### Phase 1: Initiation of Hypothermia

- The attending physician/neonatal fellow shall date, time and place their signature with identification number at the bottom of the order sheet to initiate Hypothermia.
- The RN shall sign name with identification number, date, and time on the appropriate line of the order sheet.
- Initiation Criteria:
  - Infants ≥ 36 weeks gestation admitted to the NNICU with a diagnosis of neonatal depression, acute perinatal asphyxia or encephalopathy that meet both clinical and biochemical criteria and show signs of moderate to severe Hypoxic Ischemic Encephalopathy or seizures are eligible for Hypothermia as deemed appropriate by the attending neonatologist/neonatal fellow. Refer to Nursery Services Procedure 1800.14 Total Body Cooling for inclusion criteria parameters.
  - The infant is to remain on the hypothermia blanket continuously for 72 hrs, then rewarming orders will be followed.

1. Attach the adult and pediatric hypothermia blankets to the hypothermia machine.
2. Place the adult hypothermia blanket on an IV pole.
3. Close the toggles on both the adult and pediatric blankets.
4. Fill the hypothermia machine reservoir with 2 bottles of distilled water.
5. Plug in the system.
6. POWER ON - status light will come on which says "Check Set Point". Make sure the temperatures are reading in the Celsius mode. The switch is on the front of the unit beside the "On/Off Switch".
7. Push "TEMP SET" switch - to pre-cool, lower temperature to 5°C by pushing the down arrow ▼. (Do not go <5° or the blanket will alarm).
8. OPEN the toggles on both of the cooling blankets.
9. Press the MANUAL CONTROL to start cooling blanket (the blanket's motor should come on). LET BLANKET COOL.
10. Warm the esophageal temperature probe in warm water and lubricate the first 5cm before insertion.
11. Insert esophageal probe, preferably via the nares, and if not possible, then orally. Position 2cm above the diaphragm (measure tip of nose to ear lobe, and down to xiphoid, then minus 2cm).
12. Obtain a chest x-ray to confirm placement.
13. Attach esophageal temperature probe to extension.
14. Place the infant on the pre-cooled 25" x 33" blanket.
15. Place the IV pole with adult blanket out of the way. Make sure none of the hoses are kinked.
16. Turn the patient's radiant warmer to manual mode and decrease temperature to "0" output. There should be no external heat source. Maintain temperature probe so the skin temperature reading is on.
17. Press “TEMP SET” and adjust temperature to 33.5°C with the ▲arrow.

18. Press "AUTO CONTROL" (blanket's motor should go on and off with cooling). To be sure the unit is working properly, the wheel at the side of the unit will be turning.

19. The goal temperature is 33.5°C with an acceptable temperature range of 32.5°C-34.5°C.

20. Record esophageal and skin temperatures hourly for 12 hours then every 2 hours.

21. Record heart rate and blood pressure at baseline, hourly for 12 hours, then every 2 hours. If infant requires inotropic support record blood pressure at baseline, then hourly while on inotropic support. **Anticipate bradycardia during hypothermia.**

22. Obtain arterial blood gases at baseline, 4, 8, 12, 24, 48, and 72 hours of age.

23. Obtain serum electrolytes, BUN, and creatinine at baseline, 24, 48, and 72 hours of age.

24. The blanket should be kept dry. The infant may be placed directly on the blanket or one thin sheet

25. Check skin condition every 4 hours for areas of skin breakdown. Notify provider for areas of concern.

26. Use pulse oximetry cautiously, if at all.

27. Notify attending/fellow if temperature drops below 31°C.

**Fellow/Attending Physician Signature and Identification Number**

1.

**Nurses Signature and Identification Number**

1.