
OUCH!!!
PAIN

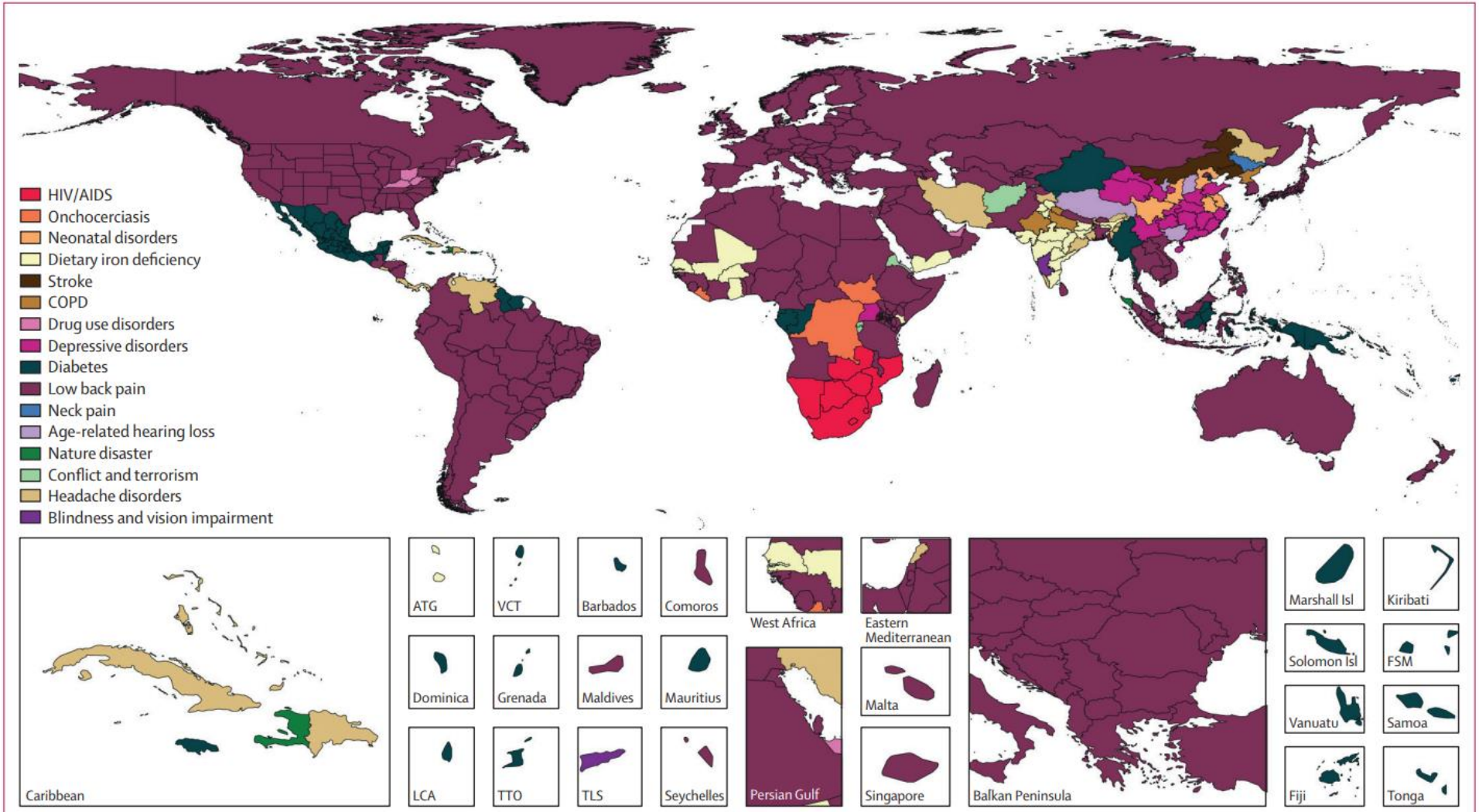
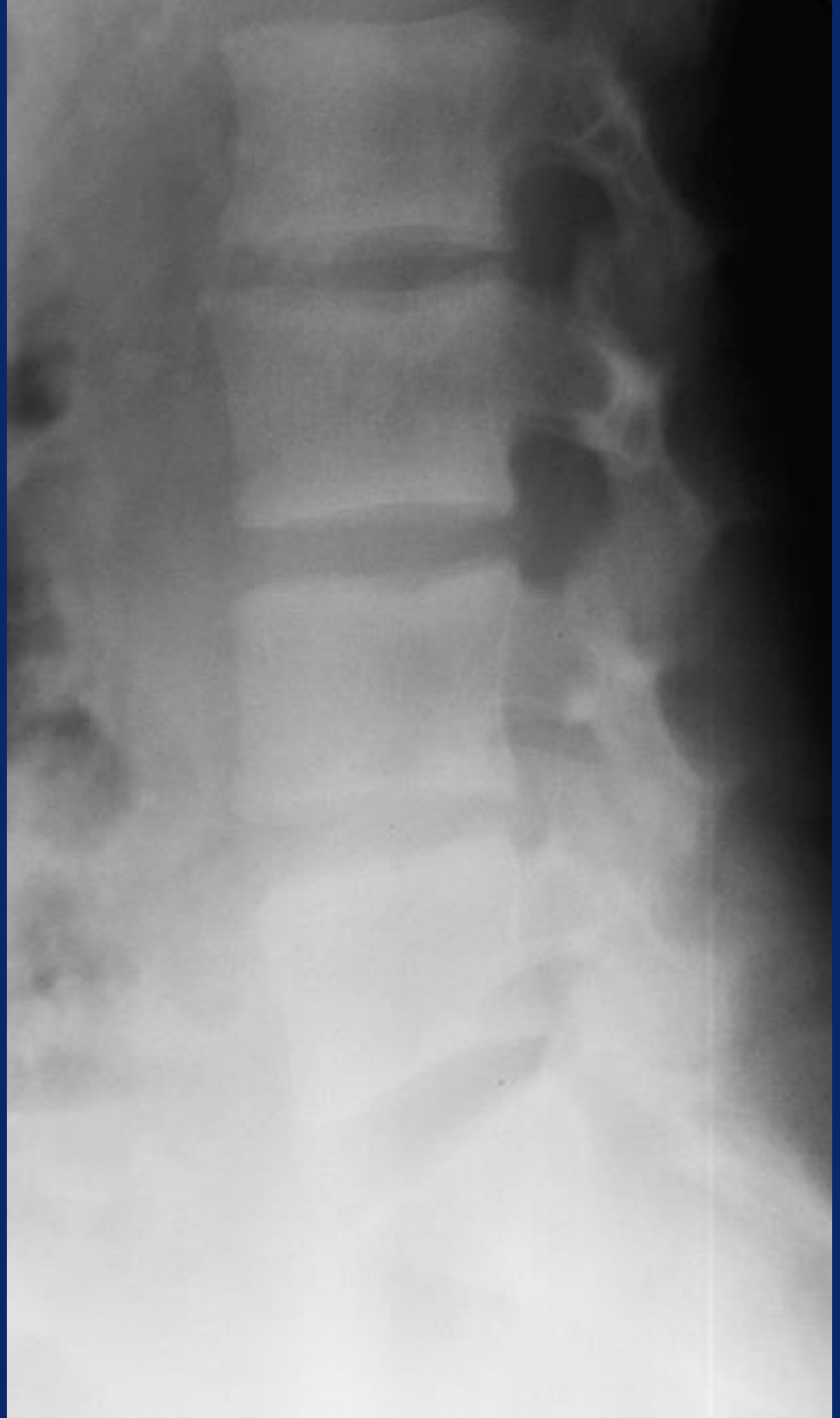
