

TITLE

MATERNAL AND INFANT FALL PREVENTION AND MANAGEMENTSCOPE

Provincial

DOCUMENT

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NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- To provide direction to staff on how to decrease the incidence of maternal and infant **falls**.
- To provide education to parents and caregivers on how to minimize the risk of maternal or infant falls.

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 with obstetrics and infants and Neonatal Intensive Care Units (NICU).

ELEMENTS**1. Points of Emphasis**

- 1.1 Due to the exhausting task of giving birth and the hormonal, anatomical, and physiological changes that occur during pregnancy and the postpartum period, all obstetrical **patients** and their infants shall be considered at risk for falls.
- 1.2 The Alberta Health Services (AHS) *Falls Risk Management* Policy shall be practiced in all maternity and infant care areas.
- 1.3 The AHS *Care of the Infant After a Fall in Hospital* Guideline outlines the process for post-fall management of the infant.

- 1.4 All mothers post-delivery and infants are considered at risk for falls but certain risk factors that increase the chances of infant falls include:
- a) high level of fatigue of the mother or care provider;
 - b) recent pain management or medications with sedative effects given to the mother;
 - c) night time;
 - d) previous fall or near miss fall;
 - e) maternal history of substance use; and/or
 - f) pre-existing maternal conditions including epilepsy, diabetes, severe obesity, and depression, being treated with medications with sedative effects.

Note: The most common occurrence of maternal falls is when the mother gets out of bed to go to the bathroom for the first time post-delivery, followed by falls in the shower. The most common cause of infant falls is a caregiver falling asleep while holding the infant.

2. Fall Risk Factors

2.1 Care Providers:

- a) Persons caring for the infant should be assessed for their ability to safely handle and hold the infant. If the **health care provider** has concerns related to the caregiver's physical or mental health, then they should attend and supervise the infant's care.
- b) Health care providers holding or caring for the infant should perform a self-assessment of their mental alertness, stability, and mobility, and if needed, request that another health care provider assumes care for the infant.

2.2 Maternal Environment:

- a) The environment, including equipment and cords shall be organized to reduce the risk of entanglement and tripping.
- b) Pathways shall be clear of furniture, cords, and clutter.
- c) Slippery floors shall have appropriate signage.
- d) Lighting should be appropriate for ambulation.
- e) Equipment position should not hinder movement of the patient.
- f) Maternal bed rails should be raised and brakes engaged.

2.3 Infant Environment:

- a) The infant's environment shall support safe sleeping (See the AHS *Safe Infant Sleep Policy*).
- b) The infant may be placed in a bassinette with sides or a crib with elevated rails.
- c) If the infant is placed on an overhead warmer, the panels shall be up and locked.
- d) If the infant is placed in an incubator, the doors shall be closed and locked.

2.4 Transportation or Transfer of Infant:

- a) Infants shall be transported in their beds whenever possible.
- b) Two (2) health care providers shall be present when transporting a NICU infant in an overhead warmer with the side rails low or down to accommodate tubes or other infant care needs.
- c) The distance between the infant bed and the chair used for holding the infant should be minimal.

2.5 Communication and Patient Education:

- a) Health care providers shall support all patients and caregivers with education regarding prevention of infant falls on admission and throughout their hospital stay.
- b) Obstetrical patients shall receive instructions by health care providers on how to mitigate risk for maternal falls including:
 - (i) providing opportunities for rest;
 - (ii) encouraging visiting to take place at home after discharge;
 - (iii) recognition of the effect of medications and an epidural on level of alertness and balance;
 - (iv) sitting on a side of the bed and dangling her legs until she feels comfortable to stand;
 - (v) utilizing bed side rails and hand rails when rising to a standing position from bed or toilet;
 - (vi) not showering until patient is hemodynamically stable to prevent orthostatic hypotension;
 - (vii) avoidance of overly hot showers; and

- (viii) ensuring the floor is dry prior to stepping out of the shower.
- c) Health care providers shall provide mothers and caregivers with education on how to mitigate risk for infant falls including, but not limited to:
 - (i) always transferring the infant from one location to another in a bassinet;
 - (ii) using two (2) hands and holding the infant close to their body when carrying;
 - (iii) never leaving the infant on any unsecured or unstable surface, including the bed and raised flat surfaces;
 - (iv) not tilting the head of the infant's bed unless the infant is cared for within a closely monitored environment or in a NICU with the use of cardiac respiratory monitoring;
 - (v) ensuring someone in the room is awake when the infant is in bed with a care provider;
 - (vi) chewing gum to assist with staying alert while holding, feeding, and practicing skin-to-skin care with the infant;
 - (vii) returning the infant to the bassinet when the mother or care provider is feeling drowsy;
 - (viii) not sleeping while holding the infant in their arms unless in a monitored environment such as a NICU with a chair in a reclining position and positioning belt in use;
 - request assistance on the proper use of a reclining chair, positioning belt and/or other retaining support options to support the infant's position on the mother's chest when practicing skin-to-skin care; and
 - (ix) calling for help if assistance is needed to get the infant to their bassinet.

3. Process to Support Falls Prevention

- 3.1 If a mother is left alone feeding the infant, a health care provider should check on the dyad every 30 minutes until the infant is returned to their bassinet.
- 3.2 Within the NICU, health care providers shall monitor the mother and infant during skin-to-skin care, holding and feeding every 15 minutes.

- 3.3 Safety audits, rounds, and inspections shall incorporate falls prevention assessments based on obstetrical patient identification for universal falls precautions.

