Players, Pathways, and Proof: The Next Generation of Workers’ Comp Managed Care

Dr. Larry Benz, PT, DPT, OCS, MBA
President/CEO Confluent Health
AGENDA

PROBLEMS: Opioids and Chronic Pain Trends

PLAYERS & PATHWAYS:
Road to Better Alternative and Lower Costs

PROOF: Data/Solution
PROBLEMS
PROBLEMS – “Too Many, Too Many’s”

1. Opioid prescriptions

2. Imaging

3. Spine Surgery

4. Untimely & Non-Adherent Physical Therapy
CREATED, PROMOTED, & SUSTAINED:

The modern U.S. Medical Industrial Complex has created, promoted, and sustained an epidemic in pain.
PAIN
noun | /ˈpæn/

An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.
In 1996, the American Pain Society (APS) introduced the phrase “pain as the 5th vital sign.”
OxyContin was launched in 1996 by Purdue Pharmaceutical.
ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients, Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

Jane Porter
Hershel Jick, M.D.
Boston Collaborative Drug Surveillance Program
Boston University Medical Center

Waltham, MA 02154

Canadian Family Physician published a 1995 article that referred to Porter and Jick as “persuasive.” The same author, Ronald Melzack, referred to Porter and Jick as “an extensive study” in an 1890 article in Scientific American.

A Time Magazine story from 2001 – “Less Pain, More Gain” – referred to the letter, without naming its authors, as a “landmark study.”

The 2007 textbook Complications in Regional Anesthesia and Pain Medicine referred to Porter and Jick as “a landmark report.”

This 2012 slideshow by Physicians for Responsible Opioid Prescribing offers an overview of the epidemic, while noting that Porter and Jick had been cited 693 times by then in Google Scholar.
Although evidence is limited, the expert panel concluded that chronic opioid therapy can be an effective therapy for carefully selected and monitored patients with chronic non-cancer pain.
NEARLY 1 IN 3 MEDICARE BENEFICIARIES RECEIVED AN OPIOID PRESCRIPTION IN 2015.
The U.S. has less than 5% of the world’s population, but consumes over 80% of the world’s opioid supply.

Most patients have no idea they’re becoming dependent on opioids until for some reason they run out or can’t get more.

Fig 1 | International use of six powerful opioids—fentanyl, hydromorphone, methadone, morphine, oxycodone, and pethidine (meperidine)—during 2010 (www.painpolicy.wisc.edu)
1 IN 4 PATIENTS GIVEN AN OPIOID PRESCRIPTION GO ON TO CHRONIC ABUSE.

Number Needed to Harm = 4
33,000 Americans died in 2015 as a result of opioid overdose.

That’s on par with the number of people killed by car crashes.
44 AMERICANS DIE FROM A PRESCRIPTION PAINKILLER OVERDOSE EVERY DAY.

OVERDOSE DEATH RATES IN AMERICA

- Opioid Pain Relievers
- Heroin
- Cocaine
- Marijuana

All underlying causes of death

25k
20k
15k
10k
5k
0

'99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13
Pain Doctors: Insurance Companies Won’t Cover the Alternatives to Opioids

Health-insurance companies are increasingly cutting reimbursements for these alternative treatments or not covering them at all.

Business Insider, August 2016.
In 1998, more than 1,000 multidisciplinary pain clinics existed. Seven years later the number was 75!
LOW BACK PAIN IS THE #1 REASON FOR AN OPIOID Rx.
Stagnant physical therapy referral rates alongside rising opioid prescription rates in patients with low back pain in the United States: 1997-2010
Video – by Tim Flynn

https://www.youtube.com/watch?v=heG84JZfuYU
Problem: “Too Many’s” Imaging

What is the Purpose of Imaging?

It must discriminate between competing disorders and serve to guide therapeutic decision-making, and above all impact the outcome of interest.
WRINKLES ON THE INSIDE
When did normal aging become a disease?

I'd like to think that an abundance of wrinkles on one's face just means that you've had an abundance of laughter in your life!
WRINKLES ON THE INSIDE ARE NORMAL!

MRI & CT Findings in Individuals WITHOUT Low Back Pain

Resolution of Lumbar Disk Herniation without Surgery

Jennifer Hong, M.D., and Perry A. Ball, M.D.

Asymptomatic shoulder abnormalities were found in 96% of the subjects.

The most common were bursal thickening, AC joint arthritis, & supraspinatus tendinosis.
Our findings suggest that meniscal damage is common among middle-aged and elderly, irrespective of knee symptoms, & often accompanies knee osteoarthritis.
If you get an MRI first, rather than seeing your physical therapist, you are:

6 X more likely to have surgery

5 X more likely to have injection

4 X more likely to have an ER visit
Problem: “Too Many’s” Spinal Fusion

Spinal Fusion in the United States

Analysis of Trends From 1998 to 2008

[Graph showing the number of spinal fusion procedures per 100,000 U.S. population from 1998 to 2008]

Spmc 2012;37:63-76
Problem: "Too Many's" Spinal Fusion
COSTS OF LUMBAR FUSION

- US Foreign Aid: $23 billion
- Lumbar Fusion: $16 billion
- Cancer Research: $4.8 billion
Long-Term Outcomes of Lumbar Fusion Among Workers’ Compensation Subjects

- 725 spinal fusion versus 725 controls

- Surgical cases had a
  - 1 in 4 chance of a repeat surgery
  - 1 in 3 chance of a serious complication
  - 3 in 4 chance of never working again

- There were also more deaths in the spinal fusion group

Spine 2011;36:320–331
Differences in the Surgical Treatment of Lower Back Pain Among Spine Surgeons in the United States

Spine 2016;41:978–986

There was substantial disagreement (75%) among surgeons on the approach to treat patients with LBP.

