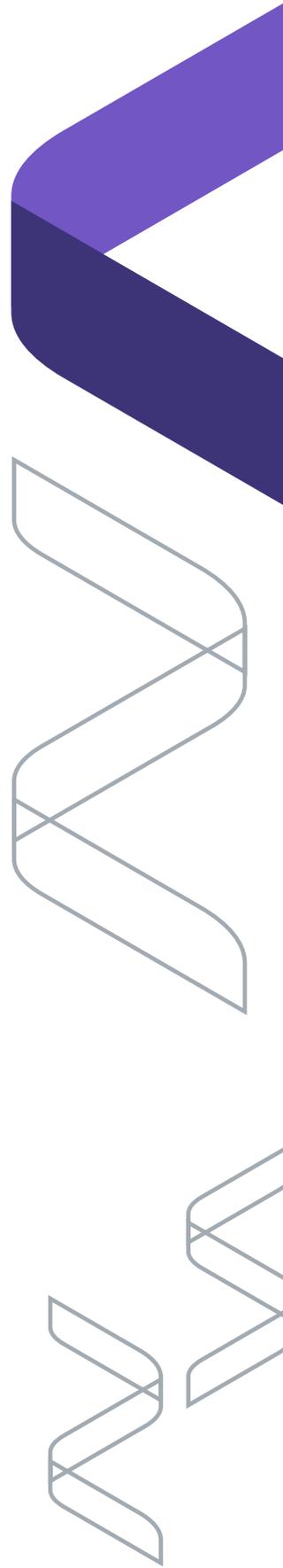




Government of Western Australia  
North Metropolitan Health Service  
Women and Newborn Health Service

# Statewide Maternity Shared Care Guidelines





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# 1. Introduction

Antenatal shared care is the joint care of a pregnant woman by her General Practitioner (GP), midwife or private health care professional, and the birthing hospital. Antenatal shared care creates the opportunity to practice collaborative maternity care by combining the varied skills of each profession. It also aims to provide a community-based holistic model of care for women.

The aims of antenatal shared care are to:

- provide pregnant women with flexibility, choice and continuity of care
- provide health care professionals, including GPs and/or private medical or midwifery practitioners with evidence-based, best practice clinical guidelines for antenatal care
- provide clear referral pathways and shared care protocols for GPs, midwives, private health care professionals and Health Service Providers
- provide clear clinical pathways when low risk pregnancies become higher risk
- enhance the skills of GPs, midwives and private health care professionals caring for women during pregnancy
- promote communication between GPs, midwives, private health care professionals and the participating Health Service Providers
- reduce demands on birthing hospitals' services
- cater for the preferences and needs of all women including those from culturally diverse backgrounds.

Maternity shared care extends beyond the antenatal period to include the initial six weeks following birth and transition to parenthood.

In 2017 four metropolitan and six country maternity units in Western Australia (WA) indicated shared care with a GP as a model offered as part of their services (MaNSMap, 2017); although, WA Country Health Service

(WACHS) has indicated all 18 of their maternity services offer shared care. Notwithstanding, the number of women accessing shared maternity care in WA is unknown. Unlike some other jurisdictions, WA does not currently capture this information as part of perinatal data collection.

All maternity care providers who undertake shared care must be registered with the appropriate Australian Health Practitioner Board, have suitable personal medical indemnity insurance to undertake maternity shared care, be of good character and have adequate antenatal experience or supervision. Evidence of qualifications and experience should be provided to the appropriate Head of Department at the birthing facility i.e. Head of Obstetrics, Director of Midwifery/Nursing or Director of Clinical Services.

In 2018 the Commonwealth Department of Health released [Clinical Practice Guidelines for Pregnancy Care](#). These guidelines were developed to provide a reliable and standard reference for health professionals providing antenatal care. They are intended for all health professionals who contribute to antenatal care including midwives, obstetricians, GPs, practice nurses, maternal and child health nurses, Aboriginal and Torres Strait Islander health workers and allied health professionals. The guidelines are especially applicable to primary care models such as shared antenatal care, where local guidelines may not be available. They are implemented at national, state, territory and local levels to provide consistency of antenatal care in Australia and ensure maternity services provide high-quality, evidence-based maternity care (Department of Health, 2018).

## 1.2 Purpose

These Statewide Maternity Shared Care Guidelines are intended to assist maternity care providers develop and implement shared care models and processes. This document is aimed at supporting effective communication and clear understanding of the roles and responsibilities of maternity care providers in maternity shared care across the state of WA. The guidelines are underpinned by the [Clinical Practice Guidelines for Pregnancy Care \(2018\)](#) in which the recommendations have been endorsed by the National Health and Medical Research Council as meeting the Council's standards for the preparation of evidence-based recommendations. Additional national frameworks support postnatal care, breastfeeding and transition to parenting. The State-wide maternity services viewer ([MSV](#)) also provides specific local information regarding service delineation and capability.

## 1.3 Principles of maternity shared care

Collaborative practice	Collaborative maternity care includes clearly defined roles and responsibilities for all involved, especially for the person the woman regards as her primary care provider.
Women-centred care	The views, beliefs and values of the woman in relation to her care and that of her baby are sought and respected. The woman is the central decision maker for herself and her baby.
Informed decision-making	Recommendations and options for care are offered in a manner that supports informed decision-making. Information is provided about the benefits, risks, alternatives and potential outcomes of all options for care.
Providing antenatal care for women with complex social needs	For women with complex social needs, maternity care may be provided in partnership with other agencies including mental health services, domestic violence teams, illegal substance use services, drug and alcohol teams, youth and adolescent pregnancy support services, learning disability services and children's services.