4. Post-Fall Process

- 4.1 The health care provider shall call for assistance immediately when a patient falls and proceed to secure the patient's physical safety and prevent injury.
- 4.2 The health care provider shall not try to catch a patient who is falling; rather, they shall ease them safely to a chair, bed, or onto the floor.
- 4.3 The **most responsible health practitioner (MRHP)** shall complete and document a medical assessment in the patient's **health record**, post-fall.
- 4.4 Health care providers shall document all interventions and post-fall care. If a patient falls and is found unconscious or experiences head trauma, call a Code Blue and request immediate medical assistance.
- 4.5 The Nurse or the MRHP shall notify the patient's **family** and/or alternate decision-maker, of the fall, health status, and planned management strategies.
- 4.6 For management of infant falls see *Care of the Infant After a Fall in Hospital* Guideline

5. Documentation

- 5.1 Health care providers shall document in the health record, patient teaching regarding prevention of both maternal and infant falls.
- 5.2 Any concerns regarding increased fall risk to the infant, such as non-compliance with health care provider recommendations, including discussions about the risks and potential consequences, shall be documented.
- 5.3 Health care providers are encouraged to report all maternal and infant falls as well as near misses in the **Reporting Learning System (RLS) for Patient Safety** and report to the Charge Nurse and Unit Manager for follow-up (see the *AHS Reporting of Clinical Adverse Events, Close Calls and Hazards Procedure*).
- 5.4 Any maternal or infant fall shall be documented on the patient record including: location, time, and estimated distance of fall, what else was happening at the time of the fall, assessment, and interventions that occurred.

DEFINITIONS

Fall means an unplanned descent to the floor (or extension of the floor, e.g., trash can or other equipment) with or without injury to the patient that occurs in an AHS setting.

Family(-ies) means one or more individuals identified by the patient as an important support, and who the patient wishes to be included in any encounters with the health care system, including, but not limited to, family members, legal guardians, friends and informal caregivers.

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 of 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.

Most responsible health practitioner (MRHP) means the health practitioner who has responsibility and accountability for the specific treatment/procedure(s) provided to a patient and who is authorized by Alberta Health Services to perform the duties required to fulfill the delivery of such a treatment/procedure(s) within the scope of his/her practice.

Patient means an adult or child who receives or has requested health care or services from Alberta Health Services and its health care providers or individuals authorized to act on behalf of Alberta Health Services. This term is inclusive of residents, clients and outpatients.

Reporting Learning System (RLS) for Patient Safety means the electronic software program designated by Alberta Health Services to report patient related events resulting in adverse events, close calls or hazards.

REFERENCES

- Appendix A: *Management of the Infant with Clinically Important Traumatic Brain Injury (ciTBI)*
- Appendix B: *Reference List*
- Alberta Health Services Governance Documents:
 - *Care of the Infant After a Fall in Hospital* Guideline (#PS-98-02)
 - *Falls Risk Management Policy* (#PS-58)
 - *Reporting of Clinical Adverse Events, Close Calls and Hazards* Procedure (#PS-11-01)
 - *Safe Infant Sleep Policy and protocol* (#PS-27)

VERSION HISTORY

Date	Action Taken
October 09, 2019	Revised
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APPENDIX A

Management of the Infant with Clinically Important Traumatic Brain Injury (ciTBI)

Asymptomatic or occult intracranial injury is significantly more prevalent in children greater than 3 to 6 months of age. A linear skull fracture (SF) appears to be an independent risk factor for intracranial lesions, but skull radiographs need not be performed routinely in all cases of newborn falls. Younger age and scalp hematoma are predictors of SF. The incidence of SF following a minor head injury (Glasgow Coma Scale 14 to 15) may be as high as 11% in children under 2 years of age. A skull radiograph should be performed in the presence of a large boggy hematoma in a child younger than 2 years of age. If a SF is noted on a skull radiograph, consider neurosurgical consultation for advice on management and further imaging (CT or MRI) – especially if depressed, basilar, widened or depressed SF is less than 4 mm. In the context of a SF, the incidence for late deterioration in children with a normal CT is negligible.

Infants are at highest risk of clinically important Traumatic Brain Injury (ciTBI) from a fall. In the following prediction model, the risk of ciTBI was 4.4% in children younger than 2 years of age who had either altered mental status or palpable skull fractures. For those with none of the six predictors stated below, the risk of ciTBI was less than 0.02%.

Six predictors of ciTBI in children less than 2 years of age are:

- Altered mental status
- Non-frontal scalp hematoma
- Loss of consciousness of 5 seconds or more
- Severe injury mechanism (includes fall from greater than 3 feet)
- Palpable skull fracture
- “Not acting normally” according to the parent (or irritability)

If at least one of the above predictors is present, a CT scan of the head may be indicated. The decision to perform a CT scan shall take into consideration the following factors:

- Multiple vs isolated findings
- Focal neurologic findings or seizures
- Concerns of increased ICP
- Worsening symptoms
- Need for sedation
- Risk of secondary malignancy: 1 per 1000-5000 CT scans (Brenner, 2007)
- Physician comfort
- Parental preference

Consultation with the pediatric neurosurgeon on call is recommended to discuss the best head imaging modality (i.e., MRI, CT) or need for transfer to a centre with access to neurosurgery.

If no predictors are present, the child less than 2 years of age is a very low risk of ciTBI and likely does not require a CT scan of the head. Close monitoring for at least 24 hours is recommended.

Adapted from Kuppermann N et al. (2009) Identification of children at very low risk of clinically important brain injuries after head trauma: A prospective cohort study.

APPENDIX B

Reference List

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