Care for women in labour on T2 cohort ward area with suspected/confirmed COVID-19, including operative delivery

T2 area is a cohort COVID ward – All staff are required to wear a surgical mask from point of entry to exit.

1. Early labour advice

1.1. All women should be encouraged to call the maternity unit for advice in early labour.
1.2. Women who are well despite mild COVID-19 symptoms can be encouraged to remain at home in early labour as per standard practice.
1.3. Women with obstetric related complications with COVID-19 symptoms should be advised to follow the admission procedure.
1.4. Any woman with symptoms of COVID-19 who has difficulty breathing should be advised to call 999.

2. Admission procedure

2.1. All women will be cared for in designated isolation rooms on T2 UHW for obstetric assessment, labour and delivery. A separate SOP outlines the management of mothers admitted to MLU COVID area, when T2 capacity has been exceeded.
2.2. Women should be given the following advice over the phone prior to arrival:
  2.2.1. Should arrive where possible by private transport
  2.2.2. Should wait outside in the designated parking area outside antenatal clinic
  2.2.3. Should call the unit (from outside) when they arrive
  2.2.4. Will not be permitted to bring any visitors (other than their asymptomatic birth partners) into the hospital
  2.2.5. Women and their birth partners must only enter the building when being escorted by a member of staff
  2.2.6. Refer to admission pathway to T2 (see Appendix 1)
2.3. The woman and her birth partner should wear a surgical face mask at all times.
2.4. If the birth partner is symptomatic (i.e. they have a persistent dry cough, a high temperature or feel unwell), they will be asked not to enter the hospital.
2.5. On entering an isolation room on T2 neither the woman or her birth partner will be permitted to leave – all refreshments will be provided by maternity.
2.6. All birth partners will have their temperature taken once in the assessment room, if their temperature is $\geq 37.8^{\circ}$ then they will be asked to leave and self-isolate at home.
2.7. No visitors will be permitted at any time.

3. Admission escalation

3.1. On admission (in hours) the MUM should inform:
  3.1.1. Obstetric and Anaesthetic Consultant on-call for delivery suite
  3.1.2. The most senior obstetrician and anaesthetist on the unit
  3.1.3. Consultant Neonatologist
  3.1.4. Microbiology/virology ONLY if swabs being sent (Appendix 2).
3.2. Out of Hours inform:
  3.2.1. Senior Manager on call for maternity
  3.2.2. Obstetric and Anaesthetic Consultant on-call for delivery suite
  3.2.3. The most senior obstetrician and anaesthetist on the unit
  3.2.4. Neonatal team
  3.2.5. Microbiologist on call via switchboard

4. PPE requirements - No staff member will be permitted to enter an isolation room unless appropriately donned in PPE, even in the event of maternal collapse or fetal bradycardia

4.1. Guidance on appropriate PPE for labour and operative delivery is within Appendix 3.

4.1.1. 1st Stage of labour: apron, non-sterile gloves, fluid resistant surgical mask and visor is required