A maternity shared care program should be established with appropriate structures and guidelines by either a local hospital maternity unit, a specialist obstetrician, an endorsed midwife or a GP obstetrician in conjunction with shared care providers, such as GPs and midwives, to facilitate shared antenatal and postnatal care in a safe and acceptable manner. Additionally, a governance committee with representation from the birthing hospital and shared care providers should be convened to maintain the coordination, standards and evaluation of the maternity shared care program (RANZCOG, 2016). Eligibility and affiliation criteria are to be determined at the local level, and maternity shared care providers should contact the birthing hospital to determine their criteria. The [Royal Hospital for Women](#) and the [Mater Hospital](#) provide examples of how these requirements are achieved.

## 1.4 National Women Held Pregnancy Record or relevant Maternity e-Record

Since 2014, WA Health has endorsed the National Women Held Pregnancy Record (NWHPR) as the substantive record of a woman's pregnancy, noting the introduction of electronic pregnancy record is underway. The aim of the NWHPR or relevant maternity e-record is to assist maintaining continuity of care, women's participation in the care and to promote early and appropriate use of antenatal services. The NWHPR **must** be used to document the care provided for all women involved in maternity shared care. The NWHPR is aligned with the Clinical Practice Guidelines for Pregnancy Care (2018) and promotes a minimum standardised evidence-based framework of antenatal care for all women in WA.

The maternity care provider **must** record at each visit all relevant antenatal information in the NWHPR. Information must be sufficient to meet the provider's duty of care in diagnostic and treatment decisions.

Information need not be duplicated, but clinicians may do so by choice. If duplication is required, it is recommended that the NWHPR be photocopied. Pathology and ultrasound results are to be recorded in the NWHPR.

The NWHPR should be given to the woman at her first antenatal visit after confirmation of pregnancy, with instruction to carry this with her to all appointments during her pregnancy, including those with other health professionals. The woman should be made aware that the NWHPR is the only complete medical record maintained for her antenatal care, and it is vital that it is used to record the care given to her at each visit. The woman should also be aware that the NWHPR will become part of the hospital's medical records after the birth of her child.

As the substantive record, the NWHPR will be filed in the woman's medical record at the hospital where the birth occurs. The NWHPR is not to be destroyed under any circumstances. The NWHPR can be obtained from Health Service Providers where the woman is intending to birth.

## 2. Providing maternity shared care

Maternity shared care is delivered with an agreed schedule using evidence based clinical practice guidelines and processes for referral where higher level of care is warranted. However, it is recognised that maternity shared care may need to be provided for [women with risk factors](#) that would otherwise need specialist care when this is precluded by geographical constraints. This can be facilitated using telehealth services; and should always be undertaken with consultation and collaboration between the obstetric consultant and the rural GP, midwife or health care professional providing maternity care ([RANZCOG, 2016](#)), and in accordance with the [service capability](#) of the birthing hospital.

Each birthing hospital should have local policies relating to maternity shared care.

As a baseline, all women should have a general medical history and assessment early in their pregnancy, as well as an assessment of their risk factors for pregnancy. Referral of the woman to the intended birthing facility should also occur at this time and should clearly indicate shared care (Appendix 1). The schedule of antenatal visits should be based on the individual woman's needs; however, for a woman's first pregnancy without complications, a schedule of ten visits should be adequate. For subsequent uncomplicated pregnancies, a schedule of seven visits should be adequate (NICE, 2008).

Early in pregnancy, women should receive relevant information about the likely number; [timing and content of antenatal appointments](#) associated with maternity shared care and be given an opportunity to discuss this schedule with their midwife or doctor.

A review of local, national and international shared care guidelines identified most appointments occur with the shared care provider, with recommendation that two visits, 18 – 22 weeks and 36 weeks occur at the birthing facility, either face to face or remotely (telehealth) (Queensland Health, 2016; SA Health, 2020; NT Primary Health Network, 2017; NICE 2008; RANZCOG, 2017; ACM 2015). For women who have not birthed by 40 weeks, an additional appointment should be scheduled for 41 weeks at the birthing hospital. Table 1 provides a suggested antenatal shared care schedule. Additional detailed information relating to specific considerations such as First Trimester screening and Syphilis are provided in Chapter 3. Health promotion and prevention information are included in the resources section.

The purpose of antenatal care is to maximise health outcomes for mothers and babies through education and health promotion as well as clinical assessment. This will include offering first trimester screening, reproductive carrier screening and perinatal mental health screening. Additionally, during the antenatal period, discussions should begin concerning postpartum contraception options. Family planning information and services are important components of good quality antenatal care and provide an opportunity for maternity care providers to discuss with women the benefits of birth spacing (leaving at least 2 years between births) for their health and the health of their current and future children (Yang, Cheney, Taylor and Black 2019).

The antenatal period also provides an opportunity for maternity care providers to support women make significant [lifestyle changes](#), such as stopping smoking, alcohol and drug use, and develop healthy eating and exercise habits.

In situations where, normal provision of services is disrupted, such as epidemics or pandemics, face-to-face consultations may be restricted. In these circumstances, maternity shared care providers should consider scheduling visits in line with the [State-wide Clinical Practice Policy](#).

