Introduction

A care pathway describes what a person’s journey of care should look like: what care they should receive, when they should receive it and when they should be referred for additional care and support. There may also be additional pathways which only some people will go through in order to provide for any additional needs. Whatever the individual journey, the use of a care pathway should result in the same standard of care being provided to each individual.

The antenatal care pathway National Institute for Health and Care Excellence (NICE) describes the journey of care which should be provided to all pregnant women. Additional pathways are outlined for women who have pre-existing health conditions or more complicated pregnancies.

The antenatal pathway is a key time for screening for, and prevention of, conditions in the unborn child which could lead to poor health outcomes. It is also essential to maximise the health of the mother in pregnancy, which, as a recent global trial has shown, is a key indicator of healthy birth outcomes for the child (Healthy Mothers Have Healthy Babies).

The National Antenatal Screening Programme provides a timeline for screening during pregnancy it includes the following:

- Preconception eye screening for women with type 1 or 2 diabetes and again at 28 weeks
- Midwives working within screening teams undertake blood tests to detect Sickle cell and Thalassaemia by 10 weeks
- Blood tests and scans can detect selected congenital anomalies at 12 weeks (at the dating scan) and again at 18-20 weeks
- Screening for infectious diseases is offered before 10 weeks and again at 28 weeks, if initially declined
- Further screening of the new born child is done within the new born blood spot test (which should be taken within five days of the birth) and the physical examination (which has to take place within 72 hours of the birth).

The Department of Health’s Healthy Child Programme describes the health and social care that should be received by all children age 0 to 5 years. It includes a
detailed schedule for care during pregnancy. This schedule requires that the mother receives the following checks in pregnancy:

- A full health and social care assessment of needs, risks and choices by 12 weeks of pregnancy by a midwife or maternity healthcare professional.
- Notification to the child health programme team of prospective parents requiring additional early intervention and prevention.
- Routine antenatal care and screening for maternal infections, rubella susceptibility, blood disorders and foetal anomalies.
- Health and lifestyle advice to include diet, weight control, physical activity, smoking, stress in pregnancy, alcohol, drug intake, etc.
- Distribution of The Pregnancy Book to first-time parents; access to written/online information about, and preparation for, childbirth and parenting; distribution of antenatal screening leaflet.
- Discussion on benefits of breastfeeding with prospective parents – and risks of not breastfeeding.
- Introduction to resources, including children’s centres, Family Information Services, primary healthcare teams, and benefits and housing advice.
- Support for families whose first language is not English.

In addition, preparation for parenthood should begin early in pregnancy and include:

- Information on services and choices, maternal/paternal rights and benefits, use of prescription drugs during pregnancy, dietary considerations, travel safety, maternal self-care, etc.
- Social support using group-based antenatal classes in community or healthcare settings that respond to the priorities of parents and cover:
  - The transition to parenthood (particularly for first-time parents); relationship issues and preparation for new roles and responsibilities; the parent–infant relationship; problem-solving skills (based on programmes such as Preparation for Parenting, First Steps in Parenting, One Plus One);
  - The specific concerns of fathers, including advice about supporting their partner during pregnancy and labour, care of infants, emotional and practical preparation for fatherhood (particularly for first-time fathers);
  - Discussion on breastfeeding using interactive group work and/or peer support programmes; and standard health promotion.

Extra support should be offered to vulnerable women at risk of having low birth weight babies. The Family Nurse Partnership offers additional support for young parents aged 19 or younger.

**What do we know?**

Late access to screening and support in the antenatal pathway is a risk for poor birth outcomes and of being born before full term. Concealed pregnancies can also
highlight safeguarding concerns. **NHS England** collects data from maternity service providers about the number of women who have accessed maternity services by the recommended 12 weeks and 6 days of pregnancy. In order to do this, the service provider counts the number of pregnant women who access services within this timeframe and the number of pregnant women who access services at any point in time. This is then compared to the number of women who give birth six months later. This gives an estimation of the percentage of women who access services within the recommended timeframe. The data is broken down by service provider and by the Clinical Commissioning Group (CCG) with which the mother is registered for GP services.

Recent data for West Berkshire is consistently returning figures of near to or above 100% of mothers accessing services within the recommended timeframe. (Figures can be above 100%, as maternity data is taken from two quarters after the service access data and does not refer to the same cohort of women. Additionally, the mothers giving birth may be lower than the number of mothers having an assessment due to those having terminations, suffering miscarriage or transferring to another hospital. Mothers may also be double-counted if they choose to have assessments at more than one hospital.)

Low birth weight (when a baby weighs less than 2,500g) is a key indicator of health inequalities. The **Public Health Outcomes Framework** measures the number of babies of at least 37 completed week’s gestation born at a low birth weight.

![Low birth weight of term babies](image)

**Source:** The **Public Health Outcomes Framework**

West Berkshire has a rate of low birth weights that is significantly lower than England (1.6% compared to 2.8% in England in 2012).

A still birth audit for Thames Valley showed that Berkshire West rates were 6.1 per 1,000 births compared to the East of the county at 5 per 1,000 but the numbers used in the audit were small so may not be a reliable indicator of differences. Rates were not available at local authority or CCG level but recommendations included tackling the risk factors for still birth and infant death. These include: maternal age, maternal smoking, maternal obesity, socioeconomic position, multiple birth, and influenza.
Stillbirth rates are highest for mothers aged under 20 or over 40. Smoking in pregnancy doubles the risk of stillbirth. Being overweight or obese may double the odds of stillbirth, and the risk increases with BMI. Multiple births tend to have lower birth-weights than singletons and are associated with a higher risk of stillbirth. There is evidence that having flu during pregnancy may be associated with premature birth and smaller birth size and weight.

