Maternal health clinical audit protocol

Version 3.0

Revised 8 September 2014

First published 2009

Contents

Abbreviations

BMI	body mass index
BP	blood pressure
Bpm	beats per minute
EPDS	Edinburgh Postnatal Depression Scale
FBC	full blood count
FBE	full blood examination
GBS	Group B streptococcus
Hb	haemoglobin
KEMH	King Edward Memorial Hospital
LVS	low vaginal swab
OGTT	oral glucose tolerance test
OGCT	oral glucose challenge test
PCR	polymerase chain reaction
NAAT	nucleic acid amplification test
RBWH	Royal Brisbane and Womens' Hospital
SIDS	sudden infant death syndrome

Version control

Version	Release date	Description
2.0		ABCD research
2.4	19/12/2007	Minor formatting and content changes
3.0	1/6/2010	Major formatting and content changes
3.0	24/4/2013	Protocol update only
2014 release	8/9/2014	Protocol update only

Summary of changes

Section/ Question	Description of change
All sections	Updated references and recommendations for CANHC (2014) CARPA (2014) NACCHO /RACGP (2012)
All sections	'Medical record', 'health record', 'woman's record' and 'client record' are terms used interchangeably to describe the location of information about the pregnancy being audited.
All sections	Changes agreed by working group and users have been considered, however, due to technical limitations and other reasons, they will be incorporated into future revisions of the maternal health tool.

Changes to this tool and protocol are carefully monitored to ensure that trending over CQI cycles is possible. If you notice discrepancies between what is documented in the protocol and what is recommended best practice in your jurisdiction, or have any questions or suggestions, please contact One21seventy by email: one21seventy@menzies.edu.au or phone 1800 082 474. Your feedback is appreciated.

Introduction

This protocol should be used in conjunction with *Improving the quality of primary health care: A training manual for the One21seventy CQI cycle*.

The data collected on each question are validated when entered on the One21seventy website. Invalid entries will prevent progression to the next section.

The pregnancy that is the subject of this audit is referred to as the 'index pregnancy' throughout this protocol. The index pregnancy should be the woman's most recent pregnancy resulting in a live born child that is 2 to 14 months of age at the date of audit. Include only one of each set of twins.

Eligibility of clients

To be eligible for inclusion in the Maternal Health Clinical Audit, a woman must:

- have an infant aged between 2 and 14 months; and
- have been resident in the community for at least 6 months of that infant's gestation; and
- be expected to use this health service as her usual source of primary health care.

A woman who may have had only one or two occasions of service at the service but then gone on to have the rest of her antenatal care at a hospital should be included **if the health service is generally regarded as her first point of contact for primary care**. The important point here is that the primary care service should have a record that the appropriate services were provided. Even if provision of some services has become the responsibility of a hospital or other service, it is important that there is a good record of care at the primary care service once the woman returns there. Remember, we are not trying to collect data to show poor service delivery, we are trying to get an assessment of how well the whole system works to deliver appropriate care to the population of women in their perinatal period.

Sample size and confidence interval

Refer to *Improving the quality of primary health care: a training manual for the One21seventy cycle*, version 2, Section 5, page 50, for more information on determining the sample size with regard to the population size for this audit, and the confidence interval required for the reported indicators.

The 'eligible population' referred to in this protocol is the number of clients who are deemed eligible by the criteria as described above.

Recommendations for sample size

- Health services with large eligible populations may wish to increase the sample size to reduce the confidence intervals around the sample estimates. Health services with smaller eligible populations (40 or fewer) should audit all client records and be cautious when using and comparing reported data.
- For services with up to 100 clients in the eligible population, we recommend a sample size of *at least 40 client records* per audit. This sample will provide an adequate estimate (for quality improvement purposes) of the proportion of clients receiving specific services. Services that require a less precise result may opt to audit 30 records.
- Be aware of the confidence interval for your results — this is important when interpreting the data in your reports.

Section 1 General information

1.1 Client ID

A unique 3 digit number for each client audited. At data input this 3 digit number will be automatically prefixed with the tool ID and health centre ID.

For each participating Health Centre, the auditor will prepare a master list of participants that contains participant name, date of birth, and participant number. This list will be marked 'confidential' and stored securely to prevent inappropriate identification of people's records.

1.2 Medicare number

Much of the funding for community controlled health services is via Medicare (general practitioners or allied health). If the Medicare number is not on file or has expired then the claim for the service may be rejected. It is important to have up to date Medicare numbers on file to ensure claims are processed quickly.

Is there a **current** medicare card number documented in the client record?

Indicate **1-Yes** or **0-No**

1.3 Date of birth

Record the woman's date of birth as **dd/mm/yyyy**.

1.4 Indigenous status

Record the woman's Indigenous status as documented in their medical record. Select **one** of the following:

1-Aboriginal

2-Torres Strait Islander

3-Both (client is both Aboriginal and Torres Strait Islander)

4-Neither (client is neither Aboriginal nor Torres Strait Islander)

5-Not stated (client has no clear record of their Indigenous status).

1.5 Auditor's initial and surname

Record your initial and surname. You may want to make a stamp if you are a regular auditor (eg. J. Smith).

1.6 Audit date

You may wish to use a date stamp. Record as **dd/mm/yyyy**.

Note that the audit date will be the same for all records being audited in this year/cycle. Even if all auditing cannot be completed on this date, continue to use the same audit date for all clients and audit the client records retrospectively from this date.

Birth details

Weight and gestational age of baby at birth are useful indicators of antenatal care, and should be documented in the mother's health record, as well as the child's.

1.7 Birth/delivery summary

Is there clear documentation in the woman's medical records of a delivery or birth summary, birth report, or discharge summary from the hospital where the baby was born?

Indicate **1-Yes** or **0-No**

2-Not complete if a birth summary is present, but not all information is completed.

1.8 Date of birth of infant

Record the infant's date of birth. Record as **dd/mm/yyyy**

Note: Infant must be between 2 and 14 months of age at the Audit Date.

1.9 Gestational age at birth

Record the gestational age of the infant at birth as documented in the client record. This information should be available on the birth or delivery record or discharge summary.

Record in **weeks**

If not available enter '**0**'.

1.10 Birth weight of infant

Record the infant's birth weight in **grams**.

If not available enter '**0**'.

1.11 Indigenous status of infant

Indicate the indigenous status of the infant as stated on the birth summary sheet or discharge letter.

1-Aboriginal,

2-Torres Strait Islander,

3-Both Aboriginal and Torres Strait Islander

4-Neither Aboriginal or Torres Strait Islander

5-Not stated if there is no clear record of the Indigenous status of the infant

1.12 Type of birth

Indicate the type of birth as recorded on the birth summary sheet or discharge letter.

1- Vaginal (without instruments)

2- Caesarean section (elective or emergency)

3- Assisted (use of instruments)

4- Not stated

Transfers

The particular concerns of Indigenous women in remote communities associated with travelling to a larger centre for maternity care, include isolation and dislocation from their communities, inappropriate accommodation for women and their families while in town, lost wages if a partner had to stop working to look after the family, and risk to other children left in the community while mothers were away.(DoHA, 2009)

1.13 Transfer of antenatal care

Answer 'yes' to only one of the questions in Q 1.13, dependant on the reporting needs of your health service. The reason for transfer (Q1.14) and gestational age at date of transfer (Q1.15) will apply to the transfer recorded in Q1.13

This is about care that is transferred in **or** out of the health service, it does not include 'transfers' for shared care (or similar) arrangements.

Is there a record of the woman's antenatal care being transferred **to** another centre or hospital?

Indicate **1-Yes** or **0-No**

OR

Is there a record of the woman's antenatal care being transferred **from** another centre or hospital?

Indicate **1-Yes** or **0-No**

1.14 Reason for transfer

If there is a record of antenatal care being transferred to **or** from another centre or hospital in question 1.13, indicate the main reason for transfer of care as documented in the medical record.

Indicate

1-Complications Conditions which are present in this pregnancy**,** for example, IUGR (intrauterine growth restriction), reduced foetal movements, unexplained bleeding, or premature labour, premature rupture of membranes, abnormal foetal anatomy ultrasound scan, polyhydramnios, multiple pregnancy, abnormal test for diabetes, rhesus antibodies, proteinuria greater than 1+ (KEMH, 2010)

2-Birthing generally due to residence in a remote location without the required birthing facilities or staff

3-High risk pregnancy Conditions that may **cause** complications with this birth, for example, pre-eclampsia, poorly controlled gestational diabetes, other medical problems or placenta praevia, or may be a combination of factors that increase the need for specialised care;

4-Other may include domestic or social environment or cultural considerations

9-Not applicable if woman was not transferred to another centre or hospital

1.15 Gestational age at date of transfer

If there is a record of antenatal care being transferred to another centre or hospital in question 1.13, record the estimated gestational age of infant in weeks on the date of transfer.