Table 1: Shared Antenatal Care Schedule

Weeks' Gestation	Shared Care Provider	Routine Assessment and Testing
Initial Visits	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Confirm pregnancy discuss options including termination</li> <li>✓ General examination including weight and BMI</li> <li>✓ Order routine antenatal screening tests including syphilis serology</li> <li>✓ Commence hand held record (NWHPR)</li> <li>✓ First trimester screening discussed and offered</li> <li>✓ <u>FDV screening</u> and at every visit</li> <li>✓ <u>EPDS/ANQR</u></li> <li>✓ <u>Alcohol use assessment – Audit C</u></li> <li>✓ <u>Smoking assessment and QUIT literature as indicated</u> and at every visit</li> <li>✓ Early referral to ANC for genetic counselling (if required)</li> <li>✓ Complete and send antenatal referral to birthing hospital</li> </ul>
8 – 14 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Routine antenatal screening tests checked and discussed</li> <li>✓ First trimester screening result checked and discussed</li> <li>✓ Order fetal structural anatomy scan for women having NIPT or declining screening (13 – 14 weeks)</li> <li>✓ Request slip for ultrasound for 19 – 20 weeks fetal structural anatomy scan and cervical length</li> <li>✓ QUIT counselling and literature as indicated</li> </ul>
16 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ <u>Routine antenatal assessment</u></li> <li>✓ Confirm 19 - 20 week fetal structural anatomy and cervical length scan ordered</li> <li>✓ Follow up on any outstanding results of 1st trimester screening</li> <li>✓ Follow up on QUIT counselling</li> </ul>
18 – 20 weeks	Booking visit birthing hospital	<ul style="list-style-type: none"> <li>✓ Booking in with midwife including booking for childbirth education classes as required</li> <li>✓ Assessment with medical officer</li> <li>✓ Routine antenatal assessment</li> <li>✓ Review 19 – 20 week fetal structural anatomy and cervical length scan results and discuss</li> <li>✓ <u>note fetal movements</u></li> <li>✓ Follow up on QUIT counselling</li> </ul>

Weeks' Gestation	Shared Care Provider	Routine Assessment and Testing
24 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Routine antenatal assessment</li> <li>✓ <u>Commence fundal height measurements</u></li> <li>✓ Administer immunisations – <u>seasonal influenza, pertussis</u></li> <li>✓ <u>Initiate discussion about interpregnancy interval and contraception</u></li> <li>✓ Order routine 28 weeks pathology, including routine testing for GDM</li> <li>✓ Follow up on QUIT counselling</li> </ul>
28 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Routine antenatal assessment including fundal height</li> <li>✓ Administer Anti-D (rhesus immunoglobulin) if required</li> <li>✓ <u>Discuss side sleeping</u></li> <li>✓ Syphilis screening</li> <li>✓ Review pathology results and discuss</li> <li>✓ Follow upon <u>QUIT counselling</u></li> </ul>
32 – 34 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Routine assessment including fundal height</li> <li>✓ Administer Anti-D (rhesus immunoglobulin) if required</li> <li>✓ Screening <u>EPDS/ANRQ/ Audit C</u></li> <li>✓ Discuss baby's immunisation and screening</li> <li>✓ Follow up on QUIT counselling</li> </ul>
36 weeks	Review at birthing hospital	<ul style="list-style-type: none"> <li>✓ Routine assessment, including gestational weight gain and fundal height</li> <li>✓ Discuss risks for GBS, if woman consents offer and order test .</li> <li>✓ If required order: Rhesus antibodies (NEG. blood group), repeat Hb</li> <li>✓ Syphilis screening</li> <li>✓ <u>FDV screening</u></li> <li>✓ Record and plan for contraception decision postpartum</li> <li>✓ Follow up QUIT counselling</li> <li>✓ Pre-admission/discharge planning – midwife</li> </ul>
38 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Routine antenatal assessment</li> <li>✓ Review pathology results and discuss</li> <li>✓ Follow up on QUIT counselling</li> </ul>
40 weeks	General Practitioner, Midwife other shared care provider (within scope of practice)	<ul style="list-style-type: none"> <li>✓ Routine antenatal assessment</li> <li>✓ Discuss recognising onset of labour/when to seek advice</li> <li>✓ <u>Discuss options for prolonged pregnancy</u></li> <li>✓ Follow up on QUIT counselling</li> </ul>
41 weeks	Review at birthing hospital	<ul style="list-style-type: none"> <li>✓ Assessment with senior medical officer</li> </ul>

## 2.1 Relative contraindications to maternity shared care for low risk women

Most pregnant women have low risk pregnancies, meaning shared care is an appropriate model. However, shared care providers should seek advice from the birthing hospital as to whether shared care is contraindicated if a woman or fetus has any of the following relative risk factors:

### Medical History

- endocrine disease – excluding controlled thyroid disease
- cardiac disease
- renal disease
- hypertension, for example diastolic pressure >90-100 mm/Hg
- respiratory disease – excluding well controlled asthma
- neurological disease including epilepsy on medication
- thrombo-embolic disorders, antiphospholipid syndrome
- illicit drug use
- haematological disorders including haemoglobinopathy, thrombocytopenia, significant anaemia, Hb <105g/L & MCV < 80fl
- significant mental health issues requiring medication
- gastro-intestinal disease – excluding Irritable Bowel Syndrome (IBS)
- obesity – BMI > 40 – 44 kg/m<sup>2</sup> (requires consultation with specialist anaesthetist and obstetrician)
- obesity – BMI > 45 kg/m<sup>2</sup> (requires transfer of care to Obstetrician)
- blood borne viruses – hepatitis B, hepatitis C, HIV.

