

Provincial Clinical Guideline



Title: Eat Sleep Console

Level: Provincial

Service Area: Obstetrical and Neonatal Care

Applicable to: All healthcare providers, organizations, and facilities across Manitoba involved in delivering health services provided or funded by the government or a health authority.

Approved by: Provincial Women and Children Program

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1.0. Purpose

- 1.1. To identify newborns at risk for Neonatal Abstinence Syndrome (NAS) & Neonatal Opioid Withdrawal Syndrome (NOWS) and provide guidance on the use of the Eat Sleep Console (ESC) Assessment Tool and related management of NAS.
- 1.2. To develop a positive and supportive relationship which encourages and supports the parent/guardian or designated support person (DSP) newborn dyad and continued non-pharmacological care interventions while in hospital. The ESC approach to care has been demonstrated to improve clinical outcomes for both parent/guardian or DSP and newborn such as decreased length of stay, reduced exposure to pharmacologic agents, and lower overall cost of treatment when compared to other models of care.
- 1.3. To support the newborn exposed to substances to achieve developmentally normal eating, sleeping, consoling, and weight gain milestones.

Note: The term maternal is intended to mean anyone with gestating biology who has recently delivered and is not a reflection of gender identity. In practice, please use pronouns based on the preference of the client(s).

Note: The term breastfeeding is used throughout this guideline. This term may not always be the preferred term for all clientele. Please ask each client what language they feel most comfortable with regards to infant feeding (e.g. chestfeeding) and other gendered terms. Please see [3.1.4](#) and [3.1.5](#) for more information regarding Gender Inclusivity and Gender Identity.

2.0. Scope

- 2.1. Applies to all health authorities in Manitoba, where obstetrical and newborn care is provided.
- 2.2. Applies to all obstetrical and neonatal care providers (nurses, obstetricians, neonatologists, pediatricians, family practice physicians & midwives) in all health authorities where obstetrical and neonatal care is provided.

3.0. Definitions

3.1. Defined Terms

- 3.1.1 Cultural Humility: A process of self-reflection to understand personal and systemic biases and to develop and maintain respectful processes and relationships based on mutual trust. Cultural humility involves humbly acknowledging oneself as a learner when it comes to understanding another's experience (First Nations Health Authority, n.d.)
- 3.1.2 Cultural Safety: An outcome based on respectful engagement that recognizes and strives to address power imbalances inherent in the healthcare system. It results in an environment free of racism and discrimination, where people feel safe when integrating their identity, culture and communication into their health care decisions and interactions (Schmidt et al., 2019).
- 3.1.3 Eat Sleep Console (ESC): Is a model of care to guide and support the care of newborns exposed to substances to achieve normal eating, sleeping, consoling and weight gain milestones. The framework acknowledges the importance of the parent/ guardian or DSP as the primary care provider and supports the inclusion of this person(s) as members of the care team (Perinatal Services BC, 2020).

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- 3.1.4 Gender Identity: How someone thinks and feels about the sex they are. For example, how someone emotionally or spiritually identifies as a man, woman, both, or neither. Sometimes gender identity does not match biological sex (Sexuality Education Resource Centre [SERC], 2023).
- 3.1.5 Gender Inclusivity: As the medical community grows in its understanding of the spectrum of gender, our language, assumptions, and implicit biases must evolve away from binarism and overvaluation of biologic sex. Traditional perinatal care is heavily gendered and parents who identify outside of explicit cisgendered norms encounter barriers and discrimination in care. Gender inclusion results in a safe and dignified space for all parenting persons, with less emphasis on newborn sex.
- 3.1.6 Harm Reduction: A client centered approach to care that helps people reduce the harmful impacts of substance use and addiction through informed decision-making in a non-judgmental non-coercive setting to live safer and healthier lives (Canadian Mental Health Association, n.d.).
- 3.1.7 Neonatal Abstinence Syndrome (NAS): Inclusive of neurologic, gastrointestinal and musculoskeletal signs and symptoms associated with withdrawal when substance sources are interrupted at birth (Perinatal Services BC, 2020).
- 3.1.8 Neonatal Opioid Withdrawal Syndrome (NOWS): Inclusive of clinical features specific to withdrawal from opioids. The severity of the effects experienced by the newborn, as well as the onset and duration of the symptoms, is dependent on the half-life of the substance used, but overall is not well understood. For example, methadone and buprenorphine have a longer half-life resulting in a later onset of withdrawal, whereas most other opioids have a shorter half-life and results in early onset of symptoms (Perinatal Services BC, 2020).
- 3.1.9 Newborn Responsive-Family Centered Care: The provision of appropriate care for newborns during periods of acute withdrawal and focuses on mitigating the effects of toxic stress. Parents' active engagement and response to the needs of the newborn can have a

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profound positive influence on the effectiveness of social buffering during stressful situations. This requires collaboration between healthcare providers and the parent/guardian or DSP, recognizing that they play an integral role in the care of their newborn (Perinatal Services BC, 2020).

