Care of Newborns Exposed to Unprescribed Medication or Substance Misuse

Maternal treatment for substance misuse/unprescribed medication

Antenatal

- Pregnant women taking unprescribed medication or using substances, including alcohol should be referred to **The One Stop Clinic (OSC)**.
- Referrals can come from any source, including self-referral.
- Professionals involved:
    - Specialist Midwives, (Anna Ferguson, Penny Gillis: uhsussex.onestopmidwives@nhs.net RSCH ext 67583, mobile 07795498509)
    - Specialist Substance Misuse Nurse, CGL www.pavilions.org.uk/)
    - Neonatologist (Dr Aiton, secretary ext 64195) & ANNP (Jamie Blades)
    - Specialist Perinatal Mental Health Nurse (www.sussexpartnership.nhs.uk/perinatal)
    - Social Worker (01273 290400 FrontDoorForFamilies@brighton-hove.gcsx.gov.uk)
    - Oasis project
    - Close liaison with the safeguarding team

- Some women may receive all of their antenatal care through the One Stop Clinic.
- Others may just be seen once for advice and discussion.

The care of women with medication dependency / substance misuse is complex. Do not hesitate to contact a member of the team for advice.

Communication, record keeping and birth plans

- One stop clinic letters and birth plans (from 32 weeks) can be found on Badgernet.
- Check Panda for antenatal letters for any baby admitted to TMBU.

At Discharge:

- If receiving follow up then notes to be printed and set of orange notes created ahead of clinic

Safeguarding and sharing of information

- There is an obligation to share information where safeguarding issues exist.
- Only information which is directly relevant to safeguarding is shared
- Be careful not to share confidential information about mother without consent unless directly related to safeguarding.
- Badger allows the withholding of maternal information if necessary (e.g. if copied to foster carer).

Requests for information related to safeguarding:

- Requests must be provided in written form and should be responded to in timely way
- There will usually need to be joint nursing and medical input
- For further guidance see: Protocol for providing reports for babies on TMBU

One Stop Clinic Neonatal Birth Plan

- This can be found in the scanned documents on Maternity Badgernet. A copy is also uploaded on Panda.
- This will contain:
    - Information about maternal medication
    - Recommended treatment for withdrawal
    - Postnatal investigations which might be required in mother (e.g. blood/urine testing) or baby (e.g. growth chart, cranial US)
    - Information regarding possible perinatal viral transmission
    - Breast feeding recommendation
    - Follow-up arrangements
- Check badger social tab for safeguarding information e.g. Local Authority Social services birth plan about safeguarding.
- If the situation has changed since the birth plan was produced please inform the OSC team as soon as possible and make appropriate alternative plans in the meantime.

Resuscitation – management of respiratory depression

- Respiratory depression at birth:
    - increased risk if mothers are given additional opiates for pain relief during labour,
    - manage according to NLS guidelines (airway/breathing support)
- **Naloxone - If mothers are taking opiates or opiate replacement treatment, then the baby should NOT be given naloxone under any circumstances**.
    - This is likely to lead to severe seizures which are difficult to control

Breast feeding

- Breastfeeding should be encouraged unless clear contraindication
- It is safe to breast feed while taking stable doses of methadone (unless initiated or increased postnatally – see LactMed, also check other drug use)
- Parents should observe for drowsiness if breastfeeding on methadone and seek medical attention if drowsy
- Recommendation normally made as part of the birth plan.
- Not normally safe to breastfeed in the context of continued/unstable substance misuse.
- If a mother decides to breastfeed our responsibility is to advise the mother about the risk, and what action might be required to enable safe breast feeding.
- It would be a safeguarding issue if a mother persisted in breastfeeding contrary to medical advice
- A negative urine toxicology result may be needed– metabolites may still be present, contact one stop clinic team for advice
- If in doubt express and store milk while seeking advice

Perinatal virus transmission

See HIV/HepB/Hep C guidelines

- All mothers are tested for hepatitis B & HIV infection at booking.
- Mothers at risk should also be tested for hepatitis C
- **Repeat testing at end of pregnancy or in labour for mothers at continued risk for perinatal virus infection during pregnancy** e.g. sex-working or needle-sharing
- Risk assess: if HIV considered high risk a point of care test can be used to get result urgently. For Hepatitis B treatment prior to results may be indicated – discuss with

micro (immunoglobulin if indicated should be given within 12 hours, Hep B vaccine ideally within 12 hours but up to 7 days, see Hep B protocol)
- Results must be chased urgently within 24 hours
- Rapid HIV testing is available – consult HIV team who will also advise on treatment

