



**GRADUATE  
MEDICAL  
EDUCATION**

at Larkin Community Hospital

# **Osteopathic Medicine and Non-Surgical Orthopedics (Structural Medicine) in an Older Population**



Institute For Non-Surgical Orthopedics

954-563-2707

An outpatient center specializing in Osteopathic Manipulative Medicine

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# Disclosure



- The presenter has nothing to disclose with regard to commercial interests or financial relationships.
- Frankly, medicine has become my most expensive, but enjoyable hobby.

# Goals and Objectives



- Attendees will be able to understand the “How, when, where, why, what” of OMT.
- Attendees will be able to understand “Kind and Types” of OMT for our older population.
- Attendees will be able to better document OMT.
- Attendees will gain an understanding of how Structural Medicine can be implemented in practice.

I like to start things off with a joke...



**So ....**

AI

TK  
344  
OSAKA 22

**A guy walks into a bar ....**

# Osteopathic Medicine



- Basis in the relationship of structure and function leads to the promotion of healthy aging.



- Our patients have significant access to media regarding
  - Disease processes in aging
  - Preventative concerns
    - ✦ Nutrition
    - ✦ Exercise
    - ✦ Medication
    - ✦ Alternative treatments
  - They are going to pick what resources they think are optimal for their function



- The Osteopathic Approach to patient care adds an additional clinical diagnostic skill to help positively influence our patient's function.
  - Palpatory diagnosis of the musculoskeletal system
  - Evaluation of arthritic issues
  - Also adds an approach to discussion of hormonal therapy
    - ✦ Bone density concerns



- **Fear of the aging process**
  - Pain
  - Depression
    - ✦ Older women twice as likely to be depressed than male counterpart, but there are many more women that out-survive their male counterparts
- **OMT in conjunction with Physical Therapies**
  - Complement each other
  - Along with aging counseling

# Posture and Structure



- **Advanced age spinal changes**
  - Affect spinal curves
  - Gait abnormalities
  - Upper and lower extremity range deficits
  - Loss of height
  - Balance problems
- **Arthritis**
  - Affects extremity motion
  - Gait
  - Spinal mobility

# Improving functional ability in the elderly via the Spencer technique, an osteopathic manipulative treatment: A randomized, controlled trial



JANICE A. KNEBL, DO, MBA; JAY H. SHORES, PHD; RUSSELL G. GAMBER, DO; WILLIAM T. GRAY, DO; KATHRYN M. HERRON, MPH

The Journal of the American Osteopathic Association, July 2002, Vol. 102, 387-396.

Twenty-nine elderly patients with preexisting shoulder problems voluntarily enrolled as subjects in this study, which was undertaken to determine the efficacy of osteopathic manipulative treatment (OMT) in an elderly population to increase functional independence, increase range of motion (ROM) of the shoulder, and decrease pain associated with common shoulder problems.

Each subject had chronic pain, decreased ROM, and/or decreased functional ability in the shoulder before entering the study. Subjects were randomly assigned to either a treatment (OMT) group or a control group for 14 weeks.

Over the course of treatment, both groups had significantly increased ROM and decreased perceived pain. All subjects continued on their preexisting course of therapy for any concurrent medical problems.

After treatment, those **subjects who had received OMT demonstrated continued improvement in their ROM, while ROM in the placebo group decreased.**



- OMT techniques that are useful for increasing joint mobility in older patients
  - Soft Tissue Techniques
  - Indirect Techniques
    - ✦ Myofascial release
    - ✦ Sacral/Pelvic ligamentous balancing
    - ✦ Counterstrain positional release



- While the physician is palpating or “balancing”, the patient may feel more relaxed to discuss other concerns
- While engaged, or as some physicians’ describe “listening” to your patient’s body...
  - There is also an ability to determine a patient’s emotional status with changes in breathing and tissue tension
  - The physician also has time to think about further treatment plans

# Treating the Thoracic Spine



- OMT in the form of rib raising and lymphatic pump may influence
  - Sympathetic nervous system
    - ✦ Cardiac and respiratory function
  - Pulmonary infections
- Thoracic Inlet and Upper Extremity techniques like Effleurage and Diaphragm releases may influence vascular and lymphatic drainage
  - Reduce infection
  - Reduce edema

