OBJECTIVES

• To facilitate safe, appropriate and effective skin-to-skin care for infants in Alberta Health Services (AHS) Neonatal Intensive Care Units (NICU).

• To describe infant transfer techniques to initiate and discontinue skin-to-skin care.

• To describe optimal positioning for infants during skin-to-skin care.

PRINCIPLES

Skin-to-skin care is the practice of holding a physiologically stable infant in an upright position on the parent’s bare chest with continuous, ventral, skin-to-skin contact between parent and infant.

The practice of skin-to-skin care is important for all infants, especially in the transition period after birth and should be practiced as early and as often as possible.

APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, Students, Volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary), working in Neonatal Intensive Care Units (NICU).
ELEMENTS

1. General Considerations

1.1 Health care professionals shall provide parent(s) with information about skin-to-skin care including the purpose, benefits, risks and general procedure.

1.2 All infants can be considered for skin-to-skin care with their parent(s) but other individuals in unusual circumstances may provide it.

1.3 The decision as to when to initiate skin-to-skin care is made by the parent(s) and the Nurse assigned to care for the infant. The Nurse shall consult with care team members if the Nurse has concerns about the safety of skin-to-skin care at that time.

1.4 Skin-to-skin care may not be suitable in some limited circumstances including, but not limited to, when infants:

   a) have peripheral arterial lines;

   b) have umbilical lines with inadequate securement and/or when cord hemostasis has not been achieved;

   c) have chest tubes;

   d) have thoracic or abdominal lesions or ventral surgical sites;

   e) are receiving vasopressors or paralytic medications;

   f) require very high levels of ventilator support;

   g) experience frequent desaturation with social handling resulting in a significant (greater than [\geq 20\%]) increase in oxygen requirements within the most recent 24 hour period; and

   h) are intubated and are less than or equal to (\leq) 30 weeks gestation and less than or equal to (\leq) 72 hours of age where minimal handling guidelines discourage skin-to-skin care.

1.5 Skin-to-skin care, which might otherwise be considered unsuitable, may be considered as a therapy in individual situations in consultation with the multidisciplinary team.

1.6 Infants in extremis may receive skin-to-skin care for comfort and family time as part of the process of comfort care.

1.7 Non-ventilated infants may nuzzle at the mother’s breast or actively breastfeed as part of skin-to-skin care.
1.8 When an infant is not able to receive skin-to-skin care, one (1) parent may provide modified skin-to-skin care. The infant is encircled by the arm of one (1) parent while remaining on the warming environment mattress. The chair and mattress level are adjusted so that the infant may be cradled in toward the parent’s bare chest.

![Modified Skin-to-Skin*](image)

*Infant is not covered in photograph to show positioning.

2. **Duration of Skin-to-Skin Care**

   2.1 Skin-to-skin care duration will vary with the infant’s tolerance.

   2.2 The parent(s) should be aware that if the infant falls asleep, a sleep period of at least 60 minutes is recommended before transfer back to the warming environment.

   2.3 Skin-to-skin care shall be discontinued if the infant shows signs of persistent distress or physiological compromise despite optimization of the environment and infant position more than 10 minutes after commencing skin-to-skin care (i.e., oxygen saturation less than 85% requiring more than 20% increase in oxygen [O₂]).

3. **Preparation**

   3.1 Skin-to-skin care shall not commence until all involved have completed hand hygiene (refer to the AHS Hand Hygiene Policy and Procedure).
3.2 A recliner shall be placed next to the infant’s bedside and privacy shall be provided. Lights shall be dimmed (refer to the AHS Environmental Lighting Control Guideline).

3.3 Determine the method of transfer for infants receiving respiratory support and discuss the expected procedure and all individual roles prior to the transfer.

a) The parent standing transfer (see section 4 of this document) technique is preferred for transfer if the parent is stable during the standing and sitting motions that are required.

b) Plan to move in slow, controlled motions and describe the step out loud as the action is performed.

3.4 Ensure that all respiratory assistance devices are securely fastened. Endotracheal tubes (ETT) must be firmly adhered to the infant’s face.

3.5 Secure all tubes and lines.

3.6 Remove the infant’s clothing except for a diaper. A hat is recommended for infants less than one (1) kilogram.

3.7 Place a receiving blanket under the infant.

3.8 Instruct parent to expose chest. A front opening shirt / cover gown may be worn.

4. Parent Standing Transfer

4.1 Have at least two (2) health care providers to assist the parent with the transfer.

a) For a ventilated infant, a Respiratory Therapist shall be involved in the transfer.

4.2 Adjust the height of the bed so that the mattress is at the level of the parent’s waist.

4.3 A Nurse moves all of the lines to one side of the infant ensuring that there is enough slack to allow for the movement of the infant to the parent. The infant should be positioned perpendicular to the parent’s body, feet pointing towards the parent’s abdomen while lying on a receiving blanket.
4.4 For ventilated infants, the Respiratory Therapist dons gloves and ensures that the ventilator tubing is free from excess water to prevent inadvertent instillation during the patient transfer.

**Note:** Ventilator tubing disconnections are to be avoided because loss of pressure can cause respiratory instability.

4.5 The parent stands at the side of the infant’s bedside with the Respiratory Therapist near the ventilator and the Nurse near the intravenous pumps. All tubes and lines are gathered within the receiving blanket and are secured to move with the infant.