If not transferred enter '**0**'.

1.16 Location of birth

Record the location of the birth of the infant, as documented in the client record.

Select

1-Home/Community Health Centre (includes local health service or clinic)

2-Local Hospital (the hospital that is closest to the woman's home, this may also be a regional hospital, eg Katherine, Tennant Creek, Kununurra, Bamaga Hospitals)

3-Regional Hospital (hospital that services a region, eg Royal Darwin Hospital, Derby, Townsville, Bundaberg, Geraldton)

4-City Hospital (hospital that provides specialist and tertiary services, usually located in a major city, eg King Edward Memorial Hospital, Adelaide Women and Childrens', Royal Brisbane and Womens' Hospital)

5-Other if the location of birth does not fit a category described above eg overseas.

6-Not stated if there is no record of the location of birth of infant

Note: The hospitals listed in brackets are examples only. Adapt the categories of hospital to best suit how you use this information for CQI.

Section 2 Attendance for antenatal care and routine supplements

Antenatal attendance

Indigenous mothers who attend antenatal care were less likely to have low birth weight babies (13 per cent) than those who do not attend (39 per cent); low birth weight babies are also associated with their mothers' later commencement of antenatal care and attendance at fewer than five antenatal care sessions. (DoHA, 2009). *An early antenatal visit can reduce the risk of health complications for the mother and the baby as substantial health impacts can occur in the first trimester during critical periods of brain development (AIHW, 2014).*

The first antenatal visit – which should take place in the first trimester – is particularly important. At this visit a comprehensive history, examination and discussion with the woman establishes the necessary schedule of tests and visits. The majority of screening tests are also carried out. Psychosocial assessment is also important at this stage; screening for issues such as domestic violence, financial stress, mental health disorders and substance use, including alcohol (NACCHO/RACGP, 2012).

The pregnancy that is the subject of this audit is referred to as the 'index pregnancy' throughout this protocol. 'Medical record', 'health record', 'woman's record' and 'client record' are terms used interchangeably to describe the location of information about the pregnancy being audited. Information should be recorded in antenatal care file notes AND the woman's hand–held pregnancy record if she has one (CANHC, 2014).

2.1 Date of first antenatal assessment

Record the date the woman first attended the health service for **antenatal care** for the index pregnancy (ie. when pregnancy was confirmed by the health service, and first recorded in the woman's health record). Record as **dd/mm/yyyy.**

NB: For the purpose of this audit, date of first antenatal assessment is used during data input to validate timing and dates of investigations. For example, date of first antenatal assessment must be equal to or less than initial investigation dates recorded in Section 6.

2.2 Location of record of first antenatal assessment

Some services use both computerised and electronic records. It is useful to know where the particular type of information is recorded. Is the first antenatal assessment documented in paper records?

Indicate **1-Yes or 0-No**

Is the first antenatal assessment documented in computerised records?

Indicate **1-Yes or 0-No**

Number of antenatal visits

The number of antenatal visits scheduled varies with individual needs and jurisdictional clinical practice guidelines.

A minimum of five antenatal visits should be offered / provided to women with low risk pregnancies with an aim of seven to nine visits in total (RFDS/QH, 2013). NACCHO/ RACGP (2012) suggest planning antenatal visits for an uncomplicated pregnancy *every 4 weeks until 28 weeks, then every 2 weeks thereafter.*

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 (AHMAC, 2012)

2.3 Number of antenatal visits

An antenatal care visit does not include a visit where the sole purpose of contact is to confirm the pregnancy, or contacts with the health service that occurred during the pregnancy, but related to other non-pregnancy issues. Antenatal visits include contacts with the health service where pregnancy care was attended.

Indicate the total number of antenatal visits the woman attended for index pregnancy.

Antenatal care

Important factors in improving antenatal care are continuity of carer, allowing adequate time for communication and to establish trust and rapport, and health provider awareness of local community sociocultural factors and health needs (NACCHO/RACGP, 2012).

2.4 First antenatal assessment

When the woman first attended the health centre for antenatal care during the index pregnancy, which health professional did the client see first?

Indicate:

1-Aboriginal and/or Torres Strait Islander Health Worker/Practitioner

2-Nurse,

3-Midwife,

4-General Practitioner,

5-Specialist,

6-Other or

7-Not stated

2.5 Estimated gestational age at first antenatal visit

You may need to use a pregnancy wheel to help calculate estimated gestational age at the first antenatal visit, or use gestational age at birth to estimate by dates.

Indicate the estimated gestational age (in weeks) at the first antenatal assessment for index pregnancy. If unable to calculate, due to lack of information in client record, enter '**0**'.

Antenatal attendance

Fewer Aboriginal and Torres Strait Islander mothers access five or more antenatal sessions, compared with other mothers in Queensland (72 per cent versus 93 per cent), South Australia (64 per cent versus 88 per cent) and the Northern Territory (77 per cent versus 96 per cent). (DoHA, 2009)

2.6 Attendance during 1st trimester

This question is about attendance for antenatal care. Attendance at any health service for acute problems or other issues should not be counted as antenatal care.

Is there a record that the woman attended the health service for *antenatal care* during the 1st trimester? (**before 13 weeks gestation**)

Indicate **1-Yes** or **0-No**

If 0-No, then all questions related to care in the 1st trimester will be 9-N/A

Is there a record that the woman attended the health service for *antenatal care* during the 2nd trimester? (**between 13 and 26 weeks gestation**)

Indicate **1-Yes** or **0-No**

If 0-No, then all questions related to care in the 2nd trimester will be 9-N/A

Is there a record that the woman attended the health service for *antenatal care* during the 3rd trimester, (**after 26 weeks gestation**)

Indicate **1-Yes** or **0-No**

If 0-No, then all questions related to care in the 3rd trimester will be 9-N/A

Folic Acid Supplements

Daily supplementation with folic acid (400–500 mcg) is recommended for all pregnant women, prior to conception and for the first 12 weeks of pregnancy. Specific attention needs to be given to promoting folic acid supplementation to Aboriginal and Torres Strait Islander women of childbearing age and providing information to individual women at the first antenatal visit (NACCHO/RACGP, 2012).

2.7 Folate before 20 weeks

It is acknowledged that *folate* and *folic acid* are sometimes used interchangeably. It is also acknowledged that neither require a prescription for use, but may be suggested or recommended by a clinician. For the purpose of this audit, 'folate' includes any supplement of *folate* or *folic acid* by diet or tablet or any other means. For the purpose of this audit, 'prescription' includes a documented recommendation or suggestion by a health practitioner that the woman have an appropriate folate supplement.

Is there documentation that the woman was prescribed folate before 20 weeks gestation?

Indicate **1-Yes** or **0-No**

2.8 Folate prior to conception

It is acknowledged that *folate* and *folic acid* are sometimes used interchangeably. It is also acknowledged that neither require a prescription for use, but may be suggested or recommended by a clinician. For the purpose of this audit, 'folate' includes any supplement of 'folate' or 'folic acid' by diet or tablet or any other means. For the purpose of this audit, 'prescription' includes a documented recommendation or suggestion by a health practitioner that the woman have an appropriate folate supplement.

Is there documentation that the woman was prescribed folate before conception?

Indicate **1-Yes** or **0-No**

Iron Supplements

Pregnancy increases the body's demand for iron due to the expanded red cell volume, the demands of the developing foetus and placenta and blood loss around the time of delivery. Iron deficiency is the most common cause of anaemia in pregnancy in Central Australia and the Top End of the Northern Territory.

Iron supplementation should be considered in pregnant women who are anaemic, particularly if they are symptomatic or have other health concerns (NACCHO/RACGP, 2012).

2.9 Iron supplement

It is acknowledged that a prescription is not necessary for iron supplements. For the purpose of this audit, 'prescription' includes a documented recommendation or suggestion by a health practitioner that the woman take an iron supplement. Is there documentation that the woman was prescribed iron any time immediately prior to, or during the index pregnancy?

Indicate **1-Yes** or **0-No**.