# Efficacy of osteopathic manipulation as an adjunctive treatment for hospitalized patients with pneumonia: a randomized controlled trial



*Osteopathic Medicine and Primary Care* 2010;4:2

- Donald R, Brian F Degenhardt, Thomas F Morley, Francis X Blais, Kari A Hortos, Kendi Hensel, Jane C Johnson, David J Pasta and Scott T Stoll

## Conclusions

- When OMT was administered in accordance with the protocol, reductions were seen in Length of Stay (LOS), duration of intravenous antibiotics, and incidence of respiratory failure and death in the OMT group compared to the Conventional Care Only (CCO) group. Data suggest a reduced effect from Light Touch (LT) compared to OMT in that LOS for LT was between CCO and OMT. These results suggest a potential role for OMT, and possibly for LT, to augment conventional antibiotic therapy in the treatment of pneumonia. **This role may become more important with increasing antibiotic resistance, emerging pathogens, the aging global population**, the cost of health care, and the likelihood of another influenza pandemic. Since developing methods to address these issues is a major health care imperative, the effects of OMT and LT merit further investigation.

# Cancer Patient



- OMT is NOT contraindicated to help reduce postmastectomy or other post surgical lymphedema.
- Comfortable positions are helpful to relieve the stressors of chronic disease and terminal illness.

### **The use of osteopathic manipulative treatment as adjuvant therapy in patients with peripheral arterial disease**

- In conclusion, despite the relatively few patients in our study, these results suggest that **OMT significantly improves endothelial function and functional performance in intermittent claudication patients along with benefits in quality of life.** This novel treatment combined with drug and lifestyle modification might be an effective alternative to traditional training based on exercise.

# Balance



- **Effects of Comprehensive Osteopathic Manipulative Treatment on Balance in Elderly Patients: A Pilot Study**
- [Daniel Lopez, DO](#); [Hollis H. King, DO, PhD](#); [Janice A. Knebl, DO](#); [Victor Kosmopoulos, PhD](#); [DeRaen Collins, BS](#); [Rita M. Patterson, PhD](#)
- The Journal of the American Osteopathic Association, June 2011, Vol. 111, 382-388.
- **Objective:** To test whether an OMT protocol with an emphasis on **cranial manipulation** can improve vestibular balance control structures and postural stability in a healthy elderly population.
- **Conclusion:** The OMT protocol used in the present study **improved the postural stability** of healthy elderly patients, as measured by changes in sway values.



- Encouraging patients to change poor lifestyle behaviors
  - Smoking
  - Drinking
  - Inactivity
- May help lower risk of morbidity and mortality

