Observing outcomes of spinal surgery in the workers’ compensation setting

-Managing Pain in the Workplace-

FPM-ANZCA

September 18, 2016

Gary M. Franklin, MD, MPH
Research Professor
Departments of Environmental Health, Neurology, and Health Services
University of Washington

Medical Director
Washington State Department of Labor and Industries
Changes in Disability Status among Injured Workers in WA State

% Workers Receiving Disability Payments

Early Intervention Period

Time Loss Duration (months)
History of Medical Care in Workers’ Compensation

- Some of the worst care in America-repeated surgery, inaccurate diagnoses, workers with rather simple injuries (backs, CTS) can become increasingly disabled while they are in workers comp

- Outcomes of surgical procedures in workers comp far worse than in non workers comp reasons unclear-4 fold increased risk for unsatisfactory outcome:

  Harris et al, JAMA 2005; 293:1644-52
What has contributed the most to a decade-long pattern of increased disability duration?

• Use of harmful treatments, which contribute to prolonged disability: opioids, spinal surgery (lumbar fusion)
  – Eg, 44% of WA injured workers are totally disabled 10 years after lumbar fusion
• Multiple diagnosis problem (eg, TOS)
• Bad docs
Degenerative Disc Disease (DDD) arises from natural degeneration of intervertebral discs and adjacent structures.

Theory is that DDD is associated with low back pain in many individuals.

Some patients with chronic low back pain get better with no treatment while others experience temporary or sustained pain reduction or relief from:
- Physical rehabilitation/care (graded exercise, rehabilitation, chiropractic)
- Behavioral health care (education, cognitive behavioral therapy)

There is no evidence that opioids contribute to sustained relief from chronic LBP.
Lumbar fusion may have a clear role for treating traumatic injuries, patients with significant and measurable instability, congenital defects, or central canal stenosis with neurological impairment.

But, a significant proportion of the fusion procedures are done in patients with low back pain and uncomplicated DDD. The surgical premise for fusion is that disc degeneration causes pain that can be reduced/eliminated by immobilizing disc(s).

Substantial evidence shows that lumbar fusion is no better than intensive, structured multidisciplinary treatment for chronic low back pain with DDD, but with much worse safety profile and greater cost.

Re-operation and surgical complication rates are very high.

Multilevel fusions and circumferential approaches are often performed without strong evidence of corresponding improvement in pain and physical functioning.
Rates of Four Orthopedic Procedures Among Medicare Enrollees, 2002 and 2003

Standardized Discharge Ratio (Log scale)

- Hip Fracture (14.3)
- Knee Replacement (53.6)
- Hip Replacement (69.5)
- Back Surgery (103.8)

Source: Dartmouth Atlas Project.
Treatment Varies State by State

Ratio of Total Rates of Spine Surgery to the U.S. Average by Hospital Referral Region (2002-03)


Copyright 2009 ACOEM, All Rights Reserved
## Lumbar Fusion

### Utilization and Cost of Lumbar Fusion in Washington State - 2012-2014

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>3 Yr Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workers’ Comp</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Count</td>
<td>401</td>
<td>404</td>
<td>343</td>
<td>1148</td>
</tr>
<tr>
<td>Procedure Count</td>
<td>411</td>
<td>416</td>
<td>345</td>
<td>1172</td>
</tr>
<tr>
<td>Paid (rounded)*</td>
<td>$18.6</td>
<td>$15.9</td>
<td>$15.4</td>
<td>$49.91</td>
</tr>
<tr>
<td><strong>Medicaid FFS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Count</td>
<td>241</td>
<td>281</td>
<td>391</td>
<td>913</td>
</tr>
<tr>
<td>Procedure Count</td>
<td>241</td>
<td>281</td>
<td>391</td>
<td>913</td>
</tr>
<tr>
<td>Paid (rounded)*</td>
<td>$5.5</td>
<td>$6.6</td>
<td>$10.2</td>
<td>$22.3</td>
</tr>
<tr>
<td><strong>Public employees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Count</td>
<td>116</td>
<td>136</td>
<td>154</td>
<td>406</td>
</tr>
<tr>
<td>Procedure Count</td>
<td>117</td>
<td>137</td>
<td>157</td>
<td>411</td>
</tr>
<tr>
<td>Paid (rounded)*</td>
<td>$6.8</td>
<td>$7.1</td>
<td>$8.7</td>
<td>$22.61</td>
</tr>
</tbody>
</table>