Neonatal drug withdrawal /Neonatal Abstinence Syndrome

- A wide range of prescribed and non-prescription drugs/substances can cause withdrawal
- Timing and symptoms depends on the type of medication, pharmacology of the drug, and neonatal drug metabolism

Opiate withdrawal

Signs and symptoms:
- **Behavioural** (difficulty settling/sleeping, high-pitched cry)
- **Neurological** (sucking/swallowing coordination, disorganised movement patterns, muscle tremors, jitteriness, fits)
- **Autonomic** symptoms (temp. variability, increased resp. rate, HR variability)
- **Gastrointestinal** symptoms (colic, increased transit: sore bottom & excess fluid loss)

Non-opiate withdrawal tends to cause predominantly behavioural and/or neurological symptoms: autonomic and gastrointestinal symptoms are much less likely.

Timing of the onset of symptoms:
- 8 - 24 hrs: recent heroin use (IV or smoking), alcohol withdrawal
- 12 - 48 hrs: opiates with short half-life: e.g. codeine, dihydrocodeine (DF118), oramorph, buprenorphine
- 2-7 days: methadone
- 10 days -6 weeks: diazepam (usually managed as an outpatient)
- Babies with multiple drug exposure can develop withdrawal symptoms in 2 or 3 phases

Principles of management:
- Babies should remain with their mothers if possible, routine admission to neonatal unit is not required
- Encourage close skin-skin contact with mother
- Frequent maternal reassurance is important
- Swaddling can be helpful
- May need admission if:
    - Vomiting/feeding dysfunction requiring NGT or temporary IV fluids
    - Safeguarding issues
    - maternal self-discharge
    - Difficult to control body temperature

Assessment of withdrawal

Modified Finnegan Chart:
- The chart is found in maternity badger (new notes, neonatal abstinence score), on metavision and in appendix 1
- Used to record changes in symptoms, assess response to treatment.

- Only for opiate withdrawal
- Summative observations should be recorded no more frequently than twice over a 12 hour shift.
- Some units use a threshold figure for commencing treatment, but this is not part of our practice.
- However, a score >8 should prompt a senior review and discussion with registrar/consultant
- Increasing scores should be discussed with registrar/consultant to decide re treatment
- Of particular concern is not being able to settle baby.

History:

- Consider any other reason that the baby could be irritable or unsettled?
- What is the feeding pattern? (evidence of excessive feeding/sucking or dribbling)
- What is the stooling pattern?
- How is the temperature control?
- What is the sleeping pattern?
    - How long does the baby settle for?
    - Does the baby need to be held constantly?
    - Is the baby either asleep or awake and upset?
    - Can the baby lie awake and settled?
- How is the baby's mother?
- Withdrawal scoring: has the score suddenly jumped up, or is there a gradual increase?

Examination: general examination, and response to handling, neurology, tone, and movement pattern (organised/disorganised). It is usually appropriate to plot a growth chart.

Overall assessment

- Does the timing of the onset of symptoms fit?
- Does the pattern of symptoms and signs fit?
- **Yes: make diagnosis of withdrawal: consider treatment or continued observation**
- **No: consider an alternative diagnosis, or change in drug use** (e.g. short acting opiate in addition to methadone)

Investigations: plan for urine testing, if needed, will be part of antenatal plan. If maternal sample sent postnatally then baby sample rarely adds information. If no maternal postnatal sample then take sample from baby following discussion with mother.

Is treatment required?

- Minor symptoms (e.g. sneezing, muscle twitches) are not 'life-impacting' for a baby
- Consider treatment whatever the scoring if:
    - Dysfunctional sleeping or
    - Dysfunctional feeding or
    - Excessive gastrointestinal loss

Supportive therapy:

- Minimize external stimuli (quiet and dimly-lit environment)
- Gentle handling and positioning to maximize containment, avoiding overstimulation
- Maternal reassurance
- swaddling (consider temperature control)
- non-nutritive sucking

<u>Starting treatment</u> – opiate withdrawal
Aim of treatment: normal behaviour, with a 'normal' sleeping and feeding pattern***.***

Management principles:

- Pharmacological replacement therapy
- Minimise separation from mother
- Discharge from hospital as soon as possible (once symptoms stable >24 hours)
- Do not start weaning treatment prior to discharge

Starting dose:

- **Maternal methadone ≥20 mg/day**: morphine sulphate 100 micrograms/kg 4 times daily with apnoea monitor
- **Low dose methadone ≤ 15mg/day** or other opiates(maternal codeine, dihydrocodeine, buprenorphine etc): morphine sulphate 60 micrograms/kg 4 times daily, with apnoea alarm

Nursing considerations

- 6 hourly observations/withdrawal scoring including pulse/resp rate (if concerns re. drowsiness then hold next dose and seek medical review)
- Apnoea alarm - to guard against apnoea from excessive dose or accumulation
- Withdrawal obs and apnoea alarm can be discontinued once baby has been on a stable morphine dose for 36 hours.

