

ANTIDEPRESSANTS IN PREGNANCY - NEONATAL OBSERVATIONS AND INTERVENTIONS

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Identification, referral and education of a woman on antidepressant medication in pregnancy
- Appropriate recognition and management of neonatal withdrawal and toxicity

2. PATIENT

- Woman medicated with antidepressants in the third trimester of pregnancy
- Neonate of a woman medicated on antidepressants

3. STAFF

- Medical, nursing and midwifery staff

4. EQUIPMENT

- Thermometer
- Stethoscope
- Oxygen Saturation Monitor

5. CLINICAL PRACTICE

ANTENATAL MANAGEMENT

- Identify and record antidepressant medications currently taken by woman in pregnancy at first presentation or booking-in visit
- Ensure woman commenced on antidepressants during pregnancy have appropriate record of medication in medical record
- Refer any woman taking antidepressants to Multidisciplinary Case Discussion (MCD) for triage and ongoing mental health management
- Consult with the obstetric team about type and amount of antidepressants woman taking
- Ensure the risks and benefits of taking antidepressants have been discussed with the woman by her prescriber or MotherSafe. It is very important that a woman consults a doctor before deciding to change or stop taking medication
- Offer referral to MotherSafe for information and/or individual assessment (Individual assessments are available with referral by General Practitioner (GP), phone 02 9382 6539 for an appointment)
- Advise woman of the recommendation to stay in hospital postpartum for a minimum of three days to observe neonate for signs of withdrawal, toxicity or pulmonary hypertension with the Neonatal Abstinence Score (NAS) chart (see appendix 1)
- Advise woman that breastfeeding (or giving expressed breastmilk) can possibly mitigate the withdrawal symptoms

INTRAPARTUM MANAGEMENT

- Record current antidepressant medications taken in the medical record detailing name of medication, dose, frequency and route
- Advise woman of the recommendation to stay in hospital postpartum for a minimum of three days to observe neonate for signs of withdrawal, toxicity or pulmonary hypertension with the NAS chart (see appendix 1)

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POSTNATAL MANAGEMENT

MATERNAL

- Recommend woman to remain in hospital for three days for monitoring of the neonate for withdrawal or other effects, including toxicity or pulmonary hypertension with NAS chart (If woman requests discharge earlier than three days have neonate reviewed by the paediatric team)
- Provide any woman on antidepressants education on normal adaptation and behaviour and potential withdrawal signs that neonate may develop. Breastfeeding can significantly reduce the likelihood of neonatal adaptation problems
- Advise woman to seek medical advice (i.e. Midwifery Group Practice, Midwifery Support Program, GP, or children hospital) if potential signs and symptoms of withdrawal observed in the neonate when at home:
 - Body shakes (tremors), overactive reflexes (twitching), tight muscle tone
 - Fussiness, excessive crying or having a high pitch cry
 - Excessive yawning/sneezing, stuffy nose
 - Poor feeding/sucking
 - Respiratory distress (breathing really fast)
 - High temperature, excessive sweating or unusually blotchy skin

NEONATE

- Recommend observation of neonate exposed to antidepressants in pregnancy in the hospital setting for the first three days after birth
- Complete the Modified Neonatal Abstinence Score (NAS) chart (see appendix 1) after each feed
 - Implement the RHW NAS – Management LOP if scores are :
 - 11 on one occasion
 - 7 on three consecutive occasions
 - an average score of 8 on three occasions
 - Contact paediatric team on duty and admit neonate to Newborn Care Center (NCC) if the neonate meets above NAS criteria or if there are other concerns

6. DOCUMENTATION

- Neonatal Abstinence Score chart
- Medical record

7. EDUCATIONAL NOTES

- Note that modified Neonatal Abstinence Score (NAS) system is only validated for the diagnosis of withdrawal in narcotic-exposed full-term infants and that the scores of affected neonates (especially those affected by maternal stimulants) may actually be low⁴
- Psychiatric/psychosocial morbidity was the third leading cause of indirect maternal death in Australia in 2009-2018 hence adequate treatment of mental health disorders in pregnancy is essential^{6,12} Suboptimally treated maternal psychiatric problems also significantly impair childhood neurodevelopment and safety^{9, 10}
- Late trimester exposure to antidepressants may be associated with withdrawal and toxicity symptoms¹⁰
- The Chemical Use in Pregnancy Service (CUPS) team – 9332 8777 (page) – may be contacted if there are any concerns about neonatal exposure to anti-depressant medications

