Preconception care

Case Definition

The provision of biomedical, behavioural and social health interventions to women and couples before conception occurs (WHO 2013), to improve both maternal health and long term outcomes for the child.

Preconception care aims to improve the health of both the woman and her partner by screening for and modifying risk factors for poor maternal and child health outcomes.

Advice about family planning, contraception and infertility investigations may also be indicated.

Screening

Ask every woman of reproductive age about her reproductive intentions opportunistically (e.g. at health checks, when seeking contraceptive advice), and discuss the potential impact of an unexpected pregnancy:

- **"Are you thinking of having any (more) babies?"**
- **"How would you feel if you found out you were pregnant? What would you do?"**
- **"Are you doing anything to try to get pregnant?"**
- **"Are you doing anything to try not to get pregnant?"**
- **"How long from now until you would like a baby?**

For women who want to prevent or delay pregnancy, discuss contraceptive options.

For women who want to be pregnant, identify any risk factors and provide appropriate preconception advice.

Include the woman's partner in the preconception visit where appropriate; sometimes the partner may need to be reviewed separately.

Support partners to access a full 715 health check to optimise health (e.g. diet, exercise and substance use) and to address environmental health risk factors (e.g. smoking).

A preconception visit should include: taking a history, a physical examination and point of care tests, relevant investigations and health promotion advice.

Discuss with GP and specialists as needed.

HISTORY

- Assess reproductive knowledge and plan
- Age
- Lifestyle (e.g. smoking, nutrition, alcohol, recreational drugs, physical activity)
- Medical history (e.g. diabetes, rheumatic heart disease (RHD), hypertension, epilepsy)
- Past obstetric history: consider requesting accurate information from previous health providers
  - Pregnancy losses, number and gestation
  - Preterm birth (especially before 34 weeks)
  - Past history of multiple pregnancy (e.g. twins)
  - Antenatal complications (e.g. pre-eclampsia, gestational diabetes (GDM), intra-uterine growth restriction)
- Past gynaecological history:
  - Last cervical screening test
  - Past sexually transmitted infections and treatment
  - Past surgical procedures for cervical abnormalities
- Family history (e.g. GDM, genetic disorders)
- Medications, allergies and immunisation history
- Mental wellbeing and past history of antenatal or postnatal depression
- Social situation (e.g. living conditions, family and domestic violence, occupation)

PHYSICAL EXAMINATION

- Weight, height, calculate body mass index (BMI)
- Blood pressure
- Cardiovascular system (heart murmurs may suggest undiagnosed RHD)
- Breasts and cervical screening if relevant
- Dentition
- Other relevant systems based on history findings

INVESTIGATIONS

- Rubella and varicella serology
- Full blood examination
- Iron studies
- Sexually-transmitted infection (STI) screen (chlamydia, gonorrhea & trichomonas PCR; HIV, hepatitis B, hepatitis C and syphilis serology.
- HbA1c
- Albumin:creatinine ratio (ACR)
- Investigations to assess status of chronic disease (e.g. echocardiogram for RHD, HbA1c for diabetes)
- Other investigations guided by findings in history and physical examination
- Breath carbon monoxide analyser (e.g. Smokelyzer®)
- Consider point of care tests where available (e.g. haemoglobin, urine ACR, Hba1c, STI PCR)

⚠ Complete a Health Assessment for Aboriginal and Torres Strait Islander People (MBS item 715) if due. A preconception visit completes most components of a Health Assessment.

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Principles of management

MANAGE EXISTING MEDICAL CONDITIONS

Rheumatic heart disease (RHD)

- Order echocardiogram if not done in the last 12 months.
- Refer for a preconception review by cardiologist/physician and obstetrician to optimise RHD management and rationalise related medications.
- Anticoagulation confers additional risks for mother and foetus and should be reviewed preconception.