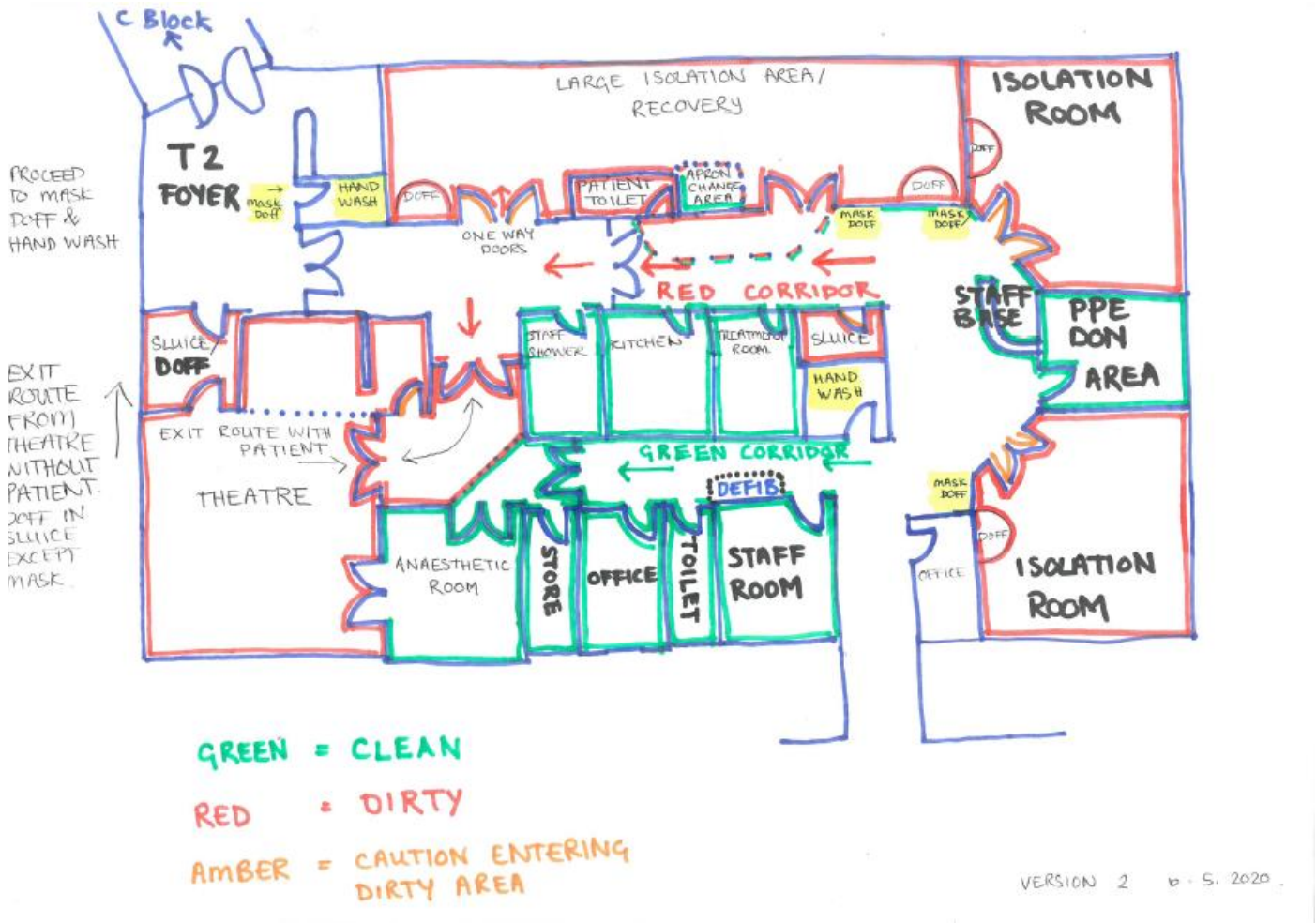
4.1.2. 2nd/3rd Stage of labour: Long sleeved gown, non-sterile gloves, fluid resistant surgical mask and visor

4.1.3. PPE should be donned in the PPE donning area (green and blue on diagram below) with a buddy prior to entering the isolation room.

4.2. All staff exiting the isolation room should follow the doffing protocol. Gown, visor and gloves are removed in the doff zone in the room prior to exiting the room. Removal of mask is performed outside the room in the MASK DOFFING area (yellow star area). Wash and gel hands in the sink in the handwash room (yellow on diagram below) as per protocol.

4.3. PPE requirements have been extended for all areas including operative delivery in Delivery Suite theatre, labour ward, OAU, ward areas and ANC as per Appendix 3.

5. Reference diagram of T2 area V2



6. Midwifery assessment and communication

6.1. Initial patient information and ongoing labour progress should be communicated by phone by the midwife in the isolation room to MUM.

