GUIDELINES FOR ANTENATAL CARE

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Abstract

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Ministry of Health

BARBADOS

Introduction

Improvement in maternal health is one of the eight Millennium Development Goals adopted by the Member Countries of the United Nations in 2000. This is a clear indication of the importance afforded to maternal health.

It is believed that approximately 95% of maternal mortality in Barbados can be prevented. More so, health care solutions to prevent and manage complications are available. Access to antenatal care in pregnancy, skilled care during childbirth and care and support in the weeks afterwards are all important aspects of maternal care.

Background

Preventing problems for mothers and babies depends on an operational continuum of care with accessible, high quality care before and during pregnancy, childbirth, and the postnatal period. It also depends on the support available to help pregnant women reach services, particularly when complications occur.

An important element in this continuum of care is effective antenatal care. The goal of the antenatal care package is to prepare for birth and parenthood as well as prevent, detect, alleviate, or manage the three types of health problems during pregnancy that affect mothers and babies:

- Complications of pregnancy itself
- Pre-existing conditions that worsen during pregnancy
- Effects of unhealthy lifestyles

Antenatal care also provides women and their families with appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes.

The essential elements of a focused approach to antenatal care include:

- Identification and surveillance of the pregnant woman and her expected child
- Recognition and management of pregnancy-related complications, particularly pre-eclampsia
- Recognition and treatment of underlying or concurrent illness

- Screening for conditions and diseases such as anaemia, STIs (particularly syphilis), HIV infection, mental health problems, and/or symptoms of stress or domestic violence
- Preventive measures, including tetanus toxoid immunisation, iron and folic acid
- Advice and support to the woman and her family for developing healthy home behaviours and a birth and emergency preparedness plan

Provision and organization of care

Midwife and general practitioner-led modules of care should be offered to women with an uncomplicated pregnancy. Routine involvement of obstetricians in the care of women with an uncomplicated pregnancy has not been shown to improve peri-natal outcomes compared with involving obstetricians when complications arise.

A system of clear referral paths should be established so that pregnant women who require additional care are managed by the appropriate specialist teams when problems are identified.

Patients with certain conditions that require specialist advice or a plan for delivery may be assessed by the specialist and referred back to the primary care provider for continued care.

The low-risk patient should receive their antenatal care at a polyclinic or general practitioner up to 38 weeks gestation. At 34 weeks gestation the patient should be sent to the antenatal clinic at the QEH, to get registered and make the appointment for 38 weeks.

In the event of referral to the QEH prior to this, the indication should be clearly documented.

Indications for Referral to Obstetric Clinic (QEH)

1. Age
    a. ≥ 40yrs (forty years or older)
    b. ≤ 16yrs (sixteen years or younger)
2. Body mass index (BMI)
    a. ≥ 35 (35 or more)
    b. ≤ 18 (18 or less)
3. Past medical history
    a. Cardiac disease including hypertension, but not asymptomatic mitral valve prolapse
    b. Renal disease
    c. Endocrine disorder e.g. thyroid disease
    d. Diabetes
    e. Epilepsy
    f. Severe asthma
        i. needing ICU admission
        ii. more than five (5) attacks per year
    g. HIV or Hepatitis B & C infection or Herpes
    h. Malignant disease
    i. Haematological disorders including thrombo-embolic diseases
    j. Auto immune diseases
    k. Persons on medication for treatment of psychiatric disorders
4. Substance abuse
    a. Use of cocaine, heroine, ecstasy etc.
    b. Alcohol abuse
    c. Marijuana use
    a. Cigarette smoking
5. Past surgical history
    a. Caesarean Section
    b. Myomectomy
    c. Cone Biopsy
    d. Previous Cerclage

e. Trauma – Fracture Hip & Pelvis

6. Past Obstetric History
    a. Recurrent miscarriages (three or more consecutive pregnancy loss or any 2nd trimester loss)
    b. Renal disease
    c. Sever pre-eclampsia, HELLP syndrome or eclampsia
    d. Rhesus iso-immunization or significant blood group antibodies
    e. Antepartum or post partum haemorrhage on two occasions
    f. Retained placenta on two occasions
    g. Grand multiparity (5 or more viable pregnancies)
    h. Puerperal psychosis
    i. Stillbirth or neonatal death
    j. Previous preterm labour (less than 37 weeks)
    k. Small for gestational age infant
    l. Large for gestational age infant
    m. A baby weighing <2500g or > 4500g at term
    n. A baby with a congenital anomaly (structural or chromosomal)
7. Problems in present pregnancy
    a. Unsure dates
    b. Anaemia < 9.0 g/dl
    c. Gestational diabetes
    d. Hypertension (≥ 140/90)
    e. Recurrent proteinurea (after excluding UTI and Vaginal Discharge as causes)
    f. Abnormal lie or presentation of greater than 36 weeks gestation
    g. Antepartum Haemorrhage
    h. Multiple Pregnancy (twins, triplets etc.)
    i. SGA or LGA
    j. Genital warts that may block the introitus