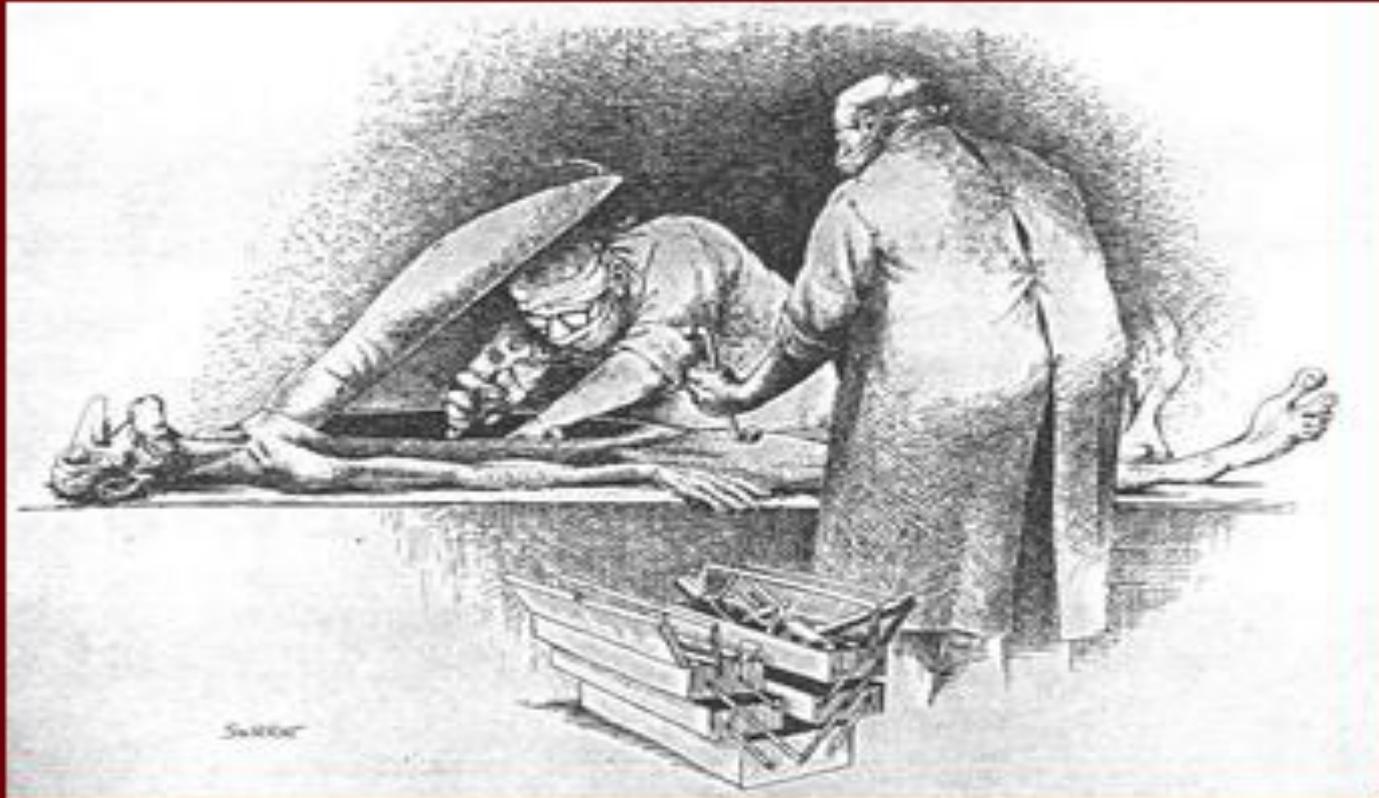
OMT -



**HOW, WHEN, WHERE, WHY, WHAT...**

THINK OF YOUR PATIENT LIKE THIS:

Be a mechanic,  
not an engine wiper.

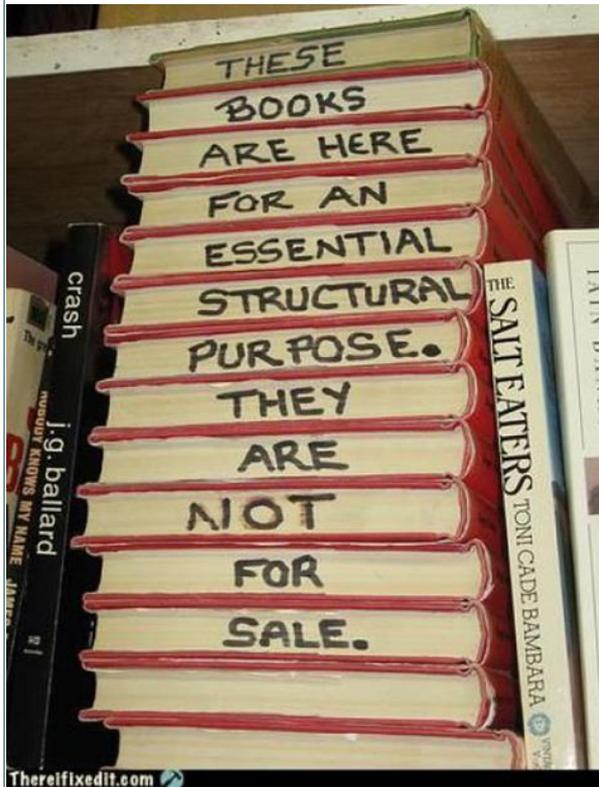


# OMT –

- One tool in the Neuromusculoskeletal Medicine ‘Armentarium’ (Tool Box)