Care plans

As for all pregnant women, the antenatal care offered to Aboriginal and Torres Strait Islander women should be woman-centred. This means that the care focuses on the individual woman's needs and preferences and that the woman is informed and involved in decision making (NACCHO/RACGP, 2012)

2.10 Antenatal care plan/record

For the purpose of this audit, an 'antenatal care plan/record' is defined as a schedule or plan of care across the duration of the index pregnancy and post-partum period. The form this schedule takes will vary between health services, and it is important that the auditor understands and documents the standard approach used for this health service and audit against this standard.

Is there an antenatal care plan/record for index pregnancy in the client record?

Indicate **1-Yes** or **0-No**

Section 3 Risk factors and brief intervention

Risk factors and brief interventions

Health risk factors such as maternal smoking, alcohol and other drugs consumption by both parents, inadequate nutrition, stress, illness and infection can all disrupt the development of the child before birth and are associated (along with young maternal age) with low birth weight, which connects with long-term effects on learning and behaviour, and the development of chronic disease later in life. In particular, drinking alcohol while pregnant may result in a range of impairments and cognitive social and emotional dysfunction over the child's lifetime, otherwise known as foetal alcohol spectrum disorder (FASD) (DoHA, 2013)

Brief interventions that address smoking, nutrition, alcohol intake and physical activity are recommended for all pregnant women as part of routine care. Client education is an important aspect of management of a healthy pregnancy. Type of education should be culturally appropriate and easily accessible for indigenous women (Couzos and Murray, 2008 p.207, 225-230).

3.1 Cigarette use

Aboriginal and Torres Strait Islander women are three times more likely to smoke during pregnancy than non-Indigenous Australian women, with current smoking prevalence estimated at around 50–60%. Higher risk groups include teenagers and women who experience socioeconomic hardship. Maternal smoking contributes to a greater proportion of the risk of prematurity and low birth weight for Aboriginal and Torres Strait Islander babies when compared with non-Indigenous babies (NACCHO/RACGP, 2012)

As part of antenatal care, NACCHO/RACGP (2012) recommends to *regularly assess smoking status* at the first and subsequent antenatal visits. For the purposes of this audit, 'cigarette use' refers to the smoking of tobacco only, and not to smoking any other substance, unless it is mixed with tobacco.

What is the woman's tobacco use, as documented in **each trimester**?

For each trimester, indicate

1-Daily smoker if there is documentation of the woman smoking tobacco every day
2-Weekly smoker if there is documentation of the client smoking tobacco on a weekly basis
3-Irregular smoker if there is documentation that the client does not either smoke or chew tobacco
4-Ex-smoker if there is documentation that the woman quit smoking during pregnancy
5-Ex-smoker if there is documentation that he woman quit smoking before the index pregnancy
6-Non-smoker if there is documentation that the woman is not smoking at all
7-No record if there is no documentation of smoking status in that trimester
9-Not applicable if there is no documentation of attendance in that trimester

Alcohol use

Alcohol consumption in pregnancy is associated with increased risk of severe birth defects such as brain damage, facial deformities and growth problems, and more subtle changes such as learning and behavioural problems. This range of problems is known as fetal alcohol spectrum disorder (FASD). The risk to the baby is highest in the first trimester, including the first weeks following conception when the mother may not realise she is pregnant (NACCHO/RACGP, 2012).

A 'no-effect' level has not been established for the developing foetus, so limitations in the available evidence make it impossible to set a 'safe' or 'no-risk' drinking level for women to avoid harm to their unborn children, although the risks to the foetus from low-level drinking (such as one or two drinks per week) during pregnancy are likely to be low. A conservative, public health approach has therefore been taken in recommending that 'not drinking alcohol is the safest option' for pregnant women and women planning a pregnancy. (NHMRC, 2009)

3.2 Alcohol use

For the purpose of this audit, a 'drink' is equal to one standard drink.

What is the woman's alcohol use, as documented in **each trimester** of the index pregnancy?

For each trimester, indicate

1-More than 7 drinks per week or more than 2 drinks per day

2-Less than 7 drinks per week and less than 2 drinks per day

3-Any alcohol consumption if there is documentation of alcohol consumption, but not the amount

4-No alcohol consumption if there is documentation of no alcohol consumption

5-No record if there is no documentation about alcohol consumption

9-Not applicable if there is no documentation of attendance in that trimester

3.3 Drug use

For the purposes of this audit, 'drug use' refers to any legal, illegal, prescription or non prescription drug or substance used inappropriately and may include one or more of the following: marijuana(cannabis); pharmaceutical drugs such as pain killers, analgesics, tranquilisers or sleeping pills; inhalants; steroids; barbiturates; amphetamines or methamphetamines (speed); heroin; methadone; other opiates (opioids); cocaine; LSD or other synthetic hallucinogens; natural hallucinogens; ecstasy; ketamine; GHB; any injected drugs. This also includes drugs mixed with tobacco and smoked or chewed.

What is the client's current documented drug use in **each trimester** of the index pregnancy?

For each trimester, indicate

1-Daily user if there is documentation of the woman using drugs every day

2-Weekly user if there is documentation of the client using drugs on a weekly basis

3-Irregular user if there is documentation that the client uses drugs occasionally

4- Ex –user (quit during pregnancy) if there is documentation that the client stopped using drugs in this trimester

5-Ex-user (quit before pregnancy) if there is documentation that the client stopped using drugs any time before the index pregnancy

6-Non-user if there is documentation that the client does not use drugs

7-No record if there is no documentation about drug use

9-Not applicable if there is no documentation of attendance in that trimester

3.4 Location of smoking status

Many health services have a combination of paper and electronic records for client information. Knowing where to find information about clients is important for management of care (RACGP, 2010).

Is the location of smoking status documented on a paper record?

Indicate **1-Yes** or **0-No**

Is the location of smoking status documented in an electronic or computer record?

Indicate **1-Yes** or **0-No**

Smoking cessation advice

As part of routine antenatal care, NACCHO/RACGP(2012) recommend to *offer interventions to assist smoking cessation ranging from brief advice to more intensive, multicomponent interventions.* The 2011 National Heart Foundation national tobacco campaign recommends referring clients to their Quitline. AHMAC,(2012) suggest health professionals involved in the care of Aboriginal and Torres Strait islander women should be aware of the high prevalence of smoking in some communities and should draw on the expertise of anti-tobacco workers where available.

3.5 Smoking cessation advice

As part of routine antenatal care, NACCHO/RACGP(2012) recommend to *offer interventions to assist smoking cessation ranging from brief advice to more intensive, multicomponent interventions.* Evidence of this may be in an antenatal tobacco screening tool, which incorporates brief intervention and follow up. For the purpose of this audit, the record of brief interventions for smoking cessation should at least indicate either that a brief intervention has been delivered, or that the client has been asked about their use of tobacco, and their intentions or interest in quitting. The 2011 National Heart Foundation national tobacco campaign recommends referring clients to their Quitline.

If smoker is documented in question 3.1, is there documentation that the client has received a brief intervention for tobacco use during the index pregnancy on a paper record?

Indicate **1-Yes**, **0-No** or

9-N/A if the client does not smoke or smoking status is not recorded in question 3.1

If smoker is documented in question 3.1, is there documentation that the client has received a brief intervention for tobacco use during the index pregnancy in a computer record?

Indicate **1-Yes**, **0-No** or

9-N/A if the client does not smoke or smoking status is not recorded in question 3.1

3.6 Brief intervention for alcohol use

As part of routine antenatal care, NACCHO/RACGP (2012) and AHMAC (2012) recommend to *advise that not drinking alcohol is the safest option in pregnancy, particularly in the first 3 months*. Evidence of this may be obtained from an antenatal screening tool that incorporates a record of brief intervention and follow up. For the purpose of the audit, the record of brief interventions for reducing alcohol-related harm should at least indicate either that a brief intervention has been delivered; or that the client has been asked about their use of alcohol, and their intentions or interest in reducing their alcohol consumption.

If alcohol use is recorded, is there documentation that the client has received a brief intervention for alcohol use during the index pregnancy?

Indicate **1-Yes**, **0-No** or

9-N/A if alcohol use is not documented

3.7 Brief intervention for drug use

For the purpose of the audit, the record of brief interventions for reducing drug use should at least indicate either that a brief intervention has been delivered, or that the client has been asked about their use of drugs and their intentions or interest in reducing their drug intake.

If current drug use is documented, is there documentation that the client has received a brief intervention for drug use during the index pregnancy?

Indicate **1-Yes**, **0-No** or

9-N/A if drug use is not documented

3.8 Social risk factors

Safe start (2009) program identify the following psychosocial risk factors.

