Purpose

- Provide an overview on the risk of harm process for lumbar spine surgery
  - Receive IIMAC feedback on process
- Review the draft checklist for validation review (attached) on cases identified from data analysis
  - IIMAC feedback on checklist
- Provide results from Dr. Brook Martin’s re-analysis of additional data (2012 – 2016)
  - IIMAC feedback on re-analysis
Distribution of Quality of Care

- Incentives for quality indicators known to improve outcomes
- Resources to help docs apply them (CME, HSCs, reminders)
- Geared toward improving well-intentioned Zone 2 & 3

- COHE Model: Identify high performers to serve as mentors

Patterns of poor quality care that presents injured workers at risk of harm typically require other (non-COHE) interventions (minimum standards & risk of harm)

Clinical Efficiency

Good (Costs & Quality) Poor
(7) The department may permanently remove a provider from the network or take other appropriate action when the provider exhibits a pattern of conduct of low quality care that exposes patients to risk of physical or psychiatric harm or death.

(8) The department may not remove a health care provider from the network for an isolated instance of poor health and recovery outcomes due to treatment by the provider.

(Effective on July 1, 2011)
http://apps.leg.wa.gov/RCW/default.aspx?cite=51.36.010
It is the intent of the department, through authority granted by RCW 51.36.010 to protect workers from physical or psychiatric harm by identifying, and taking appropriate action, including removal of providers from the statewide network, when:

(a) There is **harm**; and

(b) There is a **pattern(s)** of **low quality care**; and

(c) The harm is related to the pattern(s) of low quality care.

(5) **Pattern or patterns** of low quality care is/are defined as including one or more of the following:

- (a) For health services where the department can calculate normative data on frequency, a provider’s cases are in the lowest decile (at or below the tenth percentile); or

- (b) For health services where the department cannot calculate normative data on frequency, at least twenty percent of requested or conducted services meet the definition of low quality care; or

(Effective on February 3, 2012)

Developmental Stages of ROH Project – Lumbar Surgery

Two sets of administrative data were collected (e.g. ICD-9, CPT, provider & claimant information):
1. 2008-2011
2. 2012-2016

Data collection:
- Identified index procedure and linked subsequent admissions, complications & repeat operation
  - Excluded patients with spinal fractures, cancer, spinal cord injuries, neurological impairment, HIV, corpectomy, co-existing cervical or thoracic problems, <18 yo.

Data integration:

Data analysis:
- Determined:
  - Surgical invasiveness index,
  - Demographics, crude 1-yr repeat reoperation
  - Identify pattern of low quality care
  - Risk-adjusted for patient age, sex, comorbidity, surgical indication in comparing rates of complications across surgeons

Checklist development:
- Developed a draft checklist for validation
  - Received feedback from small advisory group & surgeons on IIMAC
  - Requesting additional feedback from full IIMAC

Validation review:
- Review medical chart to:
  - Confirm harm from surgery
  - Identify other low quality care and
  - Establish relatedness of harm to pattern of low quality care
First Analysis: 2008 - 2011 Lumbar Surgeries

- Identified claimants undergoing lumbar decompression, fusion or artificial disc replacement for degenerative disease
- Excluded claimants with spinal fractures, cancer, spinal cord injuries, neurological impairment, HIV, corpectomy, co-existing cervical or thoracic problems, or <18 y.o.
- Spine surgeons included in analysis
- Surgeons with 1-yr reoperation rate greater than SPORT or L&I mean
- Surgeons with reoperation rates greater than SPORT (8%)
- Surgeons with reoperation rates greater than L&I mean (10.2%)
Example

Pattern

- Provider with a complication rate >20% of expected rate for lumbar surgeries (complication = adverse event; expected rate from external source or L&I data)
- Data analysis by Brook Martin, PhD, MPH

Low Quality Care

- Reviews validated multiple complications and identified other low quality care relating to initial surgery and/or reoperation(s) by the provider (e.g. serious infection, hardware complications)
- Validation review using checklist by ROH staff

Harm

- There is physical injury resulting from surgeries, which requires additional diagnostic test, treatment or hospitalization
- Confirmation by Associate Medical Director, Medical Director and Credentialing Committee
Feedback on process
The checklist is based on the rule for risk of harm

It has five sections:
- Reviewer information
- Claim information
- Provider and procedure
- Complications
- Quality of care

It includes a surgical invasiveness index
- A correlation between the invasiveness of surgery with the risk of adverse event
  - The higher the score, the more risk for an adverse event
Vetting of the Checklist

- Checklist was developed by staff and reviewed by:
  - Internal & contractor
    - Drs. Gary Franklin and Randy Franke
    - Qualis
  - ROH advisory group
    - Drs. Chris Howe, Michael Lee and Tom Wickizer
  - Surgeons on IIMAC
    - Drs. Robert Lang, Mike Codsi, JC Leveque
Summary of Feedback

- What is the purpose and how would L&I use the checklist?
- Would the Surgical Invasiveness Index be required before surgery?
- Whether application of checklist is to lumbar or all spine surgeries, which would also include cervical and thoracic with different complications.
- Identify same level or different level for re-exploration.
- Epidural scarring is poorly described/defined and it does not necessarily result from poor technique.
- Define post-operative wound infections as requiring a return to the OR, regardless of time period.
Time frames should be consistent between meaningful improvement (e.g. function, pain, timeloss, return to work) and repeat surgery

Rephrase question on opioid taper to allow flexibility with taper time and less complex surgeries

Fitness for surgery question is puzzling, isn’t this pre-op evaluation where diagnostic for pulmonary or cardiology is obtained before surgery

Questions on repeat surgery should be combined

Asking about flexion/extension x-rays is an appropriate question, as most fusions likely result from a spondylolisthesis
Feedback on checklist
Re-analysis of lumbar spine surgery
Brook Martin, PhD, MPH
Feedback on Dr. Martin’s updated report
Next steps

- Consider feedback and incorporate changes as necessary
- Finalize ROH lumbar surgery process
- Begin validating cases identified by Dr. Martin’s analysis