### Obstetric History

- severe pre-eclampsia
- previous perinatal death
- placental abruption
- preterm birth at less than 34 weeks
- fetal intrauterine growth restriction or small-for-gestational age
- recurrent pregnancy loss > 16 weeks
- suspected cervical incompetence.

### Early Pregnancy Assessment

- Rhesus or other blood group antibodies
- multiple pregnancy
- haemoglobinopathy
- positive syphilis serology.

### Arising During Pregnancy (any of the above conditions and/or)

- antepartum haemorrhage
- fetal abnormality
- significant psychological issues / illness
- hyperemesis gravidarum persisting beyond 20 weeks gestation
- hypertension and/or pre-eclampsia
- suspected intra-uterine growth restriction
- recurrent urinary tract infection
- positive syphilis serology
- gestational diabetes requiring medication
- deep vein thrombosis or embolism
- abnormal placentation (including placenta praevia)
- non-cephalic presentation after 36 weeks
- gestational hypertension or pre-eclampsia
- threatened preterm labour
- cholestasis of pregnancy
- pre-term rupture of membranes.

Additional risk factors for exclusion from maternity shared care are identified in Health Service Providers shared care guidelines located in the resource section.



## 2.2 Family and Domestic Violence screening and referral

Family and domestic violence is pattern of behaviours intended to coerce, control and create fear within an intimate or familial relationship. These behaviours may take many forms, including, but not limited to, physical, sexual, emotional, financial and social abuse. Pregnancy is as an important time for screening for Family and Domestic Violence (FDV). It presents an opportunity to identify FDV, as many women will have contact with health-care services and professionals on a regular basis during the antenatal period.

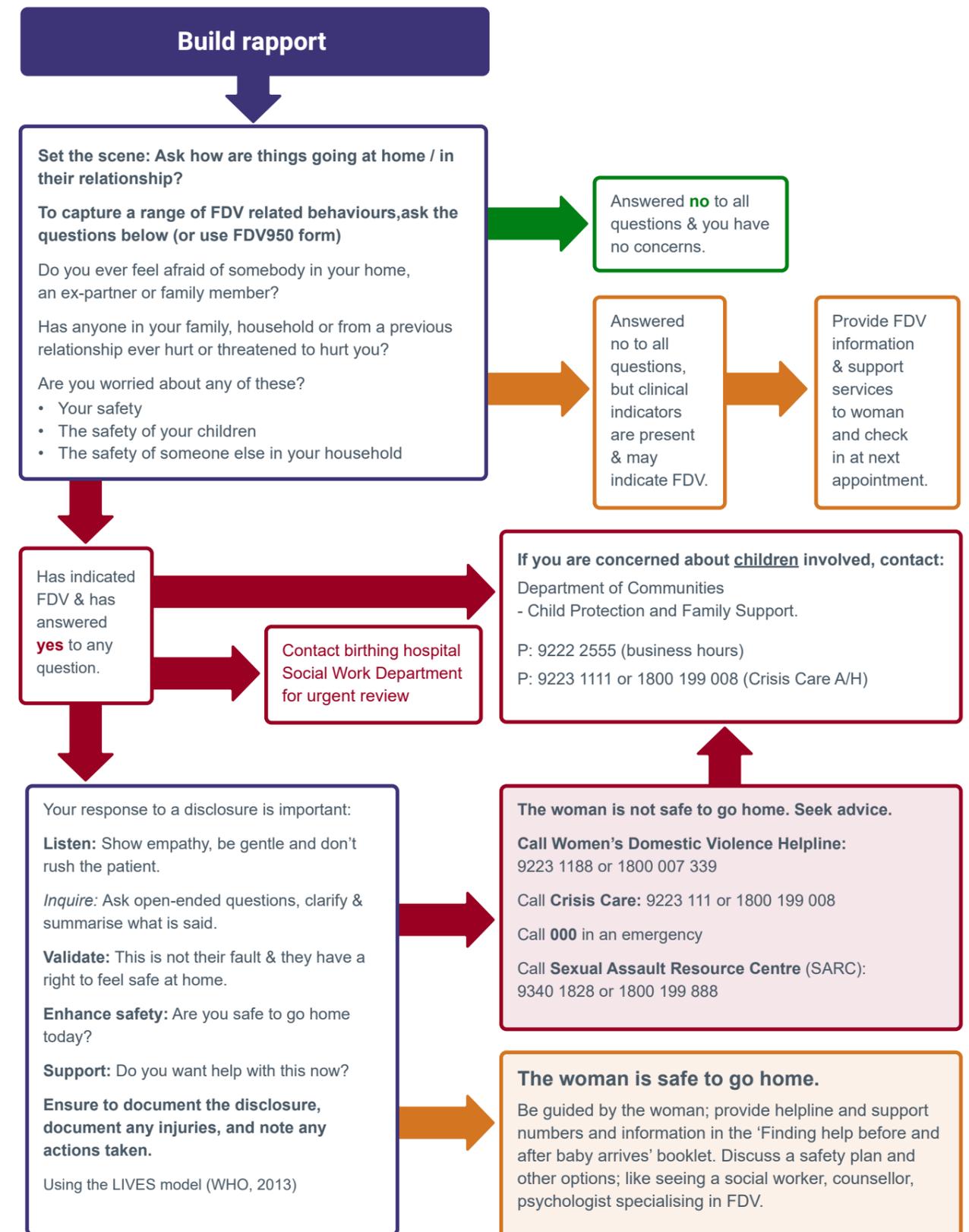
Estimates indicate that around 17% of women (aged 18 and over) experience violence during pregnancy from their previous or current partner. The risk of FDV has been found to be higher in pregnant women and in the period following birth, posing serious health risks to both pregnant women and their babies. There is known under-reporting of FDV due to its complex and sensitive nature (including patients' reluctance to report) and under identification by health workers (AIHW, 2015).

