Guideline for Smoking Cessation in Pregnancy

Reference No:	CTMObs102	Version No:	1	Previous Trust / LHB Ref No:	CT UHB

Documents to read alongside this Policy, Procedure etc (delete as necessary)	Antenatal care Small for gestational Age (all Wales)

Classification of document: Clinical
Area for circulation: Maternity & Neonatal Unit

Author: Sharon John
Executive Lead:
Group Consulted Via / Committee:
Ratified by: Antenatal and Guideline Forums

Date 1st Published: July 2022

Version Number	Date of Review	Reviewer Name	Date Approved	New Review Date
1	May 22	Sharon John	July 2022	July 2025

Disclaimer

When using this document please ensure that the version is the most up to date by checking the Obstetrics & Gynaecology Guidelines on the CTM UHB WISDOM

PRINTED DOCUMENTS MUST NOT BE RELIED ON

Guidelines Definition
Clinical guidelines are systemically developed statements that assist clinicians and patients in making decisions about appropriate treatments for specific conditions.

They allow deviation from a prescribed pathway according to the individual circumstances and where reasons can be clearly demonstrated and documented.

Minor Amendments
If a minor change is required to the document, which does not require a full review please identify the change below and update the version number.

Type of change	Why change made	Page number	Date of change	Version 1 to 1.1	Name of responsible person

CONTENTS

1. Introduction and Scope

- The purpose of this policy and guideline is to ensure compliance with national policies, guidelines and strategies in relation to smoking and smoking cessation in pregnancy and following childbirth.

- This Guideline's aim is to compliment the NICE (National Institute for Health and Care Excellence) http://www.nice.org.uk/guidance/ph26 guideline. It also aims to support clinicians and support staff to identify pregnant women who smoke and ensure they are offered a pathway that supports them to quit and prevent relapse.

  This guideline applies to women who smoke and who are:
- smoking at booking
- smoking throughout pregnancy
- smoking in the postnatal period

- This guideline also supports partners, family members and friends of the woman who may also be supported to make a quit attempt. This is in highlighted in recommendation 7 in NICE Guidance 26 where it states that individuals are more likely to quit and remain abstinent if others in their household do not smoke.

- There is strong evidence that reducing smoking in pregnancy reduces the likelihood of stillbirth. It also impacts positively on many other smoking-related pregnancy complications such as premature rupture of membranes, placental abruption, low birth-weight and Sudden Infant Death Syndrome (SIDS) (RCOP: 2010). Smoking causes both short-term and long-term problems, from premature delivery to increased risk of miscarriage, ectopic pregnancy, stillbirth or sudden infant death· Children whose mother smoked in pregnancy are more likely to develop learning difficulties including autism, hyperactivity, ear nose and throat problems and obesity (NHS 2019)

- Second Hand Smoke also has a serious effect on health, particularly for children, with increased reports of lower respiratory tract infections, asthma, wheezing, middle ear infections, sudden unexpected death in infancy and invasive meningococcal disease[6]. This has implications for both the new-born babies and existing children of women who

- All staff coming into contact with pregnant women have a role to play in triggering quit attempts by using the principles of Making Every Contact Count (MECC) and Very Brief Intervention (VBI). It is estimated that smokers are 4 times as likely to quit smoking if they use a stop smoking service. There is also evidence that if women stop smoking by the second trimester they have the same rates of stillbirth, prematurity and low birth weight as non-smokers. Helping pregnant women who smoke to quit involves communicating in a sensitive, client-centred manner, particularly as some pregnant women find it difficult to say that they smoke. Such an approach is important to reduce the likelihood that some of them may miss out on the opportunity to get help.

- The NCSCT 2012 (National Institute for Smoking Cessation Support) describes smoking as "the single most modifiable risk factor for adverse outcomes in pregnancy" therefore this potentially preventable activity, is an important health issue in pregnancy and stopping smoking at any stage of pregnancy will be beneficial to the fetus.

- Reducing smoking in pregnancy will reduce instances of fetal growth restriction and intrapartum complications. This demonstrates the complementary and cumulative nature of the care pathway approach. This element reflects the wider prevention agenda, impacting positively on long term outcomes for families and society. It will enhance midwives' role in promoting public health messages and interventions.