- 3.1.10 **Poor Neonatal Adaptation Syndrome:** Is inclusive of clinical features specific to prenatal exposure to selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs). Includes features of NAS and NOWS but also characterized by respiratory distress syndrome. Also called SSRI neonatal behavioral syndrome (NBS), but restricted to SSRI (Perinatal Services BC, 2020).
- 3.1.11 **Stigma:** A set of negative attitudes or beliefs about a person or a group based on a quality, behaviour or circumstance (Schmidt et al., 2019). Language can be stigmatizing; therefore, healthcare providers should be aware of the language they use when communicating with clients.
- 3.1.12 **Strengths-based Health Care (SBHC):** Recognizing, mobilizing, capitalizing on and developing a person's strengths to promote health and facilitate healing. It is a means of empowering not only patients and their families, but also clinicians, practitioners, leaders, and managers. SBHC has the potential to transform a depersonalized and fragmented health care system into a personal and collaborative model that fosters opportunities for self-healing, engenders hope, and enables patients to draw upon their strengths even in the most difficult circumstances (McGill Ingram School of Nursing, n.d.).
- 3.1.13 **Substance Exposed Newborn:** Is a newborn who came in contact with one or more agents during pregnancy that may cause symptoms of withdrawal postnatally (Perinatal Services BC, 2020).
- 3.1.14 **Substance Use Disorder:** A complex condition that manifests by compulsive substance use despite harmful consequences.
- 3.1.15 **Trauma Informed Age Appropriate Care:** A concept that acknowledges that physical and psychological experiences, even in infancy, can lead to lifelong toxic stress and impact normal childhood development. Toxic stress can occur from prolonged or frequent absences from

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protective relationships such as: maternal separation and unresponsive or inconsistent care (Perinatal Services BC, 2020).

- 3.1.16 Trauma Informed Care (TIC): Is a framework that comprises of 6 principles: safety, trustworthiness/transparency, peer support, collaboration/mutuality, empowerment (voice and choice), and cultural/historical/gender issues (Sperlich et al., 2017). TIC also recognizes the widespread impact that trauma has on individuals and the risk of unintentional re-traumatization in the healthcare setting.
- 3.1.16(a) Experiences that feel isolating, overwhelming, or evoke a feeling of helplessness can trigger a trauma response. Actions that may be triggering can include, but are not limited to:
- Addressing a client in diminutive terms like “sweetie”
 - Excluding a client from care decisions
 - Using depersonalized language or labelling an individual with terminology such as “an addict”
 - Settings and circumstances that may prompt a trauma response can include: large group settings, sudden change, and limited explanations.
- 3.1.16(b) Trauma-informed strategies reinforce/protect autonomy, personhood, and parental voice. This can include actions such as:
- Inviting parents/guardian or DSP to lead the discussion with their observations;
 - Reading all chart notes to avoid needless repetition of patient story;
 - “Sports-casting” (i.e. offering step by step narration of actions) during exams and interventions to engage parent more like a peer;
 - Considerate language that is non-judgmental (e.g., sensitivity with the term “withdrawal” since the adult experience is one of profound pain and suffering. “Symptoms that can cause weight loss,” for example, is

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more neutral and sets the stage for solution-oriented conversation);

- Seeking opportunities to maximize safety, relationship and agency are meaningful antidotes to the features of trauma.

3.1.17 Truth & Reconciliation Commission (TRC) - Informed Cultural Safety: The first Call to Action of the TRC is to honour and preserve the family unit and community ties of Indigenous persons (Truth and Reconciliation Commission of Canada [TRC], 2015). This Call identifies a history of cultural bias and inequity that has been evident in Canada's Child Protection Service agencies, and challenges Canadians to seek healing within and between communities. Parents who have been supported on opioid agonist therapy during pregnancy have had a disproportionate and sometimes unindicated involvement with CFS, exacerbating these racialized inequities. Healthcare providers should be aware of the risk of newborn apprehension that is linked to substance use disorders, and the deep sense of anxiety patients feel about losing their child as an unintended consequence of their medical therapy. This is also Trauma Informed Care.

3.2. Abbreviations

3.2.1 ESC: Eat Sleep Console

3.2.2 NAS: Neonatal Abstinence Syndrome

3.2.3 NOWS: Neonatal Opioid Withdrawal Syndrome

3.2.4 NBS: Neonatal Behavioral Syndrome

3.2.5 SSRI: Selective Serotonin Reuptake Inhibitors

3.2.6 SNRIs: Serotonin Norepinephrine Reuptake Inhibitors

3.2.7 SBHC: Strengths-Based Health Care

3.2.8 TIC: Trauma Informed Care

3.2.9 DSP: Designated Support Person

3.2.10 TRC: Truth & Reconciliation Commission

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- 3.2.11 CFS: Child and Family Services
- 3.2.12 STS: Skin to Skin
- 3.2.13 KC: Kangaroo Care
- 3.2.14 EBM: Expressed Breastmilk
- 3.2.15 SNS: Supplemental Nursing System
- 3.2.16 IBCLC: International Board-Certified Lactation Consult
- 3.2.17 NICU: Neonatal Intensive Care Unit

3.3. Professional Groupings

- 3.3.1 Nurse: Applies to a Registered Nurse, Registered Psychiatric Nurse, Licensed Practical Nurse, or Nurse Practitioner.

