The Critically Ill Obstetric patient

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What Service do we Provide?

**Obstetrics**
- Average 4,600 birth per year
- 11 delivery suite beds
- 24 hour anaesthetic cover
- Dedicated obstetric theatre 24/7
- Enhanced recovery elective caesarean section service – 15 elective CS per week
- Level 3 regional neonatal intensive care unit (regional transport network)
- Alongside birth centre (25% of births)
- Home birth service
- Regional perinatal mental health unit newly opened (Chorley site)
- In-house training maternal AIMS course/ CIPP course/ PROMPT course

**Critical Care**
- Approx. 1500 admissions annually
- Average 90% occupancy
- 28 beds over 5 areas
- 14xL3 14xL2
- 4 L2 beds at CDGH
- Wide Geographical Location
- Linked to UCLAN & Bolton Universities
- In house training courses
- Simulation suite
- Regional trauma centre
- Regional Neurosurgical centre
- Regional neurology centre
- NWAS helipad site
- Sepsis team
- CCOT
- Pet therapy
- Music therapy
Why do Obstetric patients need Critical Care?

Key messages from the report 2018

In 2014-16 9.8 women per 100,000 died during pregnancy or up to six weeks after childbirth or the end of pregnancy. Most women who died had multiple health problems or other vulnerabilities.

Balancing choices:
Always consider individual benefits and risks when making decisions about pregnancy

Things to think about:
- Many medicines are safe during pregnancy
- Continuing medication or preventing illness with vaccination may be the best way to keep both mother and baby healthy - ask a specialist
- Black and Asian women have a higher risk of dying in pregnancy
  - White women 8/100,000
  - Asian women 15/100,000
  - Black women 40/100,000
- Older women are at greater risk of dying
  - Aged 20-24 7/100,000
  - Aged 35-39 14/100,000
  - Aged 40 or over 22/100,000
- Overweight or obese women are at higher risk of blood clots including in early pregnancy
Maternity Admissions 2018-2019

- Massive obstetric haemorrhage – hysterectomy – DIC
- Epidural toxicity leading to cardiac arrest
- Severe HELLP syndrome resulting in subcapsular haematoma – managed with regional liver unit Leeds
- Acute fatty liver of pregnancy following still birth at term – managed with regional liver unit Leeds
- Exacerbation of asthma requiring intubation and preterm CS
- Chest sepsis in antenatal patient
- Glioma, regional neurology referral – operated on whilst pregnant
- Uterine Sepsis – still birth at 20 weeks
Those we didn’t admit to CRCU

3 months data May-July 2019
24 women received enhanced care on delivery suite
66% arterial lines
16 women - 66% PPH
50% >2.5L
Enhanced care provision

- Severe HELLP – managed with support from Leeds. Excluded acute fatty liver.

- Maternal collapse in birthing pool – seizures, severe DIC, massive obstetric haemorrhage, reported to UKOSS as AFE.

- Aqueductal stenosis – neurology referral. Enhanced care following elective CS and therapeutic lumbar puncture

- 1 admission to CRCU – severe antenatal sepsis lactate 7.9, vasopressors.
Who wants to work with an ICU Nurse & Midwife?!

Moving into motherhood is a transitionary period – it entails moving from the well known into the unknown and can be very overwhelming. If this transition is interrupted by an unexpected traumatic event it can exacerbate coping with the psychological demands of an ICU experience along with trying to manage maternal bonding, feeding, and adjusting to parenthood.

Critical Care units assess the need for support for physical, psychological and cognitive problems that may impact recovery and rehab – obstetric patients are not immune to these, in order to improve the care for these patients we need joined up, multidisciplinary working.

Through feedback from patients and their families and from our own experience we have recognised we can do more to improve the patient experience of this specific group of patients.
Where do we start?

Identified 3 areas to focus on:

- Zero-separation
- Infant Feeding
- Psychological well being for mothers
Zero separation

- National Campaign
- Promote on Delivery Suite and CRCU
- Teamwork between units
- Babybeat
Infant Feeding

- Mothers wishes
- Consent and Safeguarding
- Storage
- Pharmacist Advice
Psychological Support

- PTSD
- Memories for mummies boxes – long term funding has now been secured
- Follow Up clinic
- Critical Care Outreach
- Skilling up midwives to be able to provide enhanced care as soon the woman is able to be stepped down

PTSD

Impacts the Spirit
Soul, Mind
Emotions
Memories
Body
Benchmarking Our Services

Any woman can become critically ill when pregnant. All doctors, as well as obstetric anaesthetists, should be skilled in the resuscitation and stabilisation of sick pregnant women. There is good evidence across a range of rare conditions and specialist services that outcomes can be improved by centralisation. It is time that we provide some elements of obstetric critical care to ensure that critically ill women receive the best possible care.

At childbirth, admission to a critical care unit should not automatically mean the separation of a mother from baby. If the baby is well, then critical care units should do all they can to facilitate contact between the mother and baby.

A critical care unit that admits women over 20 weeks of gestation should have rapid access to obstetric obstetric/paediatric services able to attend in an emergency.

There should be a clear plan and equipment available for performing a peri-mortem caesarean section in the event of maternal cardiac arrest (in accordance with Resuscitation guidelines from the Resuscitation Council UK).

Specialist equipment (e.g. for neonatal resuscitation) should be present in the critical unit for the care of the critically ill peri-partum woman’s admission.

A team (which will usually consist of a consultant obstetrician, consultant obstetric anaesthetist) should review all women admitted to critical care at least once in every 24-hour period.

Units that accept antenatal admissions should have a healthcare professional trained in neonatal resuscitation available within ten minutes, due to the risk of premature labour and unplanned birth. A senior obstetrician or paediatrician should be able to attend within 30 minutes when required.

Critical care operational delivery networks could consider nominating specific units as the nominated regional or supra-regional unit for maternal critical care.
What have we achieved?

- Training
- Communication
- Cross unit working
What have we achieved?

- Dedicated enhanced care documentation for delivery suite
- Improving data collection for enhanced care
- Maternity admission ‘check list’ for CRCU
- Maternity trolleys for CRCU
Future work

- Service user feedback
- Regional super unit for maternity critical care?
- Sourcing long term investment