

Outpatient Post-Op Brachial Plexus Nerve Transfer Guidelines

Inclusion Criteria: Infants born or post-trauma with signs of Brachial Plexus injury/palsy or shoulder dystocia, including lack of shoulder and/or biceps activation on one side; now have received nerve graft/transfer.

Exclusion Criteria: Other probable diagnosis such as stroke or genetic presentation for cause of limited movement.

Urgent Outpatient Physical Therapy Evaluation at CHOC within 2 weeks after surgery.

- Follow up regarding with parent when next follow up appointment is scheduled for BP Clinic; call Ortho Case Manager (if need to schedule/re-schedule).
- Find out if patient is already receiving OT/PT thru CCS MTU currently.

Brachial Plexus (BP) Clinic Evaluation

- Dr. Leis/Plastic Surgeon
- OT Eval including: birth history, Active Movement Scale.
- > 2y.o. Mallet Classification testing used
- Referral for PT Evaluation at CHOC for aqua PT Tx, and OT thru CCS MTU.

Precautions

- 2 weeks post-injury: Sling use to protect nerve.
- 2 weeks post-op: PROM to 90° only flexion/ABD.
- Begin weight bearing on parents chest at 4 weeks, progress to FWB at 6 weeks.
- Prone/Weight bearing: Begin weight bearing 8 weeks post-op.

Recommendations/ Considerations/Protocol

- 0-4 weeks post op: Sling approximately 2 weeks, Protection of the nerve; Min downward forces on GH joint to prevent subluxation.
- At 4 weeks post op: Resume Therapy, Scar management: Begin scar massage after incision is completed closed, PROM- to shoulder height only (90° of shoulder flexion and abduction).
- Prevention of early adhesions and promote neural gliding.
- Active ROM: GH abduction and ER usually restricted so focus here to restore shoulder and scapular mobility.
- Start in gravity assisted or gravity eliminated positions and gradually move towards against gravity movement, Sensorimotor re-education: massage.
- 8 week post op: Begin weight bearing activities, Resistive exercises/activities for muscle strengthening; Functional bimanual activities; NMES; Aquatic therapy.

- OP PT Evaluation, Aquatic Tx to begin 1x/week for first 3-9 months post-op, and OT/PT 2x/week on land ~12 months through CCS or until Case Manager transitions all to CCS MTU.
- Aquatic PT immediately upon authorization 1x/week (2 times, if specific reason).
- Electrical stimulation and kinesiotape (NMES to be initiated at 8 weeks post-surgery).
- PT starts at CHOC 2x/week at 4 weeks post-op and increases to 3x/week at 6 weeks post-op for next 6 weeks.

Discharge Criteria

- Less than 4 point overall improvement in 2 muscles during Active Movement Scale testing.
- Non-compliance with attendance, as per attendance policy.
- MD Discharges patient from Aquatic PT..
- Authorization terminated through CCS Case Manager.

Patient Education

- Education regarding progression to weight bearing and ROM Restrictions/precautions.
- Education regarding aquatic therapy.
- Handouts: Brachial Plexus Palsy. positioning and range of motion exercises.
- Give CHOC website for Aquatic Therapy video.

References

Brachial Plexus Care Guideline

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