- Smoking has been associated with reduced fetal movements so , as stated in the New All Wales Fetal Movements guideline (2021), for this reason smoking should be stopped during pregnancy

- The policy applies to all maternity staff including midwives, doctors and maternity care assistants and must be adhered to. Non-compliance with this guideline must be for valid clinical reasons only. The reason for non-compliance must be documented clearly in the patient's notes.

- Implementation of this policy will ensure that smoking cessation practice in maternity is within national guidance and all relevant staff have easy access to local guidance when required. The aim of this guideline is to improve the health of the unborn babies of women who smoke: their partners: children: and others in their household who smoke.

- Midwives, obstetricians and support staff must have the time and the tools to carry out the activities required by this element. They need adequate time at the first booking appointment to carry out the CO test and deliver key messages. CO monitors and relevant consumables must also be sustainably provided. Midwives must have up to date knowledge and skills training to maximise their potential to impact positively on pregnancy outcomes.

2. Antenatal Pathway

- NICE guidance on Smoking in Pregnancy recognises that some women will find it difficult to say that they smoke because of the pressure not to smoke in pregnancy is so intense, this in turn makes it difficult to ensure they are offered appropriate support.

- CTMUHB maternity service supports a smoke free pregnancy which is supported by the smoke free pathways for the acute setting, community and Day assessment &triage (Appendix 1)

- For women who disclose that they smoke > 10 cigarettes per day- (see Fetal Growth Guideline 2019) to receive serial growth Ultra Sound Scans (USS) for growth surveillance. Asking women about their smoking status habit and carrying

out a CO reading at each appointment may help pick up those who do not disclose the accurate amount they smoke daily at a later stage of pregnancy. Such a disclosure should trigger an individual assessment with the obstetrician for a possible need for serial growth scans. Smoking should always be considered when palpating symphysis fundal heights and plotting on GROW charts as possible cause of IUGR.

2.1 Antenatal booking appointment

CO Testing

• At the first contact ALL pregnant women will be asked to provide an exhaled carbon monoxide (CO) measurement.

• Regardless of smoking status, the midwife will discuss with her the effects of carbon monoxide on the mother's health and that of her unborn baby.

• Explain that CO is a poisonous gas and that CO screening is a simple routine part of antenatal care. That cigarette smoke, environmental factors such as pollution from car exhaust fumes, faulty gas appliances and second-hand tobacco smoke can result in raised CO readings. The woman should be informed that the raised level can be reversed by avoiding these factors.

• The CTMUHB 'Carbon Monoxide (CO) and Pregnancy' information leaflet should be prior to her booking appointment (Appendix 2)

• Explain that CO affects the body's ability to transport oxygen around the body, which reduces the oxygen available to the baby but is also a marker for a woman's exposure to smoking. Cigarette smoke contains over 7000 chemicals of which hundreds are toxic and may also cause damage to the fetus.

• The woman needs to be made aware that a raised CO reading is linked to poor fetal outcomes due to hypoxia, resulting in miscarriage and can slow the baby's growth, cause placental insufficiency and fetal loss.

• Conduct the CO test - For how to carry out the CO screening during and following Covid-19 see Appendix 4 and a flow chart for actions based on results (Appendix 5).

2.2 Raised CO Readings

• If CO reading is raised ≥4 part per million (ppm) or above try and ascertain the likely reason for the raised level by discussing the ways CO can enter her system, e.g. Smoking/second-hand smoking, shisha use or if a reason cannot be ascertained the woman should be advised to call free Health and Safety Executive Gas Safety advice line on **0800 111999**

• Other factors to consider include the time since she last smoked, the number of cigarettes smoked (and when) on the test day. Note: CO levels quickly disappear from expired breath; as a result, low levels of smoking may go undetected.

• For women who have not been exposed to smoking but have a raised CO it is imperative that professionals understand the increased risk of carbon monoxide poisoning – consider repeating CO reading within different environment (e.g. home) or checking another member of the household. Other reasons for exposure need to be considered such as workplace, within cars, faulty boilers, cleaning fluids and some paint fumes. CO at next antenatal appointment and throughout pregnancy is essential if concerns persist with CO levels N.B. Staff need to be aware that CO has a short half-life, this means that CO levels will reduce by half after around 3-4 hours. Be aware they may not have been exposed for some time so the result may be less than the actual exposure levels i.e. prolonged waits in ANC, appointments at the end of the day.