Response to treatment:

- Neonatal review of baby within 24 hours of starting morphine and every 24 hours while in hospital
- Decrease dose by 25% if the baby is sleepy or there is poor feeding
- Increase dose by 25% after a minimum of 36 hours if 'normal' sleeping & feeding pattern not achieved.
- Vomiting after medication:
    - If vomits within 20 min of dose: repeat.
    - If vomit 20-60 min after feed: give half normal dose.

Once on a stable dose of morphine for minimum 36 hours, with normal feeding and behaviour for 24 hours, discharge from hospital is possible.

Treatment of non-opiate withdrawal: guided by OSC birth plan

- <u>Alcohol withdrawal:</u> treat seizures/agitation
    - Phenobarbitone 20mg/Kg loading dose (just as a one-off dose)
- <u>Maternal psychotropic medications:</u> See maternal prescribed medications guideline
- <u>Late-onset diazepam withdrawal</u>:
    - Occurs between 10 days and 6 weeks
    - One Stop Clinic appointment within 2 weeks,
    - Parents to contact neonatal secretaries if baby's behaviour changes in between.
    - If also treated for opiate withdrawal there will usually be a period of normal behaviour, before the baby's symptoms change
    - Exclude other causes
    - Start chlorpromazine 0.5 mg/Kg BD
    - Increase to chlorpromazine 0.5mg/Kg QDS after 36-48 hours if baby remains unsettled.
    - Increase or decrease by 25% if baby is either too sleepy or still very unsettled.

- Aim for ‘normal’ behaviour and feeding pattern.

AT DISCHARGE

1. Check no outstanding issues from birth plan
2. Any outstanding results to chase (e.g. virology/toxicology/maternal toxicology)?
3. Inform all involved professionals and copy discharge letter to them
4. Record discharge address/destination in notes
5. Discharge to foster placement: use Social Worker name and address as the contact details on Medway Hospital not the foster carer’s details which are confidential - these should be handwritten in the notes.
6. Follow-up appointment (usually One Stop Clinic) made or requested?
7. Medication prescriptions – adequate medication prescribed?
8. Discharge information sheet (‘***Advice on withdrawal’***) given to mother or foster-carer
9. Create orange notes for clinic

<u>Discharge prescriptions:</u>

- Morphine sulphate (concentration 100mcg/mL): this is supplied in 60 mL bottles.
  - Make sure supply will last until clinic appointment
- Chlorpromazine suspension: 25mg/5mL. 1 bottle is normally sufficient.

Appendix 1: Modified Finnegan Chart:

	Signs and Symptoms	Score						
Central Nervous System Disturbances	Excessive high pitch (or other) cry	2						
	Continuous high pitch (or other) cry	3						
	Sleeps <1hrs post feed	3						
	Sleeps <2hrs post feed	2						
	Sleeps <3hrs post feed	1						
	Mild tremors disturbed	1						
	Moderate/Severe tremors disturbed	2						
	Mild tremors undisturbed	3						
	Moderate/Severe tremors undisturbed	4						
	Increased muscle tone	2						
	Excoration (specific areas)	1						
	Myoclonic jerks	3						
	Generalised convulsions	5						
Metabolic/Vasomotor / Respiratory Disturbances	Sweating	1						
	Fever >37.2°C-38°C	1						
	Fever >38°C	2						
	Frequent yawning (>3-4 times per hour)	1						
	Mottling	1						
	Nasal Snufflyness	1						
	Sneezing (>3-4 times per hour)	1						
	Nasal flaring	2						
	Respiratory rate >60	1						
	Respiratory rate >60 and recession	2						
	Excessive Sucking	1						
GI disturbances	Poor feeding	2						
	Regurgitation	2						
	Projectile vomiting	3						
	Loose stools	2						
	Watery stools	3						
	Total Score							
	Initial of Scorer							

The most important aspects of assessment are:

- **Dysfunctional sleeping or**
- **Dysfunctional feeding or**
- **Excessive gastrointestinal loss**