GUIDELINE

Care of the infant born to a mother taking prescribed psychotropic medication in pregnancy

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA, KEMH Postnatal Wards

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this disclaimer.

Please refer to:

- Maternal Medication/Substance Use (PNW guideline) on how to perform NAS screening and management of the neonate experiencing withdrawal symptoms.
- Neonatal Abstinence Syndrome for management of infants with Neonatal Abstinence Syndrome.

Aim

To provide a safe and consistent clinical guide to facilitate appropriate perinatal care of infants born to mothers taking psychotropic medication.

Risk

The potential to miss opportunities for supportive perinatal care in safeguarding maternal and neonatal transitioning if guidelines are not followed.

Background

- Managing mental health during pregnancy is complex, requiring careful consideration of the effects of untreated illness on both mother and fetus, as well as the risk of complications.
- All psychotropic agents cross the placenta. All agents also are excreted into breastmilk although the quantity varies significantly between agents due dosage, duration of therapy, polypharmacy etc.
- Babies born to mothers using psychotropic drugs are exposed to an increased risk for poor neonatal adaptation syndrome (PNAS). The underlying aetiology is

thought to be due to in-utero exposure (toxicity), withdrawal of drug after delivery, or a combined effect.

Key points

- Intrauterine exposure of psychotropic medication can affect postnatal adaptation and transitioning of the newborn and increases the risk of requiring resuscitation. Documentation about maternal medication is crucial as it will inform the obstetric and neonatal team about requirements for resuscitation.
- Symptoms of PNAS vary significantly in duration and intensity and the severity cannot be predicted. Symptoms usually occur within the first 24-72 hours of life and often affect the central nervous and respiratory systems. Common symptoms are hypoventilation, apnoea, jitteriness, restlessness, irritability, myoclonic jerks, lethargy and/or poor feeding are common symptoms.
- The effects of exposure are commonly increased in infants born preterm or those clinically unwell, and in case of maternal polypharmacy. The risk for PNAS is highest in cases when a combination of these factors is present.
- PNAS is a diagnosis of exclusion. Symptomatic infants should be assessed for other potential underlying causes such as sepsis, hypoglycaemia, electrolyte disturbances, and inborn errors of metabolism.

General Management

- The management will depend on the type and number of psychotropic medication(s) taken by the mother and other risk factors such as prematurity (Table 1). As symptoms cannot be predicted, a member of the paediatric team should be present at delivery to provide resuscitation if required.
- All infants should undergo a full newborn physical examination (baby check) in the first 24 hours, with particular attention to the spine, palate, cardiovascular system. This should also include a review of the antenatal scans. Refer to Figure 1: Flow Chart for Neonates at Risk for Poor Neonatal Adaptation Syndrome (PNAS) to guide management after birth.
- Interventions to be considered are assessment and monitoring of the baby by the postnatal team, communication with the baby's family and healthcare practitioners, information sharing and consideration of any safeguarding concerns.
- If possible, the infant should remain with the mother unless a safeguarding alert says otherwise, or a medical decision is made to admit in NICU or SCN for further management (Figure 1).
- In a symptomatic infant consider FBC, U&E, Ca2+, Mg2+, and blood gas, as well as a sepsis screen (as per Neonatal Early Onset Sepsis Calculator). If infant is lethargic/ encephalopathic, and no other reason identified, consider testing for metabolic conditions, including ammonia level.

- Note: if mothers are taking opioid and psychotropic medications the risk of withdrawal will increase, and symptoms may be more severe. Consider PNAS (48 hours) and NAS observations (5 days) as clinically indicated.

Breastfeeding

- Although most of the maternal psychotropic drugs are present in breastmilk, breastfeeding is usually possible. Early input from the Obstetric Medicines Information Service (08 6458 2723) should be arranged if not available already.
- Timely input from a Lactation Consultant should be arranged if breastfeeding issues arise. Successful, well supported breastfeeding is a positive indicator for maternal mental health outcomes.
- No advice should be given to the mother by the Paediatric team regarding their psychotropic medication. This should be managed by their psychiatrist or GP.

Referral pathway for high-risk deliveries

- Pregnant women seen by a Consultant at the Department of Psychological Medicine and being treated with lithium, lamotrigine or combination of multiple psychotropic drugs should be referred to the Department of Neonatology antenatally.
- Coordination of referrals to the Neonatologist on-call for antenatal consultations will be conducted by the senior midwife of the Childbirth and Mental Illness Clinic (CAMI) clinic via the Neonatal Directorate.
- A neonatal management plan should be filed in mother's medical record, encompassing delivery room environment and postnatal care of the newborn. Measures to facilitate positive maternal-infant experiences and attachment should be addressed.
- Specific counselling with careful consideration of the risks and benefits of breastfeeding in the setting of maternal lithium therapy will be provided. Support of maternal feeding preferences should be made with reference to published safety guidelines while also considering neonatal risk factors.

Quick Guide to Maternal Psychotropic Medication and Neonatal Care

This is a non-comprehensive list to guide initial assessment and management. For further information please refer to the Women's and Perinatal Mental Health Referral and Management Guideline.