• Discuss any symptoms that maybe related to CO poisoning– tension type headache, dizziness, sickness, tiredness and confusion, stomach pains, shortness of breath/breathing difficulty, 'flu' like symptoms (unlike flu, CO does not cause a high temperature). Being aware that symptoms may be less severe when you are away from the source of CO - ideally CO as soon as possible on entering the clinical area.

• **N.B. For those with exceptionally high CO rates ≥ 15 or symptoms of CO poisoning – we need to understand and be confident that the levels of CO are not due to smoking, it should be strongly recommended that they seek medical attention at local A & E.**

• For those who identify as non-smokers we should consider urgent referral at a lower level of CO

2.3 Referral Criteria

• Refer all women through an 'Opt-Out' method with any of the criteria below to CTMUHB's researched based smoking cessation service - MAMSs / Help Me Quit / Help Me quit for Baby.

For those who
1. Smoke/shisha use
2. Have a raised CO ≥ 4 PPM
3. Those who vape / e-cigarette users
4. Early quitters (quit in past two weeks - due to the risk of relapse)
5. Partners, family members and friends

2.4 Referral Process

• Risk assessment of home conditions, health and safety or domestic issues should be passed on through the referral form to protect the MAMSS smoking advisor who may need to visit the woman's home on her own.

• Referrals are made using the electronic referral form (Appendix 3)

• Explain that it is normal practice to refer women to their local specialist stop smoking service as soon as possible in their pregnancy and the service will aim to contact her within 24-48 hours by text or phone call

• Advice on the health benefits of stopping for the woman and her baby, advice should be to stop smoking completely rather than 'cutting down' as this may divert smokers from stopping smoking to reducing and may create a false impression of risk reduction. Any levels of compensatory smoking still increase the risks associated with stillbirth.

• Provide verbal information including that a woman is 4 times more likely to quit with the support of a MAMSs advisor than on their own. Provide Help Me Quit's "Quitting for Two" information leaflet along with the MAMSs MSW's advisors telephone number.

• Discuss the benefits and importance of avoiding passive smoking including 'Smoke free Homes' and cars.

• If she declines the referral, accept the answer in an impartial manner but explain that all pregnant smokers are automatically referred at booking and that they may decline referral when the MAMSs smoking advisor makes contact. Also highlight the flexible support that MAMSs provides for pregnant women (for example home visits with support from Maternity Support Workers, treatment with pharmacotherapy, behavioural support, support for partners, friends and other family members).

• Where appropriate, for each of the stages above record smoking status, CO level, whether a referral is accepted or declined and any feedback given. Smoking status and any referral made at booking should be recorded in the woman's maternity records.

- Partners, Friends and family may be referred using the electronic "Friends and Family" referral form (Appendix 7)

2.5 Subsequent Antenatal appointments

• Feedback on an individual basis may be obtained via the generic email link CTM_MAMSS_Referrals@wales.nhs.uk

• For ALL subsequent antenatal appointments everyone who is pregnant will be offered CO testing, their smoking status asked and all documented. This provides an opportunity for a Very Brief Intervention (VBI) and to Make Every Contact Count (MECC) and to offer a re-refer to Stop Smoking service.

• The CO and smoking status of ALL women carried out in the third trimester after 36 weeks should not only be recorded in the All Wales hand held notes but also inputted into the appropriate IT system (MITS for Cwm Taf and WPAS for Bridgend). This allows for the Smoking At Time Of Delivery (SATOD) to be established for all women.

• Midwives, obstetricians and support staff are encouraged to discuss smoking, offer repeat referrals, abstinence for birth and support the smoke free site agenda throughout pregnancy by addressing smoking status carrying out CO readings and documenting all interventions.

3. Equipment and Training

3.1 Maintenance

- All community midwives should have access to their own individual CO monitor.
- All clinical areas should have access to their own CO monitor.
- It is the responsibility of the individual community midwife or clinical area manager to ensure that monitors are serviced by the date instructed by clinical engineering
- Problems with CO monitors should be reported to the Public Health specialist midwife or one of the MAMSS team
- D-Pieces should be changed monthly
- Monitors should be cleaned in-between use with non- alcoholic wipes
- Batteries should be removed on a day to day basis
- Spare batteries should always be carried
- Single use mouthpieces be removed and disposed off

3.2 Training

- Everyone using a CO monitor should have Point of Care training
- Completion of mandatory Public Health including Brief Intervention and MECC early training via ESR ELearning.
- One to one Public Health training / induction with one of the Public Health midwives for all new community and antenatal clinic staff.

