Dislocated Joint Reduction (≥ PL6)

Clinical Indications:

1. Online medical control (OLMC) approval is required prior to performing a dislocated joint reduction.
2. ≤ 40 y/o first time, atraumatic wrist, elbow, shoulder, patella, knee, or ankle joint dislocation.
3. Neurovascular compromise noted distal to dislocated joint.

Contraindications:

1. Hip joint dislocation.
2. Age > 40 y/o is a relative contraindication
3. Traumatic injury and/or long bone fracture that may worsen by performing the procedure.

Preparation for Use:

1. Obtain full set of vital signs.
2. Apply capnography, 4 lead ECG, and O2 via n/c at 2 lpm.
3. Discuss the procedure with the patient and obtain consent, this includes risks, benefits, and alternatives in order for the patient to provide informed consent.
4. Obtain peripheral vascular access
5. Ensure appropriate splinting and stabilization equipment(s) are ready.
6. Administer Fentanyl, Midazolam, or Ketamine for anesthesia/sedation as appropriate per clinical guidelines and Conscious Sedation procedure & checklist.

Procedure:

1. Ensure adequate sedation/anesthesia has been reached and ensure respiratory and cardiac monitoring is in place to monitor the patient for signs of over sedation and respiratory/cardiac arrest.
2. Perform neurovascular exam before and after procedure.
3. Always perform any reduction with firm and steady traction or pressure. The procedure should not encompass any sudden or jerking movements.
4. Ideally, splinting should be applied while patient is still sedated.
5. Continue to monitor for airway depression before, during, and after procedure due to medications and probable loss of sympathetic pain response.
6. Documentation is to be thorough to include details of informed consent, assessment and procedure, and post procedure findings and patient response(s).

Wrist:

1. Place affected side elbow at 90 degrees and have assistant provide counter pressure to upper arm.
2. Place hands immediately proximal to deformity site, provide firm steady traction to achieve approximate normal anatomic alignment.
3. Wrap arm with soft material and apply sugar tong splint.

Elbow:

1. Have assistant provide counter traction on upper arm, provide linear traction to distal forearm.
2. Reduce elbow to 90-degree flexion.
3. Wrap with soft material any apply double sugar tong splint and sling.

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Shoulder

1. Often this can be accomplished with proper analgesia without the need for sedatives
2. Contradiction is age ≥ 65, due to risk of fracture.
3. Reduction is not to be attempted if any suspicion of fracture.
4. *Pectoral Deltoid Massage*:
   a. Have patient in semi-fowlers position.
   b. Have assistant provide gentle caudal on the arm.
   c. Firmly massage deltoid and pectoral muscles to encourage relaxation.
   d. A distant reduction in the shoulder should be felt, and palpate bi lateral shoulders to ensure appropriate reduction has occurred.
   e. Apply sling.
5. *Fares Technique*:
   a. Place the patient supine.
   b. With the arm strengthen and pronated, grasp the wrist.
   c. Begin an oscillating anterior posterior movement of the arm with slow abduction and externally rotated while providing continuous longitudinal traction on the arm.
   d. A distant reduction in the shoulder should be felt, and palpate bi lateral shoulders to ensure appropriate reduction has occurred.
   e. Apply sling.
6. *Scapular Manipulation*:
   a. Place the patient prone with affected arm pointing straight to the ground.
   b. Have the assistant apply firm steady anterior longitudinal traction.
   c. With fingers, grasp lateral edge of the scapula and rotate inward towards the spine.
   d. A distant reduction in the shoulder should be felt, and palpate bi lateral shoulders to ensure appropriate reduction has occurred.
   e. Apply sling.

Patella

1. This procedure should require minimal pain control or sedation.
2. Knee is held in a flexed position, place hand behind knee, and provide gentle pressure with thumb against lateral edge of the patella.
3. Over the course of one second, straighten the knee completely. Reduction will be indicated by a distinctive of the patella back into normal anatomical position.
4. Apply ace wrap if needed and for patient comfort.

Knee

1. To be performed for evidence of neurovascular compromise.
2. Gently straighten the knee and leg into normal anatomical position.
3. Any patient with a posteriorly dislocated knee must be transported to a trauma center, regardless of reduction. This specific injury must be conveyed to receiving facility, even if reduced, for probable vascular compromise.

Ankle

1. Grasp one hand on instep of the foot with the other hand behind the calcaneus and achilles tendon.
2. Maintain 90-degree angle of the ankle joint.
3. Pull longitudinal traction on the foot until reduction is felt.
4. Wrap and apply posterior short leg and ankle stirrup splints.