Cost Savings and Improved Care For Self-Insured Workers' Comp Using On–Line Diagnostic and Treatment Recommendations from Johns Hopkins Hospital Doctors

www.AILabsPS.com.com

What are the issues?

- You need to control medical care costs, while improving quality of care
- 40%-80% of workers' comp cases headache and neck and back pain patients are misdiagnosed
- Detect and prevent narcotic seeking behavior
- AI Labs tests give diagnosis 96% like Johns Hopkins Hospital doctors*
- Proper treatment results in good patient care
- These techniques, were able to reduce narcotics use 89%, reduce doctor visits 45%, and generate cost savings of $20,000 to $175,000, with 54% cost savings on workers' comp like Johns Hopkins

Problems to Overcome

- Wide dispersal of the population served
- Need a triage mechanism to determine who needs to be sent to higher level care center
- Need to control narcotic prescriptions.
- Telemedicine has low quality medical care, and produces the same faulty results-misdiagnosis, not enough time with patient, incomplete history, uneven quality of physicians
- Need quality medical assessment without uneven quality of medical care

Comparison of Two Diagnostic Methods for Workers' Comp

Telemedicine and IMEs

- Doctor will misdiagnose patients 40%-80% of the time
- Variable quality of doctors
- Inter-rater differences as much as 44% between doctors
- Need to schedule an appointment with the doctor
- Need to wait for a report to be typed and sent
- No documentation of treatment efficacy or outcome studies

Internet Based Questionnaire

- Pain Diagnostic Test give diagnoses with a 96% correlation with diagnoses of Johns Hopkins Hospital doctors
- 100% inter-rater reliability
- Every patient get the same quality evaluation
- Can take the questionnaire any time without appointment
- Instant reports
- Documented outcome studies

Value of DTP tests for a company

- **Pain Diagnostic Test** gives diagnoses with a 96% correlation of diagnoses of Johns Hopkins Hospital doctors for the 40%-80% of misdiagnosed patients
- Helps company set proper reserve by providing accurate diagnosis for the misdiagnosed members
- **Pain Validity Test** identifies patients who are drug seeking with 95% accuracy
- **Headache Diagnostic Test** gives diagnoses with a 94% correlation of diagnoses of Johns Hopkins Hospital doctors for the 35%-75% of misdiagnosed headache patients
- Improved patient care with less expense for medication and fewer doctor visits. Reset reserves.

Reserves of "Bad (untreatable) Diagnoses" which convert to "Good (treatable) Diagnoses" with proper medical evaluation, using the DTP Diagnostic Paradigm

Wrong Diagnoses

- Fibromyalgia - $90,000
- Lumbar Strain - $150,000
- Cervical Strain -$120,000
- Lumbago – $80,000
- Failed Back Syndrome – $120,000
- RSD (CRPS I) -$1,000,000
- Causalgia – $450,000
- Migraine Headache – $95,000

Correct Diagnoses

- Lyme disease - $50,000
- Disrupted Disc (IDD)- $60,000
- Facet syndrome -$20,000
- Anteriolysthesis – $35,000
- Post laminectomy syndrome – $80,000
- Nerve entrapment –$50,000
- Thoracic outlet -$65,000
- C2-3 root - $45,000

Resettting reserves, based on accurate diagnosis results in immediate cash improvement, since lower reserves mean increased cash

Background of Authors of the Test Research

- **Donlin Long, MD, Ph.D. former chairman of neurosurgery Johns Hopkins Hospital, founder and Director of the Pain Clinic, Johns Hopkins Hospital, professor of neurosurgery, Johns Hopkins University School of Medicine**
- **James Campbell, MD –professor of neurosurgery, Johns Hopkins University School of Medicine, past president, American Pain Society**
- **Reginald Davis, MD – former chief resident in neurosurgery, Johns Hopkins Hospital, assistant professor of neurosurgery, Johns Hopkins University School of Medicine, chief of neurosurgery, Greater Baltimore Medical Center**
- **Nelson Hendler, MD, MS-former Assistant Professor Johns Hopkins University School of Medicine, past president, American Academy of Pain Management**
- **Matts Gronblad, MD, PhD –Professor of Rehabilitation Medicine, Rehabilitation Institute, Turku, Finland**
- **John Rybock, MD, assistant professor of neurosurgery Johns Hopkins University School of Medicine, assistant dean for academic affairs, Johns Hopkins University School of Medicine.**