The [National Clinical Practice Guidelines for Pregnancy Care \(2018\)](#) recommend screening for FDV during pregnancy and [asking about FDV](#) should be part of routine care. Additional questions on FDV may be asked as part of a broader assessment to identify psychosocial factors that might impact women in the perinatal period. The NWHPR prompts screening be completed **at the first antenatal visit and repeated during the pregnancy**. For women considered at risk, additional screening during each trimester of pregnancy is recommended (WHO, 2016).

Where FDV is disclosed or identified, women should be linked with support services provided by the Health Service provider where the woman intends to birth. Such services may include social work and clinical psychology. Referral to support services is an essential part of providing a seamless and wrap-around response to women and children experiencing or escaping family and domestic violence. All referrals should be made in consultation with the victim. Informed consent to refer is required, except when there are safety and wellbeing concerns for the adult victim and/or children, or others. [The WA Family and Domestic Violence Referral Guide](#) provides information to relevant services and supports for women, children and men who may be experiencing, exposed to, or using family and domestic violence. If someone is in immediate danger call emergency services on Triple Zero (000).

The following FDV pathway outlines the process of screening for family and domestic violence. The current WA Health screening and assessment tool is attached (Appendix 2). The woman should be supported throughout the referral process and decisions and choices she makes respected. The woman should be viewed as the expert in their own life. Maternity care providers should recognise and respect that the woman's cultural background may have an influence on her decisions (Queensland Health, 2017).

## Family and Domestic Violence (FDV) Pathway Shared Maternity Care provider (WA) - Referral Pathway for Family and Domestic Violence (FDV)



# 3. Statewide maternity shared care schedule

## 3.1 First visit

The [first antenatal visit](#) should be longer than most later visits because of the volume of information that needs to be exchanged in early pregnancy. If there is insufficient time in the first antenatal visit, another appointment can be arranged to cover “first visit” activities or these can be incorporated into care as the pregnancy progresses. At the first visit, the shared care provider should confirm pregnancy and discuss available choices under WA Laws which include continuing the pregnancy and keep, foster or adopt the infant or ending the pregnancy via abortion.

### 3.1.1 History

The shared care provider **must** record the woman’s personal details, medical, obstetric, gynaecological and mental health history in her NWHPR. The recognition of depression and other mental health conditions in the antenatal period is important as it may require treatment during the pregnancy and is a strong predictor for postpartum depression. Screening for perinatal mood disorders, in the form of a psychosocial assessment or administration of a validated tool, such as the Edinburgh Postnatal Depression Scale (EPDS), should be considered part of routine antenatal and postpartum care.

Women should also be assessed for risk of [severe perineal trauma](#). Women who have experienced a third or fourth degree perineal tear during a previous birth will require specialist follow up and counselling regarding birth management.

### 3.1.2 Family history of genetic conditions

An increasing number of [genetic conditions](#) can be screened for and/or diagnosed. If the woman has a relevant history, the shared care provider should contact the Obstetric Registrar / Consultant at the birthing hospital for advice before any testing.

### 3.1.3 Examination

A general examination must be performed as aligned with the NWHPR. Blood pressure should be assessed (measured on the right arm with the woman seated, with appropriate size cuff). Weight (kg), height (cm) and BMI must be measured and calculated at the first visit with the woman’s weight and BMI recorded each visit.

## 3.2 Subsequent Antenatal appointments

### 3.2.1 Routine assessment

All designated sections in the NWHPR must be completed and documented at each antenatal visit.

### 3.2.2 Routine and additional screening

The shared care provider should assess the need for additional targeted screening for pregnant women.

## Hypertensive disorders

Identifying women with risk factors for or clinical signs of [pre-eclampsia](#) allows timely provision of advice on prevention and symptoms that may indicate a need for additional care. Antenatal care also provides an opportunity to discuss long-term preventive strategies with women who develop pre-eclampsia. Preventive treatment with [low-dose aspirin](#) (100 milligrams/day) in women at high risk should be commence following consultation with the birthing hospital ([SOMANZ, 2014](#)). Additionally, [calcium supplementation](#) (1.5 – 2 grams/day) in women with low dietary intake is recommended.

## Syphilis Serology

The shared care provider should request routine screening for syphilis at the first antenatal visit, with other blood tests around 28 weeks, and at 36 weeks.

Additional [syphilis screening](#) should be offered to include pregnant/ birthing women living in an area affected by an ongoing syphilis outbreak.

In WA this includes [Perth metropolitan area](#), the Goldfields, Kimberley and Pilbara; and at-risk areas in the Midwest.

