

Standard Operating Procedure

Maternity Tobacco Dependency Advisor (MDTA) within the Smoking Cessation in Pregnancy Service

Key point

This document outlines the role of the Maternity Tobacco Dependency Advisor (MTDA) and their responsibility within the in-house Smoking Cessation in Pregnancy Service

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Abbreviations

CO	Carbon Monoxide
LTP	Long Term Plan
MTDA	Maternity Tobacco Dependency Advisor
NRT	Nicotine Replacement Therapy
PPM	Parts Per Million
SBLv3	Saving Babies’ Lives Care Bundle Version 3
SOP	Standard Operating Procedure

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PURPOSE

The purpose of this standard operating procedure (SOP) is to provide guidance on the role and responsibilities of the Maternity Tobacco Dependency Advisor (MTDA). This document outlines the Smoking Cessation in Pregnancy Service including the process of referral and the roles and responsibilities of the MTDA within the pathway.

This SOP will guide the postholder and should be used in conjunction with relevant Trust guidelines and policies.

INTRODUCTION

Smoking during pregnancy is linked with a range of poor health outcomes including:

- Low birth weight and preterm birth
- Restricted head growth
- Placenta insufficiency
- Increased risk of miscarriage
- Increased risk of still birth
- Sudden Infant Death Syndrome

Smoking is also linked to lung disease, circulatory disease, heart disease, cancer, stroke and vascular dementia, amongst many other harmful health implications.

The NHS Long Term Plan (LTP) (2019) provides strategies to improve NHS care. The agenda asks for all maternity services to offer pregnant women who smoke specialist support to quit with focused treatment including nicotine replacement therapy (NRT).

Saving Babies' Lives Care Bundle Version 3 (SBLv3) (2023) drives forward a number of initiatives to improve maternity care so to meet the national ambition of a 50% reduction in the rates of stillbirth and neonatal

Element 1

Reducing smoking in pregnancy by identifying smokers with the assistance of carbon monoxide (CO) testing and ensuring in-house trained tobacco dependence adviser is offered to all women who smoke, using an opt-out referral process.

mortality by 2025. Element 1 of SBLv3 focuses on reducing smoking in pregnancy and sets out guidance for delivering tobacco dependence treatment within maternity services:

RESPONSIBILITIES

CO Monitoring

Carbon Monoxide (CO) is a poisonous gas. It prevents blood from carrying oxygen around your body properly. CO is produced when tobacco products are burnt. It is found in inhaled and exhaled smoke. CO levels in the exhaled breath of smokers and people exposed to smoke will be higher than those in non-smokers. CO can also be emitted from malfunctioning or poorly ventilated fossil or wood fuel heating and cooking appliances and should be seriously considered if a raised CO reading is found unexpected.

Analysis of exhaled breath is a useful indicator of exposure to CO and to tobacco smoke. A CO test is an immediate and non-invasive biochemical screening method for identifying increased CO levels.

CO testing is offered to all pregnant women and birthing people at the antenatal booking appointment and at the 36-week antenatal appointment by the midwife.

CO testing is offered by the midwife at all other antenatal appointments to the following groups:

- Those that smoke or
- Are quitting or
- Used to smoke or
- Had a CO reading of 4 parts per million (ppm) or above at the antenatal booking appointment.

The midwife will provide an opt-out referral to the MTDA for stop-smoking support for pregnant women and birthing people who:

- Smoke or have stopped smoking in the past 2 weeks or
- Have a CO reading of 4 ppm or above or
- Have previously been provided with an opt-out referral but have not yet engaged with stop-smoking support.

Those who exclusively use e-cigarettes (vapes) are classified as non-smokers and should not be referred.

REFERRAL PROCESS AND APPOINTMENT SETTING

The midwife will complete the referral on Epic to the maternity specific Smoking Cessation in Pregnancy Service. The MTDA will pick up these referrals.

The MDTA will:

- Triage referrals daily (Monday to Friday)
- Contact all pregnant women and birthing people that have been referred to the service via telephone, discuss smoking and

pregnancy and the importance of cessation using a non-judgemental, person-centred, supportive approach.

- Invite women and birthing people to use the service with an appointment set within 5 working days.
- Provide an initial conversation to deliver information about the risks of smoking to an unborn child and the benefits of stopping smoking for both mother and baby.
- Where necessary, make at least 3 contacts using different methods. Advise the booking midwife of the referral outcome via the message function in Epic.
- Document where contact has been made and service inclusion declined, and document where contact has been attempted but has been unsuccessful.

During periods of MTDA leave, where possible, there should be cross-site cover in relation to referral, initial contact and appointment organisation.