- Lack of social/ family support, including practical support and someone to talk to about feelings
- Recent major stressors in the last 12 months
- Low self esteem/ lack of self confidence
- History of anxiety, depression or other mental health problems
- Couple's relationship problems or dysfunction
- Adverse childhood experiences
- Domestic violence
- Financial situation (and availability of support services)

Risk factors should be assessed at every antenatal visit. For the purpose of this audit, this question is about risk factors assessed at least once during index pregnancy.

Is there documentation of social risk factors anytime during index pregnancy?

Indicate **1-Yes** or **0-No**

2-No record if there is no documentation of social risk factors being assessed or discussed

Social Risk factors for discussion	Examples of possible discussion
Plans for care and birthing	Specific and mainstream pregnancy care service options appropriate to the woman's community/home
Antenatal education	Preparation for birthing and parenthood
Nutrition	Diet and nutrition for the woman during pregnancy
Oral health	Prevention of periodontal disease
Breast feeding	Benefits and appropriate preparation for and practice of breast feeding
Physical activity	Benefits of regular exercise during pregnancy
Cultural considerations	Social and Cultural aspects of pregnancy and care (eg involve appropriate women's business, Strong Women, Strong Babies, Strong Culture, Aboriginal and/or Torres Strait Islander health workers/practitioners)
Domestic/social environment	Domestic violence and strategies for management of a safe environment
Social/family support	Availability of support services, and how to access them
Financial situation	Has this been a problem in last 12 months? Availability of support services, and how to access them
Housing condition	Has this been a problem in the last 12 months? Availability of support services, and how to access them
Food security	Has this been a problem in the last 12 months? Availability, affordability and accessibility of food appropriate for woman and family

3.9 Consultation with medical practitioner/appropriate professional

It is acknowledged that a medical practitioner may not be the best option for support in all cases. They may recommend further support from services such as another doctor, specialist, psychologist, womens' help group, centrelink official, housing department staff member, or local council official.

If there are documented social risk factors, at any time during the index pregnancy, was the woman referred or transferred to a medical practitioner or other appropriate professional or service?

Indicate **1-Yes** or **0-No**

9-N/A if there is no record of social risk factors being assessed or discussed in question 3.8

3.10 Medical risk factors

The table below shows examples of medical risk factors. They may be recorded on a screening/risk assessment form, or in the progress notes. They may identify a risk to the woman or the baby, or both. Medical risk factors should be assessed at each antenatal visit. For the purpose of this audit, this question is about risk factors assessed at least once during index pregnancy.

During the index pregnancy, is there is a record of assessment of medical risk factors?

Indicate **1-Yes** or **0-No**

2-No record if there is no record of medical risk factors being assessed or discussed

Medical risk factors: Medical conditions	
Anaesthetic difficulties	Herpes Genitalis
Asthma	Hypertension
Autoimmune disease	Inflammatory Bowel Disease
Cardiovascular disease	Infectious diseases
Chronic bronchitis/Chronic Obstructive Pulmonary Disease (COPD)	Intra uterine growth retardation (IUGR)
Drug dependence or abuse	Other endocrine disorder
Diabetes mellitus	Other neurological
Deep vein thrombosis	Psychiatric disorders
Epilepsy	Renal function disorders
Genetic –any condition	Syphilis
Heart disease	System/connective tissue diseases
Hepatitis	Thyroid Disease
	Tuberculosis
Medical risk factors: Pre-existing gynaecological disorders	
Cervical cone biopsy	Pelvic floor reconstruction
Myomectomy/ hysterotomy	
Medical risk factors: Previous obstetric Hx	
Active blood group incompatibility	Perinatal death Pre-eclampsia in the previous pregnancy
Asphyxia (Apgar score <7 at 5 min)	Pre-term birth(<37 weeks)
Caesarean section	Prior child with congenital/hereditary disorder
Cervical incompetence	Post-partum haemorrhage >1000ml
Eclampsia	Post-partum psychosis
Fetal growth restriction	Recurrent miscarriage(3 or more times)
Grand multiparity >5	Underweight (BMI<18.5) or obese (BMI>30)
Hypertension in the previous pregnancy	

3.11 Consultation and/or transfer of care to medical practitioner

A medical practitioner may be a GP or specialist obstetrician. If there are documented medical risk factors during the index pregnancy, is there documentation of consultation and/or transfer of care to a medical practitioner for possible medical risk factors?

Indicate 1-**Yes** or **0-No**

9-N/A if there is no record of medical risk factors being assessed or discussed in question 3.10

3.12 Brief intervention/Counselling

A record of social risk factors may be on a formal screening tool or in the progress notes. Planning the type of perinatal care must take into account the available resources, and recognise the individual health and social care needs of the woman throughout perinatal period (RANZCOG, 2011).

Each of the issues listed should be discussed during ***at least one*** antenatal visit for each pregnancy.

Indicate if there is a record of discussion at any time during the index pregnancy about each of the issues listed.

Indicate **1-Yes or 0-No**

Section 4 Emotional wellbeing screening and care

Emotional wellbeing

While estimates vary, research suggests that depression, anxiety or both are experienced by at least one in ten women during pregnancy and one in six women in the year following birth (beyondblue, 2011).

Common mental health problems during the antenatal and postnatal period include depression and anxiety disorders, such as panic disorder, obsessive compulsive disorder and post traumatic stress disorder. For the vast majority of these women, professional help will be provided solely by primary health care services in community settings (National Collaborating Centre for Mental Health, 2007 cited in NSWHealth 2009)

The Edinburgh Postnatal Depression Scale (EPDS) is the recommended screening tool for antenatal and postnatal women (beyondblue, 2011, QH/RFDS, 2013, NSW Health, 2011). CANHC (2014) recommend the EPDS be completed at least twice during pregnancy.

4.1 Screening for emotional wellbeing using EPDS

The Edinburgh Postnatal Depression Scale (EPDS) is the recommended screening tool for antenatal and postnatal women (beyondblue, 2011). It is also recommended by the SAFE START guidelines (2009), and Queensland Health's Primary Clinical Care Manual (2013). Other screening tools for emotional wellbeing (Appendix 1) include:

- Kessler 5(K5)
- Kessler 6 (K6)
- Kessler 10 (K10)
- Patient Health Questionnaire 2(PHQ2)
- Patient Health Questionnaire 9 (PHQ9)
- another tool routinely used in your health service or jurisdiction, eg safestart .

Is there a record of the woman being screened for emotional wellbeing using a standard tool anytime during index pregnancy?

Indicate **1-Yes** or **0-No**

4.2 Score of the most recent screening

If an emotional wellbeing screening tool was used, record the **score** of the **most recent** screening (during the index pregnancy) in the column next to the appropriate tool.

NB: due to technical limitations, a score of 0 cannot be entered, please enter '1' instead. This does not affect the reporting. If the tool was not used, enter '-1' (minus one).

Screening tool	Not Used	Score range	At risk score
K5	-1	5–25	≥12
K6	-1	6–30	≥12
K10	-1	10–50	≥22
PHQ2+	-1	1–3	Yes to either 1 or 2 PLUS Yes to 3
PHQ9	-1	1–27	>5
EPDS	-1	1–30	>10
Other tool	-1		

At the **most recent** screening, (using a standard tool) is the client classified 'at risk'?

Indicate **1-Yes,** or **0-No**

9-N/A if the client was not screened for emotional wellbeing during the index pregnancy

If a screening tool not listed has been used, also record the **name** of the other tool.

4.3 Discussion about emotional wellbeing

This can be a record of formal or informal discussion about emotional wellbeing written in the woman's medical record as opposed to a formal screening tool used in Question 4.1.

Is there documentation of any other concern about emotional wellbeing during the index pregnancy?

Indicate **1-Yes** or **0-No**

4.4 Actions within 3 month of assessment/recorded concern

If the woman was assessed as being at risk in question 4.2 or there is recorded concern about emotional wellbeing in question 4.3, indicate if the client has received any of the following actions by the health centre team within 3 months of being screened at risk:

- referral to external services (any service not provided by the primary health care centre)
- brief intervention - includes problem solving or goal setting or information sharing
- counselling - includes the above and/or motivational interviewing and/or a range of other therapeutic approaches
- cognitive behavioural therapy - includes exploration of thoughts and feelings linked with behaviours
- medication - includes antidepressants and/or antipsychotics or other
- other action - please provide a description of this action (e.g. link with other service, such as housing or employment).