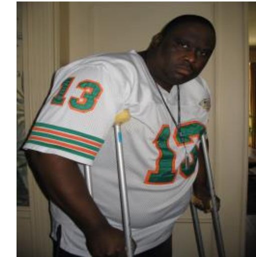
Two Sources of Increased Costs

- **Over-Diagnosis**-Emerick, former employee benefits director of Walmart, says people are "over-diagnosed, over-treated, and generally over-doctored." (Emerick. T and Lewis, A., Cracking Health Costs p 72, Wiley, Hoboken, NJ 2013).
- 25% of spinal surgery was found to be unnecessary.
- **Under-Diagnosis**-Johns Hopkins Hospital doctors report 35%-80% of patients are misdiagnosed.
- 50%-63% of "sprains" need surgery to improve
- See next slide for partial list of articles documenting the misdiagnosis rate

1. Hendler N, Kozikowski J.Overlooked physical diagnoses in chronic pain patients involved in litigation.Psychosomatics.1993 Nov-Dec 34(6):494-501.
2. Hendler N, Bergson C, Morrison C. Overlooked physical diagnoses in chronic pain patients in litigation, Part 2. Psychosomatics. 1996 Nov-Dec 37(6):509-517.
3. Hendler N.Differential diagnosis of complex regional pain syndrome. Pan Arab Journal of Neurosurgery. 2002 Oct6(2):1-9.
4. Dellon AL, Andronian E, Rosson GD.CRPS of the upper or lower extremity: surgical treatment outcomes.J. Brachial PlexPeripher Nerve Inj. 2009 Feb;4(1):1-7.
5. Long D, Davis R, Speed W, Hendler N.Fusion for occult post- traumatic cervical facet injury.Neurosurg. Q. 2006 Sep16(3):129- 134.
6. Hendler N.Overlooked Diagnoses in Electric Shock and Lightning Strike Survivors.Journal of Occupational and Environmental Medicine. 2005Aug 47(8):796-805.
7. Hendler, N, Romano T. Fibromyalgia Over-Diagnosed97% of The Time: Chronic Pain Due To Thoracic OutletSyndrome, Acromo- Clavicular Joint Syndrome,Disrupted Disc, Nerve Entrapments, Facet SyndromeandOther Disorders MistakenlyCalled Fibromyalgia. Journal of Anesthesia & Pain Medicine. 20061(1): 1-7.
8. Landi A, Speed W, Hendler N. Comparison of Clinical Diagnoses versus Computerized Test (Expert System) Diagnoses from the Headache Diagnostic Paradigm (Expert System).SF J Headache Pain. 2018 Aug 1:1-8.
9. Hendler N Facial pain from various sources-diagnoses and differential diagnoses. Dental, Oral and Craniofacial Research. 2017 Jan 3(5):1-5.

www.AILabsPS.com
Internet Case Management and Resource Allocation System

Sprains and strains are self limiting diseases, lasting no more than 2 months. Any “lumbar strain” or “cervical sprain” more than 2 months old is, by definition, misdiagnosed. Get the right diagnosis & save money



Detect Fraud. Accurately Set Reserves. Close Long Term Catastrophic Cases

STEP 1) Administer the Pain Validity Test (PVT) for all claims. Find the fakers.

Fakers

Real Pain

2) 6%-13% of patients will be faking. The PVT finds them with 85%-95% accuracy.

3) Do not prescribe narcotics to them

4) Stop unnecessary visits

5) **Bring closure to the case**

6) **Average savings of $1,654/case, same quarter savings,**

7) Pain Validity Test always stands up in court in over 30 cases in 9 states

2) 87%-94% of patients have real medical problems, but 40%-67% are misdiagnosed (Psychosomatics , 1993,1996). Strains last only 2 months. Get accurate diagnosis, correct testing and proper treatment

3) Administer the Diagnostic Paradigm to get an accurate diagnosis, and treatment plan.

4)Accurately set reserves.

5) 50%-63% will need surgery: the others need proper medication

6) Savings of $20,000 to $175,000 (Harvard School of Cybermedicine, 2001)

*For claimants out of work for 2 years or more, return to work rates of 19.5% for Workers Compensation cases, and 62.5% for auto accident cases. The insurance industry reports less than a 1% return to work rate in these cases.