Other household members who are smokers should be offered to be referred to external services via the relevant QR codes and are not eligible to receive smoking cessation via the Smoking Cessation in Pregnancy Service.

SMOKING CESSATION IN PREGNANCY SERVICE

Following an initial appointment where a “quit date” is set, weekly face-to-face appointments should take place for at least 4 weeks following the quit date, followed by regular appointments (as required, but at a minimum monthly).

The initial appointment should also address any barrier or challenges that might prevent the woman from using the Smoking Cessation in Pregnancy Service. This may include, but is not limited to:

- Lack of confidence or self-efficacy
- Lack of knowledge about the services on offer
- Difficulty accessing the services on offer
- Lack of suitable childcare
- Fear of failure and concerns about being stigmatised.

The MDTA will provide the pregnant women or birthing person with intensive and ongoing support, including regular monitoring of smoking status and regular CO testing. CO measurements at each appointment should be taken to best encourage a successful quit.

The MDTA will also provide holistic and personalised support to develop professional rapport with those using the service to best encourage a successful quit.

Two weeks of NRT can be provided by the midwife to pregnant smokers at their booking appointment. Ongoing provision of NRT will be provided by the MDTA in line with the Trust NRT protocol.

STAFF TRAINING

The MDTA will also:

- Provide education to staff to raise awareness of smoking and nicotine and the effects on pregnancy.
- Lead on the training of maternity staff on Very Brief Advice (VBA) and CO monitoring and maintain a training log to achieve compliance in line with SBLv3 and the Core Competency Framework (Version 2).
- Ensure that maternity staff are up to date with current practice and techniques in helping pregnant women, birthing people or members of their household to quit smoking and provide support as necessary.
- Support staff with understanding the referral process at booking.

DOCUMENTATION

All documentation should be completed in Epic.

MTDAs should regularly feedback to the named midwife and/or midwifery team about the individual's stop smoking support.

The MTDA will be responsible and appropriately supported to gather required data for reporting, including experience feedback from service users about the accessibility and acceptability of the offered stop smoking service. The MTDA may be required to work with appropriate teams to enhance and improve pathways as required too.

EXCLUSIONS

- Women or birthing people who opt out of smoking cessation services
- Other household/ family members who smoke
- Women or birthing people who exclusively vape

MONITORING PERFORMANCE

To monitor quality and effectiveness of pathways, maternity services should set ambitions for the pathway with regular view (minimum of quarterly) of data and targeted quality improvement work to ensure they are being achieved.

Carbon Monoxide (CO) Testing in Maternity

Testing for exposure to CO from smoking or other sources

Inform the woman *Why the test is important during pregnancy, the procedure for how to do the test and that advice will be provided if CO reading is found to be above the expected range*

Ask the woman *Approximately what time did you leave home?
Are you lactose intolerant? (if not already known)*

1

Woman breathes into analyser.

Reading 4 ppm or above

Tell the woman her reading and she is exposed to sources of CO

Compare the reading with previous readings
(If none available, go to box 4)

Reading below 4 ppm

Tell the woman her reading is less than 4 ppm and she is unlikely to be exposed to smoke or other sources of CO

2

Reading is higher or the same as previous readings

The woman may not be compliant with her smoking cessation program

OR

She could be exposed to other sources of CO, especially if the reading has stabilised at a level over 4 ppm
(Consistently raised CO requires an obstetric review in ANC to determine if serial USS pathway required)

Reading is lower than previous readings

The woman is compliant with her smoking cessation program

OR

A previously identified environmental exposure has ceased

3

Ask the woman:

Have you smoked or been exposed to smoke in the last 12 hours?

You are confident:

the woman is not exposed to other environmental sources of CO

- if the woman is an active smoker refer her to Maternity stop smoking services
- if the woman's partner is an active smoker discuss ways to reduce her exposure and advice on quitting

Yes

4

Could this be a case of environmental CO poisoning? (Positive responses raise suspicion)

Ask the woman:

Does your work involve possible exposure to smoke, fumes or motor vehicle exhaust?

Do you have gas, oil or solid fuel appliances in your home?

Do you ever use your gas stove or oven for heating purposes as well as cooking?

Has there been any change in ventilation in your home recently (eg fitting double glazing)?

Do you or any other occupants in your home suffer from headache, flu-like symptoms, drowsiness, nausea?

Is your home detached, semi-detached, terraced, flat, bedsit, hostel or mobile home?

5

Recommend that the woman:

- does not use any appliance she identifies as being a possible source of CO
- contacts an appropriately registered engineer to check all household gas, oil or solid fuel appliances
- installs a CO alarm (BS EN 50291 compliant) or asks her landlord to install a CO alarm in the case of rented properties with solid fuel appliances

6

Notes

Carbon monoxide, smoking and pregnancy

CO is produced when tobacco products are burnt. It is found in inhaled, exhaled and sidestream smoke. CO levels in the exhaled breath of smokers and people exposed to sidestream smoke will be higher than those in non-smokers. Analysis of exhaled breath is a useful indicator of exposure to CO and to tobacco smoke.