*Dollars expressed in millions

§Does not include Medicare
## Lumbar Fusion Cost of Lumbar Fusion in Washington State-2014

<table>
<thead>
<tr>
<th></th>
<th>Patient Count</th>
<th>Procedure Count</th>
<th>Total Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers' comp</td>
<td>343</td>
<td>345</td>
<td>$15,414,000</td>
</tr>
<tr>
<td>Medicaid (FFS)</td>
<td>391</td>
<td>391</td>
<td>$10,207,000</td>
</tr>
<tr>
<td>Public employees*</td>
<td>154</td>
<td>157</td>
<td>$8,680,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>888</strong></td>
<td><strong>893</strong></td>
<td><strong>$34,301,000</strong></td>
</tr>
</tbody>
</table>

*Does not include Medicare*
## WA Workers’ Comp Lumbar Fusion, Pain clinics & Pensions

<table>
<thead>
<tr>
<th>Year</th>
<th>Procedure count</th>
<th>Avg. number of years*</th>
<th>Number of Pain Clinics</th>
<th>Number of claims§</th>
<th>% On pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>407</td>
<td>3.9</td>
<td></td>
<td>157</td>
<td>41%</td>
</tr>
<tr>
<td>2001</td>
<td>419</td>
<td>3.9</td>
<td></td>
<td>166</td>
<td>41%</td>
</tr>
<tr>
<td>2002</td>
<td>447</td>
<td>3.3</td>
<td></td>
<td>190</td>
<td>44%</td>
</tr>
<tr>
<td>2003</td>
<td>418</td>
<td>3.7</td>
<td></td>
<td>164</td>
<td>40%</td>
</tr>
<tr>
<td>2004</td>
<td>412</td>
<td>3.5</td>
<td></td>
<td>156</td>
<td>39%</td>
</tr>
<tr>
<td>2005</td>
<td>366</td>
<td>3</td>
<td></td>
<td>190</td>
<td>33%</td>
</tr>
<tr>
<td>2006</td>
<td>382</td>
<td>3.5</td>
<td></td>
<td>230</td>
<td>31%</td>
</tr>
<tr>
<td>2007</td>
<td>341</td>
<td>3.1</td>
<td></td>
<td>269</td>
<td>26%</td>
</tr>
<tr>
<td>2008</td>
<td>345</td>
<td>3.3</td>
<td></td>
<td>277</td>
<td>26%</td>
</tr>
<tr>
<td>2009</td>
<td>415</td>
<td>3.3</td>
<td></td>
<td>365</td>
<td>17%</td>
</tr>
<tr>
<td>2010</td>
<td>412</td>
<td>3.7</td>
<td></td>
<td>549</td>
<td>11%</td>
</tr>
<tr>
<td>2011</td>
<td>403</td>
<td>3.5</td>
<td></td>
<td>632</td>
<td>3%</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td>528</td>
<td></td>
</tr>
</tbody>
</table>

*Avg. number of years from claim established to lumbar fusion date
§Number of claims that received a fusion that are currently on pension
Effectiveness*: Lumbar Fusion Is no Better Than Intensive Rehabilitation -WA HTA evidence review-

- Fusion vs. Intensive Rehab – no benefit (3 RCTs - good quality)
- Fusion vs. PT or exercise alone – small and short term benefits (2 RCTs -fair quality)§

* Pain (VAS), function (ODI) and return to work
§ In one small RCT (Ohtori et al), the control group was only minimally treated with 30 min of physician-supervised daily exercises and stretching.
After an average of 11 years follow-up, there was no difference in patient self-rated outcomes between fusion and multidisciplinary cognitive-behavioral and exercise rehabilitation for cLBP. The results suggest that, given the increased risks of surgery and the lack of deterioration in nonoperative outcomes over time, the use of lumbar fusion in cLBP patients should not be favored in health care systems where multidisciplinary, cognitive-behavioral and exercise rehabilitation programmes are available.
Compensation Status Relates to Poor Outcomes from Lumbar Fusion

- Lumbar fusion: 19 studies; odds ratio of worse outcome for fusion among compensation patients: 4.33 (95% CI: 2.81-6.62)
- Spine SCOAP-WA fusion outcomes—much worse outcomes in smokers and workers compensation

Lumbar Fusion

Fusion Surgery Outcomes Are Worse in Workers Comp.