Antenatal Appointments

The assessment of women who may or may not need additional clinical care during pregnancy is based on identifying those in whom there are maternal or foetal conditions associated with an excess of maternal or perinatal death or morbidity. While this approach may not identify some of the women who eventually require specialised care and may also categorise many women who go on to have normal uneventful births as 'high risk', ascertainment of risk in pregnancy remains important as it facilitates early detection to allow time to plan for appropriate management.

The need of each pregnant woman should be assessed at the first appointment and reassessed at each appointment throughout pregnancy as new problems may arise at any time. Additional appointments should be determined by the needs of each pregnant woman, as assessed by her and her care givers. The environment in which appointments take place should enable women to discuss sensitive issues. Reducing the number of routine appointments will enable more time per appointment for care, information giving and hence support of the pregnant women.

The schedule below, which has been determined by the purpose of each appointment, presents the recommended number of antenatal care appointments for women who are healthy and whose pregnancies remain uncomplicated in the antenatal period.

First appointment

The first appointment should be prior to 12 weeks. At the first antenatal appointment:

1. Give information, with an opportunity to discuss issues and ask questions;
2. Offer verbal information supported by written information
    - Diet and lifestyle considerations
    - Pregnancy care services available
    - Maternity benefits and sufficient information to enable informed decision making about screening tests)
3. Identify women who may need additional care and plan pattern of care
4. Check blood group and RhD status
5. Offer screening for:
    - Anaemia and Haemoglobinopathies (Hb Electrophoresis)
    - IDCT in Rh –ve patients
    - HIV and Syphilis
    - Hepatitis B
    - Rubella – QEH Lab
    - Chlamydia and Gonorrhoea – urine (PCR) at LRU Lab
6. Measure
    - BMI
    - Blood pressure (BP)
7. Test urine for proteinuria.
8. Start supplementation with iron containing multivitamins
9. Offer booking ultrasound scan
10. Tetanus vaccine administered if indicated

16 weeks

The next appointment should be scheduled at 16 weeks to:

- Review, discuss and record the results of all screening tests undertaken
- Reassess planned pattern of care for the pregnancy
- Identify women who need additional care
- Investigate a haemoglobin level of less than 11g/dl
- Offer Hb Electrophoresis to partner if mother is not HbAA
- Measure BP
- Test urine for proteinuria
- Give information, with an opportunity to discuss issues and ask questions
- Offer verbal information supported by antenatal classes where available and written information
- Blood group screening on partners of Rh –ve mothers and non Hb AA mothers.

18-20 weeks

If the woman chooses, an ultrasound scan should be offered for the detection of structural anomalies. The request form is given at this visit or before. This service is not available routinely at present but is recommended where possible. For a woman whose placenta is found to extend across the internal cervical os at this time, another scan at 36 weeks should be offered and the results of this scan reviewed at the 36 week appointment.

25 weeks

At 25 weeks of gestation, another appointment should be scheduled to:

- Review, discuss and record the results of all additional tests undertaken
- All women should be screened for gestational diabetes (SGTT). If the SGTT is abnormal a full GTT should be performed.
- Measure and plot symphysio-fundal height
- Measure BP
- Test urine for proteinuria

- Give information, with an opportunity to discuss issues and ask questions; offer verbal information supported by antenatal classes where available and written information.

28 weeks

The next appointment for all pregnant women should occur at 28 weeks to:

- Offer a second screening for anaemia, syphilis and HIV
    - Investigate a haemoglobin level of less than 10 g/dl and consider additional iron supplementation, if indicated
- Measure BP
- Test urine for proteinuria
- Measure and plot symphysio-fundal height
- Give information, with an opportunity to discuss issues and ask questions; offer verbal information supported by antenatal classes and written information.

31 weeks

Women should have an appointment scheduled at 31 weeks to:

- Measure BP
- Test urine for proteinurea
- Measure and plot symphysio-fundal height
- Give information, with an opportunity to discuss issues and ask questions; offer verbal information supported by antenatal classes and written information
- Review, discuss and record the results of screening tests undertaken at 28 weeks; reassess planned pattern of care for the pregnancy and identify women who need additional care.

34 weeks

At 34 weeks, all pregnant women should be seen in order to:

- Measure BP
- Test urine for proteinuria
- Measure and plot symphysio-fundal height

- Give information, with an opportunity to discuss issues and ask questions; offer verbal information supported by antenatal classes and written information
- Refer to the QEH for registration and making the 38 week appointment.