4.6 Have the parent lean over the infant and lift the infant with hands under the receiving blanket, cradling the infant in a ventral or side-lying upright position to their bare chest using a smooth, controlled movement with the infant’s limbs contained. The parent then straightens up to a standing position. The Nurse is responsible for the tubes and lines while the Respiratory Therapist is responsible for the ETT and moving the ventilator tubing with the infant.
4.7 Secure the blanket around the infant’s back.

4.8 Allow the infant to stabilize on the parent’s chest.

4.9 Health care professionals shall hold the line and ventilator tubes securely so that they will not dislodge with movement.

4.10 Guide the parent backwards to the recliner and assist them to sit once the recliner is felt on their calves.

4.11 Allow the infant to stabilize.

5. **Nurse/Infant Transfer**

5.1 Have at least two (2) health care providers to assist the parent with the transfer.

   a) For a ventilated infant, a Respiratory Therapist shall be involved in the transfer.

5.2 Have the parent sit in a recliner positioned next to the infant’s bed.

5.3 The Nurse is responsible for the tubes and lines while the Respiratory Therapist is responsible for the ETT and moving the ventilator tubing with the infant.

5.4 For ventilated infants, the Respiratory Therapist dons gloves and ensures that the ventilator tubing is free from excess water to prevent inadvertent instillation during the patient transfer.

**Note:** Ventilator tubing disconnections are to be avoided because loss of pressure can cause respiratory instability.
5.5 The transferring Nurse “gathers” the infant in the receiving blanket ensuring all tubes and lines are secured to move with the infant. An additional health care professional may be needed to assist with controlling the lines and cords.

5.6 The transferring Nurse moves the infant to a ventral or side-lying upright position on the parent’s chest using one smooth controlled movement while the Respiratory Therapist moves the ventilator tubing and machine as necessary to prevent pulling.

6. Skin-to-Skin Care After Transfer

6.1 Adjust the infant position to include:
   a) chest-to-chest; or
   b) side-lying to chest if necessary.
       (i) Infants delivered at less than 29 weeks gestation and less than 72 hours old should be positioned with head midline.

       (ii) Infants with ventral wounds or surgical sites will be positioned as determined by the care team.

   c) Ensure that care is taken to position the head and neck in a neutral slight sniffing position to prevent airway obstruction. Extreme rotation of the head and neck to one side should be avoided in any position.

   d) Ensure the infant is positioned upright and inclined at approximately 30 degrees to 40 degrees above horizontal with legs and arms in flexed positions.

   e) If possible, position the face of the infant so that the parent can see the infant’s facial expression or give the parent a hand mirror to look at the infant.
6.2 The Nurse ensures all lines and tubes devices remain securely attached and functional.

6.3 The Nurse will ensure the parent is seated comfortably and raise the chair’s footrest.

6.4 Tuck the infant’s blanket around them and wrap the parent’s clothing over both. A warmed blanket may be used to cover both. Pillows or blanket rolls should be used to help the parent safely and comfortably maintain the infant’s position, ensuring that the ETT and lines do not dislodge. If necessary, a unit-recommended positioning wrap may be used to support the infant from slipping out of position and prevent parental arm fatigue.

6.5 Drape the ventilation tubing over the parent’s shoulder, ensuring that no traction is placed on the ventilator/patient interface. The Respiratory Therapist shall secure the tubing to prevent pulling and ETT dislodgement.
6.6 A Nurse or Respiratory Therapist shall remain throughout to visually monitor and assist the parent and infant.

6.7 As much privacy as possible should be given to the parent/infant dyad while monitoring the infant’s position.

6.8 Skin-to-skin care may contribute to emotional release and the need for sharing by the parent. The health care professional should be prepared for active listening and supportive counselling.

6.9 Rocking is not recommended because it provides too much stimulation to the infant.

6.10 The transfer process is reversed to return the infant to the warming environment.

6.11 Mothers providing their own milk for feeding should be encouraged to pump after skin-to-skin care.

7. Documentation

7.1 The health care professional’s documentation in the health record shall include:

a) information and education of parent about skin-to-skin care;

b) amount of time of skin-to-skin care;

c) infant’s tolerance of skin-to-skin care;

d) infant’s behavioural state during skin-to-skin care;

e) infant’s temperature before and following skin-to-skin care;

f) cardio-respiratory status including oxygen saturation throughout; and

g) parent’s comments about skin-to-skin care.

7.2 Individualized plan for skin-to-skin care as established by the Nurse and parent(s) should be documented.

DEFINITIONS

Hand hygiene means practices which remove micro-organisms, with or without soil, from the hands (refers to the application of alcohol-based hand rub or the use of plain/antimicrobial soap, and water hand washing).

Health care professional means an individual who is a member of a regulated health discipline, as defined by the Health Disciplines Act (Alberta) or the Health Professions Act (Alberta), and who practices within scope and role.
Health care provider means any person who provides goods or services to a patient, inclusive of health care professionals, staff, students, volunteers and other persons acting on behalf or in conjunction with Alberta Health Services.

Health record means the Alberta Health Services legal record of the patient's diagnostic, treatment and care information.

Parent means the adult guardian of a child, with the legal authority to make decisions on behalf of the minor, in accordance with the Family Law Act (Alberta).

REFERENCES

- Alberta Health Services Governance Documents:
  - Environmental Lighting Control Guideline (#HCS-203-02)
  - Hand Hygiene Policy (#PS-02)
  - Hand Hygiene Procedure (#PS-02-01)

VERSION HISTORY

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