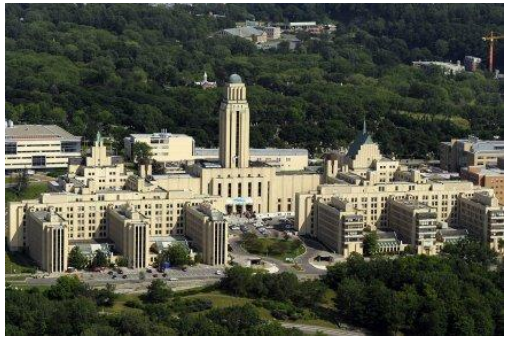
Is the WHO analgesic ladder still valid?



Dr. Grisell Vargas-Schaffer

Pain center at CHUM

University of Montreal

Canada


All my apologies for the damage to the language of Shakespeare in the presentation
Thank you for your understanding.....

Conflict of interest

	Research funds	Conferences	Services: travel expenses, accommodation	Medical Advisory
Astra Zeneca		X		
Bayer		X	X	
Jansen-Ortho	X	X		X
Lille		X		X
Merck Frosst		X		x
Pfizer			X	
Purdue Pharma	X	X	X	

Moral commitment

If, in my presentation I suggested off-label for a drug, I agree to inform the audience.

I agree to use as far as possible, the pharmacologic terminology instead of brand names.

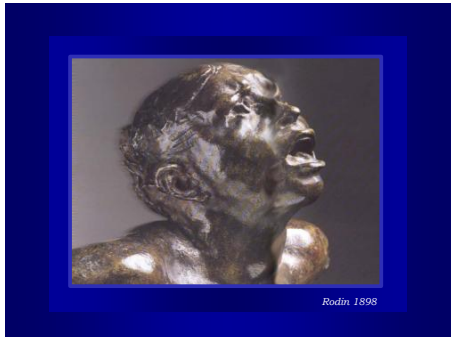
Objectives of the presentation

- To know the application of the WHO analgesic ladder in chronic and acute pain.
- To show how to surf the analgesic ladder.
- To know how to position the patient at the center of the pain control strategy.

Chronic pain

- Pain remains one of the main reasons for medical consultation worldwide.

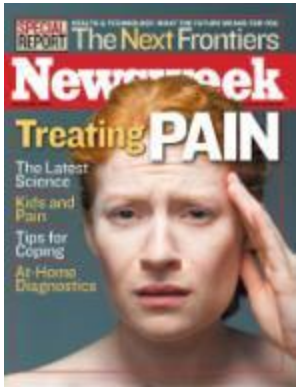
- In today's society, chronic pain is justly regarded as a disease and a social health care problem.



Chronic pain

- Statistics from the Canadian Pain Coalition indicate that 30% of Canadians suffer from chronic pain, which can impact all areas of a person's life, mind, body and spirit.

- Those who suffer from pain often face challenges in their efforts to find pleasure and meaning in their lives.



Pain Research & Management

Official Journal of the Canadian Pain Society

Finding that pain management is inadequate in most of the world

- There is inadequate access to treatment for acute pain caused by trauma, disease, and terminal illness and failure to recognize that chronic pain is a serious chronic health problem requiring access to management akin to other chronic diseases such as diabetes or chronic heart disease.

- There are major deficits in knowledge of health care professionals regarding the mechanisms and management of pain.

Finding that pain management is inadequate in most of the world

- Chronic pain with or without diagnosis is highly stigmatized.
- There are severe restrictions on the availability of opioids and other essential medications, critical to the management of pain.
- Most countries have no national policy at all or very inadequate policies regarding the management of pain as a health problem, including an inadequate level of research and education.

Finding that pain management is inadequate in most of the world

- Pain Medicine is not recognized as a distinct specialty with a unique body of knowledge and defined scope of practice founded on research and comprehensive training programs.

- The World Health Organization (WHO) estimates that 5 billion people live in countries with low or no access to controlled medicines and have no or insufficient access to treatment for moderate to severe pain.