NRS: numeric rating scales
Washington State WC Outcomes

- N= 388 from 1986-87
- 68% TTD at 2 years; 23% repeat surgery by 2 yrs
- Instrumentation doubled risk of reoperation
- Surgical experience didn’t matter
- Key-WC fusion outcomes far worse than previously reported from surgical case series

Franklin et al, 1994; Spine 20: 1897-903
Washington State WC Outcomes

- 1950 fusion subjects from 1994-2000
  - 85% received cages and/or instrumentation
- 64% disabled at 2 yrs
- 22% reoperated by 2 yrs + 12% other complications
- Cage/instrumentation use increased complications without improving disability or reoperation rate

Australia vs US spinal surgery outcomes


- 2 year work disability rate lumbar fusion
  - 1994 WA-68%
  - 2006 WA-64%
  - 2010 Ohio-62%
  - 2012 New South Wales-63.7%

- NSW very high opioids 2 years post-fusion-70%

- NSW 2 year return to preinjury duties (%)
  - Decompression-17.3%
  - Fusion-3.3%
  - Artificial disc-11.1%
## Complications, Death and Repeat Surgery within 90 Days of Lumbar Fusion (Unadjusted %)

<table>
<thead>
<tr>
<th>Payer</th>
<th>Device comp.</th>
<th>Wound prob.</th>
<th>Life-threatening</th>
<th>Death</th>
<th>Repeat Lumbar Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare</td>
<td>0.4</td>
<td>4.4</td>
<td>3.7</td>
<td>0.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Medicaid</td>
<td>1.6</td>
<td>6.8</td>
<td>2.2</td>
<td>0.0</td>
<td>2.4</td>
</tr>
<tr>
<td>HMO</td>
<td>1.0</td>
<td>1.4</td>
<td>0.6</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Commercial</td>
<td>1.1</td>
<td>1.8</td>
<td>1.3</td>
<td>0.1</td>
<td>2.0</td>
</tr>
<tr>
<td>W/C</td>
<td>1.0</td>
<td>1.8</td>
<td>0.6</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Contract</td>
<td>0.5</td>
<td>3.0</td>
<td>1.6</td>
<td>0.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>2.9</td>
<td>2.2</td>
<td>0.0</td>
<td>1.9</td>
</tr>
</tbody>
</table>

CHARS 2004-2007 [n = 5,864]

*Martin et al, Health Serv Res 2013; 48: 1-25*
Recent WA Workers’ Comp Case

- Initial injury 7/5/99- L3, L4, L5 laminectomy/foraminotomy; RTW as trucker; Cat 3 PPD

- Injury 1/7/01
  - 9/25/01- L5-S1 anterior lumbar interbody fusion with BAK cages
  - 11/2/01-fusion revision requested
  - 8/13/03- laminectomy redo L4,5,S1; L5-S1 instrumented fusion based on ? Pseudoarthrosis
  - CAT 4 PPD (fusions + S1 radiculopathy)
  - 12/16/03 RTW trucking

- Injury 6/28/08
  - 6/24/09- Removal L5-S1 hardware; exploration, decompression L4-S1
  - 10/12/11-L4,L5 laminectomy, Pedicle screw, transforaminal interbody fusion L4-5; intertransverse fusion L4-5 (Paid by another party since denied by Dept)
Mortality (WC) after Lumbar Fusion Surgery

- N=2378 fusions between 1994-2001
- Death records-103 deceased by 1994
- 90 day perioperative mortality 0.29%-assoc with repeat fusion
- Age and gender adjusted all cause mortality 3.1 deaths/1000 worker yrs
- Opioid-related deaths 21% of deaths and 31.4% of potential life lost
- Risk > with instrumentation/cages and DDD

Standardized 1-yr mortality ratio, NSW, 2000-2009
Harris et al, Mortality rates after surgery in New South Wales. ANZ J Surg 2012; 82: 871-77
Failed Back Surgery Syndrome

- Incidence 10-40% (Chan and Peng, Pain Med 2011; 12: 577-606)
- Extremely disabling, often with severe neuropathic pain leading to further invasive procedures (more surgery, more opioids, spinal stimulators)
- Epidural endoscopy study: N=78 with persistent pain after spine surgery; 83% had severe epidural fibrosis (Bosscher and Heavner, Pain Pract 2010; 10: 18-24)
- Gadolinium MRI would likely find high prevalence of substantial nerve root scarring following spinal surgery
Lumbar Fusion Costs

- About $50,000 PAID/case in public employees and L&I; >$100,000 billed in commercial insurance, with large proportion for hardware
- Add costs for high rate of repeat surgery, failed back surgery syndrome
US Private Payers’ Policies