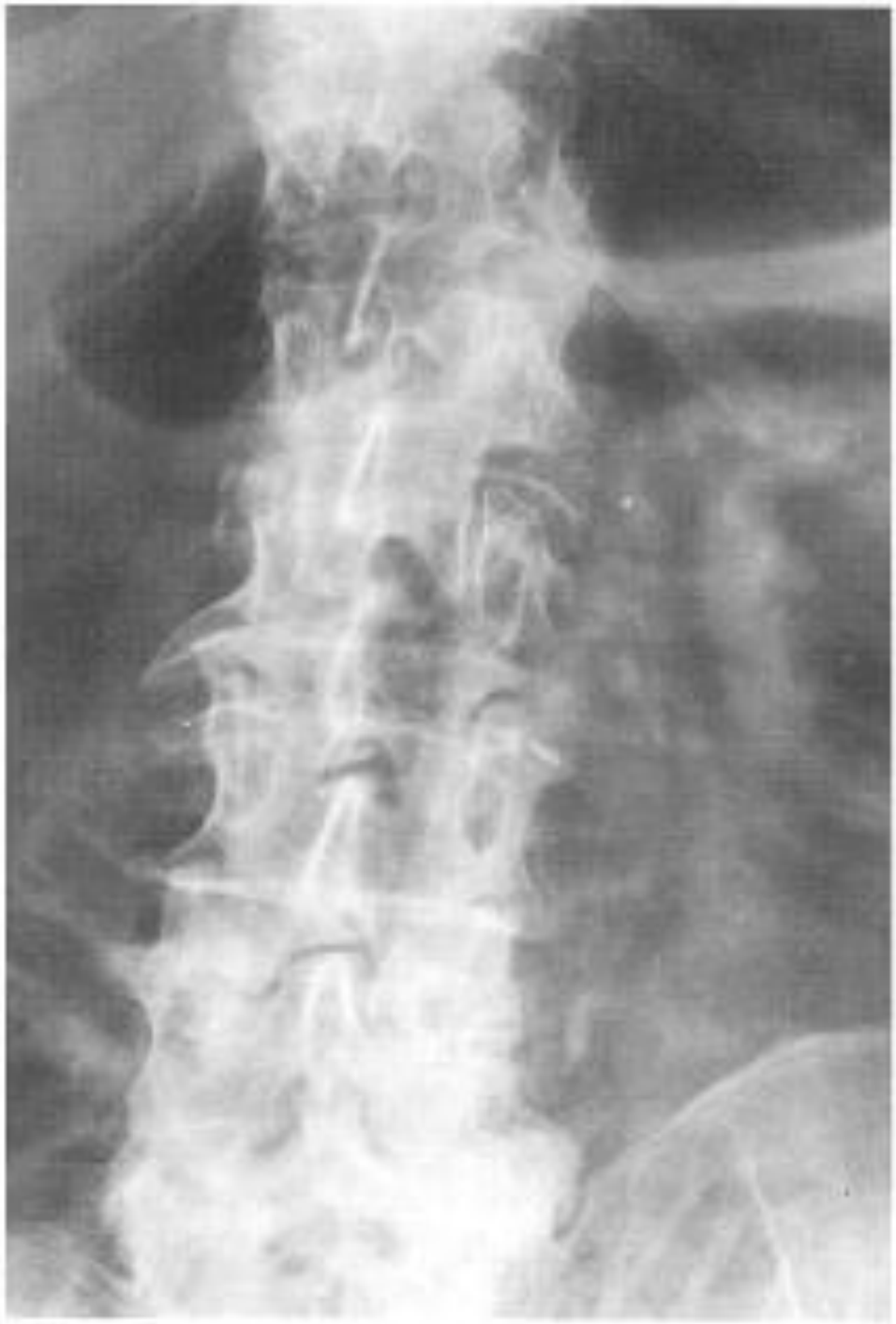
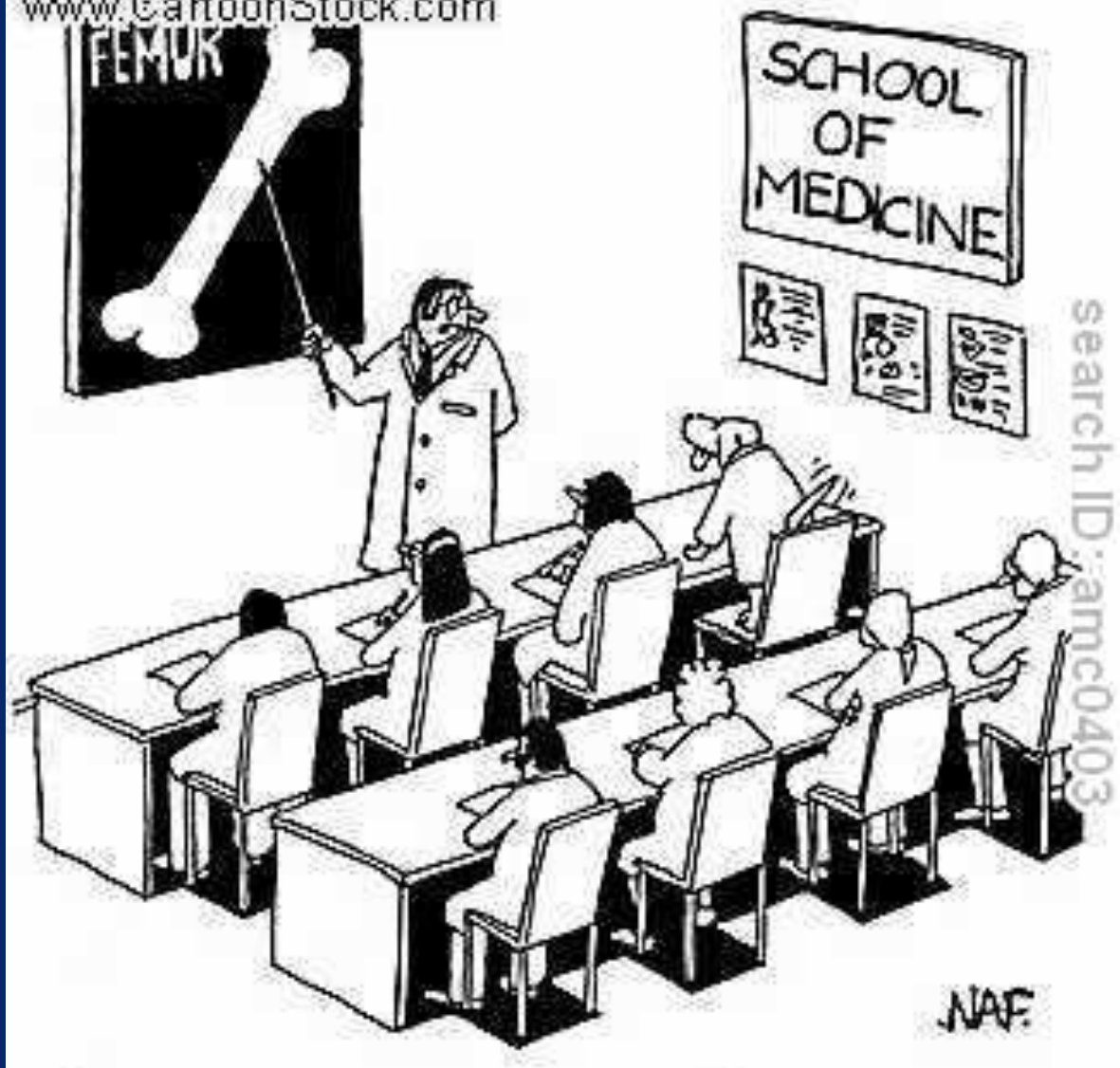