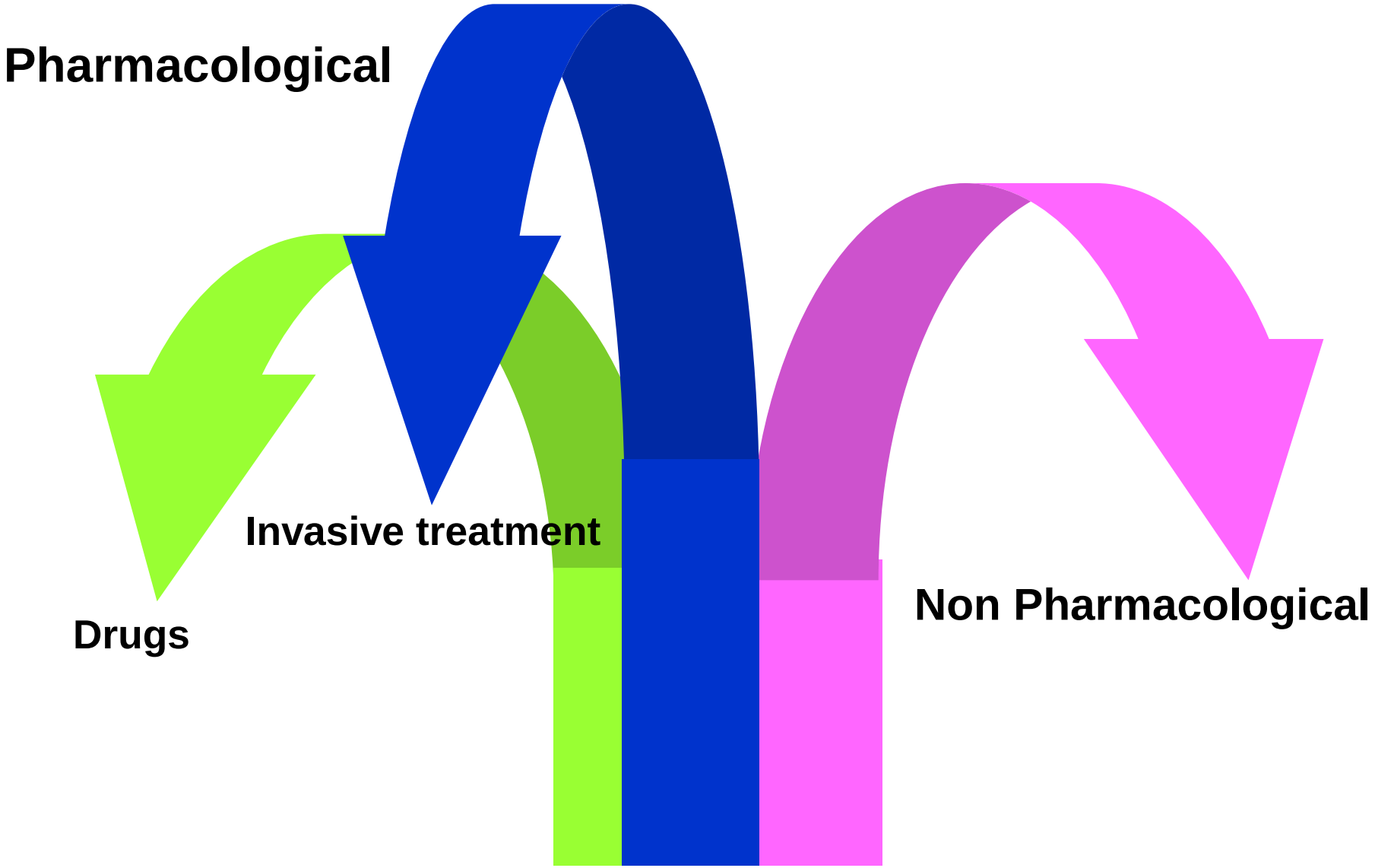
Declaration of Montreal

Declaration that Access to Pain Management Is a Fundamental Human Right

Declaration that Access to Pain Management Is a Fundamental Human Right

- *Article 1.* The right of all people to have access to pain management without discrimination.
- *Article 2.* The right of people in pain to the acknowledgment of their pain and to be informed about how it can be assessed and managed.
- *Article 3.* The right of all people with pain to have access to appropriate assessment and treatment of the pain by adequately trained health care professionals.

TREATMENT OF PAIN



The correct use of analgesics to make the prescribed treatments effective

1. *Oral administration of analgesics.*
2. *Analgesics should be given at regular intervals.*
3. *Analgesics should be prescribed according to pain intensity as evaluated by a scale of intensity of pain.*
4. *Dosing of pain medication should be adapted to the individual.*
5. *Analgesics should be prescribed with a constant concern for detail.*

The correct use of analgesics to make the prescribed treatments effective

1. *Oral administration of analgesics.*

2. *Analgesics should be given at regular intervals.*

   – To relieve pain adequately, it is necessary to respect the duration of the medication's efficacy

   – To prescribe the dosage to be taken at definite intervals in accordance with the patient's level of pain.

   – The dosage of medication should be adjusted until the patient is comfortable.

