GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol
Abertawe Bro Morgannwg
University Health Board

Management
Of
Oligohydramnios

Speciality:	Maternity
Approval body:	Antenatal Forum
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Management of Oligohydramnios

1. Definition

Oligohydramnios refers to amniotic fluid volume that is less than expected for gestational age. It occurs in 0.5% - 1% of pregnancies, and in 5% of pregnancies at term. The diagnosis is usually made subjectively. Oligohydramnios is defined as an amniotic fluid index (AFI) of 50mm or less, or a single deepest pool of 2 cm or less.

2. Background

Oligohydramnios is caused by a reduction in production of fetal urine due to placental insufficiency, fetal renal anomalies or obstruction of urine flow; or because the urine that is produced, drains away due to ruptured amniotic membranes.

Anhydramnios is a condition where there is no amniotic fluid seen. This results in marked fetal deformation due to compression effects.

3. Causes

Oligohydramnios can be idiopathic and may be benign, however, other causes are associated with a reduced amniotic fluid volume. Adequate management of oligohydramnios will need careful consideration to rule out important causes. Some important conditions related to oligohydramnios are listed below.

Maternal

- Medical conditions that cause utero-placental insufficiency (e.g., preeclampsia, chronic hypertension, collagen vascular disease, nephropathy, thrombophilia)
- Medication: ACE inhibitors, Prostaglandin synthetase inhibitors

Fetal

- Chromosomal abnormalities
- Congenital abnormalities, especially those associated with impaired urine production e.g. renal agenesis
- Growth restriction
- Fetal demise
- Post term pregnancy
- Ruptured fetal membranes

Placental

- Twin to twin transfusion (i.e., twin polyhydramnios-oligohydramnios sequence)
- Placental thrombosis or infarction

4. Diagnosis:

In ABMU the AFI is reported for singleton pregnancies.

- Significant Oligohydramnios: AFI <50mm
- Borderline oligohydramnios: AFI is above 50mm but below 5th percentile SEE GRAPH.

5. Management (above 20 weeks)

Initial assessment

- Take history to exclude premature rupture of membranes. A sterile speculum examination may be necessary.
- Fetal growth restriction may present with reduced AFI, therefore assess for fetal growth using GAP grow. If the estimated fetal weight (EFW) is at/or less than the 10th percentile, an umbilical artery doppler is indicated if not yet done.
- Arrange a fetal anomaly scan if not yet done. This is important to rule out fetal renal pathology.

5.1 Management of isolated oligohydramnios at term

5.1.1. Borderline (above 50mm but below 5th percentile – see chart)

- USS for EFW, AFI, Umbilical artery Doppler every 2 weeks if stable.
- Ask patient to report any change in fetal movements. CTG indicated if altered movements.

5.1.2. AFI < 50mm at 37 weeks

- Induction of labour should be considered. If not acceptable by the patient, after counselling, organise scans every week for AFI and Umbilical artery Dopplers, and twice weekly CTG.
- Steroid should be recommended if caesarean delivery is planned at less than 39 weeks.
- Ask patient to report any change in fetal movements. CTG indicated if altered movements.

5.2 Management of preterm oligohydramnios

5.2.1 Preterm Oligohydramnios AFI <50mm

- Consider other causes e.g. PPROM and manage appropriately.
- Seek senior/consultant advice.
- For conservative management scan weekly for AFI and Doppler, with EFW every 2 weeks.
- CTG twice a week advised, or if the patient reports altered fetal movements.
- Steroids are recommended for fetal lung maturity if delivery is planned or anticipated within one week and gestation less than 36 weeks.

5.2.2 *Preterm Borderline Oligohydramnios*

- 2 Weekly scans for EFW, AFI and Umbilical artery Dopplers until AFI normalises or until decision to induce at term.
- The woman should be advised to report any concerns regarding fetal movements.

5.3 Management of oligohydramnios in the Small for Gestational Age fetus (SGA)

- IUGR should be managed in accordance with the IUGR policy.

