Shoulder Protection Following Stroke

Stacey Maguire, PT, DPT, NCS and Brigitte Rohan, OT, MOT
Beth Israel Deaconess Medical Center Inpatient Rehabilitation Services

Introduction/Problem

The Beth Israel Deaconess Medical Center Neuro Medicine team identified a high frequency of shoulder pain and subluxation in patients seen in follow-up clinic after a stroke. Reported incidence of hemiplegic shoulder pain is widely variable but is commonly reported at approximately 70% (Vasudevan & Browne 2014). Patients with pain following stroke have been found to have greater cognitive decline, increased rates of depression, higher levels of fatigue, and lower quality of life (Harrison & Field, 2015). The flaccid hemiplegic upper extremity is at a higher risk for injury, particularly in patients who require assistance for transfers (Vasudevan & Browne 2014). Patients are particularly susceptible to risk in the acute care setting, as they require increased support during mobility at this stage. Targeted interventions to minimize injury in the acute care setting could result in improved long term outcomes for shoulder subluxation and pain.

Aim/Goal

To develop an evidence based program for management of the hemiplegic upper extremity at BIDMC in the inpatient setting in order to decrease pain and improve long term functional outcomes.

The Team

- Stacey Maguire, PT, DPT, NCS
- Brigitte Rohan, OT, MOT
- Nick Wendel, PT, DPT, NCS
- Deb Adduci PT, Clinical Manager, Inpatient Rehab
- Jane Wandel, RN, MS, Program Director, Patient and Staff Communications

The Interventions

- Formulated patient education sheets on management of hemiplegic UE to be provided to patients and their caregivers.
- Formulated signs to position over patient bed as a reminder to staff for protection of hemiplegic shoulder.
- Presented in-services to nursing staff on shoulder protection for patients following a stroke (Farr11 Unit).
- Presented in-service to inpatient rehab staff on shoulder protection for patients following a stroke.

Results/Progress to Date

- In-services were provided to the rehab department and also nursing staff on care for patients following stroke to minimize shoulder injury and subluxation.
- Documents were formulated by inpatient physical and occupational therapists with assistance for formatting and language from media services. These included:
  - *Protecting your shoulder when you have weakness:* Handout for patients and caregivers including education regarding the shoulder joint, posture, positioning, and exercises
  - *Positioning for left/right-sided arm weakness (2 documents):* Handout for patients and caregivers providing education about proper positioning for the hemiplegic shoulder
  - *Left/Right shoulder protection (2 documents):* Signs for placement above patient's bed to alert staff to support shoulder properly during positioning and mobility
- These documents were made accessible on the BIDMC web portal for physical and occupational therapy staff to access anywhere in the medical center to print for patient use.

Lessons Learned

Staff members caring for patients following stroke benefit from repetition of education (Smith 2012) as well as visual reminders of safe care for patients to reinforce best practice.

Next Steps

Repeat nursing staff in-services. Expand to other areas caring for patients following stroke (including Neuro ICU and Neuro Intermediate Care Unit).

In-service rehab staff on location and implementation of document use.

References

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For more information, contact:
Brigitte Rohan, OT brohan@bidmc.harvard.edu