6.1.1. This information should be documented on the board in the handover room on delivery suite.

6.2. All notes should ALWAYS remain in the room.

6.3. Prescription charts should be kept at the outside desk to allow additions and amendments.

6.4. Pens have been provided in each isolation room for documentation. Please DO NOT take these out of the rooms. These are single patient use only.

6.5. Staffing

6.5.1. The woman will be cared for by an allocated midwife, preferably a senior Band 6 who must have been mask fit tested and received donning and doffing training. On arrival to an isolation room on T2, a full maternal and fetal assessment should be conducted as per usual practice in full PPE with a theatre hat.

6.5.2. Each member of staff within the isolation room of T2 should have a designated buddy available outside the isolation room.

6.5.3. The "staff base" on T2 must be manned at all times when a patient is being cared for in any of the isolation rooms.

6.5.4. Midwives will rotate out of the isolation room every 4 hours

6.5.5. An additional member of staff should be made available to assist with donning and doffing.

6.5.6. Fresh eyes will be performed during staff rotation.

6.5.7. Any concerns should be escalated early to the MUM

6.6. Midwifery Assessment and Care

6.6.1. RCOG patient information leaflet for women with confirmed or suspected COVID-19 should be provided to the woman. In addition, the OAA analgesia in labour leaflet will be provided.

6.6.2. Current recommendation from RCOG/RCM is continuous electronic fetal monitoring and this should be discussed with the mother.

6.6.3. In labour please ensure that a Phillips CTG monitor is used to enable utilisation of a FSE if required.

6.6.4. If the woman meets the criteria for swabbing (Appendix 2) and consents to swabbing, 1 throat swabs to be taken from her using red topped dry swabs by the midwife caring for the woman. The midwife caring for the woman will need to place patient stickers on the swabs and place them in a virology sample bag with patient labels on it. The buddy midwife will need to be located outside the room (not in PPE but wearing gloves) with a biohazard bag open so that the midwife in the room can drop the virology bag (containing the swabs) into the biohazard bag. The buddy midwife will then seal the biohazard bag and send it to the lab. The buddy will also contact the lab via WCP to alert them of the sample.

7. Maternal Observations

7.1. Maternal assessment should be continued as per standard practice.

7.2. Maternal observations should be undertaken **hourly** and documented on MEOWS chart (including oxygen saturations and respiratory rate).

7.3. Saturations of <94% in air and/or respiration rate is >20 breaths per minute, mandates a review by the obstetric and anaesthetic team. This should be communicated via the MUM via the phone.

7.4. ICU referral should be considered for any mother requiring unable to maintain O2 saturations >94% on 5L oxygen via Hudson facemask

8. Obstetric review

8.1. The initial obstetric review of a woman should be performed by the most senior obstetrician available on the unit.

8.1.1. A plan for labour and delivery should be discussed with the mother and her midwife while they are in the isolation room. Women should be informed about the increased risk of fetal compromise and therefore the increased risk of operative delivery. They should also be informed that there may be delays in delivery of care due to the requirements of staff to donning PPE. It is likely that a category 1 CS will not meet the 30-minute guide.

8.1.2. Where there is fetal compromise, consider use of intra-uterine resuscitation efforts, including left lateral position, IV fluid bolus, and tocolytics.

8.1.3. An individualised decision should be made regarding shortening the length of the second stage of labour with elective instrumental birth in a symptomatic woman who is becoming exhausted or hypoxic.

8.1.4. An individualised, multi-professional decision should also be made regarding timing and mode of birth in women with respiratory compromise in whom HDU or ICU care may be required. Steroid for fetal lung maturation may be considered, if time allows. Patients with COVID-19 ARDS requiring intubation may require prone positioning to optimise ventilation and therefore early caesarean delivery should be considered.

