

Posterior Lumbar Fusion Pathway

The Problem

The process of decision making, acceptable interventions and outcomes in the post operative course in patients undergoing posterior lumbar fusion was not fully understood by all staff resulting in communication issues for both the hospital staff and the patients. This resulted in inefficient care with increased cost.

Aim/Goal

This clinical pathway was intended to assist in the clinical decision making by describing a range of generally acceptable interventions and outcomes. The guidelines attempt to define practices that meet the needs of most patient under most circumstances and to optimize processes to deliver care that is safe, effective, efficient, timely, patient-centered and equitable.

The Team

This was a multi-disciplinary effort that involved:

- Health care quality
- Nursing
- Physical Therapy/Occupational Therapy
- Division of Neurosurgery
- Department of Orthopaedics
- The BIDMC “Spine Center”
- Case Management
- Anesthesia

Interventions

- Design and implementation Posterior Lumbar Fusion pathway.
- Incorporation of guidelines to meet the needs in the majority of patients
- 1 month trial of pathway

All patient references in the pathway are to be circled and addressed in the progress notes.

The Clinical Pathway is intended to assist in clinical decision making by describing a range of generally acceptable interventions and outcomes. The pathway attempts to define practices that meet the needs of most patients under most circumstances. However, the clinician is expected to make clinical or management decisions that are relevant for patient and feedback to be modified according to the individual patient needs.

INTERVIEW	PRE-OP	POST-OP	DISCHARGE	RE-ADMISSION
<p>NOTES</p> <p>□ History of spine surgery □ Review of MRI scans and records of prior and post-op medications □ Review of physical therapy and occupational therapy notes</p>	<p>NOTES</p> <p>□ Review of MRI scans and records of prior and post-op medications □ Review of physical therapy and occupational therapy notes</p>	<p>NOTES</p> <p>□ Review of MRI scans and records of prior and post-op medications □ Review of physical therapy and occupational therapy notes</p>	<p>NOTES</p> <p>□ Review of MRI scans and records of prior and post-op medications □ Review of physical therapy and occupational therapy notes</p>	<p>NOTES</p> <p>□ Review of MRI scans and records of prior and post-op medications □ Review of physical therapy and occupational therapy notes</p>
<p>COMPLIANCE</p> <p>□ Vitals per PO/ICU protocol □ I & O (same report shift)</p>	<p>COMPLIANCE</p> <p>□ Vitals q 4h □ I & O q 4h</p>	<p>COMPLIANCE</p> <p>□ Vitals q 4h □ I & O q 4h</p>	<p>COMPLIANCE</p> <p>□ Vitals q 4h □ I & O q 4h</p>	<p>COMPLIANCE</p> <p>□ Vitals q 4h □ I & O q 4h</p>
<p>RESPIRATORY</p> <p>□ Spontaneous tidal volume □ Crackles and rales □ CXR as indicated</p>	<p>RESPIRATORY</p> <p>□ Spontaneous tidal volume □ Crackles and rales □ CXR as indicated</p>	<p>RESPIRATORY</p> <p>□ Spontaneous tidal volume □ Crackles and rales □ CXR as indicated</p>	<p>RESPIRATORY</p> <p>□ Spontaneous tidal volume □ Crackles and rales □ CXR as indicated</p>	<p>RESPIRATORY</p> <p>□ Spontaneous tidal volume □ Crackles and rales □ CXR as indicated</p>
<p>DIET/NUTRITION</p> <p>□ Advance to solid diet □ Advance to PO/ICU diet</p>	<p>DIET/NUTRITION</p> <p>□ Advance to solid diet □ Advance to PO/ICU diet</p>	<p>DIET/NUTRITION</p> <p>□ Advance to solid diet □ Advance to PO/ICU diet</p>	<p>DIET/NUTRITION</p> <p>□ Advance to solid diet □ Advance to PO/ICU diet</p>	<p>DIET/NUTRITION</p> <p>□ Advance to solid diet □ Advance to PO/ICU diet</p>
<p>WOUND CARE</p> <p>□ Inspect and document wound □ Change dressing as needed</p>	<p>WOUND CARE</p> <p>□ Inspect and document wound □ Change dressing as needed</p>	<p>WOUND CARE</p> <p>□ Inspect and document wound □ Change dressing as needed</p>	<p>WOUND CARE</p> <p>□ Inspect and document wound □ Change dressing as needed</p>	<p>WOUND CARE</p> <p>□ Inspect and document wound □ Change dressing as needed</p>
<p>ACTIVITY</p> <p>□ Ambulate with assistance □ Increase walking distance □ Increase tolerance for sitting</p>	<p>ACTIVITY</p> <p>□ Ambulate with assistance □ Increase walking distance □ Increase tolerance for sitting</p>	<p>ACTIVITY</p> <p>□ Ambulate with assistance □ Increase walking distance □ Increase tolerance for sitting</p>	<p>ACTIVITY</p> <p>□ Ambulate with assistance □ Increase walking distance □ Increase tolerance for sitting</p>	<p>ACTIVITY</p> <p>□ Ambulate with assistance □ Increase walking distance □ Increase tolerance for sitting</p>

Examples of Long Term Improvements

- Decreased length of stay with decreased cost to patient and hospital
- Reduction in communication errors
- Improved pain management for the patient
- Early mobilization of patients thus reducing adverse nosocomial events

Next Steps

- Continue with current interventions involving patient care.
- Incorporation of pathway order set into Provider Order Entry.
- Ongoing assessment of pathway to achieve long term goals.

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