- Examples of private payers who don’t cover lumbar fusion for low back pain due to DDD
  - Aetna
  - Anthem
  - the Regence Group
  - BCBS North Carolina

- Although you could probably drive a truck through some of the exceptions
WA workers compensation fusion guidelines

A. The patient demonstrates mechanical (non-radicular) low back pain with instability.

- Instability of the lumbar segment is defined as at least 4mm of anterior/posterior translation at L3-4 and L4-5, or 5mm of translation at L5-S1
- or 11 degrees greater end plate angular change at a single level, compared to an adjacent level. Adequate flexion/extension views should be taken

- Note: Only single level fusions will be approved for patients with no prior lumbar surgery.
WA workers compensation fusion guidelines

B. The patient has at least Grade 2 spondylolisthesis with one or more of the following:

• 1. Objective signs/symptoms of neurogenic claudication OR

• 2. Objective signs/symptoms of unilateral or bilateral radiculopathy, which are corroborated by neurologic examination and by MRI or CT (with or without myelography) OR

• 3. Instability of the lumbar segment as defined above in section III-A.
3 month reoperation rates across hospitals in California (Black) and Washington (Red)

Source: SID CA & WA, 2008-2009
Adjusted for age, sex, comorbidity, and diagnosis
Horizontal black line represents overall mean

Martin BI et al, Spine J 2014; 14: 1237-46
## Index Admission Costs*

<table>
<thead>
<tr>
<th></th>
<th>Washington</th>
<th>California</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charges, mean</td>
<td>$103,223</td>
<td>$160,994</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Costs, mean</td>
<td>$40,329</td>
<td>$49,435</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

*Controlling for age, sex, comorbidity & diagnosis

Martin BI et al, Spine J 2014; 14: 1237-46
WA Health Technology Assessment Program Fusion Coverage Policies

• 2008-Discography for patients with chronic low back pain and lumbar degenerative disc disease is **not a covered benefit**

• 2013-Cervical Spinal Fusion for Degenerative Disc Disease is a **covered benefit with conditions**
  1. Patients with signs and symptoms of radiculopathy; and
  2. Advanced imaging evidence of corresponding nerve root compression; and
  3. Failure of conservative (non-operative) care

• 2016-Lumbar fusion for degenerative disc disease uncomplicated by comorbidities is **not a covered benefit**

WA Health Technology Assessment Program.
URL:http://www.hca.wa.gov/about-hca/health-technology-assessment/health-technology-assessment
Franklin and Budenholzer. NEJM 2009; 361: 1722-25
Why it matters
Low back pain is:
- one of patients’ most common complaints.
- Americans spend at least $50 billion each year
- most common cause of job-related disability and
a leading contributor to missed work.

1. MRIs are good for identifying spinal infections and cancer - for which there are also other “red flags” (less than 1% of all back pain)

2. Imaging subjects patients to unnecessary harm by finding abnormalities that are not clinically relevant… Patients who received an MRI during the first month of back pain were eight times more likely to have surgery and experience a five-fold increase in medical expenses with no observed gains in recovery time as compared to patients undergoing no imaging (Webster and Cifuentes, 2010).
So no opioids, much less fusion, what’s a doc to do?

Population-based care focused on improving patient self-efficacy

Collaborative care to prevent and more adequately treat pain

Better integration of behavioral/physical health

Biggest predictor of long term disability are psychosocial barriers affecting recovery-fear avoidance, catastrophizing, low expectations of RTW
WA Centers Of Occupational Health and Education-2000-2016

- This is a health care system, not an insurance company, intervention
- Health care institutional support
- Occupational health leadership
- Business/labor advisory committees
Important components of COHE Model

- Occupational health best practices
- Quality Indicators
- Health Services coordination-function reports to the health care providers
- Information support system
- Modest payment incentives for best practices
Quality Indicators

● Process, not specific treatment, indicators
● Prompt submission of ROA (48 hrs)
● Telephone call Re RTW by physician
● Activity prescription
● 4 week assessment of barriers to RTW
Occupational Health Services Project

FINAL REPORT

Prepared by:
Thomas Wickizer, PhD
Beryl Schulman, PhD
Sheryl Schwartz, MPA
Diana Drylie, MHA

University of Washington
Department of Health Services

For the Washington State Department of Labor and Industries
September, 1998
COHE Evaluation Results