Is there documentation of actions taken by the health service within 3 months of risk or concern being identified?

Indicate **1-Yes** or **0-No** for each of the actions listed.

9-N/A if the client was not screened for emotional wellbeing during the index pregnancy

4.5 Subsequent review within one month of action taken

If an action was taken by the health service team in question 4.4, is there documentation of a subsequent review within a month of the action taken?

Indicate **1-Yes** or **0-No**.

8-N/R if there is no documentation and the time since the action is less than one month.

9-N/A if no action was taken in question 4.4 or if the client was not screened for emotional wellbeing during the index pregnancy

4.6 Report from the external service within six months of referral

If a referral to an external service is documented in question 4.4, is a report from the external service (within six months of the referral) available in the client record?

Indicate **1-Yes** or **0-No**.

8-N/R if there is no report available and time since the referral is less than six months

9-N/A if client was not referred to an external service in 4.4, or the client was not screened for emotional wellbeing during the index pregnancy

Section 5 Routine antenatal checks and abnormal findings

Routine Care

Effective models of antenatal care have a focus on the individual woman's needs and preferences, collaboration and continuity of care. Taking a woman-centred approach also ensures that a woman's social, emotional, physical, psychological, spiritual and cultural needs and expectations are considered and respected. Throughout the pregnancy, women need to be given information in an appropriate form to support them in making choices about their care (AHMAC, 2012).

Guidelines for routine antenatal care are available for each jurisdiction. In order to keep audits manageable, questions are not asked about every recommended routine assessment, however, the data collected provides sufficient detail to be informative for continuous quality improvement and health service planning

Weight

Measure blood pressure, height and weight and calculate BMI at first antenatal visit, and opportunistically. Repeated weighing during pregnancy should be confined to circumstances where clinical management is likely to be influenced (NACCHO/RACGP, 2012, AHMAC, 2012)

BP

Blood pressure should be measured at each antenatal visit (RFDS/QH, 2013 CANHC, 2014). Abnormal BP requiring follow up is defined as ≥140/90mmHg (RFDS/QH 2013, CANHC, 2014)

1st Trimester

5.1 Weight before 13 weeks gestation

Indicate if there is clear documentation in the **paper** client record of the woman's weight before 13 weeks gestation of the index pregnancy.

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined to be weighed.

9-N/A if there is no documentation of attendance in the 1st trimester

Indicate if there is clear documentation in the electronic or **computer** client record of the woman's weight before 13 weeks gestation of the index pregnancy.

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined to be weighed.

9-N/A if there is no documentation of attendance in the 1st trimester

Abnormal weight

For the purpose of this audit, abnormal weight is described by no or minimal weight gain in the first trimester of the index pregnancy.

Is the weight documented before 13 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of weight in the 1st trimester

5.2 Body Mass Index (BMI) before 13 weeks gestation

Record if there is clear documentation of the woman's BMI before 13 weeks gestation of the index pregnancy

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined to be weighed.

9-N/A if there is no documentation of attendance in the 1st trimester

Abnormal BMI

For the purpose of this audit, abnormal BMI is described by BMI less than 20 or greater than 30.

Is the BMI documented before 13 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 1st trimester

If abnormal, see question 8.1 for further investigation

5.3 Blood Pressure (BP) before 13 weeks gestation

Is there is clear documentation in the **paper** client record of the woman's BP before 13 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 1st trimester

Is there is clear documentation in the electronic or **computer** client record of the woman's BP before 13 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 1st trimester

Abnormal BP

For the purpose of this audit, abnormal BP is described by repeated readings over several hours, systolic reading greater than or equal to 140, **and/or** diastolic reading greater than or equal to 90 (≥140/90mmgHg).

Is the BP documented before 13 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of BP in the 1st trimester

If abnormal, see question 8.2 for further investigation

5.4 Urinalysis before 13 weeks gestation

Is there is clear documentation of the woman's urinalysis before 13 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined a urinalysis.

9-N/A if there is no documentation of attendance in the 1st trimester

Abnormal urinalysis

For the purpose of this audit, abnormal urinalysis is described by positive for nitrites. Is the urinalysis documented before 13 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 1st trimester

If abnormal see question 8.8 for further investigation

5.5 Fundal height between 13 and 26 weeks gestation

Is there is clear documentation of a measurement of fundal height between 13 and 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined the measurement.

9-N/A if there is no documentation of attendance in the 2nd trimester

Abnormal fundal height

For the purpose of this audit, abnormal fundal height is described by no increase in measurement (CANHC, 2008).

Is the fundal height measurement documented between 13 and 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 2nd trimester

2nd Trimester

5.6 Foetal Heart Rate (FHR) between 13 and 26 weeks gestation

Is there is clear documentation of a measurement of foetal heart rate between 13 and 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined the assessment.

9-N/A if there is no documentation of attendance in the 2nd trimester

Abnormal FHR

For the purpose of this audit, abnormal FHR is described as less than 110 beats per minute or greater than 160 beats per minute (CANHC, 2014). Foetal heart rate not auscultated is also abnormal.

Is the FHR documented between 13 and 26 weeks abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of FHR in question 5.6 or there is no documentation of attendance in the 2nd trimester

5.7 Blood Pressure between 13 and 26 weeks

Is there is clear documentation in the client record of the woman's BP between 13 and 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2- Offered and refused if there is clear documentation that the woman declined the assessment

9-N/A if there is no documentation of attendance in the 2nd trimester

Abnormal BP

For the purpose of this audit, abnormal BP is described by repeated readings over several hours, with systolic reading greater than or equal to 140, **and/or** diastolic reading greater than or equal to 90 (≥140/90mmgHg).

Is the BP documented between 13 and 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of BP in the 2nd trimester or there is no documentation of attendance in the 2nd trimester

If abnormal, see question 8.2 for further investigation

5.8 Urinalysis between 13 and 26 weeks

Is there is clear documentation of the woman's urinalysis between 13 and 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined a urinalysis.

9-N/A if there is no documentation of attendance in the 2nd trimester

Abnormal urinalysis

For the purpose of this audit, abnormal urinalysis is described by positive for nitrites. Is the urinalysis documented between 13 and 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 2nd trimester

If abnormal, see question 8.8 for further investigation

3rd Trimester

5.9 Fundal height after 26 weeks gestation

Is there is clear documentation of a measurement of fundal height after 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined the measurement.

9-N/A if there is no documentation of attendance in the 3rd trimester

Abnormal fundal height

Fundal height is measured in centimetres, and should be comparable with the expected measurement according to the woman's dates (CANHC, 2014).

Is the fundal height measurement documented after 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of fundal height in the 3rd trimester

5.10 Foetal Heart Rate (FHR) after 26 weeks gestation

For the purpose of this audit, abnormal FHR is described as less than 110 beats per minute or greater than 160 beats per minute (CANHC, 2014). Foetal heart rate not auscultated is also abnormal.

Is there is clear documentation of a measurement of foetal heart rate after 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined the assessment.

9-N/A if there is no documentation of attendance in the 3rd trimester

Abnormal FHR

For the purpose of this audit, abnormal FHR is described as less than 110 beats per minute or greater than 160 beats per minute (CANHC, 2014). Foetal heart rate not auscultated is also abnormal.

Is the FHR documented after 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of FHR in question 5.10 or there is no documentation of attendance in the 3rd trimester

5.11 Blood Pressure after 26 weeks

Is there is clear documentation in the client record of the woman's BP after 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2- Offered and refused if there is clear documentation that the woman declined the assessment

9-N/A if there is no documentation of attendance in the 3rd trimester

Abnormal BP

For the purpose of this audit, abnormal BP is described by systolic reading greater than or equal to 140, **and/or** diastolic reading greater than or equal to 90 (≥140/90mmgHg).

Is the BP documented after 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of BP in the 3rd trimester or there is no documentation of attendance in the 3rd trimester

If abnormal, see question 8.3 for further investigation

5.12 Urinalysis after 26 weeks

Is there is clear documentation of the woman's urinalysis after 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined a urinalysis.

9-N/A if there is no documentation of attendance in the 3rd trimester

Abnormal urinalysis

For the purpose of this audit, abnormal urinalysis is described by positive for nitrites. Is the urinalysis documented after 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 3rd trimester

If abnormal, see question 8.8 for further investigation

5.13 Foetal movements after 26 weeks

Is there is clear documentation of foetal movement assessment after 26 weeks gestation of the index pregnancy?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 3rd trimester

Abnormal foetal movement

For the purpose of this audit, abnormal foetal movements is described as the woman's perception of a change in number of movements ie. reduced or decreased movements. Is the foetal movement assessment documented after 26 weeks gestation abnormal?