Figure 2: **Leading Level 3 causes of age-standardised YLD rates by location for both sexes combined, 2017**

ATG=Antigua and Barbuda. COPD=chronic obstructive pulmonary disease. FSM=Federated States of Micronesia. Isl=Islands. LCA=Saint Lucia. TLS=Timor-Leste. TTO=Trinidad and Tobago. VCT=Saint Vincent and the Grenadines. YLD=years lived with disability.







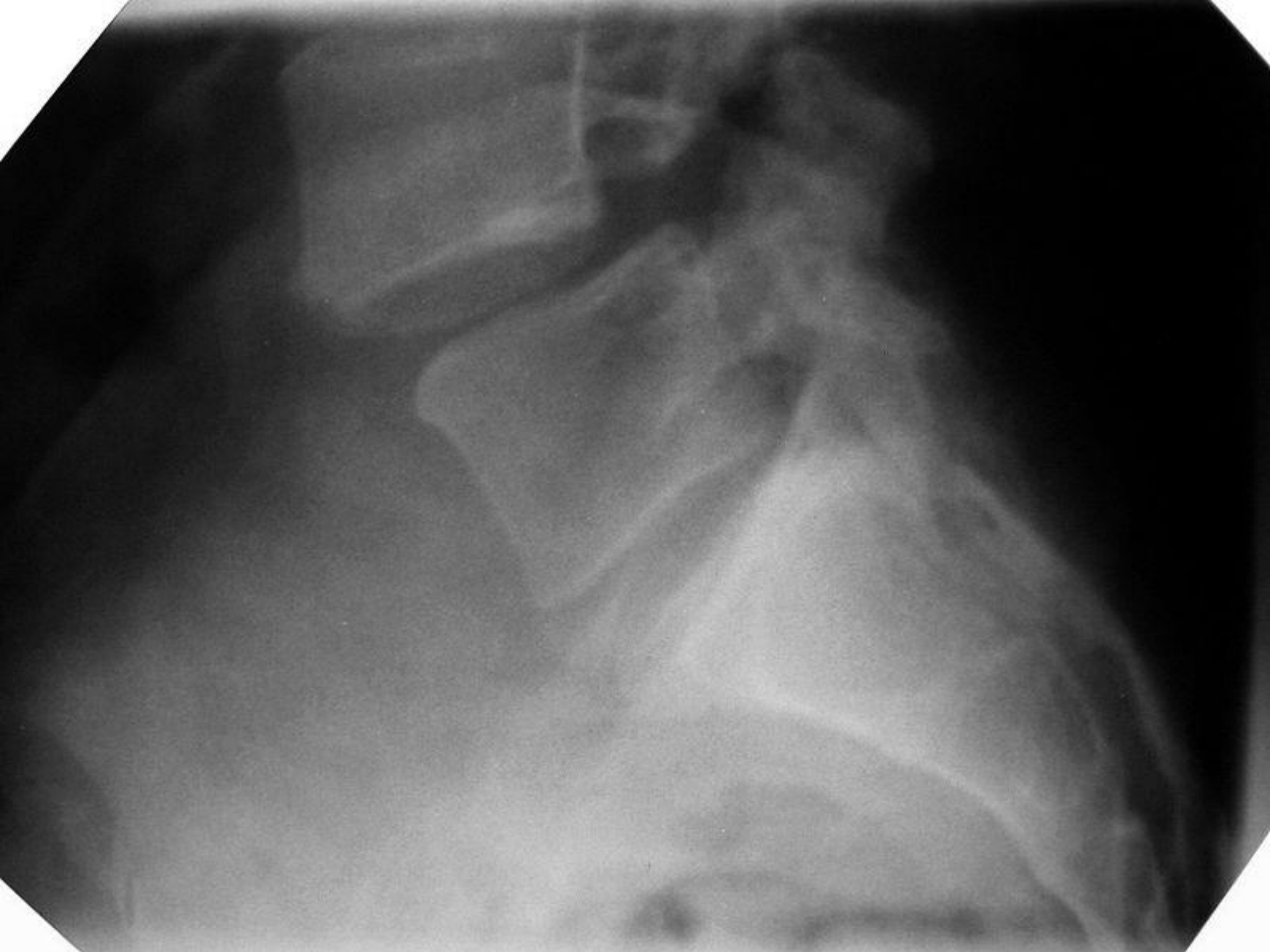
"Higgins, control yourself and sit down!"

