

NURSING CLINICAL PROTOCOL

SKELETAL TRACTION

- PURPOSE:** To outline the management of patients in balanced skeletal traction (does not include Halo or cervical traction) to the lower extremities.
- SUPPORTIVE DATA:** Skeletal traction is a treatment modality which exerts pull on affected extremities and supports the anatomical alignment of the injured extremity. This type of traction allows the patient to move while maintaining a constant pull on the fractured extremity. Countertraction takes up any slack caused by patient movement. The purpose of traction is to reduce the fracture, relieve painful muscle spasms, correct and prevent deformities and stretch adhesions. The physician team is responsible for the application, modification and removal of traction.
- Compartment syndrome is a serious potential complication of extremity injury due to swelling or bleeding within the muscle compartment. It results in compression of nerves, blood vessels and muscle tissue in the compartment and may result in tissue death and loss of limb. It is important for the nurse to recognize and report the signs and symptoms of compartment syndrome.
- ASSESSMENT:**
1. Assess the following q8 hours:
 - Alignment of distal and proximal portions of affected extremity
 - Pin sites for signs of infection
 - Contact areas between sling and affected extremity for impairment of perfusion or skin breakdown caused by pressure
 - Integrity of traction apparatus including ropes, nuts, pulleys, weights, cloth sling
 - Signs & symptoms of compartment syndrome
 - Pain out of proportion to injury
 - Persistent deep ache or burning pain
 - Severe pain with movement of digits
 - Paresthesia
 - Firm to hard limb compartment (in comparison to uninjured limb)
 - Diminished or absent pulse
 - Decreased capillary refill
 - Pallor
- SAFETY:**
2. Ensure weights hang freely.
 3. Support weights while moving the patient in bed, assuring traction is maintained.
 4. Cover sharp ends of Steinmann pin with gauze and tape.
 5. Turn patient every 2 hours if unable to move self. Only a slight shift is necessary.
- INFECTION CONTROL:**
6. Perform Percutaneous Pin Care BID as ordered
- DIVERSION:**
7. Collaborate with family, Volunteer Services, and Child Life to provide age appropriate diversional activity
- PATIENT/FAMILY TEACHING:**
8. Instruct on the following:
 - Rationale for traction
 - Active range-of-motion exercises to promote circulation, prevent contracture, and maintain muscle strength
 - Body movement and shifting weight to prevent sequelae associated with immobility
 - Adaptive bathing, toileting, feeding

REPORTABLE
CONDITIONS:

9. Report the following to the physician:
- Signs of pin site infection
 - Mal-aligned traction
 - Worsening or uncontrolled pain
 - Swelling
 - Signs of compartment syndrome

ADDITIONAL
PROTOCOLS:

10. Refer to the following as indicated:
- High Risk for Neurovascular Dysfunction
 - Immobility
 - Pain Management
 - Patient Controlled Analgesia
 - Pressure Ulcer Prevention & Management
 - Wound Management/ Vacuum Assisted Closure Therapy

DOCUMENTATION:

11. Document in accordance with standards.

Initial date approved: 03/95	Reviewed and approved by: Professional Practice Committee Nurse Executive Committee Attending Staff Association Executive Committee	Revision Date: 03/05, 11/12 , 08/16
---------------------------------	--	--

References:

Consult: LAC+USC Orthopedic Nursing
Stracciolini, A., & Hammerberg, E.M. (2012). Acute compartment syndrome of the extremities. Retrieved from Uptodate.com