3.3 Use of Carbon Monoxide (CO) Monitor

- Handwashing prior to use
- For accurate results the CO monitor should be used at room temperature
- Use the flow chart to address CO result (appendix 5)
- All information is Point of Care file found in each clinical area

4. The MAMSs (Help Me Quit for Baby) service

MAMSs (Models for Access to Maternal Smoking Cessation support) Bennett et al. (2015) is a research based service :

- Team includes three MSWs for CTMUHB and are managed by the Public Health Specialist Midwife with additional support available from the Public Health Wales team in CTMUHB and "Help Me Quit"
- Aim to make contact within 48 hours
- Will try and contact woman 3 times via telephone and 3 times via text as a minimum.
- Inform and reiterate midwives conversations on the risks to mother and fetus (including morbidity and mortality)
- Can provide face to face and / or telephone support.
- Assessment and treatment sessions on standard treatment plan lasts 7 weeks but this is flexible and is sometimes less or more (as per Russell Standard)
- Use behaviour therapy together with the aid of the "Help Me Quit" "Passport to Smokefree"

- Advise on types of Nicotine Replacement Therapies (NRTs) available, aim of NRT and how to administer, side effects, safety and direction to nearest Community Pharmacies who are responsible for NRT prescribing.
- Accepts as many re- referrals for one women from booking to 28 days post birth and also those women who miscarry.
- Keep records which are filed in women's' notes on completion of care. Also keep national records via "Quit Manager" and Health Board level records via spreadsheets.
- Role also involves supporting training of staff.

5. Nicotine Replacement Therapy (NRT)

Please see local agreements for NRT provision.

6. Antenatal Clinic

Every opportunity should be taken to:

- Provide BI / MECC and address smoking status
- Document in notes (near CO reading box in antenatal event box) the smoking status
- Perform CO monitoring and document.
- Use Carbon Monoxide in Pregnancy Flowchart (Appendix 5) for guide on readings.
- If smoker offer support from MAMSs, document whether referred or if referral declined and complete online referral form.
- Partners, friends and family should continue to be offered support and referral.

7. Inpatient Care

- Women who have smoked throughout their pregnancy are likely to experience symptoms of nicotine withdrawal during their hospital stay, it is essential that the women are identified as smokers as part of entry into the maternity system e.g. Maternity triage, Antenatal ward, during labour and following the delivery of their baby, particularly women who have a prolonged postnatal admission (e.g. following a premature birth or a caesarean section). This can be achieved by addressing smoking status and carrying out CO monitoring.

- Women's smoking status should be assessed on admission and NRT should be prescribed for inpatients as soon as possible to support withdrawal symptoms. When prescribing NRT as inpatient also ensure woman has support of MAMSs or hospital smoking advisor (contact MAMSs team on generic email for organising this support). NRT is available from the hospital pharmacy.

- Make women aware of the hospital smoke free policy during antenatal period to help them make plans to be smoke free and access NRT and quit support by referral to MAMSS (Help Me Quit for Baby).

- Pathway available to support inpatient care (Appendix 1)
- Partners, friends and family should continue to be offered support and referral.

8. Postnatal Care

The postnatal ward plays an intrinsic part in the possible period of abstinence.