Systematic Literature Review of Imaging Features of Spinal Degeneration in Asymptomatic Populations

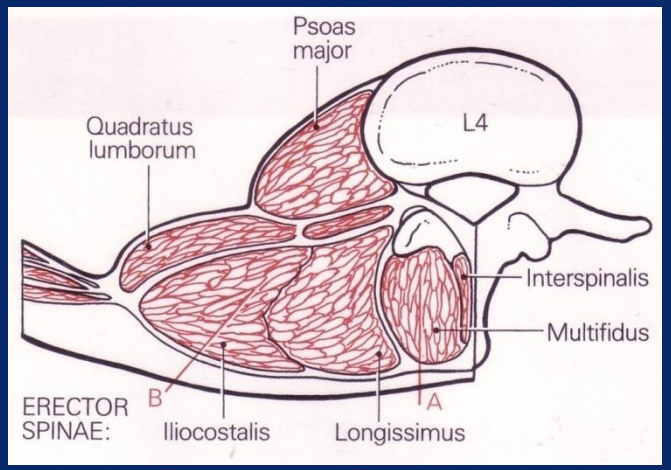
W. Brinjikji, P.H. Luetmer, B. Comstock, B.W. Bresnahan, L.E. Chen, R.A. Deyo, S. Halabi, J.A. Turner, A.L. Avins, K. James, J.T. Wald, D.F. Kallmes, and J.G. Jarvik

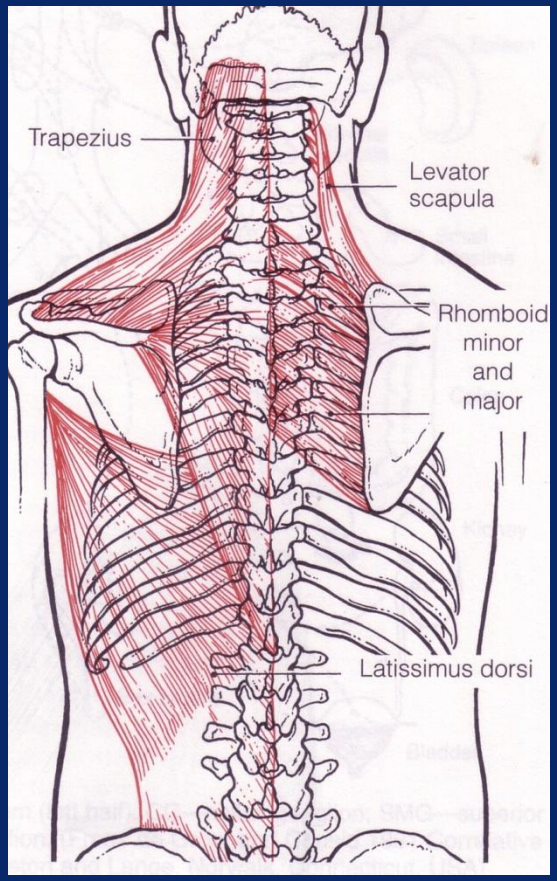
Table 2: Age-specific prevalence estimates of degenerative spine imaging findings in asymptomatic patients[a]

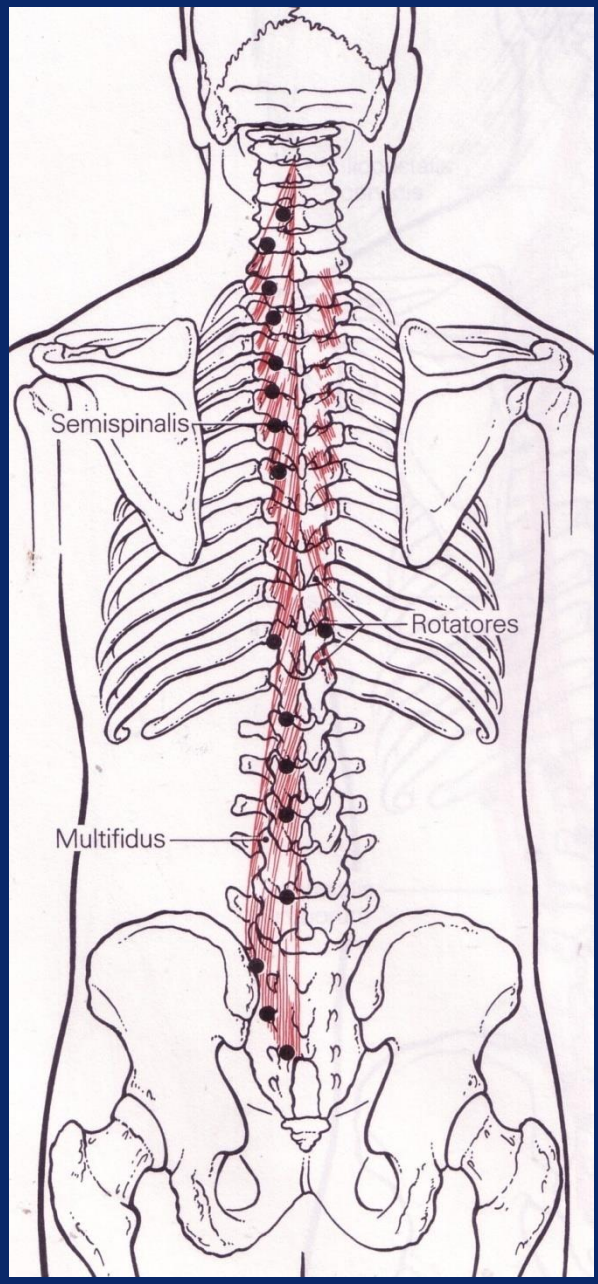
Imaging Finding	Age (yr)						
	20	30	40	50	60	70	80
Disk degeneration	37%	52%	68%	80%	88%	93%	96%
Disk signal loss	17%	33%	54%	73%	86%	94%	97%
Disk height loss	24%	34%	45%	56%	67%	76%	84%
Disk bulge	30%	40%	50%	60%	69%	77%	84%
Disk protrusion	29%	31%	33%	36%	38%	40%	43%
Annular fissure	19%	20%	22%	23%	25%	27%	29%
Facet degeneration	4%	9%	18%	32%	50%	69%	83%
Spondylolisthesis	3%	5%	8%	14%	23%	35%	50%