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- All infants requiring admission to NCC for further management must have an established on-going management plan prior to discharge from hospital
- MotherSafe has the most up to date resources for Selective Serotonin Reuptake Inhibitors (SSRI), Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs) and tricyclic antidepressants. Women and healthcare providers should contact them for information

SPECIFIC SSRI ISSUES

- SSRIs are the most common antidepressants prescribed in pregnancy¹¹
- There is an associated small increased risk in persistent pulmonary hypertension in neonates (PPHN) exposed to SSRI's after 20 weeks gestation^{7,11}
- Neonatal SSRI withdrawal/toxicity symptoms may occur within 4 days postpartum in up to 25% of neonates, but, are usually mild and resolve within 2-3 days^{4,6}
- Neonatal withdrawal/toxicity symptoms may include respiratory distress, temperature changes, feeding/settling difficulties, neurological symptoms, hypoglycaemia and jaundice¹¹
- Women should be encouraged to breastfeed when on SSRIs. Breastfeeding significantly reduces the likelihood of neonatal adaptation problems. Expressed breastmilk (EBM) can be stored and given to premature or ill infants, exposure to SSRIs through breastfeeding is very low (usually < 5% and often < 1%)⁸

8. RELATED POLICIES / PROCEDURES/ CLINICAL PRACTICE LOP

- Neonatal Abstinence Syndrome (NAS) Management
- Neonatal Observation outside Newborn Care Centre
- Mental Health Escalation – Maternity Inpatient
- Mental Health Escalation - Maternity outpatient

9. RISK RATING

- Low

10. NATIONAL STANDARD

- Standard 5 – Comprehensive Care

11. REFERENCES

- 1 Sanz EJ, De-las-Cuevas C, Kiuru A, Bate A, Edwards R. Selective Serotonin reuptake inhibitors in pregnant women and neonatal withdrawal syndrome: a database analysis. *Lancet*. 2005; 365: 482-87.
- 2 Grigoriadis S, VonderPorten E H, Mamisashvili L, Tomlinson G, Dennis C, Koren G et al. Prenatal exposure to antidepressants and persistent pulmonary hypertension of the newborn: systematic review and meta-analysis *BMJ* 2014; 348 :f6932
- 3 Pakalapati RK, Bolisetty S, Austin MP, Oei J. Neonatal seizures from in utero venlafaxine exposure. *J Paediatr Child Health*. 2006 Nov; 42(11):737-8.
- 4 Finnegan LP, Connaughton JF Jr, Kron RE, Emich JP. Neonatal abstinence syndrome: assessment and management. *Addict Dis*. 1975; 2(1-2):141-58. PMID: 1163358
- 5 Austin, M. P. To treat or not to treat: maternal depression, SSRI use in pregnancy and adverse neonatal effects. *Psychological Medicine*, 2006 36(12), 1663-1670.
- 6 Austin M-P, Highet N and the Expert Working Group (2017). *Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline*. Melbourne: Centre for Perinatal Excellence

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- 8 Kendall-Tackett K, Hale TW. Review: The Use of Antidepressants in Pregnant and Breastfeeding Women: A Review of Recent Studies. *Journal of Human Lactation*. 2010;26(2):187-195. doi:[10.1177/0890334409342071](https://doi.org/10.1177/0890334409342071)
- 9 Suri R, Lin AS, Cohen LS, Altshuler LL. Acute and long-term behavioral outcome of infants and children exposed in utero to either maternal depression or antidepressants: a review of the literature. *J Clin Psychiatry*. 2014 Oct; 75(10):e1142-52. doi: 10.4088/JCP.13r08926. PMID: 25373125.
- 10 Gentile S. Untreated depression during pregnancy: Short- and long-term effects in offspring. A systematic review. *Neuroscience*, 2017;342 154-166
- 11 Huybrechts K, Bateman B, Palmsten K, Desai R, Paterno E, Gopalakrishnan C, Levin R, Mogun H, Hernandez-Diaz S. Antidepressant use late in pregnancy and risk of persistent pulmonary hypertension of the newborn. *JAMA*. 2015; 313 (21): 2142-2151. doi:10.1001/jama.2015.5605
- 12 Australian Institute of Health and Welfare 2020. Maternal Deaths in Australia. Cat. no. PER99. Canberra: AIHW. <https://www.aihw.gov.au/reports/mothers-babies/maternal-deaths-in-australia>