- Encouragement should be given to those women who have remained abstinent during their hospital stay, continued availability of NRT is crucial to further facilitating the abstinence attempt.
- CO reading should be carried out on post natal ward and also at their home following discharge
- For those who remain smoking, utilise the 'Making Every Contact Count (MECC)' and offer Very Brief advice (VBI) whilst on the ward.
- It is important that the smoking status is communicated between maternity and neonatal care teams. This will allow neonatal colleagues to also offer appropriate very brief advice whilst the baby is an inpatient and have a useful discussion around smokefree homes upon discharge.
- Discuss the risks of second-hand smoke to the baby and provide information on the higher incidence of Sudden Infant Death Syndrome (this is a prime opportunity to carry out CO monitoring and offer referral). The dangers of bed sharing when either partner smokes should also be discussed regardless of where they smoke.
- Document in the postnatal notes so that smoking support can continue in the community throughout the postnatal home visits by the community midwife.
- Support women who have successfully stopped during pregnancy to remain smoke free in the postnatal period by continuing to access the MAMSs (Help Me Quit for Baby) team.
- Reinforce the benefits of staying smoke free and having a smoke free home. When supporting breastfeeding mothers, use the opportunity to raise awareness of the physiology of breastfeeding when smoking, i.e. that nicotine will be found in breast milk and that smoking can reduce the quantity of breast milk and increase the risk of colic, which may help some women to remain non-smokers. Further advice on smoking and breastfeeding can be found on the Breastfeeding Network https://www.breastfeedingnetwork.org.uk/smoking/
- Continue to encourage referral or re referral to MAMSs (Help Me Quit for Baby) at every opportunity up to 28 days post-natal.
- Partners, friends and family should continue to be offered support and referral.

9. Monitoring and Evaluation

- Team responsible for monitoring: Team leaders, Matron, Specialist Midwives for those responsible in delivering the Smokefree Pregnancy pathway.
- Frequency of monitoring: Monthly review of key standards, quarterly report.
- Process for reviewing results and ensuring improvements in performance: Monthly key standard data to be reported on a monthly basis and disseminated to clinical leads.
- Adverse incidents relating to this Guideline should be reported via the CTMUHB Incident Reporting System / Datix.
- Issues with this guideline should be raised to the Public Health Specialist Midwife through the appropriate forum.

10. Audible points and Data collection

- Number / percentage of women who smoke at booking (SATOB).
- Number / percentage of pregnant smokers who are referred at booking
- Number / percentage of women who have carbon monoxide levels recorded at booking
- Number / percentage of pregnant smokers referred who engage with MAMSs (Help Me Quit for Baby).
- Number / percentage of pregnant smokers who become treated smokers i.e. reach treatment session 1 and therefore reap the benefits of :
  a. More likely to quit smoking
  b. More likely to have smoke free home
  c. Cut down the amount they smoke
  d. Discourage their children not to become smokers
  e. Make future quit attempts
  f. Make a successful quit attempt in future

- Number / percentage of pregnant smokers who actually quit in pregnancy.
- Number / percentage of women who are smoking at time of delivery (SATOD)
- Audit of notes to observe documentation of smoking status, referrals and CO readings in All Wales hand held records

11. Electronic Cigarettes /Vaping

Public Health Wales have recommended that ENDS (Electronic Nicoltine Delivery Systems e.g. ECigarettes / Epend / e-pipes / e-hookah should not be used in pregnancy.

Women who present using ENDS with or without nicotine should be referred to the MAMSs (help Me Quit for Baby).

References

All documents should comply with current approved practice and the author will need to references these within the document.

- Bennett,L et al. (2015) Models for Access to Maternal Smoking cessation Support (MAMSS): a study protocol of a quasi-experiment to increase the engagement of pregnant women who smoke in NHS Stop Smoking Services. Online https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-1041

- Bjornholt, SM, et al. Maternal smoking during pregnancy and risk of stillbirth: results from a nationwide Danish register-based cohort study. Acta Obstetreca et Gynecologica Scandanavia 2016 Nov; 95 (11):1305–12.

- Department of Health (2007) Review of the health inequalities infant mortality PSA target. London: Department of Health.

- National Institute for Health and Clinical Excellence (2013) Smoking Cessation in secondary care: acute, maternity and mental health services. Public Health Guidance 48. London: NICE http://www.nice.org.uk/PH48 National Institute for Health and Care Excellence (2007) Intrapartum care: care of a healthy woman and their babies during childbirth. NICE Clinical Guidance 55. London: NICE.

- National Institute for Health and Clinical Excellence (2010). Quitting smoking in pregnancy and following childbirth. Public Health Guidance 26. London: NICE.