4.0. Guideline

- 4.1. When possible, identify an individual whose newborn may be at risk for NAS/NOWS/Poor Neonatal Adaptation Syndrome during the prenatal period and offer the pregnant person an opportunity to learn about the option of ESC. Provide the pregnant person with relevant patient education. See [Appendix A – List of Potential Substance that may Cause Withdrawal in the Newborn](#).
 - 4.1.1 If the patient is interested, plan a meeting at a convenient time for the client with health care team members who may support care planning, client education and client support. Team members may include: a physician, midwife, nurse practitioner, nurse, and social worker.
 - 4.1.2 Identify additional supports that the pregnant person is interested in having on their team. Additional team members may include: a lactation consultant, Indigenous services, spiritual care, additional family or supports, doula, pharmacist, public health, mental health, addictions medicine, etc.
 - 4.1.3 When applicable, support the patient to create a care plan for labour, delivery and the postpartum hospital stay as informed by the pregnant person. Important considerations may include:

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- 4.1.3(a) Estimated length of stay (7 days for substances with a long half-life and 3 days for substances with a short half-life)
 - 4.1.3(b) Support planning for child care at home (if applicable)
 - 4.1.3(c) Support planning for breaks for parent(s) while in hospital
 - 4.1.3(d) Support planning for access to meals
 - 4.1.3(e) Support planning for transportation and parking
 - 4.1.3(f) Plan for rooming in
 - 4.1.3(g) Postpartum discharge planning
- See [Resource 6.1 - Sample Eat Sleep Console Letter for Delivery Site](#).
- 4.2. Provide non-judgmental fact-based information about infant feeding choices. Breastmilk can delay and/or diminish symptoms of withdrawal in the newborn. When possible encourage breastfeeding. Common challenges experienced by birthing parents of substance-exposed infants include guilt, misinformation on the safety of breastfeeding as well as negative attitudes of health professionals See [Appendix B - Substance Use and Breastfeeding Traffic Light](#) and [Resource 6.2 - Substance Use and Breastfeeding Provincial Clinical Guideline](#).
- 4.2.1 For pregnant people wishing to breastfeed, planning begins as soon as possible in pregnancy with a lactation consultant or knowledgeable breastfeeding service provider. Newborns exposed to substances may experience impaired feeding behaviors such as:
- 4.2.1(a) Excessive suck;
 - 4.2.1(b) Uncoordinated suck and swallow;
 - 4.2.1(c) Regurgitation;
 - 4.2.1(d) Hyperphagia;
 - 4.2.1(e) Predominance of “fussing” behaviors when bottle fed;
 - 4.2.1(f) Short feeds/not completing feeds;
 - 4.2.1(g) Abdominal discomfort;
 - 4.2.1(h) Dysmature pattern of swallow-breath interaction.

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- 4.3. Document known maternal substance use in the prenatal chart. See [Appendix A - List of Potential Substances That May Cause Withdrawal in the Newborn](#).
- 4.4. On admission to an acute care facility for antepartum or intrapartum care, staff will offer ESC care to any pregnant person with a substance use history in this pregnancy or who is living with a substance use disorder. Staff will provide relevant information and patient education to the pregnant person and initiate consults with additional team members as needed. See [4.1.2](#) for team member options.
- 4.5. On admission to an acute care facility for intrapartum care, staff will enact ESC plan as indicated in the chart. Staff will consult with the pregnant person and identified healthcare provider team members if plans require altering due to medical circumstances. Staff may place an ESC Poster near the entrance of the room to inform staff to enter quietly. See [Resource 6.3 - ESC Room Poster Template](#).
- 4.6. Initiate skin-to-skin (STS) immediately after delivery unless birth parent or newborn are unstable. STS is recommended for an hour or until after the completion of the first feed and then as often as possible during the hospital stay. If the newborn requires transfer to the NICU, initiate kangaroo care as soon as possible.
- 4.7. If the birth parent wishes to breastfeed, support dyad to practice/initiate within the first hour. See [Appendix B - Substance Use and Breastfeeding Traffic Light](#) and [Resource 6.2 - Substance Use and Breastfeeding Provincial Clinical Guideline](#).
 - 4.7.1 In addition to the above feeding difficulties mentioned in [4.2.1](#) newborns experiencing withdrawal are in a hyper-metabolic state which may impact weight loss/gain.
 - 4.7.2 Ways to support breastfeeding include:
 - 4.7.2(a) Encouraging skin to skin (STS)/Kangaroo Care (KC) often;
 - 4.7.2(b) Supporting the parent to use the laid-back breastfeeding position;
 - 4.7.2(c) Respond to early newborn feeding cues;
 - 4.7.2(d) Provide hands off breastfeeding support as to prevent negative experience at the breast;

