Neonatal Brachial Plexus Palsy Guideline

CHOC Children's

Inclusion Criteria: Infants born with signs of Brachial Plexus injury/palsy or shoulder dystocia, including lack of shoulder and/or biceps activation on one side
Exclusion Criteria: Other probable diagnosis such as stroke or genetic presentation for cause of limited movement

Initiate Dr. Amber Leis/CHOC Plastic Surgeon

(on Call pager 2522)

- X-ray to Rule out Clavicle and Humeral fracture
- Order Developmental PT/OT Therapy inpatient to provide family education on precautions; to begin after X-ray results
- Refer to CHOC's Brachial Plexus (BP) Clinic
- Call Ortho Case Manager to schedule appointment @ BP clinic prior to hospital discharge
- Refer for CCS MTP and Outpatient Physical Therapy Evaluation and Treatment 3x/ week here at CHOC
- Patient to follow up with PCP within 2 weeks

Recommendations/Considerations

- Check dressing q shift to ensure no skin breakdown
- For ALL: DO NOT LIFT or PULL involved arm; Lift from trunk and support involved arm
- Don't allow arm to fall into abduction and external rotation/Position in midline

Positive Clavicle/Humeral Fracture
For the First 10 to 14 days

- RN to place Stockinette to immobilize shoulder with elbow flex to 90° (x 10 days; change as needed) with padding 2x2 gauze at arm pit/axilla to allow air circulation and prevent skin maceration
- RN to change q shift to ensure skin integrity
- Prone: NO weight bearing first 10 days
- After 10 days allow pain free active range of motion
- Positioning: Support Shoulder adducted and internal rotation (towards body), elbow flexed to 90°
- Range of Motion: Only elbow, forearm and fingers
- Prone: No weight bearing through injured arm x 10 days Lift from trunk and support involved arm

Negative Fracture
For the First 10 to 14 days

- NO Stockinette/wrapping on arm
- Allow for Pain free active movement
- Position: Swaddle arm in shoulder adduction, IR, elbow flex to 90°, and hands midline. Side lying okay when swaddled; Prone: Only on parent's chest
- ROM: PROM of elbow forearm, fingers. Gentle massage to involved arm okay if stabilize shoulder and scapula
- If only dystocia, then PROM above 90° only if patient moves > 90°

Go to page 2

Approved Evidence Based Medicine Committee
5-29-19

Reassess the appropriateness of Care Guidelines as condition changes and 24 hrs after admission. This guideline is a tool to aid clinical decision making. It is not a standard of care. The physician should deviate from the guideline when clinical judgment so indicates.

Precautions (+/-Fracture)

2-4 weeks post-injury:

- Positioning: Swaddle with UE in shoulder Adduction, internal rotation, elbow flexion to 90°, and hands to midline.
- ROM: Allow pain free active range of motion. Perform PROM 90°, up to tolerance and increase to full ROM
- No more stockinette or splinting
- Promote midline
- Prone: Start weight bearing on parent's chest (s/p fracture transition to FWB as tolerated for 4 weeks).
- Clear for side lying position onto affected side

After 4 weeks post-injury

- Positioning: allow for free movement of both arms for natural recovery of nerves. DO NOT PULL involved arm
- ROM: Perform PROM past 90° to tolerance and increase to full ROM
- Prone: Use clinical judgement on progression of weight bearing to FWB
- Encourage looking to affected side, midline, age appropriate developmental activities

Rehab

- Provide family with Brachial Plexus brochure
- Evaluation and Precautions Posted Bedside Day #1
- No wrapping unless fracture present
- Free arm movement, but no Abduction/External rotation

Patient Education

- Education regarding precautions and positioning for first 10 days given and posted at Bedside Day #1
- Education regarding referral to our Brachial Plexus Specialty Clinic and Physical Therapy
- Handouts: Brachial Plexus Palsy positioning and exercises, and Brachial Plexus Clinic
- Rehab to provide: Brachial Plexus brochure

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Brachial Plexus Care Guideline

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