The correct use of analgesics to make the prescribed treatments effective

1. *Oral administration of analgesics.*
2. *Analgesics should be given at regular intervals.*
3. *Analgesics should be prescribed according to pain intensity as evaluated by a scale of intensity of pain.*

   – The prescription must be given according to the level of the patient's pain and not according to the medical staff's perception of the pain.

   – If the patient says that he has pain, it is important to believe him.

The correct use of analgesics to make the prescribed treatments effective

1. *Oral administration of analgesics.*
2. *Analgesics should be given at regular intervals.*
3. *Analgesics should be prescribed according to pain intensity as evaluated by a scale of intensity of pain.*
4. *Dosing of pain medication should be adapted to the individual.*

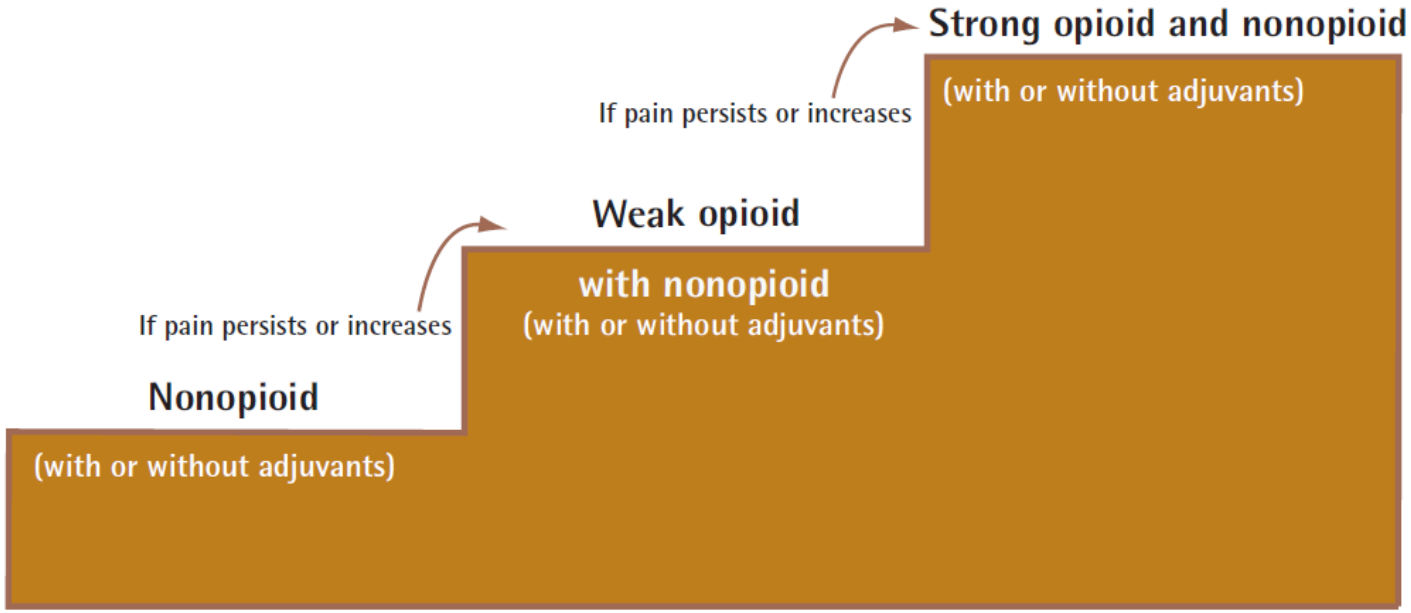
- There is no standardized dosage in the treatment of pain.
- Every patient will respond differently.
- The correct dosage is one that will allow adequate relief of pain.
- The posology should be adapted to achieve the best balance between the analgesic effect and the side effects.

The correct use of analgesics to make the prescribed treatments effective

1. *Oral administration of analgesics.*
2. *Analgesics should be given at regular intervals.*
3. *Analgesics should be prescribed according to pain intensity as evaluated by a scale of intensity of pain.*
4. *Dosing of pain medication should be adapted to the individual.*
5. *Analgesics should be prescribed with a constant concern for detail.*
   - Once the distribution of medication over a day is established, it is ideal to provide a written personal program to the patient.
   - In this way the patient, his family, and medical staff will all have the necessary information about when and how to administer the medications.