Enhanced syphilis screening indicators are:

- Positive sexually transmitted infection (STI) in 12 months prior to pregnancy
- Positive STI during this pregnancy
- Infectious syphilis in a previous pregnancy
- One or more new sexual contacts after first syphilis blood test
- Sexual contact who is from a high-risk country
- Sexual contact with a man who has sex with men
- Has unstable accommodation or is experiencing homelessness
- Engages in IVDU during pregnancy.

The timing of additional screening is:

- At birth, including preterm birth
- 6-week post-natal check.

The shared care provider should offer screening [PCR via self-obtained low vaginal swab (SOLVS)] for other sexually transmitted diseases (i.e. Chlamydia, Gonorrhoea) to women with a positive syphilis serology.

In the instance that the pregnant woman presents with a positive syphilis serology, the shared care provider should immediately refer the woman to the closest hospital with maternity services for assessment, treatment and contact management.

For women residing outside the Perth metropolitan area with a diagnosis of early syphilis, the option of transfer to KEMH for treatment should be discussed with the Maternal Fatal Medicine team if the fetus is abnormal on ultrasound and gestation is greater than 23 weeks.

For women residing in remote areas diagnosed with early syphilis, but with no known ultrasound abnormalities, it is preferable for women to be treated at the local hospital or clinic, or at a minimum to stay within an area of health care provision for 24 hours.

[Benzathine Penicillin](#) is the recommend treatment of syphilis and shared care providers should consult and/or refer the woman for obstetric management because of the risk of [Jarisch-Herxheimer Reaction](#) (JHR).

The Department of Health should be notified promptly of any pregnant women with a positive syphilis serology so [contact tracing](#) can commence.

## Haemoglobinopathy Screening

Screening should be offered to women who:

- are carriers/suspected carriers for [haemoglobin disorders](#) (thalassaemia and sickle cell anaemia)
- have MCV <80 or MCH < 27 with normal ferritin
- have a history of anaemia;
- have a family history of haemoglobinopathy and
- are from an ethnic group (Mediterranean, Middle Eastern, African, Asian, Pacific Islander, South American, Maori).

When a pregnant woman presents with a haemoglobin  $\leq 110$  g/L in the first trimester and  $\leq 105$  g/L in the second and third trimesters, or particularly if red cell abnormalities are present, iron studies folate and B12 studies are recommended as follow up for the woman. Low white cell or platelet counts should prompt discussion with, and referral to the birthing hospital.

## Oral Glucose Tolerance Test (OGTT)

The shared care provider should assess the pregnant woman's risk of undiagnosed diabetes or prediabetes at the first antenatal visit and offer early OGTT to women with [risk factors](#) including age, body mass index, previous gestational diabetes or high birth weight baby, family history of diabetes, presence of polycystic ovarian syndrome and whether she is from an ethnic group with high prevalence of diabetes, such as Aboriginal and Torres Strait Islander peoples.

At 24–28 weeks offer testing to women not already tested and repeat testing for women with risk factors with a previous normal blood glucose level.

A diagnosis of gestational diabetes does not necessarily preclude the woman from Shared Care, however if the results indicate an abnormality in BGL or OGTT the shared care provider should seek obstetric consultant advice from the birthing hospital.

## First Trimester screening tests

### Fetal aneuploidy screening:

There are three options of screening tests available to indicate the chance of trisomy 21 and other chromosome conditions. These tests are not diagnostic but indicate the individualised probability for this pregnancy. If the screening test indicates a high probability of chromosome conditions, then diagnostic testing is offered to confirm this risk, and may include [Chorionic Villus Sampling \(CVS\)](#) or [Amniocentesis](#). There may be out of pocket expenses to have some of these tests.

All women should be counselled about the option of having a screening test for fetal aneuploidy in each pregnancy, regardless of age or perceived risk. The screening tests are not compulsory, and a test indicating high probability will require further investigations to make a diagnosis of a chromosome condition.

### The tests available are:

#### 1. Combined first trimester screen (cFTS) – combination of

- maternal biochemistry testing at 10 - 3+6 weeks' gestation AND
- ultrasound of fetal nuchal translucency at 11-13+6 weeks' gestation.

This testing requires maternal weight and accurate gestational dates and provides information about individualised probability of chromosome conditions and the health of the fetus. The detection rate of the cFTS for trisomy 21 is around 90%.

Most women with high probability results will have normal fetuses but clarifying this requires further evaluation. Women with very high probability results (>1:20) and those with structural fetal anomalies (including nuchal translucency >3.5mm) should proceed directly to invasive testing. For women with lower probability results and a structurally unremarkable fetus, Non-invasive Prenatal Screening (NIPT) is a reasonable second-line screening option which affords greater specificity while avoiding the small risk of procedure-related miscarriage.

## 2. Non-invasive Prenatal Screening (NIPT)

First trimester maternal blood test undertaken after 10 weeks' gestation detects cell free fetal DNA (cfDNA) in the maternal blood. It provides information about individualised probability of trisomy 21, trisomy 13, and trisomy 18, as well as sex chromosome aneuploidy in most cases. It is not currently covered by Medicare and does not provide ultrasound information about the growth and health of the developing fetus.

The appropriate invasive fetal test for confirmation (CVS or amniocentesis) is determined by the chromosome condition of interest, the presence of fetal abnormalities on ultrasound, and multiple pregnancy.