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- 4.7.2(e) Offer small frequent feeds;
 - 4.7.2(f) Use breast compressions while feeding;
 - 4.7.2(g) Building a milk supply by hand expressing or hands on pumping after feeds.
- 4.7.3 If the newborn is experiencing difficulties latching, support the parent to provide expressed breastmilk (EBM) with the use of alternative feeding methods such as finger feeding, supplemental nursing system (SNS), cup, spoon, drip drop method, etc.
- 4.8. If the parent wishes to breastfeed, but the newborn requires NICU care, support hand expression as soon as possible within the first hour after birth. If possible, label the breastmilk and send it to the NICU as soon as feasible.
- 4.9. Provide non-judgmental fact-based information about infant feeding choices for birth parents who have made the informed decision to bottle feed. They should be encouraged to implement paced bottle feeding. Special attention is made to support the newborn's chin during feeds in order to assist coordination of suck and swallow. See [Resource 6.10 – How to Bottle Feed Your Baby: Paced Bottle Feeding](#).
- 4.10. Non-pharmacological interventions are the first line of ESC treatment. Implement as many non-pharmacological interventions as possible immediately after birth and initiate the ESC Assessment Tool within 4-6 hours of birth (after a feed) and then every 2-4 hours (after a feed). Include input from all team members including the birth parent/family. Provide teaching to birth parent/family to support non-pharmacological interventions. See [Resource 6.4 - ESC Assessment Tool](#) and [Resource 6.5 - ESC Education Poster: Ways to Support Baby](#).
- 4.11. Initiate ESC Standard Orders for applicable admitting unit and clinical circumstance. See [Resource 6.6 - ESC Standard Orders on Postpartum Units](#), [Resource 6.7 - ESC Standard Escalation Orders for NICUs](#), and [Resource 6.8 - ESC Standard Weaning Orders for NICUs](#).
- 4.12. Document a progress note entitled "ESC" stating this model of care has been initiated and ensure that all pertinent health information is transferred from the parent's chart into the newborn's chart.

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- 4.13. Criteria for admission to a Postpartum Unit. See [Appendix C - ESC Postpartum Algorithm](#):
- 4.13.1 No withdrawal symptoms;
 - 4.13.2 Mild withdrawal symptoms (controlled with non-pharmacological interventions), with no pharmacological treatment required;
 - 4.13.3 Withdrawal symptoms requiring 3 consecutive doses of PRN morphine or 3 PRN doses in 24 hours or less. See [Resource 6.6 - ESC Standard Orders on Postpartum Units](#).
 - 4.13.3(a) Risk of respiratory depression emerges with doses of morphine greater than or equal to 1 mg/kg/24h, especially in combination with other sedatives (e.g., phenobarbital, lorazepam); these very low-dose PRNs are not associated with respiratory depression in the newborn).
 - 4.13.4 Availability of staffing ratios and skill set to provide ESC Care with support from Pharmacy and NICU as needed. If site unable to accommodate ESC Care, consider a transfer to a site with a higher level of postpartum care and support.
- 4.14. Criteria for consulting for admission to NICU (See [Appendix D - ESC Escalation Medication Algorithm – NICU](#) and [Appendix E - ESC Weaning Medication Algorithm – NICU](#))
- 4.14.1 Withdrawal symptoms requiring more than 3 consecutive doses of PRN morphine or 3 PRN doses in 24 hours (on postpartum unit with the presence of withdrawal symptoms requiring scheduled pharmacological treatment or other medical indications);
 - 4.14.2 The newborn requires gavage feeding or there are concerns of clinical deterioration;
 - 4.14.3 The newborn requires supplementation with formula with a density of 0.91 or more;
 - 4.14.4 Consider consultation to the NICU in closest proximity to the postpartum unit (depending on acuity of care required)

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- 4.15. Provide the birth parent/family the materials and support to document ESC relevant information to help with care planning (e.g. pen, paper, ESC Parent Journal). See [Resource 6.9 - ESC Parent Journal Template](#).
- 4.16. The birth parent or designate is the primary provider of responsive newborn care and is empowered to take the lead on the care and assessments of the newborn. The health care team will assist the parent and their support network, respecting their preferences and capacity for involvement.
- 4.17. Gestational age at birth and actual postnatal age need to be considered when assessing ESC behaviours such as cluster feeding and natural fluctuations in sleep-wake patterns.
- 4.18. Clinical features present with NAS/NOWs may not always be related to withdrawal but may be related to an alternative diagnosis. Discuss symptoms and response to ESC with the team to help with consideration of a differential diagnosis. See [Appendix F - Clinical Features and Symptoms of NAS & Differential Diagnosis](#).
- 4.19. Follow unit specific protocol(s), optimizing non-pharmacological interventions throughout.
- 4.20. Assessments should occur in the newborn's room without disturbing the newborn. Avoid removing the newborn from the arms of the birth parent or other support person whenever possible.
- 4.21. Accommodations that will promote ESC should be made to the best of the ability of the acute care centre. This may require making special arrangements for rooming-in or allowing additional supports onto the unit to provide care when the birth parent is on a break, etc.
- 4.22. To prevent excess weight loss due to increased risk of high metabolism and uncoordinated suck support the breastfeeding birth parent to:
 - 4.22.1 Stay attuned to newborn feeding cues;
 - 4.22.2 Encourage small frequent feeds;
 - 4.22.3 Encourage non-nutritive sucking;
 - 4.22.4 Use alternative feeding methods before use of a bottle.

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4.23. Weight Loss Norms for Opioid Exposed Newborns on a Well Baby Unit (Cheng et al., 2022):

4.23.1 Vaginal Delivery:

4.23.1(a) 24 hours = 4.3% (95% CI: 3.3 – 5.7) (Median)

4.23.1(b) 48 hours = 6.9% (95% CI: 5.8-8.5) (Median)

4.23.1(c) 28.3% (95% CI: 22.7-34.5) of newborns had greater than 10% weight loss during hospitalization

4.23.2 Caesarean Delivery:

4.23.2(a) 24 hours = 4.1% (95% CI: 2.0-6.5) (Median)

4.23.2(b) 48 hours = 6.5% (95% CI: 4.1-9.1) (Median)

4.23.2(c) 72 hours = 7.2% (95% CI: 4.7-9.9) (Median)

4.23.2(d) 25.2% (95% CI: 16.9-35.2) of infants had greater than 10% weight loss during hospitalization.

