

**Procedure for the management of neonatal abstinence syndrome using clonidine with morphine:**

1. Documentation of neonatal abstinence scores using the adapted Finnegan Scoring System will occur according to the "Neonatal Abstinence Syndrome and Scoring System" nursing policy and procedure at PCMH. Documentation of the management of non-pharmacologic interventions for scores of 7 or less will also occur.
2. Consideration should be given to the initiation of pharmacologic intervention or increased doses of such interventions if:
  - a. the neonate has three consecutive scores greater than or equal to 8.
  - b. the total of two consecutive scores is greater than 12.
  - c. the neonate has a seizure.
3. Pharmacologic intervention is to include the initiation of morphine **and** clonidine with a goal of maintaining abstinence scores of 7 or less.
  - a. Dosing for morphine (PO):
    - i. Once one of the above criteria are met for pharmacologic intervention initiate morphine at 0.05-0.06 mg/kg/dose every 3 to 4 hours around feeds.
    - ii. Increase dose by 0.02 mg/kg/dose if scores continue to be above 7.
  - b. Dosing for clonidine (PO):
    - i. Baseline blood pressure should be measured prior to the initiation of clonidine then taken every 6 hours for the first 48 hours of clonidine therapy. After the first 48 hours, deescalate blood pressure monitoring to every 12 hours. These measurements will be used to evaluate the neonate for rebound hypertension after completion of clonidine therapy.
    - ii. Initiate at 1 mcg/kg (rounding weight to the nearest whole kilogram) and use this calculated starting dose for subsequent dosing without regard to changes in weight. Give dose every 6 hours.
    - iii. Initiate in conjunction with the first dose of morphine.
    - iv. Hold dose if systolic blood pressure is <55 mmHg or heart rate of <100 beats/minute.
  - c. Dosing recommendations for re-elevated scores during tapering:
    - i. Reinitiate morphine and/or clonidine at dose where scores were last stable.
4. After the abstinence scores have stabilized with scores consistently less than or equal to 7, weaning of morphine and clonidine may occur as follows:
  - a. Decrease the total maximum daily dose of morphine by 10% every 2 to 3 days.
  - b. Discontinue morphine once the dose is less than 0.02 mg/kg or if the volume is less than 0.02 mL.
  - c. Continue to administer clonidine for 24 hours after the discontinuation of morphine then clonidine will be stopped.
5. Monitoring after completion of therapy:
  - a. Vital signs (temperature, heart rate, respiratory rate, and blood pressure) will be monitored every 6 hours in the nursing flow sheets.
  - b. Monitor blood pressure every 6 hours for a total of 48 hours after discontinuation of clonidine. Rebound hypertension is defined as a systolic blood pressure greater than 100 mmHg based upon the Harriett Lane Handbook.
  - c. Length of observation for rebound symptoms of NAS prior to discharge shall continue for 48 hours after the completion of clonidine therapy.
6. Breast feeding is encouraged as it may help decrease the period of withdrawal.