- NHS "Smoking and pregnancy" https://www.nhs.uk/smokefree/why-quit/smoking-in-pregnancy

- https://mecc.publichealthnetwork.cymru/en/

- https://www.breastfeedingnetwork.org.uk/smoking/

- Maternal smoking and the risk of stillbirth: systematic review and meta-analysis; Takawira C Marufu, Ananad Ahankari, Tim Coleman and Sarah Lewis BMC Public Health 2015, 15:239 doi:10.1186/s 12889-015-1552-5.

- Paul Aveyard et al (2014) BMJ 2014;348: g2787. Räisänen, S, et al. Smoking cessation in the first trimester reduces most obstetric risks, but not the risks of major congenital anomalies and admission to neonatal care: a population-based cohort study of 1,164,953 singleton pregnancies in Finland. Journal of Epidemiology and Community Health 2014 Feb; 68(2): 159–64

- Royal College of Physicians. Passive smoking and children. A report by the Tobacco Advisory Group. London: RCP, 2010.

- Reeves S, Bernstein I. Effects of maternal tobacco-smoke exposure on fetal growth and neonatal size. *Expert Rev Obstet Gynecol*. 2008;3(6):719-730.

- Shaw L.E. (2021) *All Wales Fetal Movements guideline*

- West,R.(2005) Assessing smoking cessation performance in NHS Stop Smoking Services: The Russell Standard (Clinical).as cited online in NCSCT . https://www.ncsct.co.uk/usr/pub/assessing-smoking-cessation-performance-in-nhs-stop-smoking-services-the-russell-standard-clinical.pdf

Further Information

- https://www.tommys.org/sites/default/files/Ecig%20infographic%20DRAFT%2010%20V1%0TOMMYS_0.pdf
- http://smokefreeaction.org.uk/wp-content/uploads/2017/06/eCigSIP.pdf

- http://www.ncsct.co.uk/usr/pub/Electronic_cigarettes._A_briefing_for_stop_smoking_service.pdf

APPENDIX 1

Antenatal and Postnatal Smoking Cessation Pathways (Acute area)

- On admission all women to have carbon Monoxide (CO) monitoring performed as routine and documented in notes along with any action plan
- CO reading to be used as a tool address smoking status and/or exposure to carbon monoxide

NON-SMOKERS
Low CO reading 0-3
no action advise will be repeated throughout pregnancy

SMOKERS
Low or High CO reading (4 and over) advise on smoking and offer referral to MAMSS team. Document in notes.
Or
NON-SMOKERS
High reading 6 or above

NON-SMOKERS
CO Reading 4-6
advise on passive smoking and provide carbon monoxide leaflet (use CO monitoring flow chart)

Longer stay clients accepting referral:

- Refer to MAMSS MSW who will aim to attend the client on the ward within 48 hours (allowance for bank holidays and weekends) for behaviour therapy
- If necessary request NRT by obstetrician to assist client with withdrawal

Short Stay clients accepting referral:

- Advise client that MAMSS MSW worker will aim to make contact within 48 hours (allowance for weekends and bank holidays)
- Complete online MAMSS referral form and send to central MAMSS email below
-

For those clients who DECLINE Referral:
Advise that CO monitoring and smoking cessation will be addressed throughout pregnancy and document clearly in notes

Carbon monoxide Flow chart **will give further**

entral email: CTM_MAMSS_Referrals

Contact numbers
Tanya Gee-wing: 07900915235
Alison Vacara: 07823551792
Helen Lloyd: 07786173770
Carolyn Jenkins: 07766465399 (Public Health midwife)
Sharon John Public Health Specialist Midwife: 07970109902

NHS WALES
Cwm Taf Morgannwg University Health Board

Midwifery Day Assessment Unit and Triage Smoking Referral pathway

- On admission all women to have carbon Monoxide (CO) monitoring performed as routine and documented in notes/DAU assessment form
- CO reading to be used as a tool address smoking status and/or exposure to carbon monoxide

NON-SMOKERS
Low CO (0-3) reading and Non-smoker:–
no action advise will be repeated throughout pregnancy

SMOKERS
Low or High CO reading (4 and over): advise on smoking and offer referral to MAMSS team. Document in notes.
Or
NON-SMOKERS
High reading 6 or above

NON-SMOKERS
CO Reading 4-6 and: advise on passive smoking and provide carbon monoxide leaflet (use CO monitoring flow chart)