The above should not replace assessing the entire clinical picture to determine a care plan to support the newborn to meet age-appropriate milestones.

4.24. If weight loss exceeds norms an International Board-Certified Lactation Consult (IBCLC)/knowledgeable breastfeeding practitioner may be required to support latch and other feeding behaviours. A consult to a Registered Dietician may be advised for consideration of fortifying breastmilk or formula with high calorie breastmilk substitute.

4.25. If the newborn continues to feed and sleep poorly and cannot be calmed despite optimizing the non-pharmacological care interventions, a second line treatment (medication) may be considered where indicated. See [Appendix D - ESC Escalation Medication Algorithm – NICU](#) and [Appendix E - ESC Weaning Medication Algorithm – NICU](#).

4.26. Pharmacological treatment for NAS should match the agent causing the withdrawal. Pharmacy should be consulted as needed. See [Appendix G - Recommended Medication Management for Newborn with NAS](#).

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- 4.27. Facilitate appropriate follow-up after discharge for the newborn with Public Health Nurse, Midwife/Pediatrician/ Family Physician/Nurse Practitioner or Nursing Station using established communication processes.

5.0. Procedure

- 5.1. Not Applicable

6.0. Resources

- 6.1. [Sample Eat Sleep Console Letter for Delivery Site](#)
- 6.2. Shared Health, Provincial Clinical Guideline: [Substance Use and Breastfeeding](#)
- 6.3. [ESC Room Poster Template](#)
- 6.4. [ESC Assessment Tool](#)
- 6.5. ESC Education Poster: Ways to Support Baby – [English](#) | [French](#)
- 6.6. Provincial Order Set: [ESC Standard Orders on Postpartum Units](#)
- 6.7. Provincial Order Set: [ESC Standard Escalation Orders for NICUs](#)
- 6.8. Provincial Order Set: [ESC Standard Weaning Orders for NICUs](#)
- 6.9. ESC Parent Journal Template – [English](#) | [French](#)
- 6.10. [How to Bottle Feed Your Baby: Paced Bottle Feeding](#)

7.0. References

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8.0. Contact(s)

- 8.1. **Document Sponsor:** Program Director, Provincial Women and Children Program – Shared Health
- 8.2. **Document Owner(s):** Clinical Consultant, Provincial Women and Children Program – Shared Health

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9.0. Appendix A – List of Potential Substances That May Cause Withdrawal in the Newborn

Table 1: Substance when used within 72 hours before birth place newborn at risk for NAS

Opioids	Central Nervous System Depressants	Hallucinogens
Methadone Morphine Codeine Heroin Hydromorphone (Dilaudid) Meperidine (Demerol) Oxycodone (Percodan) Pentazocine (Talwin) Fentanyl Buprenorphine/Naloxone (Suboxone) Buprenorphine (Subutex)	Alcohol Barbiturates Benzodiazepines (e.g. Valium)	Inhalants (“sniff”): <ul style="list-style-type: none"> • Solvents • Aerosols • Glue • Gasoline • Paint thinner • Nail polish

Table 2: Substance when used within 72 hours before birth place newborn at risk for NAS

Central Nervous System Stimulants	Central Nervous System Depressants	Hallucinogens	Other
Caffeine Cocaine Methamphetamine <ul style="list-style-type: none"> • “Crystal meth” • “Speed” Methylphenidate (Ritalin) Phenylpropanolamine	Marijuana Hashish	Nitrites Nitrous Oxide	Nicotine (in large quantities)

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10.0. Appendix B – Substance Use and Breastfeeding Traffic Light

Substances in green **may be used** while breastfeeding or expressing milk. The newborn should be observed for Neonatal Abstinence Syndrome (NAS) and the Eat Sleep Console model of care implemented in acute care facilities.

Substance	Consideration
Amphetamines (prescribed for ADHD or narcolepsy)	<ul style="list-style-type: none"> Support milk production
Benzodiazepines (short half-life): Lorazepam	<ul style="list-style-type: none"> Patient should not stop taking without discussing with prescriber
Caffeine	<ul style="list-style-type: none"> Reduce caffeine exposure of the breastfeeding parent.
Ketamine	
Opioids: Buprenorphine, Methadone, & Suboxone (prescribed)	
Selective Serotonin Reuptake Inhibitors (SSRIs): Citalopram	<ul style="list-style-type: none"> Provide proactive breastfeeding support due to increased risk of breastfeeding difficulties.

Substances in yellow may be **used with caution** while breastfeeding or expressing milk. Harm reduction strategies should be encouraged.