36 weeks

At 36 weeks, all pregnant women should be seen again to:

- Measure BP
- Test urine for proteinuria
- Measure and plot symphysio-fundal height
- Check presentation of foetus
    - for women whose babies are in the breech presentation, offer external cephalic version (ECV)
- Review the ultrasound scan report if the placenta was extended over the internal cervical os at the time of the previous scan
- Give information, with an opportunity to discuss and ask questions; offer verbal information supported by antenatal classes and written information
- Perform vaginorectal swab for Group B Streptococcus screening

38 weeks

At 38 weeks, all pregnant women should be seen again to:

- Measure of BP
- Test urine for proteinuria
- Measure and plot symphysio-fundal height
- Check presentation
- Give information, with an opportunity to discuss and ask questions; offer verbal information supported by antenatal classes and written information

Low-Risk patients are seen for the first time at the QEH.

40 weeks

An appointment at 40 weeks should be scheduled to:

- Measure BP
- Test urine for proteinuria
- Measure and plot symphysio-fundal height
- Check presentation
- Give information, with an opportunity to discuss issues and ask questions; offer verbal information supported by antenatal classes and written information

41 weeks

For women who have not given birth by 41 weeks:

- A membrane sweep should be offered
- Induction of labour should be offered
- Measure BP
- Test urine for proteinuria
- Measure and plot symphysio-fundal height
- Check presentation
- Information should be given, with an opportunity to discuss issues and ask questions; verbal information supported by written information

Summary Table of Activities

Gestation (Weeks)	Activities
>12	1. Counsel (verbal and written information) 2. Identify high risk patients 3. Check blood group and RhD status 4. Offer screening for: o Anaemia & Haemoglobinopathies o IDCT in Rh –ve patients o HIV and Syphilis o Hepatitis B o Rubella o Chlamydia and Gonorrhoea – urine (PCR) at LRU Lab 5. Measure BMI 6. Measure blood pressure (BP) 7. Test urine for proteinuria. 8. Start supplementation with iron containing multivitamins 9. Offer booking ultrasound scan
16	• 1, 2, 6 & 7 as above • Review, discuss and record the results of all screening tests undertaken • Offer partner Hb electrophoresis if mother is not HbAA • Investigate a haemoglobin level of less than 11g/dl • Blood group screening on partners of Rh –ve mothers and non Hb AA mothers
18 - 20	• Ultrasound scan for the detection of structural anomalies
25	• 1, 2, 6 & 7 as above • Review, discuss and record the results of all additional tests undertaken • All women should be screened for gestational diabetes (SGTT) • Measure and plot symphysio-fundal height
28	• 1, 2, 6 & 7 as above • Offer a second screening for anaemia, syphilis and HIV o Investigate a haemoglobin level of less than 10 g/dl and consider additional iron supplementation, if indicated
31	• 1, 2, 6 & 7 as above • Measure and plot symphysio-fundal height • Review, discuss and record the results of screening tests undertaken at 28 weeks; reassess planned pattern of care for the pregnancy and identify women who need additional care.

Summary Table of Activities Continued

Gestation (Weeks)	Activities
34	• 1, 2, 6 & 7 as above • Measure and plot symphysio-fundal height • Refer to the QEH for registration and making the 38 week appointment. • Perform low vaginal swab by 35th week – for Group B Streptococcus screening
36	• 1, 2, 6 & 7 as above • Measure and plot symphysio-fundal height • Check presentation of fetus ○ for women whose babies are in the breech presentation, offer external cephalic version (ECV) • Review the ultrasound scan report if the placenta was extended over the internal cervical os at the time of the previous scan
38	• 1, 2, 6 & 7 as above • Measure and plot symphysio-fundal height • Check presentation **Low-Risk patients are seen for the first time at the QEH**
40	• 1, 2, 6 & 7 as above • Measure and plot symphysio-fundal height • Check presentation
41	• 1, 2, 6 & 7 as above • A membrane sweep should be offered • Induction of labour should be offered • Measure and plot symphysio-fundal height • Check presentation

Booking Test Summary Table

Blood Test	**Blood Test**	**Urine Test**	**Imaging**
Blood group	HIV	Urinalysis	Ultrasound
Full Blood Count (FBC)	Syphilis	Chlamydia	
Indirect Coombs Test (IDCT) If indicated	HepBsAg	Gonorrhoea	
Rubella			

Repeat Blood Test Summary Table

Blood Tests (28 weeks)			**Imaging (18-22 weeks)**
HIV	Syphilis	Full Blood Count (FBC)	Ultrasound