# Structural Medicine



# 'How' OMT -



**Multiple Types of OMT, individualized for each patient...**

**Rapid decisions and considerations –**

**Contraindications and Relative Contraindications:**

**Cardiovascular Patient**

**Muscle Energy/Isometrics may stress cardiac function (Valsalva)**

**Fracture Patient**

**Direct Mobilization at fracture site impairs healing**

**Osteoporosis and Metastasis**

**Beware of fragility of bones**

# 'Where' OMT



- Generally, treatment is focused on soft tissues, musculature, lymphatic system, autonomic nervous system, joints, alignment, posture, and cranial-sacral system.
- There are circumstances for visceral treatment if you have the know-how.

# Individualized types of omt

- HVLA
- Muscle Energy
- Myofascial Release
- Counterstrain
- Facilitated Positional Release
- Articulatortory (LVHA)
- Functional Technique
- Cranial Osteopathy
- Soft Tissue Technique
- Balanced Ligamentous Tension

# ‘What’ do we treat with OMT



The ***only*** CPT Validated and Code Coordinated treatment for Somatic Dysfunction.

The only **diagnosis** that supports **MEDICAL NECESSITY** for OMT is -

- **Somatic Dysfunction:**

- “Defined as the impaired or altered function of related components of the somatic (bodywork) system including: the skeletal, arthrodiar, and myofascial structures, and their related vascular, lymphatic, and neural elements.”

# 'Why' OMT?



- **With any pathology, there is typically corresponding Somatic Dysfunction**
- **It is relatively easy to Evaluate and Manage**
- **You become the physician who actually touches your patients**
- **You can fix mechanical problems that other doctors can't fix**
- **You can get reimbursed optimally per visit**

# OMT LCD

## (CMS - Local Carrier Determination)



Contractor Name	Determination	Current Dental	N/A
First Coast Service Options, Inc.	Number	Terminology, (CDT	Primary Geographic
Contractor Number	98925	(including procedure	Jurisdiction
09102	AMA CPT / ADA CDT	codes, nomenclature,	Florida
Contractor Type	Copyright Statement	descriptors and other	Oversight Region
MAC - Part B	CPT codes,	data contained	Region I
LCD Information	descriptions and	copyright by the	Original
LCD ID Number	other data only are	American Dental	Determination
L29246	copyright 2009	Association. © 2002,	Effective Date
LCD Title	American Medical	2004 American	For services
Osteopathic	Association (or such	Dental Association.	performed on or after
Manipulative	other	All rights	02/02/2009
Treatment	date of publication of	reserved. Applicable	
Contractor's	CPT). All Rights	FARS/DFARS apply.	
	Reserved. Applicable	CMS National	
	FARS/DFARS	Coverage Policy	
	Clauses Apply.		

# Indications and Limitations of Coverage and/or Medical Necessity Indications:



- Osteopathic manipulative treatment (OMT) is a distinct manual procedure employed by a physician that aims to optimize a patient's health and function.
- OMT is defined in the Glossary of Osteopathic Terminology as the therapeutic application of manually guided forces by an osteopathic physician to improve physiologic function and/or support homeostasis that have been altered by somatic dysfunction.
- There are numerous types of physician performed manipulative treatments that make up OMT.
- The method employed by the physician is determined by the patient's condition, age and the effectiveness of previous methods of treatment.
- Somatic dysfunction is defined in the Glossary of Osteopathic Terminology as: Impaired or altered function of related components of the somatic (body framework) system: skeletal, arthrodiarthral, and myofascial structures, and related vascular, lymphatic, and neural elements.
- **Somatic dysfunction is treatable using OMT.**



- The positional and motional aspects of somatic dysfunction can also be described using at least one of three parameters:
  - 1.) The position of a body part as determined by palpation and in reference to its adjacent define structure,
  - 2.) The directions in which motion is freer, or
  - 3.) The directions in which motion is restricted.
- The diagnosis of somatic dysfunction is made by determining the presence of one or more findings, known as **T.A.R.T.** (Tenderness, Asymmetry, Restriction of Motion and Tissue Abnormality).
- Osteopathic manipulative treatment includes thrust (active correction), muscle energy, counterstrain, articulation, myofascial release, visceral and cranial technique.