Those in academic practices had 4X greater odds of choosing no surgery as compared to those in hybrid and private practices which were also more likely to choose more aggressive/invasive fusions.
Consensus at last! Long-term results of all randomized controlled trials show that fusion is no better than non-operative care in improving pain and disability in chronic low back pain.

The long-term results of 3 randomized controlled trials (RCTs) carried out in the United Kingdom and Norway found no evidence for the superiority of surgery at the 11-year follow-up.
In 1949, neurologist Egas Moniz was awarded the Nobel Prize in Medicine for his discovery of lobotomy.

The operation was a "great therapeutic step forward." In 1945, 150 operations were performed. That number grew to 2,000 in 1947.
LOW BACK PAIN IS THE #1 REASON FOR AN OPIOID Rx
In 1961, low back pain accounted for 8% of total workers’ compensation costs.

In 2012, it accounted for 86%.
PLAYERS & PATHWAYS
Wrong Clinical Pathway: Cheaper

**Old approach**
Average cost $2,100-$2,200

The initial meeting might not happen for up to a month, and then there is no set procedure for treatment.

**New approach**
Average cost $900-$1,000

Immediately see Physical Therapist
Initiate evidence based conservative program

Physical therapy

Patients with complicated back pain are sent for additional treatment

Initial meeting with doctors

Patient might see a specialist

Patient follows up with doctors

Patient might undergo diagnostics, such as MRI
WRONG CLINICAL PATHWAY: PREDICTABLE/ BUNDLED COSTS

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**STOP INJURY NOW PATHWAY**

**Injury occurs at work**

**The Current System**
- Unnecessary care will COST your company 30-50% MORE
- Delay return to work
- Interrupt the healing process

**Stop Injury Now Clinical Pathway**
- SAVE your company up to 50% in medical costs
- Our care is based on the latest evidence
- Patient is seen within 24-48 hours and healing process begins immediately after injury

1. Injured worker is screened. Fast-tracked to appropriate treatment team of physical therapist or orthopaedic surgeon.
2. Refer to Specialist Physician
3. Injured worker undergoes several tests to determine injury
4. Injured worker follows up with Physician and appropriate course of action is determined: injection, surgery and/or physical therapy
WHERE YOU START IS WHERE YOU END!
PROOF
**Right Time and Right PT**

$n = 620,492$

22.7% referred to a PT

<table>
<thead>
<tr>
<th>Timing of Physical Therapy</th>
<th>Content of Physical Therapy</th>
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<tbody>
<tr>
<td>Early (n=52,133)</td>
<td>Adherent (n=21,317)</td>
</tr>
<tr>
<td></td>
<td>6 visits</td>
</tr>
<tr>
<td>Delayed (n=88,446)</td>
<td>Non-Adherent (n=29837)</td>
</tr>
<tr>
<td></td>
<td>15 visits</td>
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| Total LBP Costs | $1891.16 | $3536.84 | $3039.73 | $3743.69 |

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*Confluent HEALTH*

*SpineNow*
WHAT MSK SILO MANAGEMENT LOOKS LIKE

- Anesthesiology
- Ambulatory Surgery Center
- Hospital
- Orthopedic Surgeons
- Physical Therapy
- Radiology

[VALUE]
Solution

stop injury now
PATHWAY PROCESS
Avoid Chronic Pain & Addiction

- U.S. costs projected to increase at 5.8% per year to 2025.
- Healthcare waste is estimated at 30%, or $1 trillion.
- 15-fold increase in complex back surgeries over 5-year period.
- Rising costs in workers’ compensation LBP.
- LBP #1 for opioid prescription.
Rationale for Action (Opportunity)

- Bring a supply chain management philosophy to healthcare.
- Leverage employers’ collective scale to collaborate with healthcare suppliers (health systems and physicians) to impact quality and patient safety.
- Bring consistency to employers’ expectations around evidence-based healthcare.
- Create free market competition by rewarding suppliers delivering evidence-based healthcare.
- Thus lower costs for the ultimate purchasers and employees.
"I see countless patients each year that come to me too late and need spine surgery, when it could have been prevented."
The Örebro Screening Tool

Name *

First

Last

Email *

Phone

Select Your State *

North Carolina

Injured Body Part *

Neck
Risk Levels/Actions

StartBack Screening Tool

Low risk of becoming a chronic problem
- Approximately 55% of patients
- Primary focus is education
- Pain management only if needed
- Advice to remain active
- Lifestyle advice

Medium risk of recurring/long-term problems
- Approximately 33% of patients
- Conservative physical therapy as starting point
- Educate patient on LBP
- Pain management only if needed
- Advice to remain active

High risk of recurring/long-term problems
- Approximately 12% of patients
- Physical therapy
- Bio-psycho-social model
- Educate patient on LBP
- Pain management only if needed
- Advice to remain active

RED FLAG
- Serious/systemic pathology
- Significant neurological deficit
- Refer to SpineNow surgeon or MD

HEALTH
• Leverage the Pain Research

• Focus on changing the pathway

• Right Provider, Right Time, Right Treatment

• Functional Outcomes Measured by all (MD’s too)

• Triggered by the Employer (or key Medical Providers for employer)