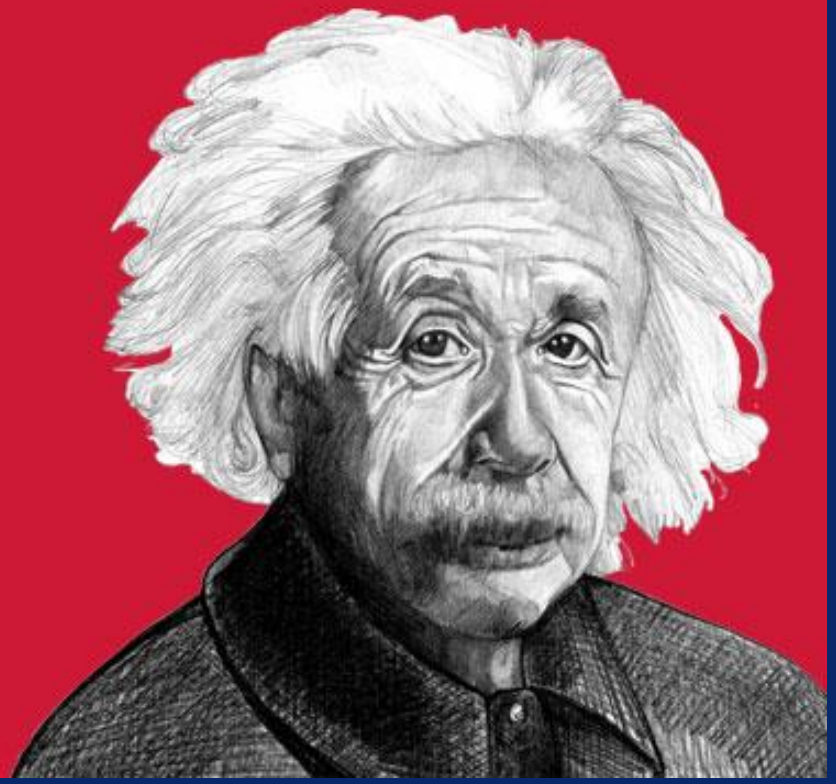
So what is causing the pain?



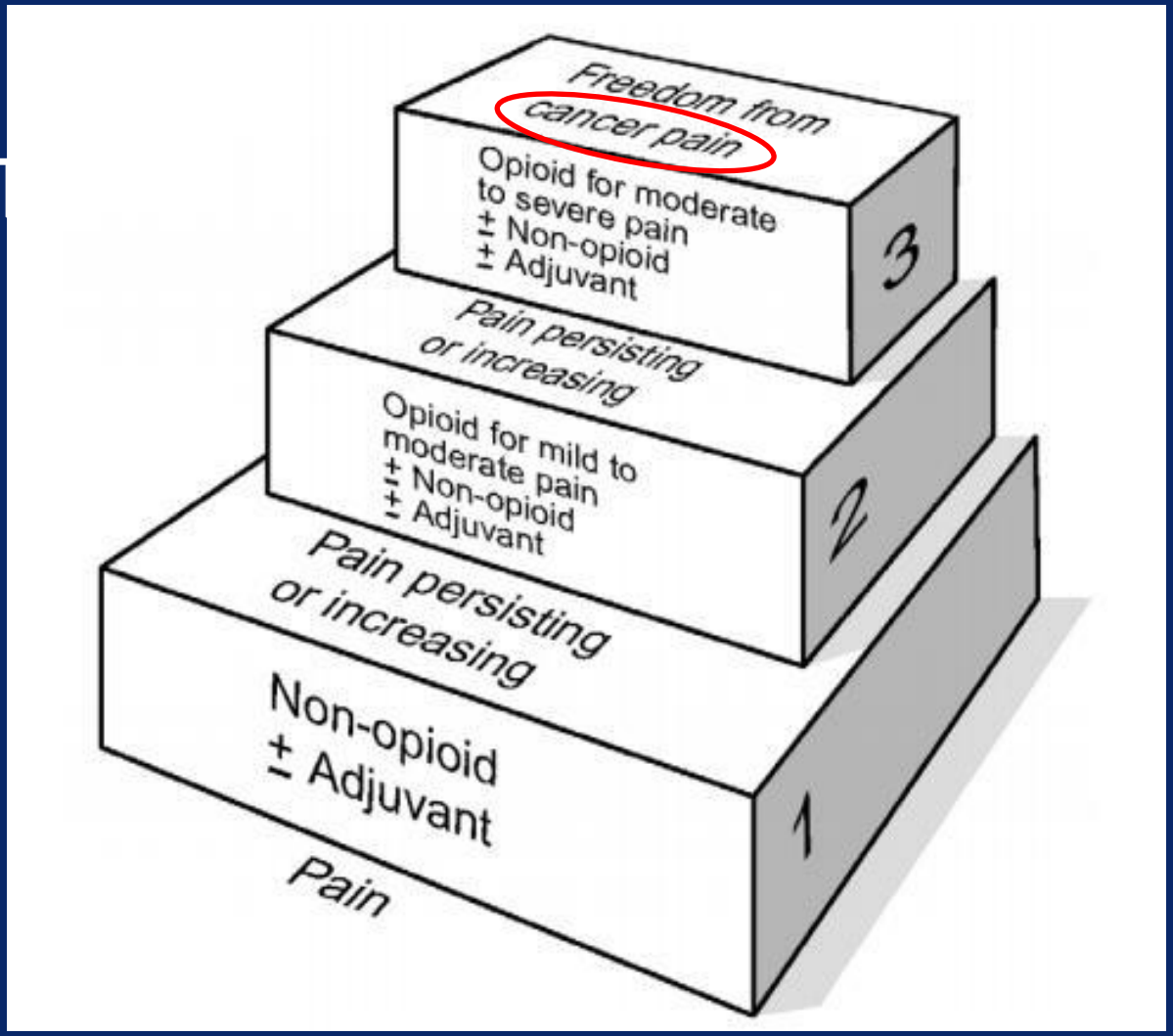




The difference between stupidity and genius is that genius has its limits.