- Somatic dysfunction in one region can create compensatory somatic dysfunction in other regions.
- Osteopathic manipulative treatment can also be used to treat the somatic component of visceral disease and any organ system.
- This component can manifest as changes in the skeletal, arthrodiar and myofascial tissues. (Example: tight right shoulder muscles in a patient with gallbladder disease).
- Normalizing musculoskeletal activity (relaxing tense muscles, etc.) can normalize outflows through sympathetic or parasympathetic autonomic nervous systems to visceral systems, resulting in more normal visceral and any organ system function.
- Osteopathic Manipulative Treatment is medically necessary when performed by a qualified physician who has examined the patient and determined that there is somatic dysfunction in one or more body regions and documented this in the medical record.



**"My memory really sucks Mildred, so I changed my password to "incorrect." That way when I log in with the wrong password, the computer will tell me... "Your password is incorrect"**



- **Osteopathic Manipulative Treatment is not covered when the indications of coverage are not met and when the documentation of a somatic dysfunction is not present in the medical record.**

# Documentation Requirements



- The medical record documentation should include a history and physical.
- If an E/M service is being reported on the same day as OMT, the documentation should clearly distinguish the services that constitute the E/M service and the OMT service.
- The documentation should clearly identify the body regions affected and treated with OMT in order to justify the procedure code billed and the medical necessity of the service being performed.
- Medical records must be made available to Medicare upon request.



- The selection of body region to which OMT is applied should reflect the region of documented somatic dysfunction.
- There may be instances when multiple regions are treated due to the occurrence of compensatory changes. When this occurs, the documentation should describe the compensatory changes and the rationale for treating this area, especially if the patient has no complaints related to this area.
- Treatment should be directed to the areas of documented somatic dysfunction and should not be aimed at areas unrelated to the diagnosis.
- The type, frequency and duration of OMT should be consistent with current standards of medical practice.

# Utilization Guidelines



- OMT procedure codes should be reported based on the number of body regions involved that were treated.
- The medical record documentation should clearly note the body regions treated, which would justify the procedure code billed.
- Factors that may affect frequency and duration of treatment are:
  - severity of illness,
  - duration or chronicity of the patient's condition
  - and the presence of co-morbidities.
- These factors should be reflected in the medical record if they contribute to the physician's treatment approach.

# Body regions referred to are



- Head region
- Cervical region
- Thoracic region
- Lumbar region
- Sacral region
- Pelvic region
- Lower extremities
- Upper extremities
- Rib cage region
- Abdomen and viscera region

# 'When' OMT



- Do OMT after H&P, evaluation of joint range of motion and neurological/orthopedic examination, and of course the last portion of your exam, the palpatory exam.
- Why is palpation last?
- There are many issues that can cause tenderness, tissue abnormalities, range of motion loss and asymmetry, but , in practical patient management, treat in order:
- Neurological issues (disc derangement, radiculopathy, TIA, Migraine, etc...)
- Orthopedic issues (sprain/strain, fracture, tendinopathy, joint abnormalities, etc...)
- Somatic Dysfunction – as it accompanies all the above as well as visceral disease !

**OMT**



**OSTEOPATHIC MANIPULATIVE  
TREATMENT IS ONLY A  
PHYSICIAN'S TOOL.**

**LIKE ZITHROMAX™, IT HAS A WIDE  
SPECTRUM OF USE, BUT ALSO  
LIMITATIONS AND IT IS NOT  
INTENDED TO BE A PANACEA.**



## An Algorithm for Neuropathic Pain Management in Older People

Gisèle Pickering<sup>1,2,3</sup> · Margaux Marcoux<sup>1</sup> · Sylvie Chapiro<sup>4</sup> · Laurence David<sup>5</sup> ·  
Patrice Rat<sup>6</sup> · Micheline Michel<sup>7</sup> · Isabelle Bertrand<sup>8</sup> · Marion Voute<sup>1</sup> ·  
Bernard Wary<sup>9</sup>