The 1986 version of the WHO analgesic ladder

Figure 1. The World Health Organization analgesic ladder for treating cancer pain



Adapted from the World Health Organization.[1]

1. World Health Organization. Geneva, Switz: World Health Organization; 1987.

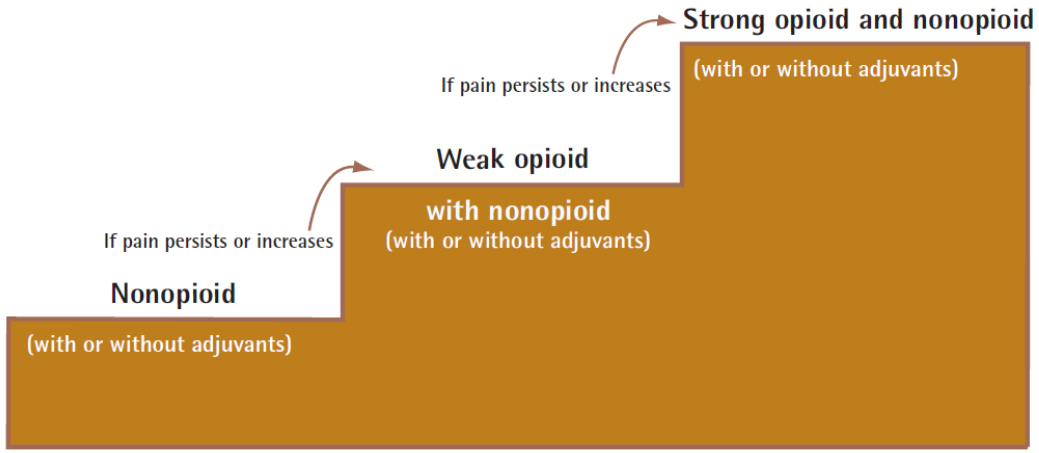
The 1986 version of the WHO analgesic ladder

- If the pain is not properly controlled, one should then introduce a weak opioid.
- If the use of this medication is insufficient to treat the pain, one can begin a more powerful opioid.
- One should never use 2 products belonging to the same category simultaneously.
- The analgesic ladder also includes the possibility of adding adjuvant treatments for neuropathic pain or for symptoms associated with cancer.

World Health Organization. *Traitement de la douleur cancéreuse*. Geneva, Switz: World Health Organization; 1987.
World Health Organization. *Traitement de la douleur cancéreuse.* Geneva, Switz: World Health Organization; 1997.

WHO analgesic ladder

Figure 1. The World Health Organization analgesic ladder for treating cancer pain