- 20% reduction in likelihood of one year disability, 30% reduction for back injuries
- Among COHE participating doctors, high adopters of best practices had 57% fewer disability days than low adopters
3. Quality Care - COHE Results

- About 50% of claims initiated with COHE Provider
- About 3,000 COHE providers (out of 24,000 Network providers)
3. Quality Care

WA Healthy Worker 2020
Innovation in Collaborative, Accountable Care

An Occupational Health Home for the Prevention and Adequate Treatment of Chronic Pain

HSC= Health Services Coordinator
OHMS= Information System
# Treatment formats: Traditional

<table>
<thead>
<tr>
<th>Traditional treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Single behavioral health expert (e.g. Chronic Disease Self Management Program (CDSMP), Eye Movement Desensitization and Reprocessing Therapy (EMDR), Progressive Goal Attainment Program (PGAP))</td>
</tr>
<tr>
<td>- Psych assessment</td>
</tr>
<tr>
<td>- Typically address a very targeted problem (i.e., depression, chronic pain, Posttraumatic Stress Disorder, insomnia)</td>
</tr>
<tr>
<td>- Costly training</td>
</tr>
<tr>
<td>- Rigid protocols</td>
</tr>
<tr>
<td>- Limited population generalizability</td>
</tr>
<tr>
<td>- Time consuming treatments (10-12 50 min sessions), often infeasible</td>
</tr>
<tr>
<td>- Typically delivered face-to-face</td>
</tr>
<tr>
<td>- Point of care treatment, no outreach</td>
</tr>
<tr>
<td>- <strong>Limited population reach</strong></td>
</tr>
</tbody>
</table>
Principles of Effective Collaborative Pain & Behavioral Health Care

- Patient Centered / Collaborative
- Population-Based
- Measurement-Based Treatment to Target
- Evidence-Based
- Accountable
Treatment formats: Collaborative Care

- Care manager in collaboration with primary care or attending provider supervised by multiple specialists
- Systematic screening to identify patients at risk for poor outcomes
- Brief evidence based treatments in combination with case management – typically time limited to 3-6 months, often 2-8 sessions with the care manager
- Interdisciplinary team care with comprehensive care planning
- Medication management and consultation
- Utilizes telehealth to reach patients
- Flexible – addresses multiple problems (i.e., depression, sleep, pain, anxiety, etc.)
- Active panel management, focus on patient engagement to maximize population reach
- Systematic treatment intensification to achieve therapeutic goals
- Lower cost than traditional treatments
- **Broad population reach**
# Traditional Evidence-Based Treatments vs. Collaborative Care

<table>
<thead>
<tr>
<th></th>
<th>Traditional Treatments</th>
<th>Collaborative Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What’s been studied</strong></td>
<td>Individual treatments (e.g., CBT or mindfulness based tx or graded exercise or education)</td>
<td>Integrated treatments which may include multiple treatment modalities</td>
</tr>
<tr>
<td><strong>Evidence base support</strong></td>
<td>Multiple meta-analyses</td>
<td>Multiple meta-analyses</td>
</tr>
<tr>
<td><strong>Study designs</strong></td>
<td>Efficacy studies (internal validity)</td>
<td>Effectiveness studies (External validity)</td>
</tr>
<tr>
<td><strong>Interventionists</strong></td>
<td>Highly trained providers (e.g., PhD level)</td>
<td>Mid-level providers are care managers with expert consultation</td>
</tr>
<tr>
<td><strong>Study samples</strong></td>
<td>Carefully selected samples, typically with only 1 problem (e.g., comorbidities excluded)</td>
<td>Fewer exclusion criteria</td>
</tr>
<tr>
<td><strong>Reach</strong></td>
<td>Minimal: despite evidence base, few individuals with or at risk for chronic pain</td>
<td>By design integrated care reaches more patients (e.g., larger sample sizes, etc.)</td>
</tr>
</tbody>
</table>
Collaborative Care for Pain and Behavioral Health

Core Program

Patient

Care Manager

Core Program Resources

Behavioral Health Specialist (i.e., psychologist)

Examples: Substance Treatment, Vocational Rehabilitation, CMHC, Orthopedics, PT, Chiropractic Care, Acupuncture, Specialty Pain Program, Other Community Resources