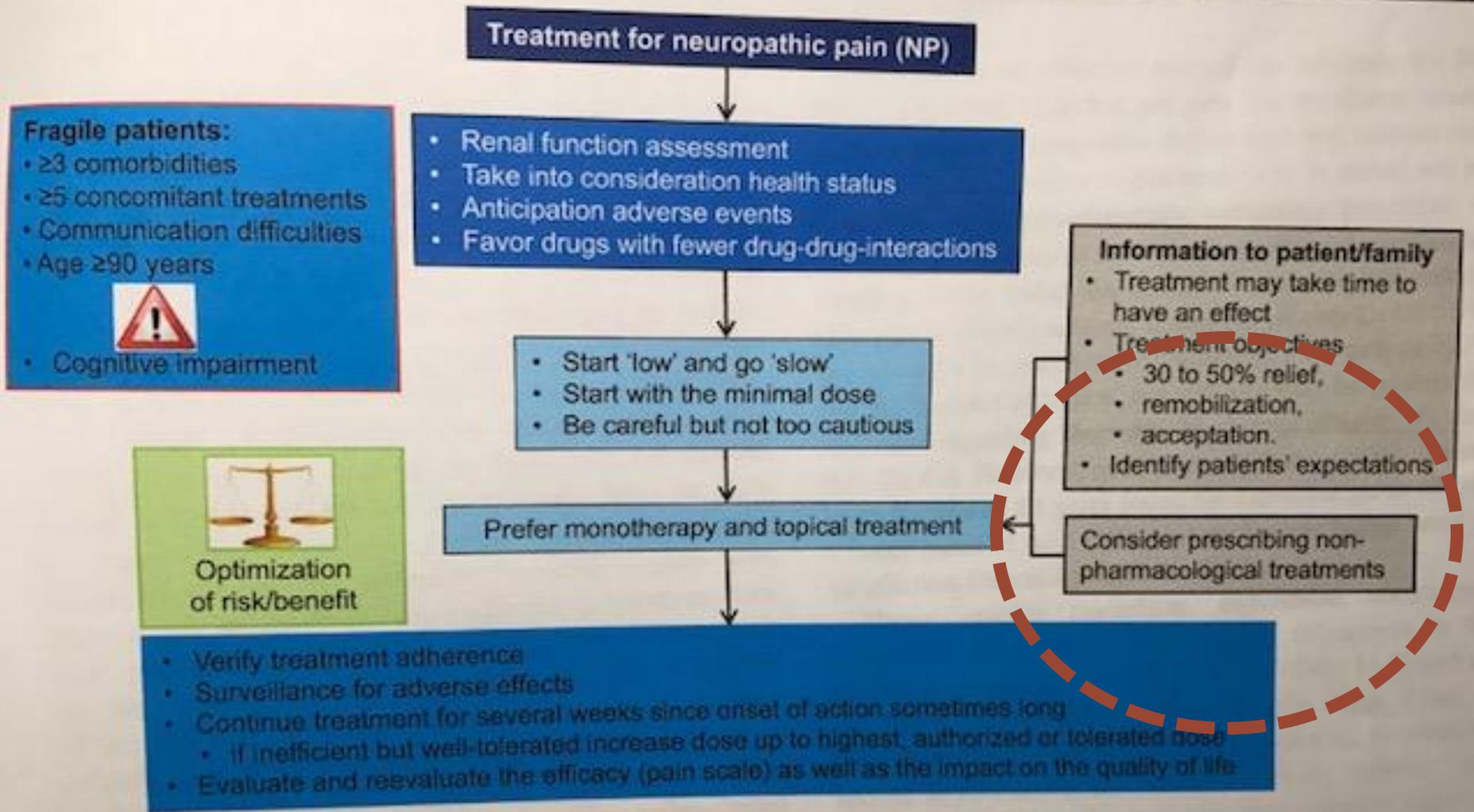


Fig. 3 Algorithm part 3: treatment of neuropathic pain

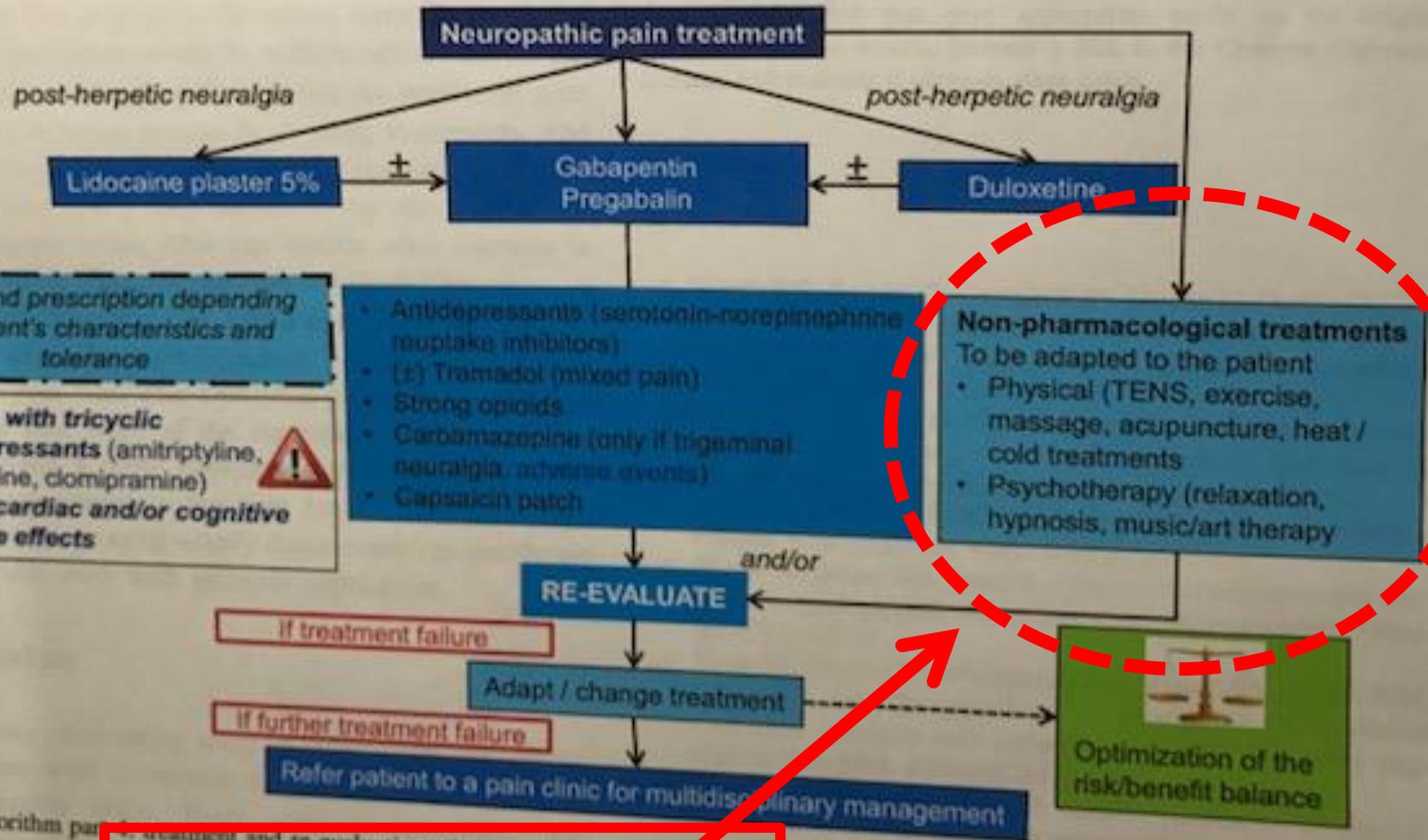
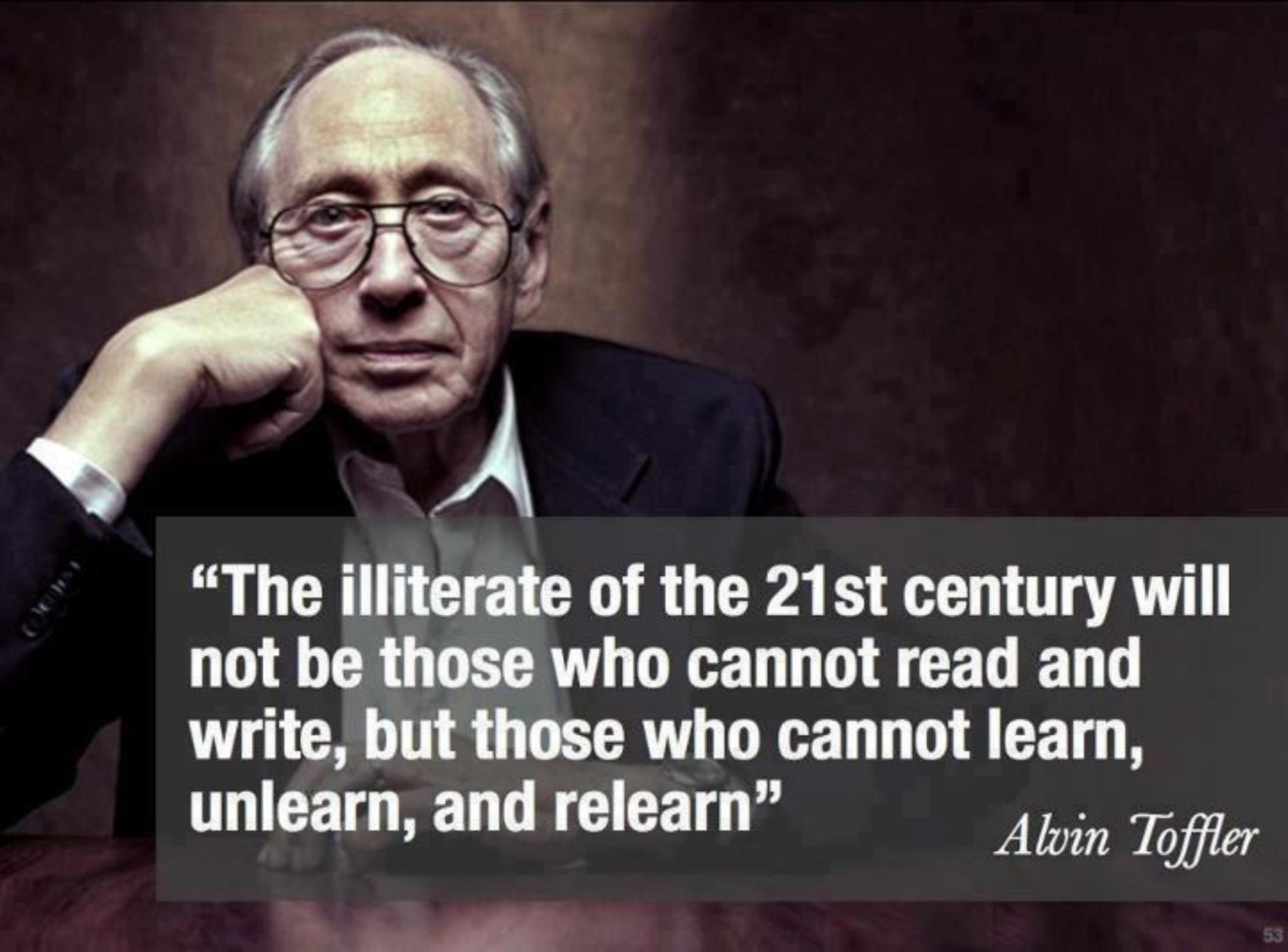


Fig. 4 Algorithm for the treatment and re-evaluation of neuropathic pain. TENS transcutaneous electrical nerve stimulation

**None of these therapies are Medicare covered services**



**“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn”**

*Alvin Toffler*

# ILLITERATE?

## WRITE FOR FREE HELP.

ILLITERACY FOUNDATION  
806 MAIN STREET

LATTA

[OIMMIDOC@AOL.CO](mailto:OIMMIDOC@AOL.CO)

# Summary



- OMT offers
  - Pain relief
  - Increased physical mobility
  - Improved metabolism
  - Relief from depression
  - Possible reduction in medication use
  - Improved joint function



- **OMT**
  - Few side effects
  - Little or no medication interactions
  - Promotes independent living
  - It is a Reimbursable Non-Pharmacologic Option!



Thank you

Joel D. Stein, DO, FAAO, FAOASM, FACOFP



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