6. Timing of delivery

Induction of labour should be offered between 37-38 weeks where AFI<50mm, and considered beyond 38/40 for isolated reduced liquor volume but more than 50mm (A recent audit in our unit has shown no increase in adverse outcomes for these pregnancies).

If not acceptable by the patient, she should be counselled and fetal surveillance arranged for scans and/or CTGs should be individualised according to risk assessment by the obstetrician.

7. Labour

A patient with isolated oligohydramnios, without other complications or IUGR, in spontaneous labour at term, and a normal admission CTG, may have intermittent auscultation after discussion and agreement with obstetrician otherwise, continuous fetal monitoring by CTG is indicated.

8. Auditable Standards

Proportion of women offered induction of labour < 37 weeks

References:

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4. *Problem-based Obstetric Ultrasound*. Thilanganatham B, Sairam S, Papageorghiou A T, Bhide A. Informa Healthcare 2007
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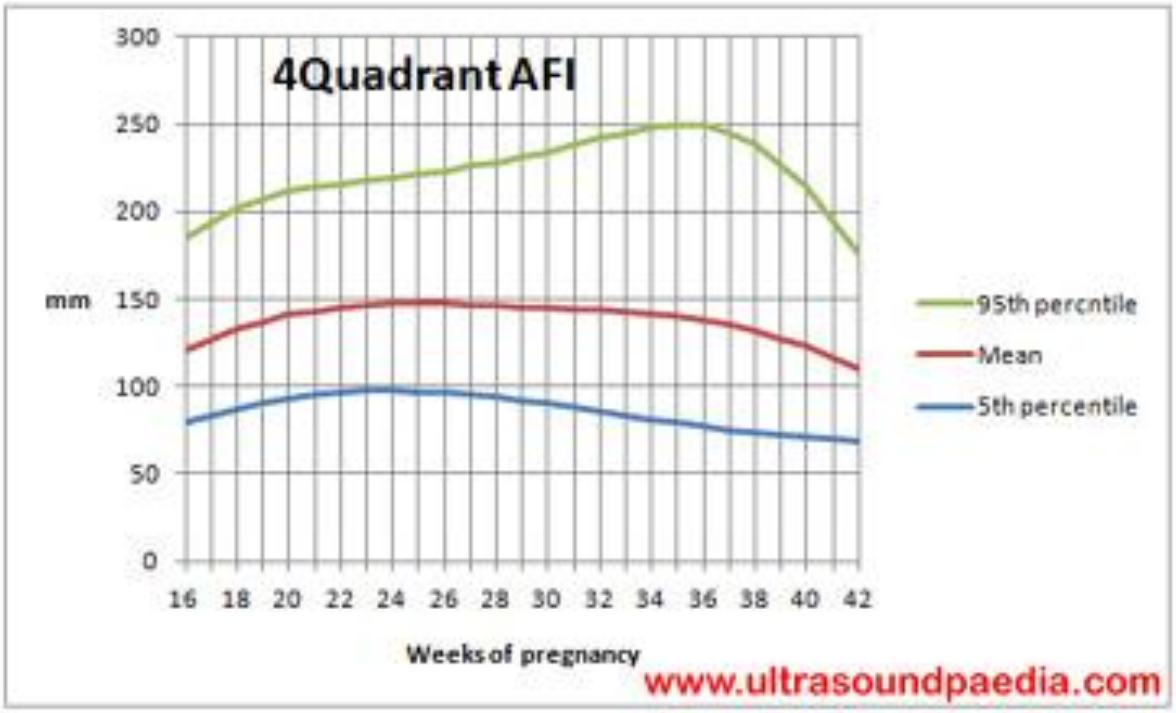

REF: Moore TR and Cayle JE. The amniotic fluid index in normal human pregnancy. Am J Obstet Gynecol 1990;162:1168-1173

Maternity Services

Checklist for Clinical Guidelines being Submitted for Approval

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Name(s) of Author:	Dr Chiara Frendo-Balzan, Sara Williams, Dr Louise-Emma Shaw
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Brief outline giving reasons for document being submitted for ratification	Update of previously expired policy
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Name of Pharmacist (mandatory if drugs involved):	n/a
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