Substance	Consideration
Alcohol	
Benzodiazepines: Long-half life	<ul style="list-style-type: none"> A shorter half-life reduces risk
Cannabis	
Nicotine/Tobacco	
Viaderm	<ul style="list-style-type: none"> Should be washed off prior to breastfeeding (regardless of time elapsed) Avoid long term use

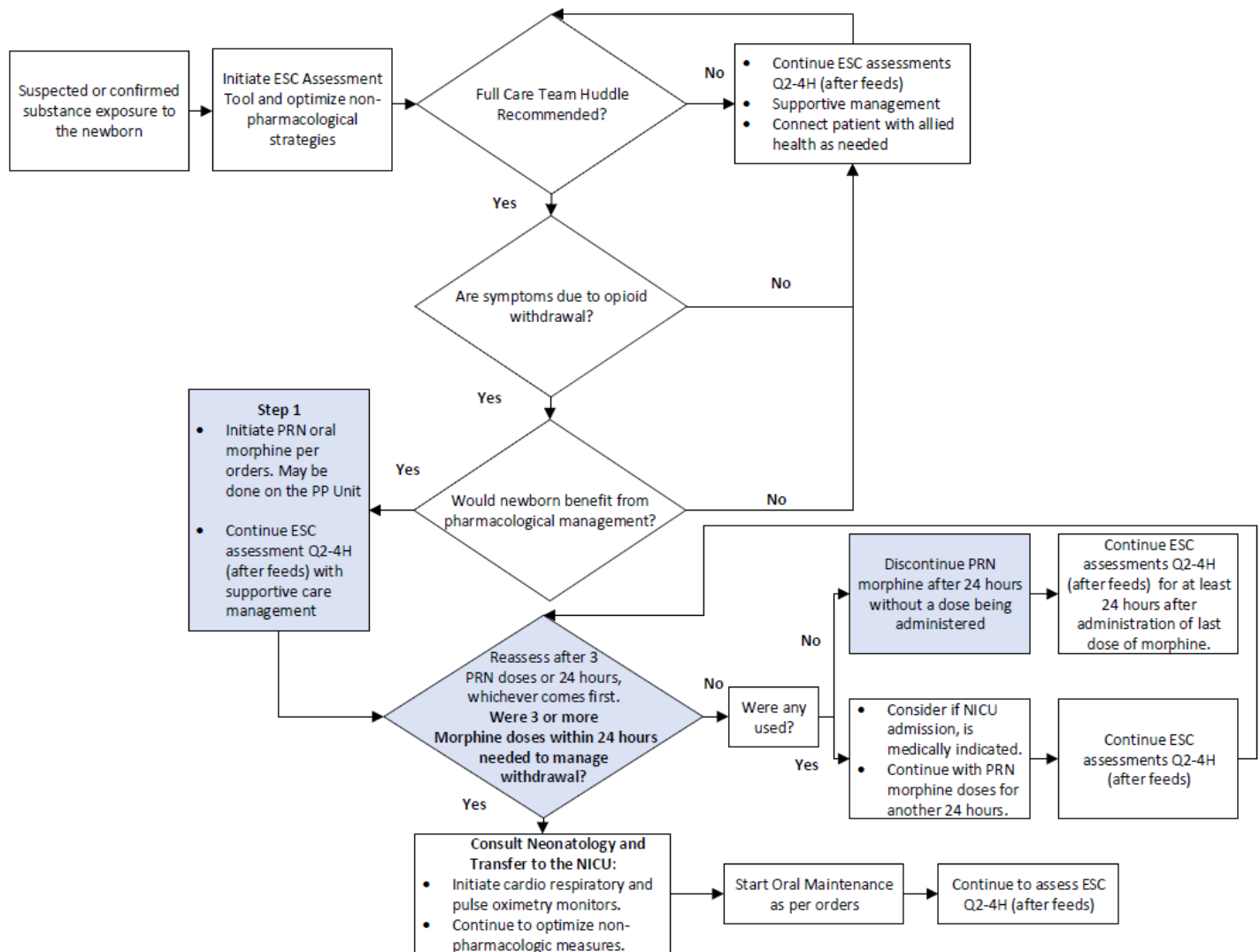
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Breastfeeding and newborn consumption of expressed breastmilk **should be avoided** due to the risk of contamination in unregulated substances and due to high levels of the substance being found in the breastmilk.

Substance	Information
Amphetamines: Misuse or methamphetamine	<ul style="list-style-type: none"> • Contraindicated in all forms. • 48-100 hour (72-hour average) clearance from breastmilk.
Antineoplastic (Chemotherapies)	<ul style="list-style-type: none"> • Speak with healthcare team as to safety of specific antineoplastic.
Cocaine	<ul style="list-style-type: none"> • Contraindicated in all forms. • 24-hour clearance from breastmilk.
Illicit Substance Use	<ul style="list-style-type: none"> • Contraindicated in all forms.
Inhalants	<ul style="list-style-type: none"> • Contraindicated in all forms.
Iodide 131	<ul style="list-style-type: none"> • Contraindicated in all forms.
Lysergic Acid Diethylamide (LSD)	<ul style="list-style-type: none"> • Contraindicated in all forms.
Opioids – Misuse, Codeine, Morphine, Fentanyl, Heroin	<ul style="list-style-type: none"> • Support client to access opioid maintenance therapy programs. • Heroin is contraindicated in all forms.
Phencyclidine (PCP)	<ul style="list-style-type: none"> • Contraindicated in all forms.
Poly-Substance Use	<ul style="list-style-type: none"> • Generally contraindicated. • Harm reduction may be possible on a case-by-case basis.
Psilocybin (Magic Mushrooms)	<ul style="list-style-type: none"> • Contraindicated in all forms.