It is reasonable to offer NIPT as a primary aneuploidy screening modality, bearing in mind the financial implications.

## 3. Second trimester maternal serum screening

Maternal blood test performed at 15-20 weeks' gestation is a less sensitive option (around 75%) than the first trimester screening but is available if testing is undertaken after 14 weeks' gestation when the cFTS can no longer be performed.

## Structural fetal anomaly screening

All women should be offered screening for structural fetal malformations at two points: the late first trimester and mid-trimester.

## 1. Early fetal anomaly survey

Assessment is performed between 13 - 14 weeks and should be recommended to all women. In women having the first trimester screen, the structural assessment is performed at the same scan as the nuchal translucency for aneuploidy probability assessment. In women having first line NIPT or women who decline aneuploidy screening, this scan should be scheduled for 13-14 weeks to allow for optimal assessment of fetal anatomy. It also assesses the chorionicity of multiple pregnancies which can be impossible to determine at later scans.

## 2. Mid-trimester fetal anomaly survey

The shared care provider should request a [routine structural ultrasound](#) for when the woman is 19-20 weeks gestation irrespective of whether they have chosen to have fetal aneuploidy screening or not. This scan also assesses cervical length for preterm birth risk and placental location. The shared care provider should confirm if the ultrasound is able to be done at the birthing hospital.

Shared care providers should note there are specific [Medicare](#) requirements when ordering scans <16 weeks gestation which are additional to dating scans.

### 3.2.3 Antenatal screening and testing and managing abnormal results

Any investigations / tests / screening requested by the shared care provider for the woman **must** be followed up by the shared care provider. It is the shared care providers' responsibility to follow up all abnormal results irrespective of whether a copy of the results has been sent to the birthing hospital.

If there are abnormal findings in any antenatal testing / screening, it is recommended that the shared care provider seek obstetric advice from and/or refer the woman to the birthing hospital.

The shared care provider ordering and requesting antenatal tests must:

- comply with the antenatal screening and testing as outlined in the NWHPR
- ensure that copies of the woman's results are available at the birthing hospital at the time of her first antenatal visit.
- ensure they follow up all antenatal tests requested and that there is no expectation that these results will be followed up and acted upon by the birthing hospital.

### 3.2.4 Interpregnancy interval and contraception

The interpregnancy interval (the time from the end of one pregnancy to the start of the next pregnancy) can be regarded as a 'modifiable' risk factor because, with the provision of appropriate and effective contraception, women can control when their next pregnancy occurs. Short interpregnancy intervals can lead to adverse pregnancy and birth outcomes. The most effective strategy to reduce the frequency of short interpregnancy intervals is to ensure that women are provided with reliable postpartum contraception. Shared care providers should initiate this conversation with women at 24 weeks gestation, with a plan to confirm contraception decision by the woman at 36 weeks gestation. Shared care providers should advise pregnant women that having long-acting reversible contraception in the immediate post-partum period is safe for most women, including those who are breastfeeding.

## 3.3 Labour and birth

The care of the woman during labour and birth is the responsibility of the maternity team at the birthing hospital.

The birthing hospital is expected to provide a discharge summary of the pregnancy and birth outcome for the shared care provider at discharge of the woman.

## 3.4 Postnatal care

Breastfeeding advice should be readily available during the immediate postnatal period whilst the woman is in hospital, and follow-up support post discharge is commonly arranged through the home visiting Midwifery Service.

A universal contact visit by Child and Community Health Services will be facilitated with the woman's consent.

Women will be advised by the birthing hospital to secure follow-up postnatal visits with their shared care provider at 6 weeks, unless needed prior to this. Some women may be required to return to the birthing hospital if they have experienced problems during pregnancy or childbirth. This appointment should be made for the woman prior to discharge.

### 3.4.1 Postnatal visits

Women residing in the metropolitan area and regional resource centres generally receive home visits from a visiting midwife for up to five days following the birth if there are no issues. This may be extended for women and babies who have ongoing issues following discharge from the birthing hospital. Standard newborn screening will be undertaken during this time including:

- newborn bloodspot
- newborn hearing screening
- congenital hip dysplasia screen.

At the 6 week postnatal visit the shared care provider should assess both the mother and the baby.

The visit should include review of the **mother's maternal and medical history and that of her baby**:

- pregnancy and birth history including any complications
- breasts/nipples/breastfeeding
- general physical assessment abdomen – fundus, uterus involuted
- vaginal examination if required, CST if due
- examine perineum +/- abdominal wound (if caesarean section)
- vaginal discharge
- family and social supports
- BP (if hypertension during pregnancy)
- administer the Edinburgh Postnatal Depression Scale, if necessary
- contraception and resumption of intercourse
- urinary or faecal incontinence
- follow-up on pregnancy complications i.e. gestational diabetes, hypertension
- discuss vaccination of the mother and vaccinate as recommended. Ensure all family members are up to date with their vaccinations, particularly pertussis
- screen for risk Sudden Unexplained Death of an Infant risk factors.