Table 1: Maternal Psychotropic Medication, neonatal risk, and management	
Medication	**Clinical risks and management**
Antidepressants: SSRI SNRI TCAs	Low Apgar scores; need for resuscitation; mild to severe RDS or PPHN; poor neonatal adaptation syndrome (agitation, irritability, insomnia, poor feeding, hypoglycaemia, hypothermia, hypo/hypertonia). Low exposure in breastmilk.
Antipsychotics: Risperidone [1)] Quetiapine Olanzapine Clozapine [2)]	Neonatal toxicity and withdrawal: Agitation, irritability, dyskinesia, hypo- or hypertonia, dyskinesia, tremor, tachycardia, sedation, poor feeding, change in sleep pattern, hypoglycaemia. Low exposure in breast milk. *[1)] First-trimester use of risperidone may be associated with an increase in absolute risk of major malformation and cardiac malformation.* *[2)] Trans-placental passage with risk of agranulocytosis and hypoglycaemia. Breastfeeding is usually not recommended. If mother still decides to breastfeed, then FBC at birth and weekly recommended.*
Benzodiazepines	Low Apgar scores and need for resuscitation, apnoea, hypothermia, hypo- or hypertonia, lethargy, irritability, tremor, poor feeding, vomiting, and agitation. Symptoms occur more often in preterm than term infants and can persist up to three months. Low exposure in breast milk.
Anticonvulsants [3)]: Sodium Valproate Carbamazepine Lamotrigine	Poor feeding, vomiting, jaundice, rashes. Variable exposure with breastmilk requires monitoring. For clinical assessment and blood tests: LFT, FBC, SBR *[3)] Risk of major malformation and cardiac malformation in the newborn, and adverse neurodevelopmental outcomes for Sodium Valproate.*
Lithium [4) 5)]	Lithium toxicity: low Apgar scores, apnoea, hypoventilation, bradycardia, lethargy, hypotonia, seizures. Symptoms generally resolves within one to two weeks. Management: Monitor for lethargy, dehydration, feeding difficulties, hypotonia, signs for thyroid and renal dysfunction. Feeding: Breastfeeding is usually not recommended[4)]. If the mother continues to take lithium and wishes to breastfeed, consider blood serum lithium level, TFTs, UEC in addition to NBST at 48-72 hours of life [5)]. *[4)]While current recommendations are the avoidance of breastfeeding, the effect of lithium in the breastmilk is not fully understood. In certain circumstances (e.g., preterm infant at risk for necrotising enterocolitis) the benefits of breastmilk may outweigh risks. Mothers should be told about this.* *[5)]There is some evidence of lithium interfering with thyroid and renal function, however to the incidence and relationship with neonatal blood lithium levels*

Table 1: Maternal Psychotropic Medication, neonatal risk, and management	
Medication	**Clinical risks and management**
	remain uncertain and require further research. Therefore, neonatal lithium levels are not routinely performed.

Abbreviations: Tricyclic Antidepressants (TCA), Selective Serotonin Reuptake Inhibitors (SSRIs), Serotonin and norepinephrine reuptake inhibitors (SNRIs); Persistent Pulmonary Hypertension of the Newborn (PPHN). Note that evidence for all drug classes is mostly of 'low' to 'very low' quality.

Related policies, procedures and guidelines

See WNHS Women's Mental Health Clinical Guidelines

- Women's and Perinatal Mental Health Referral and Management Guideline
- MR215.12 Pregnancy Monitoring Lithium Carbonate

Neonatology guidelines:

- Neonatal Early Onset Sepsis Calculator
- Lactation Consultant
- Sepsis: Neonatal
- Hypoglycaemia
- Metabolic Disorders: Inherited
- Maternal Medication Substance Use Quick Reference Guide

References and related external legislation, policies, and guidelines

- Women's and Perinatal Mental Health Referral and Management Guideline
- National Institute for Health and Care Excellence, *Antenatal and postnatal mental health: clinical management and service guidance: Clinical guideline 192* (December 2014; last updated February 2020)
- Austin, Marie-Paule, Highet, Nicole and the Expert Working Group (2017) *Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline* (Melbourne: Centre of Perinatal Excellence).
- Galbally M, et al. Breastfeeding and lithium: is breast always best? Lancet Psychiatry. 2018 Jul;5(7):534-536. doi: 10.1016/S2215-0366(18)30085-3. Epub 2018 May 3. PMID: 29731410.
- Uguz F, Sharma V: Mood stabilizers during breastfeeding: a systematic review of the recent literature. Bipolar Disord 2016; 18: pp. 325-333.
- Cornet MC, et al. Maternal treatment with selective serotonin reuptake inhibitors during pregnancy and delayed neonatal adaptation: a population-based cohort study. Arch Dis Child Fetal Neonatal Ed. 2024 Apr 18;109(3):294-300. doi: 10.1136/archdischild-2023-326049. PMID: 38071585

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Figure 1: Flow Chart for Neonates at Risk for Poor Neonatal Adaptation Syndrome (PNAS)