BRIGHT DROPS .com


Freedom from
cancer pain
Opioid for moderate
to severe pain
± Non-opioid
± Adjuvant
3
Pain persisting
or increasing
Opioid for mild to
moderate pain
± Non-opioid
± Adjuvant
2
Pain persisting
or increasing
Non-opioid
± Adjuvant
Pain
1

SCIENTIFIC AMERICAN February 1990 Volume 262 Number 2

The Tragedy of Needless Pain

Contrary to popular belief, the author says, morphine taken solely to control pain is not addictive. Yet patients worldwide continue to be undertreated and to suffer unnecessary agony

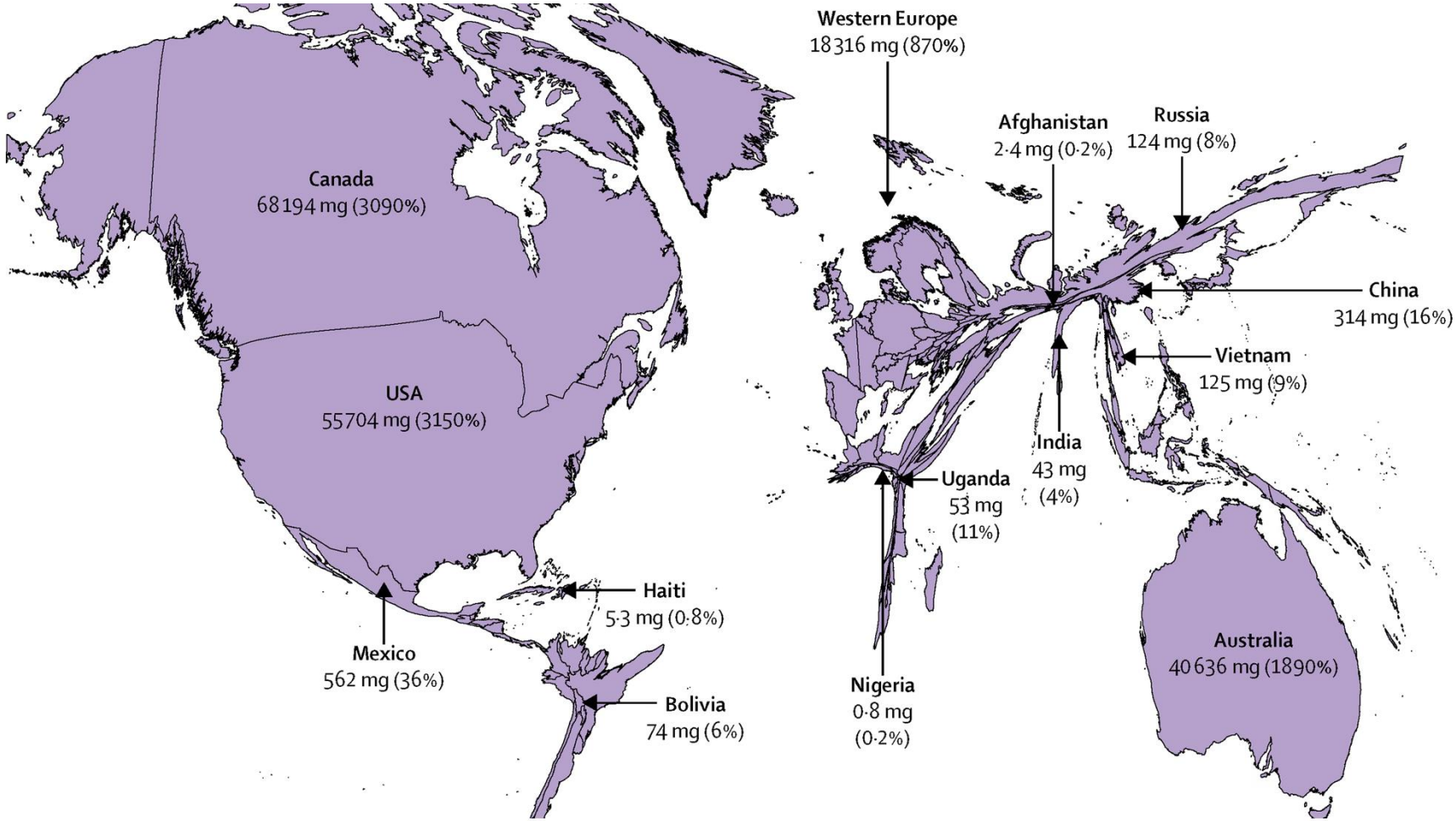
by Ronald Melzack

"Pain," as Albert Schweitzer once said, "is a more terrible lord of mankind than even

take morphine to combat pain, it is rare to see addiction—which is characterized by a psychological craving for

many Middle Eastern countries) and then drying the exudate to form a gum. This gum—the opium—can be

Chronic Pain as a Disease State


Western Europe
18316 mg (870%)
Afghanistan
2·4 mg (0·2%)
Russia
124 mg (8%)
China
314 mg (16%)
Vietnam
125 mg (9%)
India
43 mg
(4%)
Uganda
53 mg
(11%)
Nigeria
0·8 mg
(0·2%)
Australia
40636 mg (1890%)
Canada
68194 mg (3090%)
USA
55704 mg (3150%)
Haiti
5·3 mg (0·8%)
Mexico
562 mg (36%)
Bolivia
74 mg (6%)