STOP DRUG SEEKING

The Action Plan For Using the AI Labs (AIL) Pain Validity Test

The Old vs AIL methods of Finding Drug Seeking

The Old Subjective Method

- Patient complains of pain to the doctor, based on subjective criteria
- Doctor has no way to determine of pain is real, especially if normal tests
- Ill-informed doctor treats chronic pain like acute pain and prescribes narcotics
- Narcotic seeking patients complain of vague pain complaints

The AIL Objective Method

- All patients coming in receive the AIL Pain Validity Test, which identifies potential fraud with 85%-95% accuracy
- The patients with a high chance of fraud are denied narcotics
- Accurate patient diagnosis allows doctor to select the correct pain medication without the use of narcotics

From Medical Director of CitiCorp

CLINTON G. WEIMAN, M.D.
2 Roberta Lane
Greenwich, CT. 06830
(203) 629-3380
FAX (203) 629-9032

Nelson H. Hendler, M.D.
Johns Hopkins Hospital Osler
320 600 N. Wolfe Street
Baltimore, MD. 21205

Dear Dr. Hendler;

Subject: Hendler Back Test

At the present time I am in the process of marketing a comprehensive, computerized medical history. I developed and implemented this history as part of a medical record system while I served as Corporate Medical Director of Citicorp. We recorded about 40,000 histories. I have exclusive copyright license for this product.

While at Citicorp I used your Back Test on numerous occasions and found it very valuable. In conjunction with my efforts to market CMI (Comprehensive Medical Interview) I would like to be able to offer the Hendler Back Test as another medical technology. In addition I also will have computerized histories in the following areas available: neurological conditions, breast cancer, alcoholism, stress, obstetrics and gynecology.

Obviously, my reason for writing you is to obtain a license to include your product in my marketing efforts. I look forward to hearing from you with a positive response.

Sincerely,

Clt Weiman

October 26, 1998

From Chairman of Neurosurgery at Johns Hopkins Hospital

Donlin M. Long, M.D.
Donlin M. Long, M.D.
Neurological and Spinal Consultant
[illegible]

Dear Colleagues:

As a neurosurgeon with a long standing interest in both acute and chronic pain, one of the major problems which I confront is to determine when a patient has a probably valid complaint of pain and when they may be exaggerating complaints for a variety of other reasons. Having validated testing to help make that differentiation has been a goal of the Johns Hopkins Pain Treatment Center since it was founded. I, with a number of other members of the Department of Neurosurgery and Pain Treatment Center participated in research to establish a valid measure for estimating low back pain and treatment effects upon it, these included the Hendler Back Pain Test, which subsequently became the Mensana Clinic Back Pain Test and a questionnaire utilized to predict organic pathology in chronic back and neck pain. One of the most important of these tools predicts the likelihood of a physical cause being found for complaints of chronic back, neck and radicular pain. These have culminated in a Pain Validity Test, which is now available over the internet in both English and Spanish. It is a self-administered form, which can be completed by a patient in about five minutes. The test predicts with statistically valid accuracy which patients are likely to have at least one objective medical test, which validates the origins of the pain. I append relevant references. Further information is available through one of the physicians who was responsible for much of this research. Dr. Nelson Hendler, M.D., M.S., is available at DocNelse@aol.com. I personally find these tests clinically useful and employ them regularly in my practice. I have no financial interests in any of them. If I can provide any further information, do not hesitate to contact me at the appended email address.

Yours Sincerely,

Donlin M. Long, M.D., Ph.D.
Distinguished Service Professor Emeritus
The Johns Hopkins School of Medicine

DML.242699:mkj

PROPER DIAGNOSIS

or what to do with the 87%-94% of patients with a valid pain complaint

Action Plan for the Use the AIL Pain Diagnostic Paradigm and Treatment Algorithm

Action Plan -How do you achieve accurate diagnoses and proper treatment ?