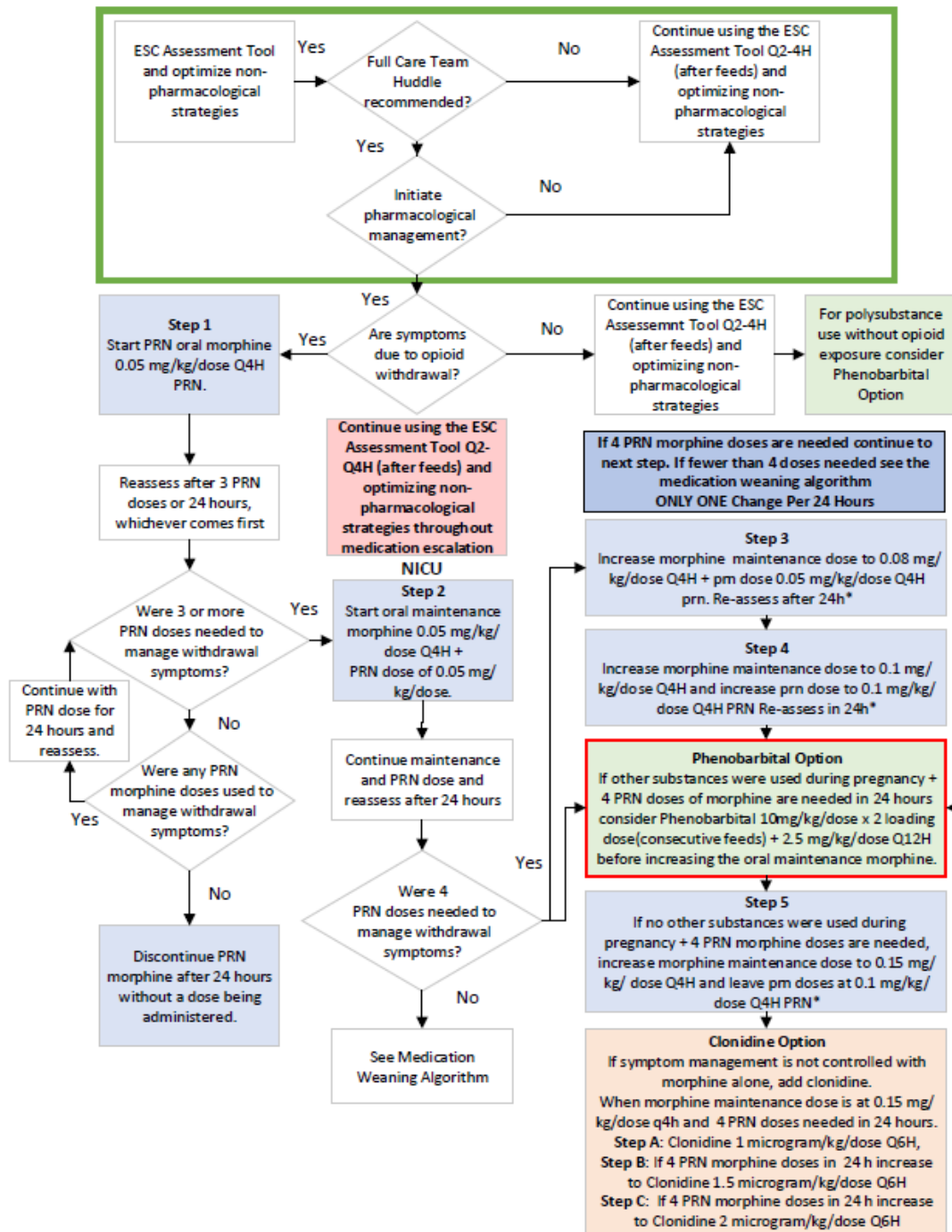
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11.0. Appendix C - ESC Postpartum Algorithm



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12.0. Appendix D - ESC Escalation Medication Algorithm - NICU