Diabetes

- Check HbA1c if not checked in the last 3 months.
- Good diabetes control preconception reduces the risks of pregnancy loss, congenital malformation, preterm birth, macrosomia, shoulder dystocia, newborn hypoglycaemia and longer term risks of developing obesity and diabetes in adulthood for the child.
- Support self-monitoring of BSL as adequate control in pregnancy usually requires insulin. Metformin can be continued in pregnancy. For all other diabetic medications, please discuss safety of use in pregnancy with the GP.
- Ensure monitoring for diabetes complications is up to date.
- If control is poor, discuss delaying conception with reliable contraception until good control is achieved.
- Refer to Diabetes Educator, Dietician and if necessary, Physician.

Other chronic conditions (e.g. Chronic kidney disease, hypertension, autoimmune diseases, bronchiectasis) usually require management as a high-risk pregnancy and should be discussed with GP +/- specialists.

MANAGE HEALTH RISK FACTORS

Rates of smoking in pregnancy in the Kimberley are high, and smoking is a key risk factor for poor pregnancy outcomes. Excessive alcohol consumption in pregnancy can lead to foetal alcohol syndrome. Illicit drug use including "gunja" and amphetamines is harmful to both the woman and her unborn baby. Obesity increases the risk of stillbirth and weight loss is safest pre-pregnancy. To reduce risk:

Advise and support to achieve a healthy BMI (18.5-25).

Advise and support smoking cessation

Advise women not to drink any alcohol if they think they might get pregnant.

(Refer to HEALTHY LIVING, NUTRITION WEIGHT AND EXERCISE IN PREGNANCY, SMOKING CESSATION protocols).

MANAGE MEDICATIONS

Folate, iodine and iron supplement

Folic acid helps prevent neural tube defects (NTD):

Give folate 0.5mg daily in women considering pregnancy (even if they aren't sure of their plans) and continue for at least the first three months of pregnancy.

Give larger dose (5mg daily) if increased risk of NTD (anticonvulsant medication, diabetes mellitus, previous child or family history of NTD, BMI >30, risk of malabsorption e.g. coeliac disease).

Iodine 150mcg daily is recommended preconception or as soon as pregnancy is confirmed and can be given as **I-Folic.**

Iron deficiency anaemia is common in the Kimberley and has been associated with prematurity, low birth weight and maternal morbidity.

Advise on dietary sources of iron and iron supplement if a woman is iron deficient (Refer to IRON DEFICIENCY AND IRON IN PREGNANCY protocol).

Women may be on medications that are harmful in pregnancy that should be stopped.

Common medications to stop preconception:

Medications	Recommendation
Anti-hypertensives e.g. ACE-inhibitors (**ramipril, quinapril, perindopril**), Angiotensin II-inhibitors (**irbesartan**)	Cease if considering pregnancy / pregnant. May need substitute agents for hypertension and / or renal disease – discuss with GP / physician (see HYPERTENSION protocol)
Hypoglycaemic agents e.g. sulfonylureas (**gliclazide**), DPP-4 inhibitor (**sitagliptin**), GLP-1 receptor agonist (**exenatide**), sodium -glucose co-transporter 2 inhibitor (**empagliflozin**)	Cease if considering pregnancy / pregnant. Metformin is generally continued in pregnancy. May need insulin for glycaemic control – discuss with GP / physician (see DIABETES TYPE II protocol)
Statins (**atorvastatin, rosuvastatin**)	Cease if considering pregnancy/pregnant. If she has a history of ischaemic heart disease or stroke, discuss with GP / physician (see DYSLIPIDAEMIA protocol)
Psychotropics e.g., anti-psychotics (**paliperidone, risperidone, quetiapine olanzapine**), anti-depressants **(venlafaxine, mirtazapine. sertraline, citalopram), lithium**	Discuss with treating psychiatrist. Risks and benefits of commencing / continuing must be considered. Avoid paroxetine (heart defects when given in the first trimester).
Warfarin	**A category X drug.** If planning a pregnancy needs immediate discussion with the GP and specialists.
Anti-convulsants (e.g. **carbamazepine, phenytoin, sodium valproate**)	Require specialist management – discuss early with treating physician and / or psychiatrist.
Immunosuppressants (e.g. **azathoprine, prednisolone, tacrolimus, methotrexate**)	Require specialist management – discuss early with treating physician.