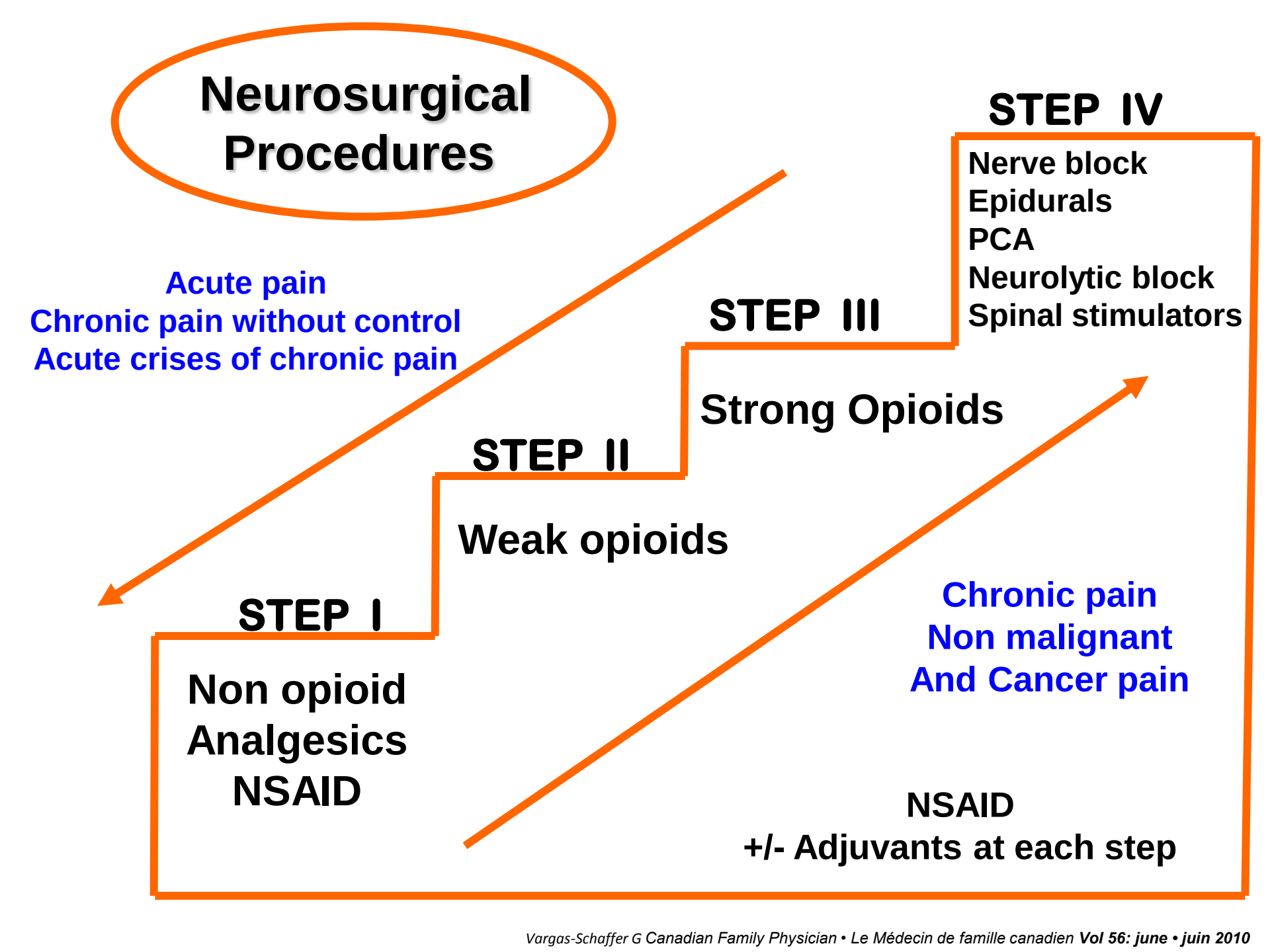


Adapted from the World Health Organization.[1]