- Use automated history taking. A proper history gives a more accurate diagnosis. The Internet questionnaire never forgets to ask a question-Pain Diagnostic Paradigm
- Since all doctors are not the same, the automated history taking eliminates inter-rater (between doctor) differences The Pain Diagnostic Paradigm has 96% correlation with diagnoses of Johns Hopkins Hospital doctors
- Computer scoring gives consistent quality interpretation
- Outcomes studies published in peer reviewed medical journals prove this techniques works.
- Treatment Algorithm indicates proper tests to use

Why Patients are Misdiagnosed

- Doctors can't spend enough time with a patient taking a careful history. Average time with a patient- 11 minutes
- Doctors order <u>anatomical</u> tests, such as MRI, CT, and X-ray to make diagnosis
- Pain is a <u>physiological</u> condition. Pain fibers don't show.
- Physiology is measuring a response to a stimulus.
- Anatomy is taking a picture. Can't take a picture of "pain."
- Is the oven hot? Would you use a photo or a thermometer to determine this? A thermometer is a physiological test.
- Doctors need to use physiological tests, such as provocative discogram, facet blocks, root blocks, nerve blocks, bone scan, neurometer studies for sensory nerves, Indium 111 scans, PET scan, etc.

Lumbar and Cervical Strain

- Strains are self-limited to 6 weeks at most.
- Beyond that, the claimant needs a more extensive evaluation, not just X-ray and MRI
- The best diagnostic process are physiological tests: flexion-extension X-rays, facet blocks, root blocks, trial in a body jacket, and provocative discograms: all not often used by local doctor.
- Did you ever sprain your ankle? How long did it take to heal? Did it take 6 months? How many lumbar sprain cases do you have >6 months

When a Sprain or Strain Lasts More than 6 weeks-What is it?

- If a ligament pulls off a bone, there is excessive motion around a joint.
- This caused muscle spasm, because the muscles now have to do the work of ligaments to hold the bones together.
- When a disc is damaged, and there is a loss of disc space height, then there is less tension on the ligaments that hold vertebrae together, and there is excessive motion at that vertebral segment. This results in an unstable spinal segment.
- The patient needs discectomy and fusion.

Cost Containment for Sprains

- Sprain cause an average of 7.5 days restricted activity, 2 days of bed disability, and 2.5 days work loss (Dept. Health & Human Services # PHS 87-1592, 1987).
- If a cervical or lumbar sprain last for more than 6 weeks, it must be something else. Malingering or real? Sprain or facet disease?
- How many cases of lumbar and cervical sprain do you have that are 3 months old or older?
- What is the reserve on these cases? Look at the costs.

- **Diagnosis of lumbar sprain for 3 years**
- **Physical therapy or chiropractic $15,000/yr**
- **Doctor visits for 3 years $2,500/yr**
- **Medication for 3 years $12,000/yr**

33 year old claimant- lost wage/yr $18,000/yr

Total for 3 years $142,500

Diagnostic Eval. Using DTP Lab Studies, provocative disco $21,000

Discectomy and fusion $41,000

Total $62,000

Savings $80,500

Action Plan to Prevent Unnecessary Surgery or Get Surgery if Needed

- Using Treatment Algorithm, and do the proper tests to determine is surgery is really necessary
- Prevent incorrect approach-relying on wrong tests
- Tests used by Johns Hopkins Hospital doctors are provocative discogram, facet blocks, root blocks
- MRI has a false positive rate of 28% (Jensen, et al, New Eng J. of Med, 1994),. Get surgery at the wrong spot.
- MRI has false negative rate of 78%, (Sandhu, et al, J. Spine Disorders, 2000) Patients don't get surgery they need

Flaws with Just Anatomical Tests

MRI- Jensen et. al. (N. Eng J. Med, '94), 92 patients with no back pain, but 27 had protruding disc (30% false positive rate).

MRI with Modic (vertebral end plate changes)-21/23 patients had + provocative discograms. BUT- in 90 patients with positive provocative discograms, only 23% had Modic changes, and 77% no changes in MRI. (Braithwaite, et al, Eur. Spine J. '98). Therefore a 77% false negative rate for MRI

Flipping a coin would give more accurate results about which disc is damaged

Published Outcome Studies-for Litigants*- out of work for more than 2 years from a clinic using the AIL tests

Clinical Neurosurgery, ‘89

	Before	After
	# of Patients Working	
• **Return to Work-Auto**	3/19	10/19 (62.5%)*
• **Return to Work -Work Comp**	0/41	8/41 (19.5%)*
• **Doctor visits/month (WC/auto)**	2.78	1.51 (46% reduction)*
• **Averg. Narcotic pills/month**	105	10.8 (89% reduction)*
• Averg. Hours out of bed	11.9	15
• Trouble falling asleep- /m	22.8	16.1
• Pts. with relief (5%-100%)	0	31/60 (51%)

- * 6 months after treatment

*literature search shows insurance carriers report less than a 1% return to work rate for claimants out of work for 2 years or more on a workers compensation claim.