Indicate **1-Yes** or **0-No**

9-N/A if there is no documentation of attendance in the 3rd trimester

If abnormal, see question 8.10 for further investigation

Section 6 Lab investigations

Initial investigations for index pregnancy

These investigations are routine tests for the first antenatal visit (RFDS/QH 2013 CANHC, 2014). For the purposes of this audit, a record that the investigations were completed anytime during the index pregnancy suggests a 'yes' answer. Evidence of these tests is most likely in the 'pathology" section of the client record.

Further investigation

Prior to offering any screening, women should be given accurate and balanced information about the screening and the available tests. These lab investigations are completed primarily to reduce maternal and foetal mortality and morbidity rates, which are 3 to 5 times higher for Indigenous women than the rest of the population. Providing such information should be seen as fundamental to quality antenatal care. (Couzos and Murray, 2008 p.197-199).

Diabetes in pregnancy

It is important to screen for diabetes as treatment can reduce the risks for both the mother and the foetus. Good glycaemic control is achieved through the use of medications as well as diet and physical activity. The use of medications is recommended if glycaemic control cannot be achieved through dietary control and increased physical exercise (Couzos and Murray, 2008, p541).

6.1 Blood group

Is there is clear documentation of the woman's blood group (A,B,O, and D) during the index pregnancy?
Indicate **1-Yes** or **0-No**
2-Offered and refused if there is clear documentation that the woman declined this blood test.
Record the date of test as dd/mm/yyyy

6.2 Antibodies

Is there is clear documentation of the woman's antibody status during the index pregnancy?
Indicate **1-Yes** or **0-No**
2-Offered and refused if there is clear documentation that the woman declined this blood test.
Record the date of test as dd/mm/yyyy

6.3 Mid stream urine (MSU)

Is there is clear documentation of the woman's mid stream urine during the index pregnancy?
Indicate **1-Yes** or **0-No**
2-Offered and refused if there is clear documentation that the woman declined this blood test.
Record the date of test as dd/mm/yyyy

6.4 Full blood examination

Is there is clear documentation of a full blood examination, (FBE) or full blood count (FBC) during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this blood test.

Record the date of test as dd/mm/yyyy

6.5 Rubella

Is there is clear documentation of the woman's rubella antibody status (IGG) during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this blood test.

Record the date of test as dd/mm/yyyy

6.6 HepBsAg

Is there is clear documentation of the woman's Hepatitis B antibody status (HepBsAg) during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this blood test.

Record the date of test as dd/mm/yyyy

6.7 Syphylis serology

Is there is clear documentation of the woman's syphilis serology (RPR and EIA/TPPA) during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this blood test.

Record the date of test as dd/mm/yyyy

6.8 Human Immunodeficiency virus (HIV)

Is there is clear documentation of the woman's HIV status during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this blood test.

Record the date of test as dd/mm/yyyy

6.9 PCR test

A Nucleic acid amplification test (NAAT) is performed on urine or a swab to check for Gonorrhoea, Chlamydia and Trichomonas. This test used to be called a PCR (polymerase chain reaction). Is there is clear documentation that the woman has been tested for Gonorrhoea, Chlamydia and Trichomonas during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this blood test

9-N/A if this is not scheduled in your jurisdiction

Record the date of test as dd/mm/yyyy

6.10 Anomaly screening

With each pregnancy, there is a small chance the baby may be abnormal. Various screening and diagnostic tests are available. However, not all tests are available locally, and planning may be necessary for women who do want the tests. All women should be offered anomaly screening for their unborn baby. This question is about whether the screening tests were discussed and offered, not about whether the tests were done.

Is there is clear documentation that anomaly screening was offered during the index pregnancy?

Indicate **1-Yes** or **0-No**

2-Offered and refused if there is clear documentation that the woman declined this test.

Record the date of test as dd/mm/yyyy

Note: date of tests should be on or after the date of first antenatal visit recorded in 2.1

Foetal anomaly screening

Foetal anomaly screening refers to tests performed to detect foetal chromosomal abnormality.

NACCHO/RACGP (2012) recommend that early in pregnancy all women should receive appropriate information concerning available foetal anomaly screening including potential risks and benefits. AHMAC (2012), *acknowledge that this information should be provided in a way that is appropriate and accessible to the individual woman, with particular regard given to language and literacy.* They also acknowledge that *there is inadequate access to screening for chromosomal abnormalities in many rural and remote areas. Every effort should be made to support women in these areas to access screening.*

6.11 Client agreed to foetal anomaly screening

If foetal anomaly screening was offered, is there clear documentation of the woman agreeing to anomaly screening?

Indicate **1-Yes** or **0-No**

2-Test not available if there is clear documentation that the test is not available

6.12 Nuchal translucency

Nuchal translucency is one of the measurements done on the foetus using an ultrasound. If foetal anomaly screening was offered is there clear documentation of nuchal translucency screening?

Indicate **1-Yes** or **0-No**

2-Test not available if there is clear documentation that the test is not available in the area

9-N/A if there is clear documentation that the woman was not offered foetal anomaly screening in question 6.10 or did not consent to anomaly screening in question 6.11.

Record the date of test as dd/mm/yyyy

6.13 First trimester combined screen

Combined First Trimester Screening involves the pregnant women having a blood test around the 10th week and an ultrasound during the 12th week of pregnancy. This test screens for Down syndrome and Trisomy 18. If foetal anomaly screening was offered, is there clear documentation of first trimester combined screen?

Indicate **1-Yes** or **0-No**

2-Test not available if there is clear documentation that the test is not available in the area

9-N/A if there is clear documentation that the woman was not offered foetal anomaly screening in question 6.10 or did not consent to anomaly screening in question 6.11, or there is no documentation of attendance in the first trimester

Record the date of test as dd/mm/yyyy

6.14 Maternal serum screen

Maternal Serum Screening is a blood test offered to pregnant women at about 14-20 weeks gestation, to find out if they might be at a higher risk of having a baby with Down syndrome, neural tube defects (such as spina bifida) or Trisomy 18. This test does not diagnose these conditions. If foetal anomaly screening was offered, is there clear documentation of maternal serum screen?

Indicate **1-Yes** or **0-No**

2-Test not available if there is clear documentation that the test is not available in the area

9-N/A if there is clear documentation that the woman was not offered foetal anomaly screening in question 6.10 or did not consent to anomaly screening in question 6.11, or there is no documentation of attendance between 14 and 20 weeks.

Record the date of test as dd/mm/yyyy

6.15 50g or 75g glucose challenge/tolerance test between 26 and 30 weeks

This question is about diabetes screening in pregnancy. CANHC (2014), NACCHO/RACGP (2012) and ADIP (2013), recommend that between 24 and 28 weeks gestation, a 75g 2 hour oral glucose tolerance test (OGTT) is performed for the diagnosis of gestational diabetes. If a 75g 2 hour OGTT is consistently difficult to achieve, alternative tests such as random blood glucose, or a 50g 1 hour glucose challenge (OGCT) can be used to screen for diabetes. For the purpose of this audit, diabetes screening is identified by documentation of 50 or 75g glucose challenge/tolerance tests. Is there clear documentation of 50 or 75g glucose challenge/tolerance test between 26-30 weeks?

Indicate **1-Yes** or **0-No**

2-offered and refused if there is clear documentation that the woman declined this test

Select **9-N/A** if there is no documentation of attendance between 26 and 30 weeks or if the woman has pre-existing diabetes mellitus in question 3.10

If yes, record the **date** of test as dd/mm/yyyy.

6.16 Full blood examination (FBE) between 26 and 30 weeks

Is there clear documentation of an FBE or full blood count (FBC) between 26 and 30 weeks?

Indicate **1-Yes** or **0-No**

2-offered and refused if there is clear documentation that the woman declined this test

Select **9-N/A** if there is no documentation of attendance between 26 and 30 weeks

If yes, record the **date** of test as dd/mm/yyyy.

6.17 Low vaginal swab (LVS) between 34 and 37 weeks

Is there is clear documentation of an LVS for Group B streptococcus (GBS) between 34 and 37 weeks?
Indicate **1-Yes** or **0-No**
2-offered and refused if there is clear documentation that the woman declined this test
Select **9-N/A** if there is no documentation of attendance between 34 and 37 weeks
If yes, record the **date** of test as dd/mm/yyyy.