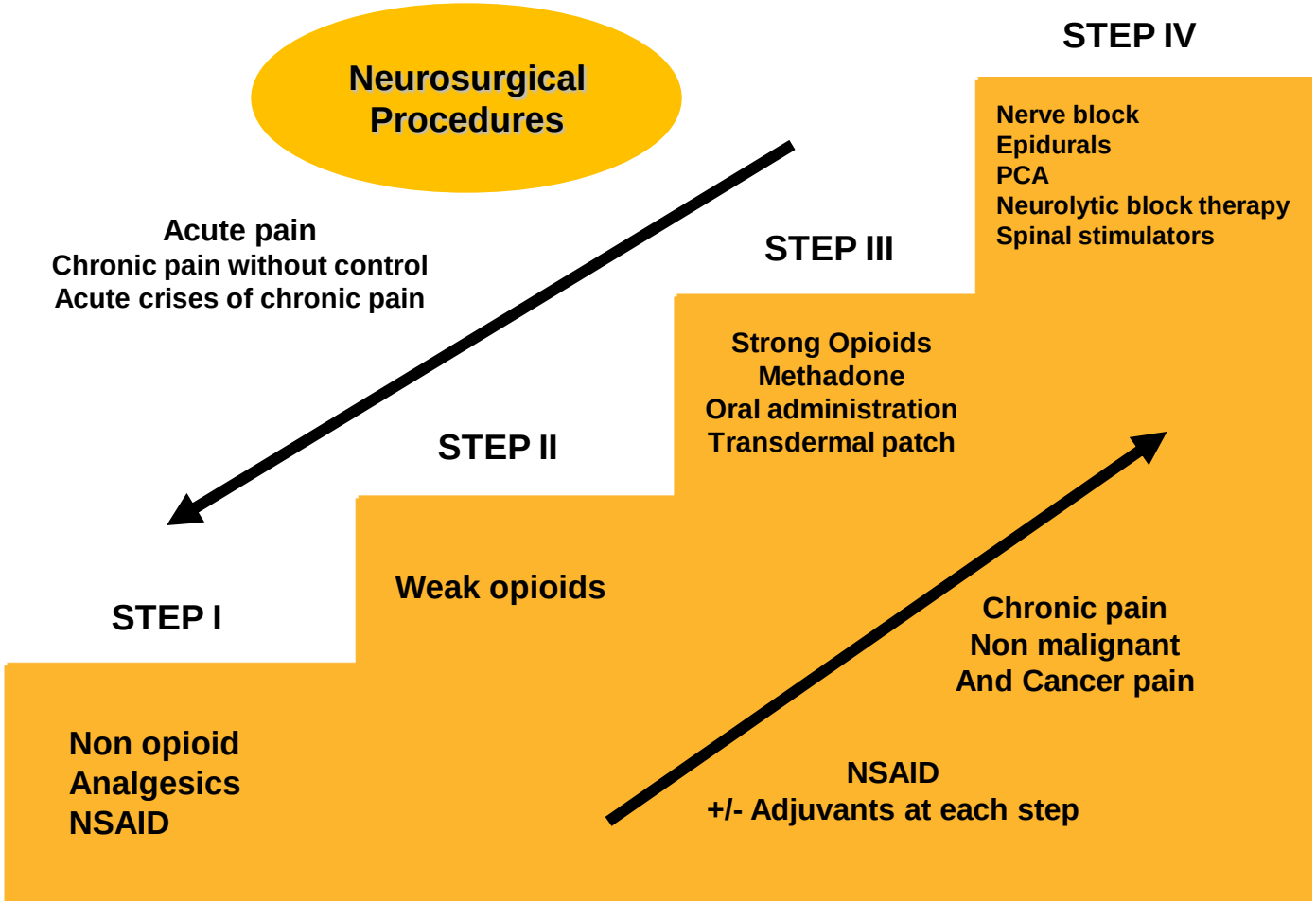
WHO analgesic ladder

- Only in cancer pain
- Some believe that beginning step by step is often insufficient and inefficient for controlling intense pain
- New treatment and drugs

The adaptation of the analgesic ladder for acute pain, chronic noncancer pain, and cancer pain



Vargas-Schaffer G Canadian Family Physician • Le Médecin de famille canadien ***Vol 56: june • juin 2010***

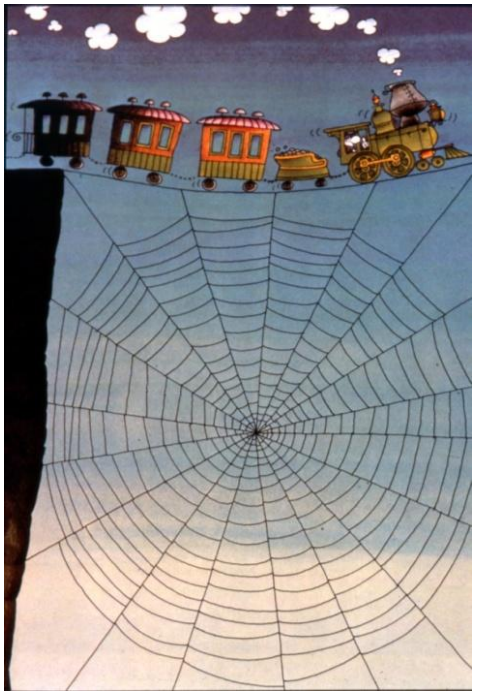


PCA (Patient Controlled Analgesia)
NSAID: Non Steroidal Anti-Inflammatory Drugs

G. Vargas-Schaffer. Is the WHO analgesic ladder still valid?: Twenty-four years of experience Can Fam Physician 2010;56:514-7

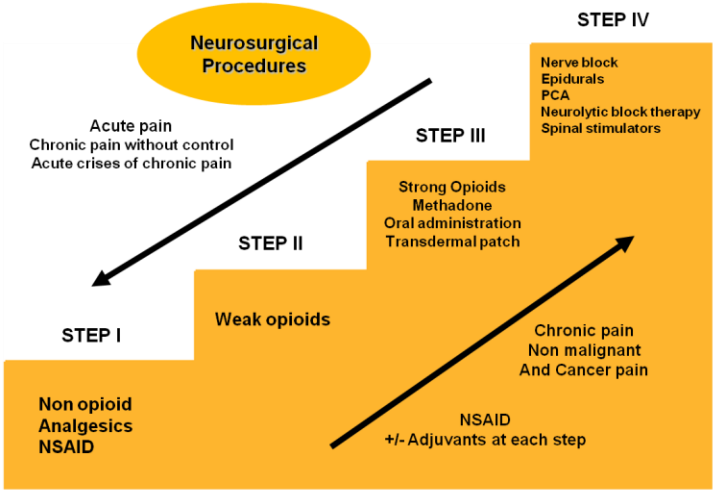
Multimodal Analgesia

- Association of different drugs
- Different mechanisms of action
- Use of lower doses
- Reduction of side effects
- Pharmacological synergy



STEP I
WHO analgesic ladder (proposed)

- Paracetamol
- Acetaminophen
- NSAID



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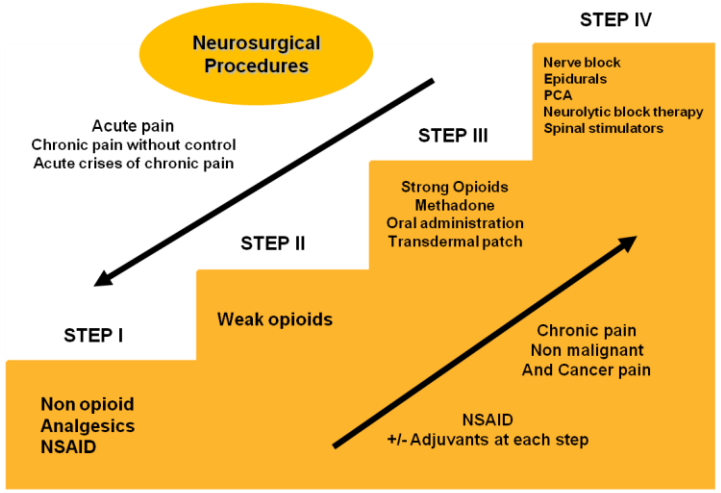
STEP II
WHO analgesic ladder (proposed)