If unsure discuss patient with GP, physician or psychiatrist, as stopping medications abruptly without substitution can cause harm.

Refer to the TGA website for pregnancy safety category of medications not listed above (https://www.tga.gov.au/prescribing-medicines-pregnancy-database).

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PREVENT SEXUALLY TRANSMISSIBLE INFECTIONS (STIS) AND OTHER INFECTIONS

Sexually-transmissible infections (STIs) are endemic in the Kimberley region. A syphilis outbreak has been active in the Kimberley region since 2014 – universal syphilis screening in pregnancy is essential to prevent congenital syphilis. Some STIs (e.g. Trichomoniasis) are safest to treat pre-pregnancy.

Offer STI screening to the woman and her partner and treat as per the Silverbook WA (https://ww2.health.wa.gov.au/Silver-book) to decrease the risk of pregnancy complications.

Repeat three-monthly in women with ongoing risk factors.

Recommend safe sex and barrier contraception use for couples not ready to get pregnant.

OFFER VACCINATIONS IF NEEDED

Check rubella and varicella serology and offer boosters to non-immune women (as per the Australian Immunisation Handbook).

Rubella and varicella are live vaccines - they should be given at least 28 days prior to conception and cannot be given in pregnancy.

Ensure seasonal influenza vaccination is up to date.

Check hepatitis B immune status. Women who are non-immune and have risk factors can have vaccination prior to pregnancy. Women with chronic hepatitis B infection require specialist care (See HEPATITIS B protocol).

ASSESS PSYCHOLOGICAL & SOCIAL WELL-BEING

Screen for preconception mental health issues (e.g. using the Kimberley Mums Moods Scale (KMMS)). Assess for protective and risk factors, and refer to the mental health team / psychiatrist if needed (see PERINATAL DEPRESSION AND ANXIETY protocol). Screen for family and domestic violence in all pregnancies (See FAMILY AND DOMESTIC VIOLENCE protocol).

REPRODUCTIVE PLANNING & BIRTH SPACING

Unintended pregnancy is associated with late entry into antenatal care, increased frequency of pregnancy risk factors and adverse pregnancy outcomes. A short interval between pregnancies (<18 months) is linked with maternal and newborn mortality, low birth weight babies, intrauterine growth restriction and preterm birth.

Discuss options and offer contraception to all women who are sexually active to prevent unplanned pregnancies.

Recommend waiting at least 2 years after having a baby before trying for another baby (in line with WHO recommendation to breastfeed babies for at least 2 years,).

Refer/Discuss

Women with a high risk past obstetric history should be discussed with the regional obstetrician.

Women with poorly controlled medical conditions (e.g. diabetes, RHD, hypertension, renal disease) should be discussed with the regional physician and obstetrician.

Women with a pre-existing mental illness should be discussed with the regional psychiatrist or the psychiatrist at the KEMH Mother Baby unit.

Resources

KAHPF protocols: https://kahpf.org.au/clinical-protocols/

RANZCOG Pre-pregnancy Counselling guideline: https://www.ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Pre-pregnancy-Counselling-(C-Obs-3a)-review-July-2017.pdf?ext=.pdf

Australian immunization handbook: https://immunisationhandbook.health.gov.au/

Patient counselling resources:

Alcohol avoidance: http://alcoholthinkagain.com.au/Campaigns/Campaign/ArtMID/475/ArticleID/9/Strong-Spirit-Strong-Future

Gunja avoidance: https://ncpic.org.au/media/3301/gunja-and-pregnancy-booklet.pdf

Contraception: https://shq.org.au/booksresources/