

ROYAL HOSPITAL FOR WOMEN

LOCAL OPERATING PROCEDURE

CLINICAL POLICIES, PROCEDURES & GUIDELINES

Approved by Quality & Patient Safety Committee

15/8/13

MONOAMNIOTIC TWINS, MANAGEMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Diagnosis of monoamniotic twin pregnancy
- Regular antenatal review, fetal welfare scanning and preterm delivery plan
- Preparation for parenting twins and preterm birth

2. PATIENT

- Woman suspected of having a monoamniotic (MA) twin pregnancy

3. STAFF

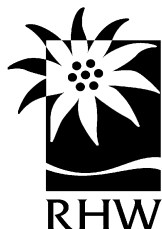
- Medical staff
- Registered Midwives
- Sonographers
- Neonatologists

4. EQUIPMENT

- Ultrasound machine

5. CLINICAL PRACTICE

- Diagnose the MA twin pregnancy by identifying two fetal poles with no separating membrane. The presence of one or two yolk sacs is no longer considered necessary for the diagnosis (1)
- Arrange referral to Maternal fetal medicine (MFM) clinic when MA twins diagnosed
- Discuss the need for increased antenatal surveillance with the woman, explain the increased incidence of unexpected stillbirth due to cord entanglement and fetal anomalies
- Discuss screening for aneuploidy and fetal anomalies with Nuchal Translucency (NT)
- Recommend fortnightly ultrasound from 16 weeks gestation and one to two weekly antenatal ultrasound from 24 weeks gestation to monitor:
 - Position of fetuses
 - Cord entanglement
 - Amniotic fluid volume
 - Umbilical artery Doppler blood flow
 - Growth on a fortnightly basis
- Organise fetal echocardiograms in addition to the usual fetal morphology ultrasound
- Recommend vitamin supplements and antenatal serological screening as per twin pregnancy LOP
- Recommend elective Caesarean section for delivery
- Recommend delivery at 34 weeks gestation in the absence of complicating factors after steroid administration
- Discuss issues associated with preterm birth and care of preterm babies
- Tour newborn care centre at an appropriate gestation. Neonatal consult should be considered where preterm birth is likely

**MONOAMNIOTIC TWINS, MANAGEMENT cont'd****6. DOCUMENTATION**

- Medication Chart
- Integrated Clinical Notes
- Antenatal Yellow Card
- ViewPoint report
- ObstetriX

7. EDUCATIONAL NOTES

- The incidence of monoamniotic twins (twins within the same amniotic cavity with no separating membrane, arising from late division of the embryo after fertilisation) is approximately 1% of all monozygotic pregnancies (2), with less than 100 cases per annum in Australia
- Approximately 90% of MA twins are female (3)
- Historically perinatal outcomes for monoamniotic twins were poor (2)
- Fisk et al(4) suggested the use of sulindac (a non-steroidal anti-inflammatory drug) for the pharmacological effect of decreasing amniotic fluid volume by reducing fetal urine output. It was thought that the use of sulindac, weekly ultrasound and preterm delivery was responsible for the greatly improved perinatal mortality (PNM) rates seen in monoamniotic twins in the new millennium. Other data (5) indicates it is probable that preterm elective delivery by Caesarean section alone is responsible for the reduction in PNM
- Whilst data from America (6) often cites the use of preterm admission and CTG monitoring, outcomes from this regimen are no better than ultrasound surveillance and preterm delivery(5)
- The literature indicates a greatly increased rate of cardiac anomalies in MA twins, however some of these may be overstated by including pregnancies affected by twin reversed arterial perfusion syndrome (TRAP)
- Referral to twin specific parent education classes may be helpful in providing women and their partners with strategies to manage the early newborn period

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Referral to Maternal Fetal Medicine
- Twin Pregnancy - Antenatal Care Guideline
- Antenatal Corticosteroid Administration

9. REFERENCES

- 1 Bishop D. Yolk-sac number in monoamniotic twins. *Obstet Gynecol* 2010;116:504-7
- 2 Quingley J K. Monoamniotic twin pregnancy. *AJOG* 1935;29:354-62
- 3 Derom C, Vlietinck R, Derom R et al. Population-based study on sex proportion in monoamniotic twins. *N Engl J Med* 1988;319:119-20
- 4 Pasquini L, Wimalasundera C, Fichera A et al. High perinatal survival in monoamniotic twins managed by prophylactic sulindac, intensive ultrasound surveillance and Cesarean delivery at 32 weeks' gestation. *Ultrasound Obstet Gynecol* 2006;28:681-7
- 5 Dias T, Thilaganathan B, Bhide A. Monoamniotic twin pregnancy. *TOG* 2012;14:71-78
- 6 Heyborne KD, Porreco RP, Garite TJ et al. Improved perinatal survival of mono-amniotic twins with intensive inpatient monitoring. *AJOG* 2005;192:96-101

REVISION & APPROVAL HISTORY

Endorsed Obstetrics LOPs group 13/8/13