- Tramadol
- Tapetandol
- Buprenorphine
- ~~Codeine~~



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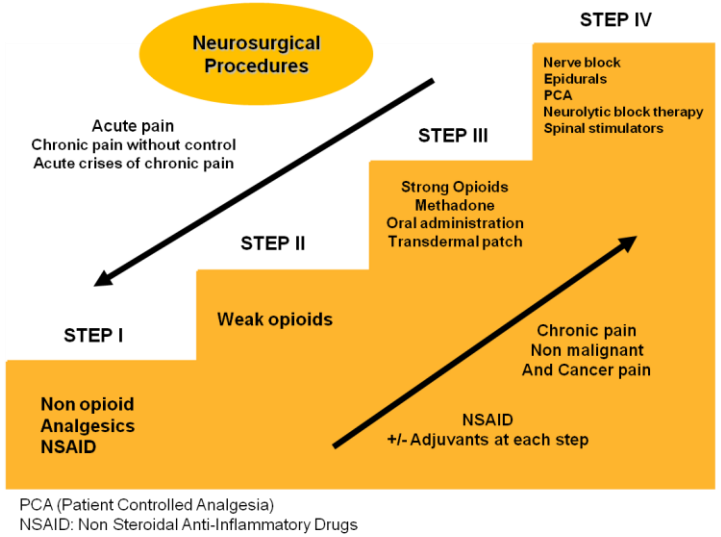
G. Vargas-Schaffer. Is the WHO analgesic ladder still valid?: Twenty-four years of experience Can Fam Physician 2010;56:514-7

STEP III
WHO analgesic ladder (proposed)

- Morphine
- Oxycodone
- Hydromorphone
- Fentanyl
- Methadone



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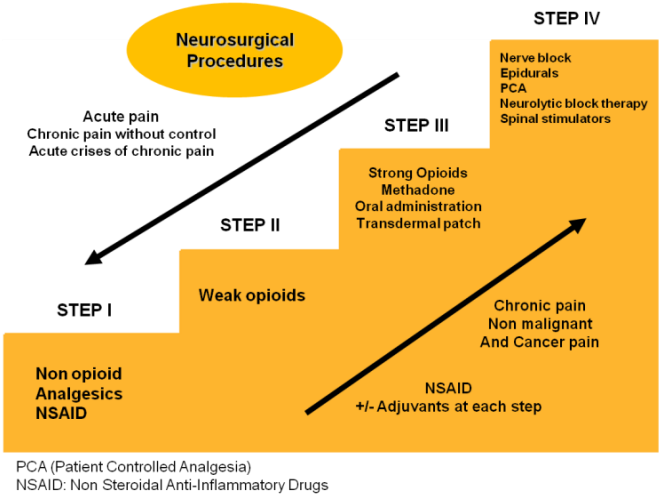
NSAID: Non Steroidal Anti-Inflammatory Drugs

G. Vargas-Schaffer. Is the WHO analgesic ladder still valid?: Twenty-four years of experience Can Fam Physician 2010;56:514-7

STEP IV
WHO analgesic ladder (proposed)

- Nerve block
- Infiltration (joint, muscular, Trigger point,)
- Epidurals
- PCA
- Neurolytic block
- Radiofrequency/thermolesion
- Spinal stimulators



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Adjuvants

- Steroids
- Anxiolytics
- Antidepressants
- Hypnotics
- Anticonvulsants
- Antiepileptic
- Gabapentinoids (gabapentin and pregabalin)
- Membrane stabilizers
- Sodium channel blockers
- NMDA receptor antagonists for the treatment of neuropathic pain
- Cannabinoids

Adaptation analgesic ladder

- The advantage of this proposal is that one may ascend slowly one step at a time in the case of chronic pain and if necessary, increase the rate of climb according to the intensity of the pain.
- This adaptation can be used for acute pain in emergency rooms and post-operative situations and begins directly with step IV to control high intensity pain.
- The physicians can adjust and decrease the stepped level of analgesics.