CO can also be emitted from malfunctioning or poorly ventilated fossil or wood fuel heating and cooking appliances. Ruling out alternative sources of exposure is important – it could save the fetus and woman's life.

Box 1 Taking the test

Helping pregnant women to quit smoking is important. Some pregnant women find it difficult to say that they smoke. For pregnant women who do not smoke, they should be made aware of other sources of CO.

CO levels in blood decline with a half-life of about 6 hours. Asking the woman what time she left home might provide an indication as to whether domestic exposure to CO is likely to be identified. A lactose-intolerant woman can produce a higher reading than a non-smoker.

Box 2 Informing the woman of the breath test result and what this might mean

CO reading

- >4 ppm** If she is not a smoker, is the reading high enough to raise suspicion? Go to box 5 to ensure the woman is not being exposed to levels of CO from other sources.
- 4 ppm** The woman is exposed to CO. You need to establish the source of CO exposure.
- <4 ppm** The woman is unlikely to be exposed to smoke or other sources of CO.

Note: For smoking cessation purposes, stabilisation below 4 ppm shows compliance with the program. For women who stabilise at 4 ppm, it is recommended that the questions in box 5 are asked as a precautionary measure to eliminate the possibility of exposure to other sources of CO.

Box 3 Carbon monoxide reading not decreasing as expected

Compare each reading with readings taken on any previous visits to the clinic. Establish why expected decreases in CO levels are not occurring. Is the woman complying with the smoking cessation programme? Is the woman exposed to other sources of CO?

Box 4 Exposure to tobacco smoke

Encourage the woman to quit smoking if she is an active smoker. Encouraging other members of the household to quit is important for the woman, and her fetus and its future health.

Box 5 Sources of carbon monoxide

The source of CO may be found in the home, car or workplace. Gas, oil, coal and wood heating appliances are the most common sources in the home other than tobacco smoke. More than one appliance may be causing the problem. Inappropriate appliance use and inappropriate use of generators and BBQs indoors can lead to a build up of potentially fatal CO.

It is also worth asking: *Has an appliance been newly installed? or Have you recently started to re-use heating appliances/boilers after the summer break or during an unexpected cold spell?*

Recent fitting of double glazing or blocking vents will suddenly reduce ventilation. If there is a problem appliance, CO will build up in the property.

CO is a mimic, simulating other more common conditions including flu-like illnesses, food poisoning, headache and depression. Headache is the most common symptom.

CO poisoning can occur in all income groups and types of housing.

CO can leak into a semi-detached or terraced house or flat from neighbouring premises.

Box 6 Stopping further exposure is essential

Preventing further exposure is the most important thing you can do. Advise the woman on returning home to turn off all fossil fueled appliances, open windows, make sure other occupants are safe and contact an appropriately registered engineer to check appliances. Any occupant experiencing any of the symptoms listed in box 5 should seek medical attention immediately.

Recommend the purchase of an audible CO alarm for installation in the home, but stress that an alarm is not a substitute for regular maintenance of appliances by an appropriately registered engineer. For rented homes, advise that landlords are required by law to install CO alarms in every room with solid fuel appliances.

It is essential that you contact your local PHE centre to notify PHE of your suspicions. The centre will be able to coordinate services to help protect the woman if necessary.

Useful contact numbers

999 Ambulance/police	0800 111 999 National gas emergency service	0800 408 5500 Gas Safe Register	0800 300 363 HSE (gas safety for GB)
111 NHS 111	0845 634 5626 HETAS (solid fuel)	0845 658 5080 OFTEC (oil and biofuel)	0344 892 0555 PHE 24-hour chemicals hotline

Full version control record

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This guideline has been registered with the trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt, contact a senior colleague or expert. Caution is advised when using guidelines after the review date.

This guideline is for use in Frimley Health Trust hospitals only. Any use outside this location will not be supported by the Trust and will be at the risk of the individual using it.

Version History

Version	Date	Guideline Lead(s)	Status	Comment
1.0	Dec 2024	Rebecca Edwards Nicola Rose-Stone	Final	First version, ratified at Cross site Obstetrics Clinical Governance meeting, 16.12.2024
1.1	March 25	Rebecca Edwards Nicola Rose-Stone Amendment: Kirsty Stone	Final	Carbon Monoxide (CO) Testing in Maternity added. Approved as chair's action by CoS (B.Sagoo), 19 th March 2025

Related Documents

None