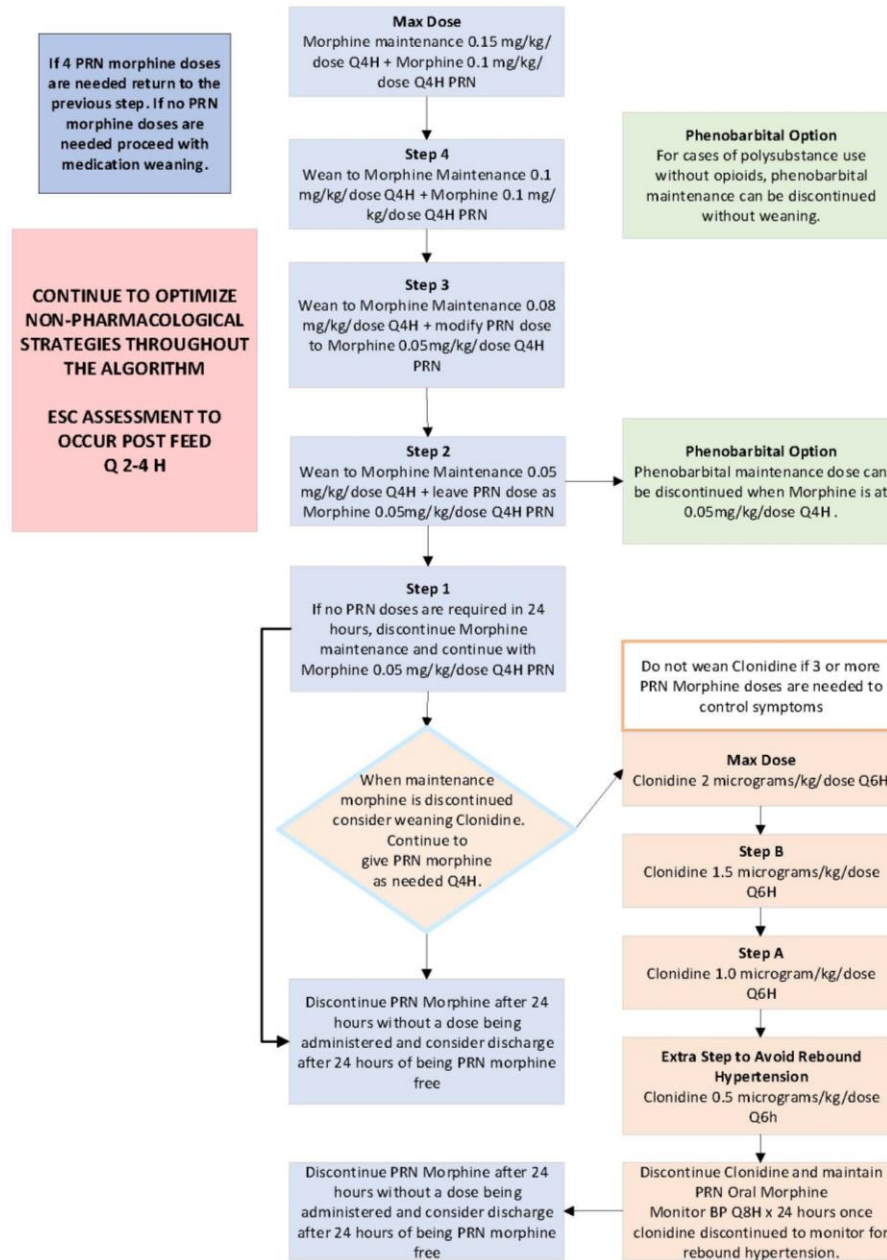


* IF NEEDED: Pharmacists can calculate a personalized dose of oral morphine maintenance: total mg given in the last 24h (maintenance +PRN) divided by 6

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13.0. Appendix E - ESC Weaning Medication Algorithm - NICU

ONLY ONE CHANGE PER 24 HOURS



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14.0. Appendix F - Clinical Features and Symptoms of NAS & Differential Diagnosis

Sign	Differential Diagnosis
Irritability	<ul style="list-style-type: none"> • Gastroesophageal reflux • Pain/discomfort • Sepsis • CNS insult
Fever	<ul style="list-style-type: none"> • Sepsis • Hyperthyroidism
Feeding Problems	<ul style="list-style-type: none"> • Oromotor dysfunction • Congenital anomalies e.g. cleft palate, micrognathia, Pierre Robin sequence, genetic syndromes such as Prader Will • Immaturity, including late preterm birth • CNS insult • Sepsis
Jitteriness	<ul style="list-style-type: none"> • Hypoglycemia • Hypocalcemia • Immaturity • CNS insult
Seizures (rare in newborns with NAS)	<ul style="list-style-type: none"> • Hypoglycemia • Hypocalcemia • CNS insult
Myoclonic Jerking	<ul style="list-style-type: none"> • Not uncommon in opioid-exposed newborns and can be mistaken for seizure activity. • Myoclonic jerks can be unilateral or bilateral, occurring during sleep, and not stop when the extremity or affected body part is held. Electroencephalograms are not indicated in newborns with myoclonic jerks.

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15.0. Appendix G - Recommended Medication Management for Newborn with NAS

Select medication based on substance the neonate is withdrawing from:	Examples
<p>Morphine is the initial medication of choice for opioid withdrawal.</p> <p>Use in cases where birthing parent is dependent on opioid due to:</p> <ul style="list-style-type: none"> (i) illicit substance use (ii) treatment for exposure (iii) chronic pain 	<ul style="list-style-type: none"> • Buprenorphine (Suboxone, Subutex) • Codeine (includes Tylenol #1, #2, #3 and 222's) • Fentanyl • Heroin • Hydromorphone (Dilaudid) • Kadian (Extended-Release Morphine) • Meperidine (Demerol) • Methadone • Morphine • Oxycodone (OxyNeo, Percocet and Percodan) • Pentazocine (Talwin)
<p>Phenobarbital should be the initial medication chosen for:</p> <ul style="list-style-type: none"> (i) medical management of non-opioid withdrawal (ii) in cases where maternal substance(s) used are unknown (iii) there is poly-substance exposure (e.g., "down" [fentanyl-based unregulated opioid]) 	<ul style="list-style-type: none"> • Alcohol intoxication • Amphetamines • Benzodiazepines (Alprazolam, Clonazepam, Diazepam, Lorazepam, Temazepam) • +/- Methadone <p>Inhalants:</p> <ul style="list-style-type: none"> • Solvents • Aerosols (gasoline, glue, paint thinner) <p>Antidepressants:</p> <ul style="list-style-type: none"> • SNRI: Venlafaxine (Effexor), • SSRI: Citalopram (Celexa), Fluoxetine (Prozac), Sertraline (Zoloft)

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