Ultrasound

A routine ultrasound may be done for women at or around 13 weeks (before 14 weeks) to ensure a foetal heart is present and that the placenta is in the right place (CANHC, 2014).

An ultrasound to screen for foetal anomalies (foetal morphology scan) occurs between 18-21 weeks gestation. This is a generally agreed cut off gestation for termination of pregnancy if foetal anomaly is found and this is the woman's choice (states and territories each have different legislation). Ultrasound screening is recommended by QH/RFDS (2013), CANHC (2014) and NACCHO/RACGP (2012) at between 18 and 20 weeks gestation.

6.18 Total number of ultrasounds

How many ultrasounds are documented for index pregnancy?
Record in whole numbers.

6.19 Ultrasound date before 16 weeks gestation

Is there clear documentation of an ultrasound **before 16 weeks** gestation?
Indicate **1-Yes** or **0-No**
2-offered and refused if there is clear documentation that the woman declined this test
Select **9-N/A** if there is no documentation of attendance before 16 weeks
If yes, record the **date** of test as dd/mm/yyyy

6.20 Ultrasound date between 19 and 21 weeks gestation

Is there clear documentation of an ultrasound **between 19 and 21 weeks** gestation?
Indicate **1-Yes** or **0-No**
2-offered and refused if there is clear documentation that the woman declined this test
Select **9-N/A** if there is no documentation of attendance between 19 and 21 weeks
If yes, record the **date** of test as dd/mm/yyyy

Section 7 Postnatal visit

Post natal care

Every mother must receive continuing assessment and support throughout the postnatal period to give her the best possible start with her new baby and for the change in her life and responsibilities. Postnatal care should include provision of information to parents on infant care, parenting skills and accessing local community support groups (RANZCOG, 2011).

CANHC (2014) and other jurisdictional guidelines have an extensive list of items to check to be completed at the 6 week postnatal check, including many items that are not audited here, for example: general health, urinary and bowel symptoms and/or continence, STI, pap smear, breast health, vaginal loss, family allowance, medicare registration, test results and other follow up. Items audited serve as indicators of a comprehensive postnatal visit.

7.1 Postnatal visit

QH/RFDS (2013) recommend that a postnatal check up is performed by an experienced practitioner at 6 weeks post partum. Is there clear documentation of postnatal visit within 2 months of the infant's birth?

Indicate **1-Yes** or **0-No**.

7.2 Brief Intervention/Counselling

This information may be recorded in various ways in the clinical notes, with possibly simply a note to say the issue was 'discussed'. For the purpose of CQI, this audit is not a comprehensive checklist of all the examinations, tests and issues that should be considered, it is an indication of the extent of postnatal care. Is there documentation that each of the issues listed in the audit form has been discussed during a postnatal visit?

Indicate **1-Yes** or **0-No** for each issue listed

9-N/A if there is no documented postnatal visit within 2 months of infant's birth.

Issue	Discussion
Smoking	Increased risk of SIDS in newborns in a smoking environment. Harmful effects of smoking to the mother.
Nutrition	Diet and nutrition for the woman and her infant
Breast feeding	Benefits and appropriate practice of breast feeding. Breast and nipple checks.
Infection prevention/ hygiene	Washing hands, washing infant, nappy hygiene
Injury prevention	Importance of keeping a safe environment for the new mother and baby
SIDS prevention	Importance of keeping a safe environment for the newborn, especially when sleeping
Abuse of alcohol and other substances	Harmful effects of continued alcohol and substance use
Physical activity	Benefits of regular exercise post partum
Mood (including depression)	EPDS should be completed. The importance of emotional wellbeing of mother and baby discussed. Changes following birth/risk factors, signs and symptoms of postpartum depression or anxiety.
Contraception	Discuss all options, side effects/appropriate methods for women
Domestic/social environment	Domestic violence, substance abuse/misuse in the home, alternative arrangement, safety of the baby and mother in this situation.
Social/family support	Availability and use of support services if necessary
Financial situation	Availability and use of support services if necessary
Housing condition	Availability and use of support services if necessary
Food security	Availability, affordability and accessibility of food necessary for healthy diet and nutrition of mother and baby.

Section 8 Response to abnormal clinical findings

"Aboriginal women are likely to experience adverse pregnancy outcomes more frequently than other Australian women". (Couzos and Murray, 2008, p.195). Screening in the antenatal period can be effective to improve outcomes, as long as abnormal results are followed up with appropriate investigations, treatment and care. Measuring blood pressure at every antenatal visit is a long standing, widespread, and generally accepted recommendation (Couzos and Murray, 2008)

8.1 Abnormal Body Mass Index (BMI)

Abnormal BMI is defined as < 20 or > 30. Is there is an abnormal BMI reading during index pregnancy?

Indicate **1-Yes** or **0-No**

Follow up

If BMI is documented as abnormal, is there a documented plan of management?

Indicate **1-Yes** or **0-No**

9-N/A if BMI is not recorded in question 5.2, or BMI is not abnormal.

If BMI is documented as abnormal, indicate the BMI reading and date of reading

8.2 Abnormal BP before 26 weeks

Abnormal BP is defined as ≥140/90 confirmed by repeated readings over several hours. Is there documentation of an abnormal BP reading before 26 weeks gestation?

Indicate **1-Yes** or **0-No**

9-N/A if the woman did not attend before 26 weeks gestation or if BP is not recorded in question 5.3 and 5.7

If BP is documented as abnormal, indicate the BP reading and date of reading

Follow up

If BP is documented as abnormal, is there a documented follow up BP reading completed on a different day to the abnormal result?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP before 26 weeks

Urine test

If BP is documented as abnormal, is there documentation of a urine test to check for protein?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP before 26 weeks

Referral

If BP is documented as abnormal, is there documentation of referral to a general practitioner or obstetrician?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP before 26 weeks

Examination

If BP is documented as abnormal, is there documentation of an examination by general practitioner or obstetrician?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP before 26 weeks

Medication

If BP is documented as abnormal, is there documentation of prescribed antihypertensive medication?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP before 26 weeks

8.3 Abnormal BP at or after 26 weeks

Abnormal BP is defined as ≥140/90 confirmed by repeated readings over several hours. Is there documentation of an abnormal BP reading at or after 26 weeks gestation?

Indicate **1-Yes** or **0-No**

9-N/A if the woman did not attend at or after 26 weeks gestation or if BP is not recorded in question 5.3 and 5.7

If BP is documented as abnormal, indicate the BP reading and date of reading

Follow up

If BP is documented as abnormal, is there a documented follow up BP reading completed on a different day to the abnormal result?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP at or after 26 weeks

Urine test

If BP is documented as abnormal, is there documentation of a urine test to check for protein?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP at or after 26 weeks

Referral

If BP is documented as abnormal, is there documentation of referral to a general practitioner or obstetrician?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP at or after 26 weeks

Examination

If BP is documented as abnormal, is there documentation of an examination by general practitioner or obstetrician?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP at or after 26 weeks

Medication

If BP is documented as abnormal, is there documentation of prescribed antihypertensive medication?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of abnormal BP at or after 26 weeks

8.4 Oral glucose challenge test

Between 24 and 28 weeks gestation, women who do not have pre existing diabetes should be screened for diabetes (question 6.15). If screening is positive, then a 75g 2 hour oral glucose tolerance test (OGTT) is used for diagnosis.

This question is about abnormal results of diabetes screening anytime during the index pregnancy. For the purpose of this audit, an abnormal result is described as:

BGL ≥ 7.8mmol/l 1 hour after a 50g glucose load

BGL ≥ 8mmol/l after a 75g glucose load

Is there documentation of an abnormal result of diabetes screening using a standard glucose challenge/tolerance test?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of a glucose challenge/tolerance test in question 6.15

Glucose tolerance test (OGTT)

This question is about follow up of diabetes screening, to diagnose or exclude gestational diabetes.

If an abnormal OGCT or OGTT is documented, then is an OGTT documented?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of an abnormal glucose challenge test in question 8.4

8.5 Rh Factor (Maternal Rhesus antibodies)

Blood group and antibodies should be checked at the first antenatal visit and at 28 weeks (NACCHO/RACGP, 2012; CANHC, 2014; QH/RFDS, 2013). For the purpose of this audit, this question is about whether the mother's Rh factor is negative.

Is there documentation of the woman being Rh negative?

