OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE

Advanced maternal age

[NEW 2023]

Scope (Staff):	WNHS Obstetrics and Gynaecology Directorate staff
Scope (Area):	Obstetrics and Gynaecology Directorate clinical areas at KEMH and OPH

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Aims

- To provide information on the risks of advanced maternal age (AMA)
- To provide guidance for the monitoring and timing of delivery for women of AMA

Recommendations

Women 35 years and older:

- Educate regarding risks of gestational diabetes mellitus (GDM), preeclampsia toxaemia (PET) and plan a model of care accordingly [1]
- Formal growth and wellbeing ultrasound scan (USS) at 36 weeks gestation
- Weekly review from 39 weeks until birth
- Consider low dose aspirin from 12–36 weeks[1] in the setting of at least one other moderate preeclampsia risk factor[2]- see Hypertension in Pregnancy guideline
- Consider non-invasive prenatal test (NIPT) for aneuploidy screening given higher pre-test probability with increasing age [1]
- Consider first trimester oral glucose tolerance test (OGTT)[1]
- Consider increased frequency of blood pressure checks

Women 40 years and older:

- **All of the above**, **AND**
- An additional formal growth and wellbeing USS at 30 weeks gestation
- Offer induction of labour from 39+0 gestation (in the absence of an indication for an earlier birth)- see guideline for 'Labour and Birth: Planned Birth Timing'.

Background

In Australia, the average age of first and subsequent pregnancy has increased over time, with recent data showing 24.2% of Australian women, and 22.8% of Western Australian women are 35 years or older at age of first birth.[3]

There is no universally agreed definition of AMA. Some studies report those 40 years and older to be of AMA whilst others use the historical definition of 35 years and older, which is based on the increased risk of chromosomal abnormalities in pregnancies in woman of this age.[4]

There is a large body of evidence to suggest that older mothers are more likely to experience complications of pregnancy and that their offspring have higher risks of congenital anomalies and mortality.[5]

These associations[1] include:

- Early pregnancy
    - Spontaneous miscarriage
    - Chromosomal abnormalities, including aneuploidy
    - Ectopic pregnancy
    - Multiple pregnancy
- Second and third trimester
    - Hypertensive disorders of pregnancy (RR 4.1) [6, 7]
    - Gestational diabetes (OR 3.7 AMA ≥40) [8]
    - Placenta praevia (RR 3.16), accreta and abruption [9]
    - Pulmonary embolism (OR 2.4 AMA ≥40) [8]
    - Fetal growth restriction (OR 1.5 AMA ≥40) [8]
    - Iatrogenic and spontaneous preterm birth (OR 1.5 AMA ≥40) [8]
    - Stillbirth (OR 1.75 age >35) [8]
- Intrapartum
    - Caesarean section (RR 4.1) [7]
    - Post-partum haemorrhage

Women older than 35 years have higher rates of preterm birth and small for gestational age (SGA) fetuses compared with women aged 20-34 years.[10, 11] They are also more likely to have GDM and gestational hypertension.[6] Furthermore the risk of stillbirth also increases with increasing maternal age, independent of other co-morbidities which are more common in this population.[12]

Being of AMA is an independent risk factor for stillbirth. Nulliparous women may be at higher risk of stillbirth, but the evidence is inconsistent. Epidemiological studies show that women aged 40 years or older have a similar stillbirth risk at 39 weeks of gestation to 25–29 year olds at 41 weeks of gestation. This at 39–40 weeks of gestation equates to 2 in 1000 for women 40 years of age compared to 1 in 1000 for women <35 years old.[12] In Australia, the average stillbirth rate is 7.7 per 1000 births,

increasing to 11.9 per 1000 births in women 40 years and over.[13] Moreover, as is with women of all ages, the risk of stillbirth increases with advancing gestation.

Women aged 35-39 years are 1.32 times more likely to have a stillbirth between 37-41 weeks gestation and those aged 40 years or older are 1.88 times more likely to have a stillbirth, compared with women aged less than 35. The risks are further increased in nulliparous women who are at increased risk of stillbirth in all age groups.[14]

Antenatal surveillance from 36 weeks gestation in women 35 years and older has been shown to decrease the rate of stillbirth.[15] For recommendations on antenatal FHR monitoring, see WNHS Clinical Guideline Fetal Surveillance: Fetal Heart Rate Monitoring: sections 'Indications for antenatal CTG' and 'Antenatal FHR monitoring'.

Induction of labour (IOL) from 39 weeks for AMA, compared to expectant management, has been shown to have no significant effect on the CS rate and no adverse short-term effects on maternal and neonatal outcomes.[16] There is therefore an argument to consider offering induction of labour / planned birth from 39 weeks of gestation to women 35 years of age and older.

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Related WNHS policies, procedures and guidelines

WNHS Clinical guidelines, Obstetrics and Gynaecology Directorate:

- Antepartum Care: 'Antenatal Care Schedule'
- Birth after Previous Caesarean Section
- Blood Products and Transfusion: Refusal
- Cardiac Disease
- Decreased Fetal Movements
- Diabetes in Obstetrics and Gynaecology
- Fetal Heart Rate Monitoring
- Hypertension in Pregnancy
- Induction of Labour (available to WA Health employees through HealthPoint)
- Labour and Birth: Planned Birth Timing
- Low PAPP-A or Raised Nuchal Translucency with Normal Chromosomes: Management of
- Midwifery Group Practice (MGP- Hospital-based): Inclusion and Exclusion Criteria
- Perinatal Loss
- Placenta Accreta Spectrum
- Postpartum Complications (PPH, uterine inversion) (available to WA Health employees through HealthPoint)
- Pregnancy: First Trimester Complication guidelines
- Preterm Labour and Birth guidelines
- Prolonged Pregnancy
- Small for Gestational Age (SGA) and Intrauterine Growth Restriction (IUGR): Management of
- Venous Thrombosis and Embolism: Thrombosis in Pregnancy

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Version history

Version number	Date	Summary
1	Dec 2023	First version. Previously content relating to AMA was within Antenatal Care Schedule guideline. Changes include: • Now includes lower age category (if ≥35 years); Background added • Educate regarding risk of GDM and PET • Previous requirement for routine CTG fetal surveillance removed. Earlier formal USS gestations (at 36 weeks if ≥35 years; or at 30 and 36 weeks if ≥40 years) • Consider low dose aspirin from 12–36 weeks in the setting of at least one other moderate preeclampsia risk factor • Consider NIPT screening, 1st trimester OGTT, increased BP checks • Weekly review from 39 weeks until birth • Initiate shared decision making with women aged ≥40 regarding birth (e.g. IOL) from 39+0 weeks in absence of indication for earlier birth- to align with recommendations from the WNHS Labour Planned Birth Timing guideline and Promoting Safe Timing of Birth guidance

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