Improving antenatal care for women who smoke during pregnancy

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Background

Every year over 11,000 Scottish babies are affected by smoking in pregnancy, including 20 infant deaths.

Smoking 10 or more cigarettes each day during pregnancy doubles the risk of stillbirth.

There is a seven-fold increase in the risk of cot death when the mother smokes over 20 cigarettes each day, particularly if she has smoked during pregnancy.

In 2013, 18% of women reported smoking at the time of their first antenatal booking. The median over the past 10 years is 19%.

This masks significant variation across Scotland with 30% of pregnant women in the most deprived categories reporting smoking at booking, compared to 6% in the least deprived categories in 2013.

In 2013, Healthcare Improvement Scotland launched the Maternity and Children Quality Improvement Collaborative (MCCIC), as part of the Scottish Patient Safety Programme. A key focus of the maternity care strand of MCCIC is the recognition, referral and management of women who smoke.

The Scottish Patient Safety Programme—Maternity Care has three aims related to smoking in pregnancy:
- offer all pregnant women CO monitoring at booking
- refer 90% of pregnant women with a CO level ≥ 4 ppm (or who say they are current or recent smokers) to smoking cessation services, and
- provide a tailored package of antenatal care to pregnant women who continue to smoke.

An improvement approach

Using the Model for Improvement maternity teams have been working with smoking cessation services and sonographers, testing ways to reliably:
- offer CO monitoring at women at booking
- refer women with a CO level ≥ 4 ppm to smoking cessation services, and
- provide tailored care to women who continue to smoke.

Improvement science supports the testing of change ideas on a small scale, and collection of data to confirm if the changes have resulted in an improvement.

Maternity teams shared their change ideas and their monthly data for the key measures related to smoking.

Results

Successes:
- CO monitoring at booking is considered routine care in most maternity units
- Partners and family members also requesting CO levels to be measured
- Partnerships between maternity, smoking cessation services and sonography have strengthened

Challenges:
- Lack of monitors (initial barrier)
- Women refusing CO monitoring and/or smoking cessation services once referred

Ongoing improvement activity:
- The spread of CO monitoring to all antenatal clinics in NHS Scotland
- NHS boards continue working in partnership with smoking cessation services testing changes to improve the reliability of referral of women with a CO level ≥ 4 ppm
- NHS boards are exploring potential service demands in order to provide tailored antenatal care for women who continue to smoke
- Reporting and sharing improvement data and patient stories

Next steps

- Focus on supporting women who do not take up the referral to smoking cessation services
- Test in partnership with sonography services the implementation of a tailored package of antenatal care for women who continue to smoke during pregnancy
- Continued collaboration with smoking cessation services and national programmes, such as the Early Years Maternity Champion Programme, to reduce the number of women who smoke during pregnancy

Tailored package of antenatal care:
1. Offer CO monitoring at every antenatal visit
2. Discuss smoking risks and cessation at every antenatal visit and re-referral to smoking cessation services offered where appropriate
3. Serial growth scans in the 3rd trimester for pregnant women who continue to smoke ≥11 cigarettes each day

References:
1. Information Services Division (2009) Stillbirths in Scottish Hospitals, Year ending 31 March 2009

www.scottishpatientsafetyprogramme.scot.nhs.uk