8.2. Any additional advice should be sought via a telephone call from the room.

8.3. All documentation should be made while within the isolation room. Please DO NOT take pens out of the room.

9. Blood samples

9.1. Blood testing will be guided by clinical condition.

9.1.1. The midwife caring for the woman will need to place patient stickers on all laboratory samples and place them in the correct sample bags with patient labels on the bags. The buddy midwife will need to be located outside the room (not in PPE but wearing gloves) with a biohazard bag open so that the midwife in the room can drop the laboratory samples in the sample bags into a biohazard bag. The buddy midwife can then seal the biohazard bag. This biohazard bag can then be sent to the lab. The lab should be contacted to anticipate sample arrival.

9.2. Any woman requesting an epidural will require an FBC within the previous 4 hours.

9.3. Point of care tests (ROTEM and blood gas) should be wiped down with surface wipes prior to prior to being placed in a tray by the staff member in contaminated PPE. Samples should then be passed to the clean receiving member of staff (in the clean area outside the room) who will be wearing gloves. Samples will then be tested. The tray will need to be wiped down following testing.

10. Analgesia advice

10.1. If in labour, the woman should be informed that baths and warm water are not available.

10.2. Entonox is not advised due to the requirement for the patient to wear a facemask. In the event that a patient insists on its use, it MUST be given through a HME filter.

10.3. TENS devices brought from home can still be used

10.4. The midwife should discuss the use of paracetamol, pethidine, an early epidural or remifentanil PCA options. The midwife should also provide the OAA information leaflet for analgesia in labour.

11. Epidural or remifentanil PCA provision

11.1. The Consultant Anaesthetist available on the unit should be made aware of all epidural or remifentanil analgesia requests prior to the patient being seen.

11.2. Epidural or remifentanil analgesia options will be discussed with the patient by the anaesthetist who is going to perform the technique. Ideally this should be the most senior Anaesthetist available.

11.3. Each member of staff within the isolation room of T2 should have a designated buddy available outside the isolation room

11.4. Refer to COVID-19 SOP for epidural insertion or remifentanil placement, COVID-19 epidural checklist and obstetric epidural and remifentanil guidelines.

11.5. There is an increased risk of hypotension with epidural analgesia, therefore the anaesthetist must stay in the room until the block is fully established.

12. Vaginal delivery

12.1. It should be anticipated that calling for a second midwife and / or a neonatologist to provide further assistance at delivery will need to be made earlier than usual (where possible) to allow time for donning of PPE.

12.2. Women will remain in the same isolation room following delivery until they are fit for discharge home.

12.3. A risk assessment should be performed prior to discharge to assess the necessity of community visits.

12.4. Robust communication must be made to the community team.

13. If the woman has signs of sepsis, investigate and treat as per sepsis pathway, but also consider active COVID-19 as a cause of sepsis and investigate according to guidance.

13.1. In addition to the routine sepsis pathway bloods, mothers suspected as having COVID-19 require the following tests on commencement of the sepsis pathway: D dimer, ferritin, LDH, CK, Troponin, Amylase, Bone profile, Magnesium, Procalcitonin.

14. Care for women requiring operative delivery with suspected/confirmed COVID-19: please refer to COVID-19 SOP for operative delivery for UHW

15. Postnatal care of women

15.1. Women will remain in the same isolation room following delivery until they are fit for discharge home.

15.2. Postnatal prophylactic LMWH (enoxaparin) is recommended for ALL mothers (regardless of modes of birth, see below).

15.3. Usual postnatal care will be provided unless the women requires ICU/HDU individualised care

15.4. A risk assessment should be performed prior to discharge to assess the necessity of community visits.

15.5. Robust communication must be made to the community team.

16. Thromboprophylaxis

16.1. COVID-19 infection is associated with an increased risk of thrombosis. Increased doses of LMWH may be required in certain mothers admitted for infection, as advised by haematology.

16.2. UHW VTE guidance is available in Appendices 4 and 5

16.3. Antenatal

16.3.1. All women who develop COVID-19 in pregnancy will need a minimum of 14 days of thromboprophylaxis on discharge from an inpatient stay.