REVISION & APPROVAL HISTORY

Reviewed and endorsed Maternity Services LOPs 9/3/21
Approved Quality & Patient Safety Committee 17/9/15
Reviewed and endorsed Maternity Services LOPs group 2/9/15
Previously titled '*Antidepressants in Pregnancy : Neonatal Withdrawal and Toxicity*'
Approved Quality Council 20/3/06
Endorsed Maternity Services Clinical Committee 14/2/06
Endorsed Neonatal Clinical Committee 13/12/05

FOR REVIEW : APRIL 2026



Holes Punched as per AS2828.1: 2012
BINDING MARGIN - NO WRITING

NH606566 301213



Health

Facility:

NEONATAL ABSTINENCE SCORE

FAMILY NAME		MRN
GIVEN NAME		<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
D.O.B. ____/____/____	M.O.	
ADDRESS		
LOCATION / WARD		
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		

Frequency:

Date and time in 24 hour clock

SYSTEM	SIGNS & SYMPTOMS	SCORE																	
CENTRAL NERVOUS SYSTEM DISTURBANCES	High pitched cry	2																	
	Continuous high pitched cry	3																	
	Sleeps < 1hr between feeds	3																	
	Sleeps < 2 hrs between feeds	2																	
	Sleeps < 3 hrs between feeds	1																	
	Mild tremors disturbed	1																	
	Moderate-Severe tremors disturbed	2																	
	Mild tremors undisturbed	3																	
	Moderate-Severe tremors undisturbed	4																	
	Increased muscle tone	2																	
	Excoriation (specify area)	1																	
	Myoclonic jerks	3																	
	Generalised convulsions	5																	
METABOLIC/ASOMOTOR RESPIRATORY DISTURBANCES	Fever (37.3 – 39.3°C)	1																	
	Fever (39.4°C & higher)	2																	
	Frequent yawning (>3-4 times in ½hr)	1																	
	Nasal stuffiness	1																	
	Sneezing (3-4 times in ½hr)	1																	
	Nasal Flaring	2																	
	Respiratory rate > 60/min	1																	
Resp. rate > 60/min with retractions	2																		
GASTROINTESTINAL DISTURBANCES	Excessive sucking	1																	
	Poor feeding	2																	
	Regurgitation	2																	
	Projectile vomiting	3																	
	Loose stools	2																	
Watery stools	3																		
	TOTAL SCORE:																		
	SCORER'S INITIALS:																		
SCORER'S SIGNATURE:																			

NEONATAL ABSTINENCE SCORE

SMR110.400

Facility:	FAMILY NAME	MRN
	GIVEN NAME	<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE
NEONATAL ABSTINENCE SCORE	D.O.B. ____/____/____	M.O.
	ADDRESS	
	LOCATION / WARD	
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE		

Neonatal Abstinence Scoring Information Sheet

SIGNS & SYMPTOMS

<i>High pitched cry:</i>	Score 2 if a cry is high pitched in its peak. Score 3 if a cry is high pitched throughout.
<i>Sleep:</i>	Consider total amount of time baby was asleep between feeds.
<i>Section on Tremors:</i>	This is a scale of increasing severity and babies should only get one score from the four categories. Undisturbed means when a baby is asleep or at rest in cot.
<i>Increased Muscle Tone:</i>	Score if has generalised muscle tone greater than the upper limit of normal.
Excoriations:	Score only when excoriations first appear, increase in severity or appear in a new area.
<i>Yawning and Sneezing:</i>	Score if occurs more than 3 to 4 times in 30 minutes.
Nasal flaring - Respiratory rate:	Score if present without other evidence of airways disease.
<i>Excessive sucking:</i>	Score if more than that of the average hungry baby.
<i>Poor feeding:</i>	Score if baby is very slow to feed or takes inadequate amounts.
<i>Regurgitation:</i>	Score only if occurs more frequently than usual in newborn.

MODIFICATIONS FOR PREMATURITY

Mainly necessary in the sections on sleeping, eg; *a baby who needs 3 hourly feeds can only sleep at most 2½ hours between them.* Scoring should be:

- 1) if baby sleeps less than 2 hours
- 2) if baby sleeps less than one hour, and
- 3) if does not sleep between feeds;

Many premature babies require tube feeding. Babies should not be scored for poor feeding if tube feeding is customary for their period of gestation.

The content of this form is based on the modified Finnegan's score