JAMA | Original Investigation

Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain

The SPACE Randomized Clinical Trial

Erin E. Krebs, MD, MPH; Amy Gravely, MA; Sean Nugent, BA; Agnes C. Jensen, MPH; Beth DeRonne, PharmD; Elizabeth S. Goldsmith, MD, MS; Kurt Kroenke, MD; Matthew J. Bair; Siamak Noorbaloochi, PhD

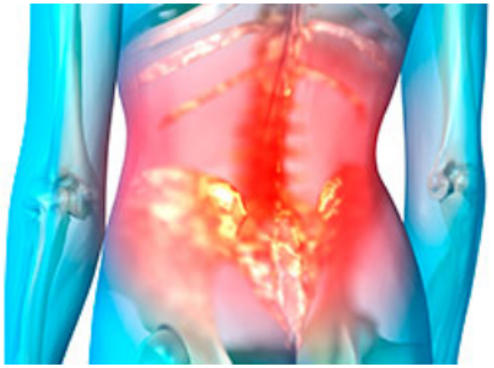
CONCLUSIONS AND RELEVANCE Treatment with opioids was not superior to treatment with nonopioid medications for improving pain-related function over 12 months. Results do not support initiation of opioid therapy for moderate to severe chronic back pain or hip or knee osteoarthritis pain.

What about injections?

- Evidence based on observational research
- Some areas of controversy
- What is the long term implication for the patient?

Low back pain

Published: March 22, 2018



Executive Summary

Almost everyone will have low back pain at some point in their lives. It can affect anyone at any age, and it is increasing—disability due to back pain has risen by more than 50% since 1990. Low back pain is becoming more prevalent in low-income and middle-income countries (LMICs) much more rapidly than in high-income countries. The cause is not always clear, apart from in people with, for example, malignant disease, spinal malformations, or spinal injury. Treatment varies widely around the world, from bed rest, mainly in LMICs, to surgery and the use of dangerous drugs such as opioids, usually in high-income countries.

Audio

0:00 / 0:00

Key messages

- Use the notion of positive health—the ability to adapt and to self-manage in the face of social, physical and emotional challenges—for the treatment of non-specific low back pain
- Avoid harmful and useless treatments by adopting a framework similar to that used in drug regulation—ie, only include treatments in public reimbursement packages if evidence shows that they are safe, effective, and cost-effective
- Address widespread misconceptions in the population and among health professionals about the causes, prognosis, and effectiveness of different treatments for low back pain, and deal fragmented and outdated models of care
- Policy, public health, health-care practice, social services, and workplaces must jointly tackle the low back pain paradox in low-income and middle-income countries, where improving social and economic conditions could prevent or reduce low back pain incidence, but at the same time create expectations and demands for medical investigations and low-value health care that increase the risk of long-term back-related disability

RED & YELLOW FLAGS

Red Flags

- Most back pain is musculoskeletal – red flags are to make us think “is there something else I should consider or investigate”
- May not need immediate action – look for improvement with low back pain MSK treatment or evolution of symptoms with time.

- Previous history malignancy (however long ago)
- Age 16< or >50 with NEW onset pain
- Weight loss (unexplained)
- Previous longstanding steroid use
- Recent serious illness
- Recent significant infection – IV drug use – HIV - TB

Symptoms

- Non-mechanical pain - worse at rest or lying down
- Thoracic pain -
- Fevers/ rigors – night sweats
- General malaise
- Urinary retention – see cauda equina in 2 slides!!!!

What to do

- High index of suspicion
- Majority of information in history
- Simple inspection of back with movement - ?DEFORMITY, ABSCESS, EXTREME CENTRAL PAIN ON PRESSURE WITH DISCITIS
- Simple neurological examination – if normal, not likely to need MRI
- Heel/ toe walk, squat
- FBC, ESR, CRP
- ? Xray/MRI

Cauda Equina – traditional approach

- Saddle anaesthesia
- Reduced anal tone
- Hip or knee weakness
- Generalised neurological deficit
- Progressive spinal deformity
- Urinary retention

- Cauda equina is different from other red flags – requires urgent MRI and neurosurgical advice – see next slide on red & white flags

Guidelines for cauda equina syndrome. Red flags and white flags. Systematic review and implications for triage

March 2017 · British Journal of Neurosurgery 31(3):1-4

DOI: 10.1080/02688697.2017.1297364

Nicholas V Todd

https://www.tandfonline.com/doi/full/10.1080/02688697.2017.1297364#aHR0cHM6Ly93d3cudGFuZGZvbmxpbmUuY29tL2RvaS9wZGYvMTAuMTA4MC8wMjY4ODY5Ny4yMDE3LjEyOTczNjQ/bmVlZEFjY2Vzcz10cnVlQEBAMA==

Add neurological symptoms in both legs and altered sensation of bladder and bowel function

A cautionary tale – be aware of cognitive bias!

BMJ https://www.bmj.com/content/bmj/343/bmj.d5469.full.pdf

BMJ 2011;343:d5469 doi: 10.1136/bmj.d5469

PRACTICE

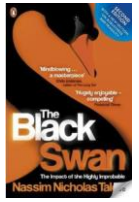
A PATIENT'S JOURNEY

Sir Karl Popper, swans, and the general practitioner

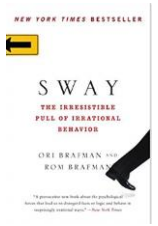
At age 50 years, Ron Berghmans had back pain, which despite visits to his general practitioner increased in severity. Eventually Ron referred himself to a neurologist and realised things were more serious than anyone first thought

Ron Berghmans *lecturer*[1], Harry C Schouten *professor*[2]

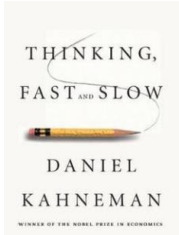
[1]Department of Health, Ethics and Society, CAPHRI School for Public Health and Primary Care, Maastricht University, PO Box 616, 6200MD Maastricht, Netherlands ; [2]Department of Internal Medicine, University Hospital Maastricht, PO Box 5800, 6202 AZ Maastricht, Netherlands



Black swan theory



Sway



Thinking fast & slow

Yellow Flags

- Psychosocial risk factors predicting development of chronic problems and disability.
- https://www.physio-pedia.com/The_Flag_System
- Check out Physiopedia for lots of other good info on MSK conditions