New Roles

- Psychological Consultant
- Psychiatric Consultant
- Pain Consultant

Additional Clinic Resources

Outside Resources
Collaborative Care Treatment

<table>
<thead>
<tr>
<th>Evidence-Based Behavioral Treatment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Psychoeducation about pain, mood, pain &amp; mood</td>
</tr>
<tr>
<td>• Physical activity</td>
</tr>
<tr>
<td>• Relaxation training</td>
</tr>
<tr>
<td>• Emotion management: coping with distress &amp; other strong emotions</td>
</tr>
<tr>
<td>• Activity pacing / energy management</td>
</tr>
<tr>
<td>• Pain flare planning</td>
</tr>
<tr>
<td>• Pain coping thoughts – cognitive therapy</td>
</tr>
<tr>
<td>• Managing emotions</td>
</tr>
<tr>
<td>• Mindfulness</td>
</tr>
<tr>
<td>• Sleep hygiene</td>
</tr>
<tr>
<td>• Cultivating support and connections</td>
</tr>
<tr>
<td>• Nurturing positive emotions</td>
</tr>
<tr>
<td>• Depression tx (Problem Solving Tx, Behavioral Activation, goal setting)</td>
</tr>
<tr>
<td>• Anxiety tx (exposure, anxiety management)</td>
</tr>
<tr>
<td>• Medication and tx adherence / support</td>
</tr>
<tr>
<td>• Care management (including care transitions with surgery or specialist care)</td>
</tr>
<tr>
<td>• Referrals (voc rehab, comprehensive pain program, stepped up psych, etc.)</td>
</tr>
<tr>
<td>• Replase prevention</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typical Care Management Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 30-34” sessions in person or by phone</td>
</tr>
<tr>
<td>• Collaborative agenda setting</td>
</tr>
<tr>
<td>• Symptom assessment (pain, depression, &amp; interference)</td>
</tr>
<tr>
<td>• Medication &amp; medical treatment (e.g., physical therapy) check-in (adherence, side effects, recommended changes)</td>
</tr>
<tr>
<td>• Review of home activities (“homework”, i.e. practice &amp; application of behavioral coping skills &amp; progress)</td>
</tr>
<tr>
<td>• Evidence-based behavioral treatment education/skills</td>
</tr>
<tr>
<td>• Relaxation or mindfulness practice in session (as appropriate)</td>
</tr>
<tr>
<td>• Plan: home activity assignment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case Consultation Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Weekly 45-60” meetings (in person or phone)</td>
</tr>
<tr>
<td>• Use electronic tracking registry to facilitate case review &amp; discussion</td>
</tr>
<tr>
<td>• Focus first on new cases &amp; non-responders</td>
</tr>
<tr>
<td>• Provide guidance to care manager on specific behavioral treatments to employ</td>
</tr>
<tr>
<td>• Care manager implements &amp; communicates plan with other providers &amp; patient</td>
</tr>
<tr>
<td>• Experts are also available for consultation outside meetings</td>
</tr>
</tbody>
</table>
Screening for Disability Risk Linked to Delivery of Occ Health Best Practices

**Positive Functional Recovery Questionnaire (FRQ)**
- Not worked for pay in past two weeks
- Pain greater than 5 on VAS
- Back and leg pain OR pain in multiple body sites

**Functional Recovery Interventions (FRI)**
- Graded exercise/activity
- Address low recovery expectations
- Address any fear of usual activity reinjuring or worsening condition
- Flag additional HSC focus on RTW
Stepped Approach

- **Engagement**: Goal setting, Tx expectations
- **Assessment**: Hx of injury and pain, Work status, Mood assessment, Screeners (pain, pain interference, mood, med adherence), Initial goal setting if appropriate
- **Psychoeducation**: Biopsychosocial model of pain, Set expectancy of recovery (that they will get better & can manage pain/mood)
- **Case management**: General care coordination, Housing, Employment issues etc.
- **Medication and treatment adherence**: Monitor use, Monitor side effects, Facilitate psychiatry tx rec’s, Track chronic opioid therapy; facilitate tapering as needed
- **Brief behavioral interventions**: Physical activity, Relaxation, Pacing, Pain flare planning, Pain coping thoughts, Managing emotions, Mindfulness, Sleep hygiene, Depression tx (PST, BA), CBT for anxiety, exposure / anxiety
- **Referrals**: Psychologist, Pain consultation, Other specialists, More intensive mental health care, Rehabilitation on care

Symptom Measurement (mood and pain)
THANK YOU!

For electronic copies of this presentation, please e-mail Laura Black
ljl2@uw.edu
For questions or feedback, please e-mail Gary Franklin
meddir@u.washington.edu