Carbon monoxide Flow chart will give further guidance on high readings

- Advise client that MAMSS MSW worker will aim to make contact within 48 hours (allowance for weekends and bank holidays)
- Complete online MAMSS referral form and send to central MAMSS email: CTM_MAMSS_Referrals or paper copies to ward clerk for scan and send

Contact numbers
Tanya Gee-wing: 07900915235
Alison Vacara: 07823551792
Helen Lloyd: 07786173770
Carolyn Jenkins: 07766465399 (Public Health midwife)
Sharon John Public Health Midwife: 07970109902

GIG CYMRU NHS WALES
Cwm Taf Morgannwg University Health Board

APPENDIX 2

Carbon Monoxide (CO) and Pregnancy

Your CO reading will be recorded throughout your pregnancy as part of your antenatal check

CO is a highly toxic, dangerous gas which is colourless and odourless

CO makes the blood stickier and takes the place of oxygen (O^2) in the bloodstream

CO is higher in fetal blood than in maternal blood

High CO readings can cause:

Low birth weight babies

Still birth

Behavioural problems in children

Carbon Monoxide (C0) Exposure

Advice for women who have high CO readings in pregnancy ≥4

Checklist of possible causes:

Smoking

Passive smoking

Faulty household and caravan appliances (including gas, coal, oil, coke & wood)

Neighbours faulty appliances (may leak through walls)

Exposure to vehicle exhausts

Cleaning fluids and paint fumes (some contain methylene chloride (dichloromethane), which can cause carbon monoxide poisoning if breathed in)

Think:

Could you be exposed to CO at work?

Could the CO be coming from inside your car?

Do your heating appliances need checking?

Does your home/building have a Carbon monoxide detecting alarm fitted?

Prolonged headache, drowsiness, chest pain, falls, sickness/nausea, dyspnoea, "tired all the time" could be a sign of carbon monoxide poisoning

If symptomatic is anyone else at the property affected with similar symptoms?

Lactose intolerance (discuss with GP if first reading high with no explanation)

Gas emergency line is 0800111999

MAMSS smoking cessation service for support with quitting

MAMSS contact numbers:
Alison (Merthyr and Cynon) - 07823551792
Tanya (Rhondda and Taff) – 07900915235
Helen Lloyd – 07786173770
Carolyn Jenkins - 07766465399
Sharon John Public Health Specialist Midwife -07468 707646
Also available in Welsh

APPENDIX 3

MAMSS referral – pregnancy and postnatal

Name : **Hosptial number:**

Address:

CO READING:
Date of referral:
Due Date:

Home telephone number:

Automatic Referral if uses any of following *(tick all relevant)*

- Cigarettes / Tobacco ☐
- E-cigarettes / Vaping / ENDS ☐
- Smokes Cannabis or other drugs ☐
- Stopped smoking in past 2 weeks *(still refer)* ☐
- CO reading above 4ppm *(if non-smoker)* ☐
  (*use CO escalation pathway for guidance*)

Please provide further information including any risk factors or concerns

IT IS THE MIDWIVES ROLE TO INFORM THE WOMAN OF DANGERS TO MOTHER AND UNBORN BABY

Name of Referrer:

Designation:

Ask - Advise - Act

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board

FOR OFFICE USE ONLY

ASSESSMENT			ACCEPTED	
TS1			DECLINED	
TS2			LOST CONTACT	
TS3			CALL ATTEMPTS IN TS	
TS4			STATS	
TS5			QUIT MANAGER/RJ	

APPENDIX 4

Performing a Carbon Monoxide (CO) Reading during Covid -19 Pandemic

The Carbon Monoxide (CO) Monitor you will be using for your 'breath test' is touch screen enabled so you will be asked to touch the screen at various points during the test.

Step	Action
1	The PICObaby™ should be wipe clean with the Clinell wipes provided with the monitor before and after each test 
2	**Ensure socially distanced from health professional for this test** Please clean your hands using the alcohol gel provided. If there is no mousse/gel available please clean your 
3	A new SteriBreath™ mouthpiece should be used for each woman. The woman should insert their own mouthpiece 

4

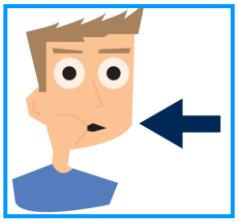
You can now turn the CO Monitor '**On'** by pressing the power button once, a round button, which can be found at the top of the CO Monitor.