What is the data telling us?

The first 1,000 days of a child’s life are now recognised as being fundamental in influencing a child’s development. This is the period from the start of pregnancy to a child’s second birthday. Late access to screening and support in the antenatal pathway is a risk factor for premature birth and for poor birth outcomes. NICE guidance on antenatal care recommends that women should have first contact with maternity services by 10 weeks of pregnancy to enable a full health and social assessment of needs and choices.

In West Berkshire, midwives are grouped into teams based in the community. They are linked to Children’s Centres and GP surgeries. There is also an Antenatal Clinic provided at the Royal Berkshire Hospital for mothers who require a consultant opinion or when specialised monitoring is required. The Poppy Team are a team of specialised midwives who look after mothers in the community who require extra support. They have close links with the hospital.

The Oxford Academic Health Sciences Network has identified two key areas for collaborative work: reducing stillbirths and preterm births. The clinical projects underway include:

• Universal availability of screening results that can be used to screen for stillbirth
• Universal fibronectin usage in threatened preterm labour
• Universal prenatal diagnosis of placenta accrete (AIP)
• Automated image quality analysis for anomaly scanning
• Development of robotic remote ultrasound scanning
• Early diagnosis of pre-eclampsia
• Rationalisation of preterm labour services
• Screening for preterm labour

In terms of prevention, the work of the Family Nurse Partnership is critical to ensuring good outcomes for vulnerable women in pregnancy.

Smoking cessation services are currently supporting pregnant women to quit smoking. However, they cannot currently validate the number of quitters as they do not currently have access to carbon monoxide monitors in the hospital: carbon monoxide monitors test a person’s breath for carbon monoxide which is present in tobacco smoke.
NICE’s Pregnancy and Complex Social Factors Overview Guidance on women who have complex social risk factors is clear. The vulnerabilities most commonly found with poor or delayed access to the antenatal pathway are in women who; speak English as a second language, are substance misusers, are new entrants or asylum seekers or who are suffering from domestic abuse and those who are first time mothers under the age of 20 years.

The Maternity Survey performed by the National Perinatal Epidemiology Unit (NPEU) found that women from Black and Minority Ethnic groups (BME) and BME women born outside the UK accessed antenatal services significantly later than other women. In addition, single women were found to access care later than other women.

Recommendations for consideration

• It should be ensured that all women access the antenatal care pathway by the recommended stage of pregnancy in order to offer every woman the same standard of care and support. This will make certain that this vital opportunity for screening and optimisation of a mother’s health during pregnancy is taken. It will provide opportunity for information sharing for all parents and it will allow for specialist support to be given to those who need it.
• There is as yet no widespread antenatal prevention programme in place or a consistent offer of cervical screening within our main hospital providers across the Thames Valley.
• There is a gap in population wide provision of healthy weight and smoking cessation advice to pregnant women which a pilot in 2015 aims to address.
• To implement the Oxford Academic Health Science Network recommendations to reduce the risk factors for preterm birth and for stillbirth.
• For all hospital providers to offer carbon monoxide testing of smoking status antenatally
• For CCGs to commission data on perinatal mental health
• Localised clinical interventions for the reduction of still births are as set out in the Thames Valley clinical network plan:
  o There is a need for further education of primary care and midwifery staff on features of pre conception and early pregnancy care highlighting the need for things such as aspirin, high dose folic acid, good diabetic care etc.
  o The measurement of fundal height should be standardised across Thames Valley and recorded at each antenatal visit.
  o Each Trust should consider whether women who are having serial scans should have either additional scans or the timing of routine scans altered such that late pregnancy is covered.
Every professional should be aware of the need for good communication and ensure a full history is available where a woman is moving between providers.

Each discharge summary after pregnancy should contain specific advice about the need for any special measures in any subsequent pregnancy and should be provided to the mother.

Each Trust should examine how post mortem consent is sought and by whom in order to improve the uptake of post mortem after stillbirth.

Examples of good practice elsewhere suggests that the most effective interventions to reduce smoking in pregnancy are:

- Psychosocial interventions which can increase the proportion of women who stop smoking in late pregnancy, and reduce low birthweight and preterm births.
- Incentive-based interventions show the largest effect, although caution is needed, because they were only effective with intensive delivery and studies of effectiveness were in the US.
- Financial incentives to promote non-smoking during pregnancy show promise, and may meet the treatment needs of socio-economically disadvantaged women and heavy smokers.

Other services and partner organisations

Berkshire West Clinical Commissioning Group
Royal Berkshire NHS Foundation Trust
Health Visiting Team

National and local strategies

NICE - pregnancy and complex social factors: service provision overview
NICE Guidance: Pregnancy
NICE - antenatal and postnatal mental health: clinical management and service guidance
NICE - Vitamin D: supplement use in specific population groups
Gov.uk Healthy Child Programme: Pregnancy and the first 5 years of life
Gov.uk Healthy Child Programme: rapid review to update evidence

Other chapters you might be interested in

Maternal mental health
Breastfeeding
Smoking in pregnancy

If you have any questions about this chapter, please contact Public Health and Wellbeing Team on publichealthandwellbeing@westberks.gov.uk or 01635 503437