas and metastatic neuroblastoma

Unexplained

Table 1. Fetal structural abnormalities causing polyhydramnios in a singleton pregnancy

System affected	Condition
Central nervous system	Anencephaly
	Spina bifida
	Encephalocele
	Hydrocephalus
	Microcephaly
	Dandy–Walker malformation
Head and neck	Goitre, cystic hygroma, cleft palate
Respiratory system	Tracheal agenesis
	Congenital diaphragmatic hernia
	Congenital cystic adenomatoid malformation
	Bronchopulmonary sequestration
Gastrointestinal system	Esophageal atresia and tracheo-oesophageal fistula, duodenal and intestinal atresia
	Exomphalos
	Gastroschisis
Genitourinary system	Pelvi-uretric junction obstruction
	Bartter syndrome
Skeletal system	Lethal skeletal dysplasia
Cardiovascular system	Cardiac anomalies
Fetal tumours	Sacrococcygeal teratoma
Other	Immune and non-immune hydrops fetalis
	Fetal akinesia–dyskinesia syndrome

Objectives

The aim of this guideline is to make recommendations regarding the antenatal management of pregnancies where there is evidence of polyhydramnios. These recommendations include guidance on how often to perform ultrasound scans for liquor volume and umbilical artery Doppler and which patients need referral to the Fetal Medicine Department. It also includes guidance on who needs to have microbiology testing.

Policy Scope

This policy addresses women with singleton pregnancies who have been diagnosed with polyhydramnios in their current pregnancy and gives recommendations as to their future management.

Management

- Transfer care of all women with diagnosed polyhydramnios to consultant-led care
- Women with polyhydramnios are not suitable for midwifery-led care, delivery in midwifery – led unit or homebirth.
- Counsel women regarding risks of pre-term labour (PTL) and cord prolapse in the event of pre-term rupture of membranes (PROM).
- Women who contact triage with a PROM or PTL should be invited in immediately.

- Ensure a neonatal alert form has been completed in all cases (with as much detail as possible) as a NG tube may be required prior to the first feed and thorough neonatal check is indicated.
- Idiopathic polyhydramnios may resolve spontaneously, however there remains an increased risk of perinatal morbidity.
- Consider paired steroids for fetal lung maturation if considered high risk of PTL.
- Consider IOL at term (decision to be made by patients obstetrician)
- Follow pathway below

Appendix 1 - Pathway for the management of Polyhydramnios