If this symbol comes onto the screen please remove by pressing the house shaped symbol found at the bottom of the CO Monitor screen

5

The inhale symbol will appear on the screen :

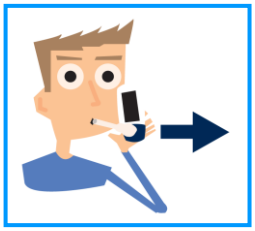
1. Press to start
2. At this point turn away from the health professional and take a deep breath
3. Hold breath for 15 seconds the symbol will count you down**. Keep holding your breath**
4. Machine will bleep at the last 3 seconds



If you are unable to hold your breath in for the 15 seconds due to illness e.g. lung disease or chest ailments start at a comfortable point e.g. at 10 seconds.

6

Once the countdown reaches zero **the 'exhale' symbol will appear.**
Then blow gently into the mouthpiece aiming to empty your lungs



7	Show the reading to the health professional Remove the mouthpiece and dispose in bin provided Sanitise hands again!	
8	The number highlighted on the screen *(as seen by this example)* shows the percentage of carbon monoxide in your breath. The health professional will advise you what this reading means and actions that may need to be taken	
10	Please **turn the CO Monitor OFF** by pressing and holding down the power button for 3 seconds.	

Thank you for carrying out a 'breath test'

APPENDIX 5

Carbon Monoxide in Pregnancy Flowchart

CO LEVEL ≤3ppm or less

Non - Smoker

Normal result

Record in Maternity Notes

CO screen every antenatal appointment

Smoker

Refer to MAMSS

CO screening at every antenatal appointment.

Discuss smoke-free homes.

Record in maternity notes.

If declines discuss dangers and that smoking is addressed throughout pregnancy and CO readings are repeated.

CO screen ALL women at each antenatal appointment, DAU, EPU or labour admission and record smoking status at every contact in maternity notes

CO LEVEL≥4ppm

Non-smoker

Discuss signs and symptoms of CO poisoning – any concerns send to A&E

Discuss second hand smoke

Recheck next at different venue e.g. home

Recheck at following appointment Record in maternity notes

Provide gas safe Info on registered engineers: FOR GAS – 0800408550 FOR OIL: 01473626298 FOR SOLID FUEL: 01684278170

GAS EMERGENCY LINE:

0800111999

Smoker

Refer to MAMSS

CO reading at each appointment

Discuss smoke free homes Discuss signs and symptoms of CO poisoning

If declines discuss dangers and that smoking is addressed throughout pregnancy and CO readings are repeated

Record reading and plan in maternity notes

CO level of CO≥ 15 or symptomatic

Non-smoker/smoker

Anyone found to be symptomatic of carbon monoxide poisoning or have a CO reading ≥15 that is not associated with recent smoking should be referred to A&E urgently

N>B if CO poisoning is suspected be aware of other family members or people in the same residence.

Report these cases through Data from attention of Public Health Specialist Midwife

APPENDIX 6


PASSPORT TO SMOKEFREE
YOUR GUIDE TO QUITTING SMOKING WITH FREE NHS HELP
THIS WAY TO START YOUR JOURNEY
Name
Stop Smoking Expert
Contact details
www.helpmequit.wales
HELP FI STOPIO HELP ME QUIT

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

APPENDIX 7

Friends and family Referral Form For Smoking Cessation Support Ask – Advise – Act

Today's date: _____ **Name of Midwife:** _____

Please complete this referral form for friends and family of relatives who smoke and wish to have support from smoking cessation services.

Name of person to be referred:
Address:
D.O.B.:
Telephone number:

Name of pregnant woman who is associated with this person:
M number:
Is the pregnant woman a smoker: yes ☐ no ☐
If yes has the woman been referred to MAMSS yes ☐ no ☐
quit on own ☐ N/A ☐

Discuss the benefits of a smoke-free home
Ask whether anyone else in the household smokes. If so, raise awareness of the dangers of secondhand smoke and that Help Me Quit and many pharmacies offer support to adult smokers who want to quit locally.

MAMSS worker to complete

Referred to Help Me Quit online ☐
Other actions:

Please return this form to the Maternity Support Worker
Please ring the Maternity Support Worker on _____ if you have any queries