16.4. Postnatal

16.4.1. Prophylactic LMWH (enoxaparin) is recommended for ALL mothers (regardless of modes of birth) for a minimum of 14 days after birth. A longer course should be prescribed if indicated by previous guidance.

16.4.2. Women who are high risk for VTE, who would usually receive 6 weeks of postnatal thromboprophylaxis, should continue to have this extended course in the postnatal period.

Appendix 1

COVID-19 Obstetric Assessment Admission Pathway

All other women with moderate symptoms of COVID-19 should access 111 online
Women who have respiratory difficulties should call 999

EVERY PATIENT THAT ATTENDS OR TELEPHONES THE UNIT MUST BE ASKED:

1. Do you have a high temperature?
2. Do you have a new continuous cough?
3. Have you lost your sense of smell or taste?
4. Are you self-isolating because someone in your house is symptomatic?

If YES to ANY

If NO to ALL → **CONTINUE NORMAL CARE**

IF PRESENTING UNANNOUNCED

1. Provide a facemask for BOTH the woman and her partner
2. These masks must be worn at all times
3. Immediately transfer them BOTH to the closest available isolated room
4. Advise they MUST stay in this room
5. Contact Delivery suite Co-ordinator to arrange for patient to be admitted to T2

A staff member will collect the patient wearing PPE and transfer them to an isolation room in T2 via Tertiary block lift

Staff: see separate chart for PPE requirements

OVER THE PHONE

If admission is needed advise the woman:

1. Attend the unit with one asymptomatic person only
2. Park in the designated area outside ANC
3. Wait in the car on arrival and phone delivery suite again
4. A staff member (wearing PPE) will collect the patient and provide BOTH the woman and partner with a mask
5. These masks must be worn at all times

The woman and partner will be transferred to isolation room on T2 via Tertiary block lift

Staff: see separate chart for PPE requirements

Please note that inpatient referrals from other clinical areas must be discussed with the obstetrician

SS/LM V6 29/5/20

Appendix 2.

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Criteria for testing for COVID-19 in patients with respiratory disease requiring admission to hospital.

Individuals meeting the case definition below now require testing for COVID-19:

- Requiring **overnight** admission to hospital

and

- have either clinical or radiological evidence of pneumonia

or

- acute respiratory distress syndrome (ARDS)

or

- fever ≥37.8˚

or

- new continuous cough

or

- loss of/change in smell or taste

NOTE – there may be atypical presentations in immunocompromised patients

Sample requirements

- ONE dry red topped throat swabs, triple bagged with an external Biohazard bag.
- URGENT Microbiology request form via Welsh Clinical Portal, with full clinical information fitting the case definition.
- Clinical information is essential to ensure testing for COVID-19 is done in a timely manner and to support triaging in the laboratory, prioritising highest risk patients.
- Samples accompanied by a request form without clinical detail **WILL NOT BE PROCESSED**

Criteria for prioritising testing

- When the demand for COVID-19 diagnostic testing exceeds the capacity, the laboratory will prioritise testing according to clinical priority, hence the clinical information provided on the request form is essential.

PPE requirements when taking sample

- For symptomatic, unconfirmed in-patients meeting the COVID-19 definition, the following PPE is mandated – fluid resistant surgical mask, gloves, apron and eye protection.

Transport to the laboratory

- There are no specific additional transport requirements, unless the samples are from a patient confirmed to have COVID-19. Consideration should be given to how samples may be received in timely fashion to the local laboratory.

Turnaround Times:

- There is currently a limit to the number of samples that can be tested in Wales. In order for the result to be available in a timely manner, we would ask that these testing criteria are strictly followed for the prudent use of limited resources and to ensure that the most important / critical samples are processed in a timely manner.
- Samples should follow the normal pathways to your local laboratory. When these routes are followed we expect to report results within 48 hours of receipt of specimens in the testing laboratory. By passing normal routes causes delay.
- Positive results will be communicated by telephone.
- Negative Results will be available on the clinical portal