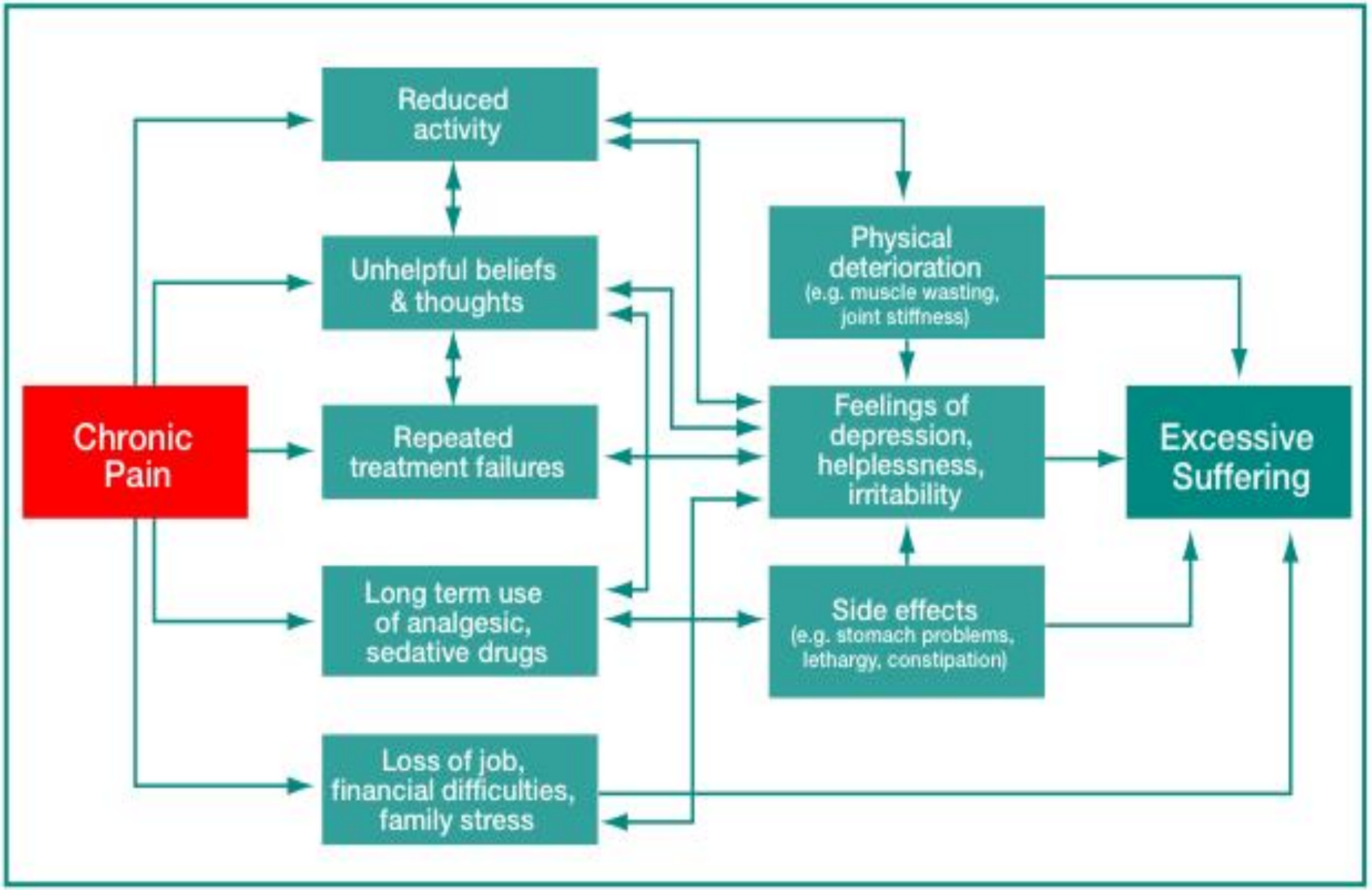
YELLOW FLAGS – First version 1997 A,B,C,D,E,F,W

- **Attitudes & Beliefs** - towards the current problem. Does the patient feel that with appropriate help and *self* management they will return to normal activities? The most common worry is that the patient feels they have something serious causing their problem. 'Faulty' beliefs can lead to ***catastrophisation***.
- **Behaviours -** adopting disabled role, rest, use & abuse of medication
- **Compensation** - Is the patient awaiting payment for an accident/ injury at work/ RTA?
- **Diagnosis** - or more importantly *Iatrogenesis*. Inappropriate or confusing communication can lead to patients not being sure what the problem is, the most common examples being 'your disc has popped out' or 'your spine is crumbling'.
- **Emotions** - Patients with other emotional difficulties such as ongoing depression and/or anxiety states are at a high risk of developing chronic pain.
- **Family** - There can be two problems with families, either over protective or under supportive.
- **Work** – If there are difficulties, people are more likely to develop chronic problems.

Revised to include Orange, blue and black flags

Early identification and management of psychological risk factors ("yellow flags") in patients with low back pain: a reappraisal.

Flag	Nature	Examples
Red	Signs of serious pathology	Cauda equina syndrome, fracture, tumour, unremitting night pain, sudden weight loss of 10pounds over 3 months, bladder & bowel incontinence, previous history of cancer, saddle anaesthesia,
Orange	Psychiatric symptoms	Clinical depression, personality disorder
Yellow	Beliefs, appraisals and judgements	Unhelpful beliefs about pain: indication of injury as uncontrollable or likely to worsen. Expectations of poor treatment outcome, delayed return to work.
	Emotional Responses	Distress not meeting criteria for diagnosis of mental disorder. Worry, fears, anxiety.
	Pain behaviour (including pain and coping strategies)	Avoidance of activities due to expectations of pain and possible reinjury. Over-reliance on passive treatments.
Blue	Perceptions about the relationship between work and health	Belief that work is too onerous and likely to cause further injury. Belief that workplace supervisor and workmates are unsupportive.
Black	System or contextual obstacles	Legislation restricting options for return to work. Conflict with insurance staff over injury claim. Overly solicitous family and health care providers. Heavy work, with little opportunity to modify duties.



Summary

- History & Examination
- Screen for Red and Yellow Flags
- Reassure
- Advise simple analgesia
- Non-pharmacological treatment – heat, cold
- Getting under the radar – moving in water
- Refer for physio – activity – LOHO
- Online resources – info – relaxation