Indicate **1-Yes** or **0-No**

Anti-D injection

If documentation of the woman being Rh negative, was an anti-D injection given at 26-28 weeks?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of the mother being Rh negative in question 8.5.

If documentation of the woman being Rh negative, was an anti-D injection given at 34-36 weeks?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of the mother being Rh negative in question 8.5.

8.6 Rh Factor -baby

If the mother is Rh negative, the baby will be tested after birth for Rh factor. This information may be on the birth summary. If the baby is Rh positive, and the mother is Rh negative, it is important the mother is offered an anti-D injection.

Is there documentation that the baby is Rh positive?

Indicate **1-Yes** or **0-No**

Anti -D injection

If documentation of the baby being Rh positive, was an anti-D injection given to the mother in the post natal period?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of the baby being Rh positive in question 8.6

8.7 Anaemia

A small drop in Hb is usual in pregnancy, but Hb should be 110g/L or more (CANHC, 2014). Anaemia in pregnancy is defined as haemoglobin (Hb) below 110g/L. It is diagnosed by a (full blood count) FBC or (full blood examination) FBE, which should be checked at least twice during pregnancy (QH, 2013). Further investigations, treatment and monitoring of Hb should commence if Hb is less than 110g/L. For the purpose of this audit, only consider Hb results that are less than 100g/L so that the number of anaemic women is not over estimated.

Do any of the blood tests taken during the pregnancy show Hb <100g/L?

Indicate **1-Yes** or **0-No**

9-N/A If Hb is <100g/L, indicate the Hb reading and date of reading (prior to birth of infant)

Iron

It is acknowledged that a prescription is not necessary for iron supplements. For the purpose of this audit, 'prescription' includes a documented recommendation or suggestion by a health practitioner that the woman take an iron supplement because of anaemia.

If the documented Hb was less than 100g/L, is there documentation of iron being prescribed?

Indicate **1-Yes** or **0-No**

9-NA if there is no documentation of Hb<100g/L

Follow up

If the documented Hb was less than 100g/L, is there documentation of a follow up FBE or Hb?

Indicate **1-Yes** or **0-No**

9-N/A If Hb is <100g/L, indicate the Hb reading and date of reading (prior to birth of infant)

8.8 Urine Infection (nitrites)

Leucocytes or nitrites in the urine suggest that there is a urinary tract infection (CANHC, 2014). Abnormal results should be followed up with a mid stream urine (MSU) test for diagnosis, and possibly antibiotic medication. Urinalysis should be completed at every antenatal visit (QH, 2013). This question is about urine dipstick test results at any time during index pregnancy. For the purpose of this audit, information is refined to only nitrites on urine tests, either laboratory or dipstick.

Do any of the urine tests documented during the index pregnancy show positive for nitrites?

Indicate **1-Yes** or **0-No**

9-N/A If urinalysis is not recorded in questions 5.4, 5.8 and 5.12.

MSU

If the documented urine test was positive for nitrites, is there documentation of urine sent for MSU?

Indicate **1-Yes** or **0-No**

9-N/A If there is no documentation of nitrites in the urine in question 8.8

Antibiotics

All urinary tract infections in pregnancy should be treated. If the documented urine test was positive for nitrites, is there documentation of a course of oral antibiotic prescribed?

Indicate **1-Yes** or **0-No**

9-N/A If there is no documentation of nitrites in the urine in question 8.8

Follow up MSU

If the documented urine test was positive for nitrites, is there documentation of a normal follow up MSU?

Indicate **1-Yes** or **0-No**

9-N/A If there is no documentation of nitrites in the urine in question 8.8

8.9 Rubella

Pathology laboratories may use different assay techniques in determining low titre; for example, in one laboratory a titre of 30 may be the level at which a MMR (measles, mumps rubella) vaccination is recommended, while for another laboratory the titre may be 10. The different levels can reflect the same level of immunity. The laboratory should provide advice about the assay used and titre at which MMR should be recommended. Health services need to follow the recommendations of the laboratory that they use to determine if the woman has a low or negative MMR titre.

Do any of the blood tests documented during the index pregnancy show a low or negative Rubella or MMR titre?

Indicate **1-Yes** or **0-No**

If the documented Rubella or MMR titre is low or negative, is there documentation of a Rubella immunisation given to the woman in the post natal period?

Indicate **1-Yes** or **0-No**

9-N/A If there is no documentation of Rubella or MMR titres in question 8.9

8.10 Foetal movements

Foetal movement should be discussed at every antenatal visit after 26 weeks gestation. Is there any documentation of reduced or decreased foetal movements after 26 weeks gestation?

Indicate **1-Yes** or **0-No**

9-N/A If the woman did not attend after 26 weeks gestation or if foetal movement is not documented in question 5.13.

Kick chart

If foetal movement was documented as abnormal in question 5.13, was a kick chart initiated?

Indicate **1-Yes** or **0-No**

9-N/A if no reduced/decreased foetal movements recorded in question 5.13

Cardiotocograph (CTG)

If foetal movement was documented as abnormal in question 5.13, was a CTG attended?

Indicate **1-Yes** or **0-No**

9-N/A if no reduced/decreased foetal movements recorded in question 5.13

Referral

If foetal movement was documented as abnormal in question 5.13, is there documentation of referral to a specialist service?

Indicate **1-Yes** or **0-No**

9-N/A if no reduced/decreased foetal movements recorded in question 5.13

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Kessler 5 (K5)

K5 is a measure of psychological distress that consists of a subset of five questions from the Kessler psychological distress scale 10 (K10, see below).

The 2008 National Aboriginal and Torres Strait Islander social survey (ABS 2009) included five questions from the K10, providing a measure of the social and emotional wellbeing of the Indigenous population. The K5 questions were:

— How often did you feel nervous?

— How often did you feel without hope?

— How often did you feel restless or jumpy?

— How often did you feel everything was an effort?

— How often did you feel so sad that nothing could cheer you up?

Responses to the five questions are scored and combined, resulting in a minimum possible score of 5 and a maximum possible score of 25. Low scores indicate low levels of psychological distress and high scores indicate high levels of psychological distress (Kessler 1996).

Kessler 6 (K6)

K6 is a six-question format that is also referred to as the Kessler high distress measure (AIHW 2009b). The K6 has been used in a number of international studies, including the United States National Health Interview Survey (NCHS 2007).

Kessler 10 (K10)

K10 is a nonspecific distress scale developed in 1992 by professors Ron Kessler and Dan Mroczek (Kessler 1996). K10 consists of 10 questions designed to measure levels of negative emotional states experienced in the four weeks prior to interview. It is a simple self-report measure of psychological distress that can be used to identify clients in need of further assessment for anxiety and depression (Kessler 1996).

This measure was designed for use in the general population to detect high-prevalence mental health disorders. K10 comprises 10 questions that are answered using a five-point scale (where 5 = all of the time and 1 = none of the time).

For all questions, the client circles the answer that best describes their feelings in the past four weeks. Scores are then summed: the maximum score of 50 indicates severe distress and the minimum score of 10 indicates no distress (Deady 2005).

The Victorian Population Health Survey (DHS 2001) adopted a set of cut-off scores for K10 as a guide for screening psychological distress and the likelihood of mental disorder. These are:

10–19 Likely to be well

20–24 Likely to have a mild disorder

25–29 Likely to have a moderate disorder

30–50 Likely to have a severe disorder

Patient health questionnaires 2 and 9 (PHQ2 and PHQ9)

The patient health questionnaire (PHQ) has two different formats. The PHQ9 is the complete questionnaire and screens for all nine symptoms of depression. If a client has any of the symptoms, the

PHQ9 has an additional question (question 10) that assesses the impact of those symptoms on the client's ability to function on a day-to-day basis (APA 2009).

The PHQ2 comprises the first two items of the PHQ9 and inquires about the degree to which the client has experienced a depressed mood over the past two weeks, to screen for depression. Clients who screen positive should be further evaluated with the PHQ9 to determine whether they meet the criteria for a depressive disorder (APA 2009).

Edinburgh postnatal depression scale (EPDS)

The EPDS is a 10-item self-report measure that screens women for symptoms of emotional distress during pregnancy and the postnatal period. The EPDS includes one question about suicidal thoughts and should be scored before the client leaves the office to ensure this item has been checked. Further enquiry about the nature of any thoughts of self-harm is required to determine the level of risk (Cox et al. 1987).

The EPDS reflects the client's experience of the last seven days; it may therefore need to be repeated on later occasions if this is deemed clinically necessary (Cox et al. 1987).

Emotional wellbeing screening tools - references

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