Documented Cost Savings

- Over 1,000 unsolicited letters from patients, lawyers and physicians documenting improvement
- Cost savings ranging from $20,000 to $175,000
- Reduction of doctor visit by 45%
- Reduction of narcotic use 89%
- Similar methods used at Johns Hopkins Hospital resulted in a 54% reduction in workers compensation costs
- Endorsed by the former president of the Self Insurance Institute of America-Dick Goff (see next)

From former president of the Self Insurance Institute of America

-----Original Message-----
From: Dick Goff <dick@taftcos.com>
To: 'DocNelse@aol.com' <docnelse@aol.com>
Sent: Sat, Apr 19, 2014 8:17 am
Subject: RE: documentation of Board membership

To Whom It May Concern,

I am the current Managing Member of The Taft Companies, LLC, a captive insurance company management firm, past President and Chairman of the Self Insurance Institute of American, a Fellow of Claim Litigation Management and a current board member Dr. Nelson Hendler's company, Mensana Clinic Diagnostics and Automated Case Management Systems. I have in the past and continue to introduce Dr. Hendler's tests to Taft clients and other risk management professionals, for the very simple reason that they work by saving significant loss cost dollars on both a pre & post loss cost basis. Not to forget and possibly the most important reason, is the potentially huge benefit which they bring to the tests' direct beneficiaries – people.

Dick Goff
Managing Member
The Taft Companies, LLC
1620 Providence Road
Towson, MD 21286
877-587-1763 (p)

Savings of 54% on Workers' Comp costs by getting accurate diagnoses. Tests duplicate Hopkins diagnoses 96% of the time- **Self Insurer**

Innovations Include Pain Validity Testing

Self-Insured Johns Hopkins Hospital Cuts Workers Comp Costs by Half

by Nelson Hendler and Dick Goff

As workers' compensation costs spiraled out of control, a renowned medical center developed a claims management and safety system that reduced the self-insured institution's workers comp claims costs by 54 percent during 2002-2012.

Edward Bernacki, associate professor and executive director of health, safety and environment of the Johns Hopkins University and Hospital in Baltimore, designed the program that allows claims to be tracked and processed more easily. It is linked to safety so that hazardous situations, once reported, can be promptly corrected to prevent future accidents.

For the program, Dr. Bernacki was presented the Innovations in Occupational and Environmental Health Award from vthe Occupational and Environmental Health Foundation in 2003.

For the ten-year period the system achieved a reduction in the number of temporary/total cases of 61 percent, permanent/partial cases of 63 percent and administrative costs of 48 percent. Most importantly, Johns Hopkins Hospital was able to achieve total savings of 54 percent with a reduction in medical costs of 44 percent.

A key factor allowing the Hopkins system to achieve these savings was the requirement that all workers injured at the hospital be treated by "a small network of clinically skilled health care providers" (1) at Johns Hopkins Hospital. While 26 states allow for employer-insurance directed care, the Hopkins results were obtained "in an environment in which the employer paid the full cost of medical care and the claimant had the free choice of medical provider at all times (1)."

Concurrently, a group of Hopkins hospital staff members published articles showing that 40 to 67 percent of chronic pain patients were misdiagnosed by physicians outside the Hopkins system (2,3,4).

© Self-Insurers' Publishing Corp. All rights reserved.

Advantages of the Tests for Physicians

- Simplifies the decision-making process
- Saves the company time and money, since all new claims would get the Pain Validity Test
- Based on results of Pain Validity Test, the doctor decides who gets what medication. No guess work, no wasted resources, no over-use of narcotics.
- For the misdiagnosed objective pain patients, get the Diagnostic Paradigm, and have the doctor review the results and decide what tests to do

Financials

- Potential market size - $25,000,000,000
- 1% market penetration by year 2 = $250,000,000
- 70% EBITDA – net of $175,000,000
- Need $900,000 for sales, and marketing
- Investor have $4,500,000 in company already
- Will do either non-dilutive debt, or debt with equity kicker
- $900,000 would get 15% of company and seat on board
- Other board members are former VPs of NYSE companies-Kelly Services and Marriott

CONTACT INFORMATION

- www.AILabsPS.com
- Mailing address
- 117 Willis St. suite 301, Cambridge, Maryland 21613
- 24 Hour HELP line- 443-277-0306
- Email DocNelse@aol.com