## 4. Resources

### 4.1 South Metropolitan Health Service

<https://www.fsh.health.wa.gov.au/-/media/Files/Hospitals/FSH/PDFs/Antenatal-Shared-Care-Guidelines-for-GPs.pdf>

<https://www.rkpg.health.wa.gov.au/~media/Files/Hospitals/RkPG/PDFs/RGH-Antenatal-Shared-Care-Guidelines.pdf>

### 4.2 North Metropolitan Health Service

<https://healthpoint.hdwa.health.wa.gov.au/policies/Policies/NMAHS/OPH/IC%20and%20WNS/OPH.WNSP.EPPMnonDRANZCOGflowchartnodeliveryrights.pdf>

### 4.3 East Metropolitan Health Service

<https://healthpoint.hdwa.health.wa.gov.au/policies/Policies/EMHS/AHS/OBS.AntenatalAssessment.pdf>

<https://healthpoint.hdwa.health.wa.gov.au/policies/Policies/EMHS/AHS/OBS.AntenatalClinic.pdf>

### 4.4 WA Country Health Service

<http://www.wacountry.health.wa.gov.au/index.php?id=1605>

### 4.5 Health Promotion

<https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/supporting-smoking-cessation>

<http://www.quitnow.gov.au/internet/quitnow/publishing.nsf/Content/quit-now-apps>

<https://alcoholthinkagain.com.au/alcohol-your-health/alcohol-during-pregnancy/>

<https://adf.org.au/insights/alcohol-and-pregnancy/>

<https://www.stillbirthcre.org.au/safer-baby-bundle/>

### 4.6 Family Planning and Contraception

<https://wnhs.health.wa.gov.au/-/media/Files/Hospitals/WNHS/For-health-professionals/Clinical-guidelines/Pharmacy/medications/WNHSpatientleafletContraception.pdf>

<https://www.fsrh.org/standards-and-guidance/fsrh-guidelines-and-statements/contraception-for-specific-populations/>

[https://www.familyplanningallianceaustralia.org.au/wp-content/uploads/2014/11/FPAA\\_Efficacy\\_SCREEN.pdf](https://www.familyplanningallianceaustralia.org.au/wp-content/uploads/2014/11/FPAA_Efficacy_SCREEN.pdf)

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<https://www.spherecre.org/contraception>

### 4.7 Respiratory Infectious Disease Resources

[https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0033/947148/g-covid-19.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0033/947148/g-covid-19.pdf)

[https://ww2.health.wa.gov.au/Articles/N\\_R/Pertussis-vaccination-for-pregnant-women](https://ww2.health.wa.gov.au/Articles/N_R/Pertussis-vaccination-for-pregnant-women)

### 4.8 Family and Domestic Violence

<https://www.health.gov.au/resources/pregnancy-care-guidelines/part-e-social-and-emotional-screening/family-violence>

<https://www.1800respect.org.au/professionals/>

<https://www.kemh.health.wa.gov.au/~media/Files/Hospitals/WNHS/For%20health%20professionals/Clinical%20guidelines/OG/WNHS.OG.FDVScreening.pdf>

COPE Perinatal mental health guideline <http://cope.org.au/family-violence-in-pregnancy/>

<https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/national-guide/chapter-16-family-abuse-and-violence>

<https://ranzcog.edu.au/news/screening-for-domestic-violence>

<https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/patient-safety/duty-of-care/domestic-family-violence/healthcare-workers>

Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines. Geneva: World Health Organization; 2013

[https://apps.who.int/iris/bitstream/handle/10665/85240/9789241548595\\_eng.pdf;jsessionid=B64EA82ECB0CE2E96983BF178FF9D957?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/85240/9789241548595_eng.pdf;jsessionid=B64EA82ECB0CE2E96983BF178FF9D957?sequence=1)

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Queensland Health (2016) Maternity and Neonatal Operational Framework: Maternity Shared Care.

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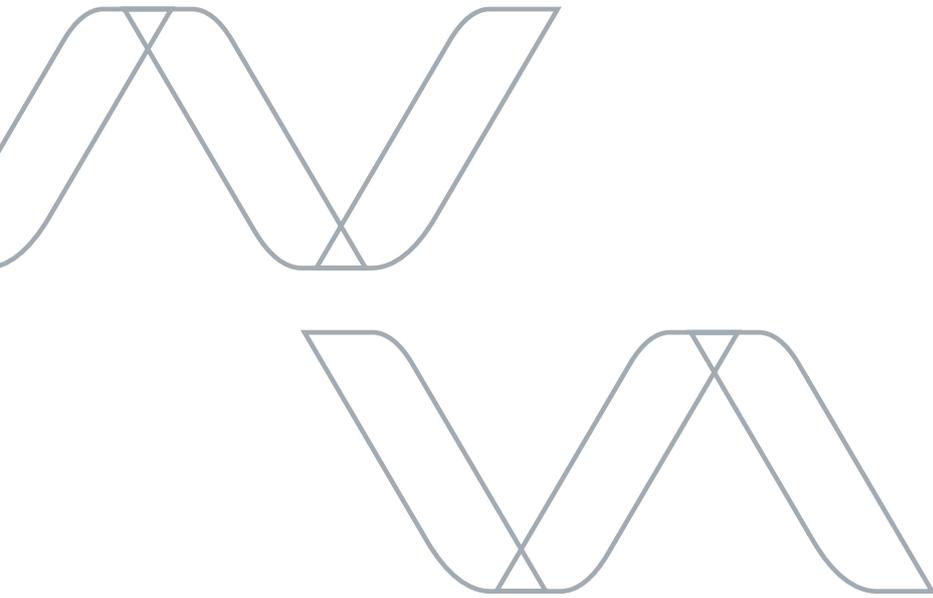
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