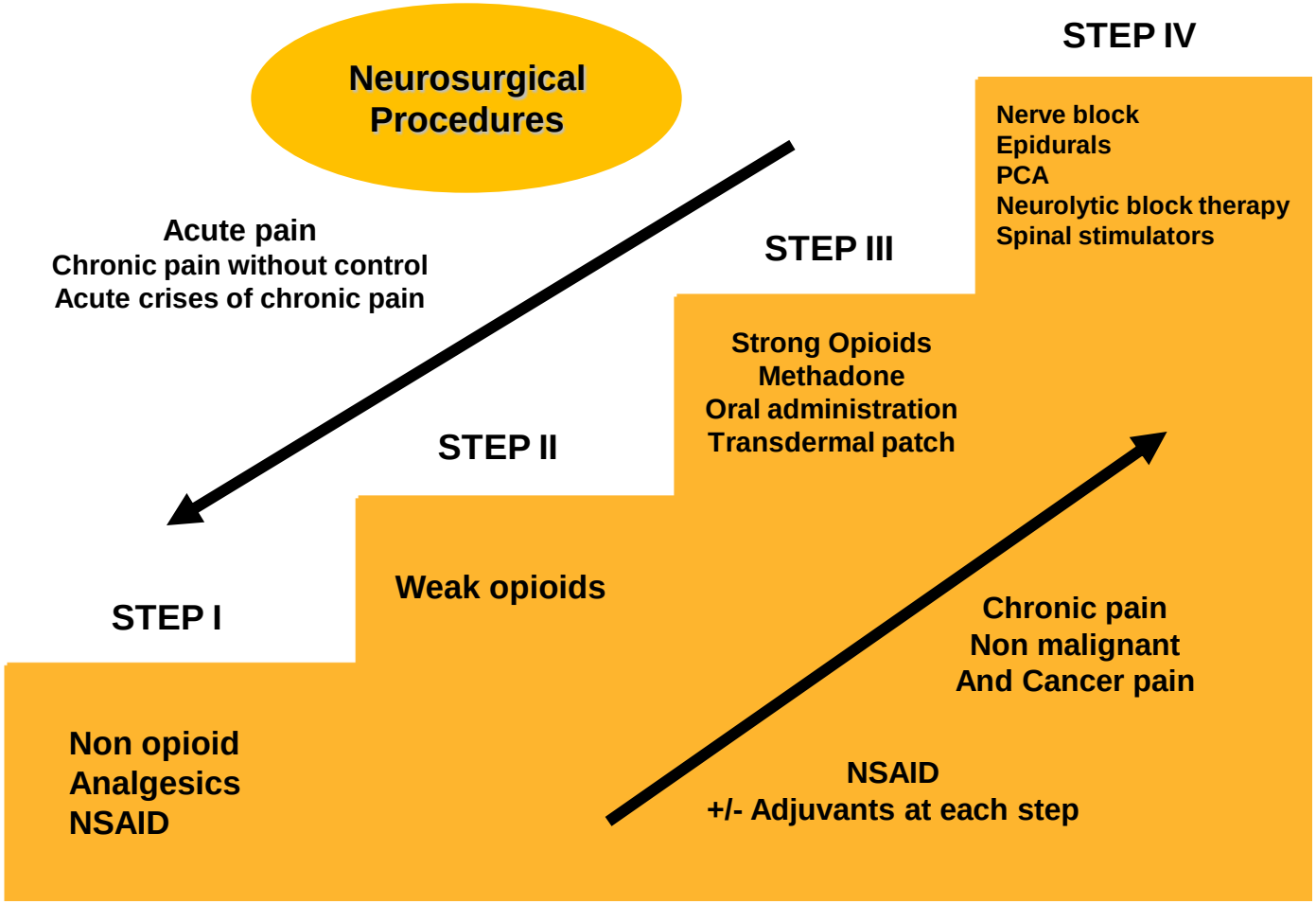
Adaptation analgesic ladder

- The fourth step is recommended for the treatment of crises of chronic pain.

- Interventional pain literature suggests that there is moderate evidence for the use of transforaminal epidural steroid injections, lumbar percutaneous and spinal endoscopy for painful lumbar radiculopathy and limited evidence for intradiscal treatments in low back pain.

Step up, step down

- This version of the analgesic ladder can be used in a bidirectional fashion: the slower upward pathway for chronic pain and cancer pain, and the faster downward direction for intense acute pain, uncontrolled chronic pain, and breakthrough pain.
- The advantage of this proposal is that one can ascend slowly one step at a time in the case of chronic pain and, if necessary, increase the rate of climb according to the intensity of the pain.
- However, one can start directly at the fourth step, in extreme cases, to control pain of high intensity, using patient-controlled analgesia pumps for continuous intravenous, epidural, or subdural administration.



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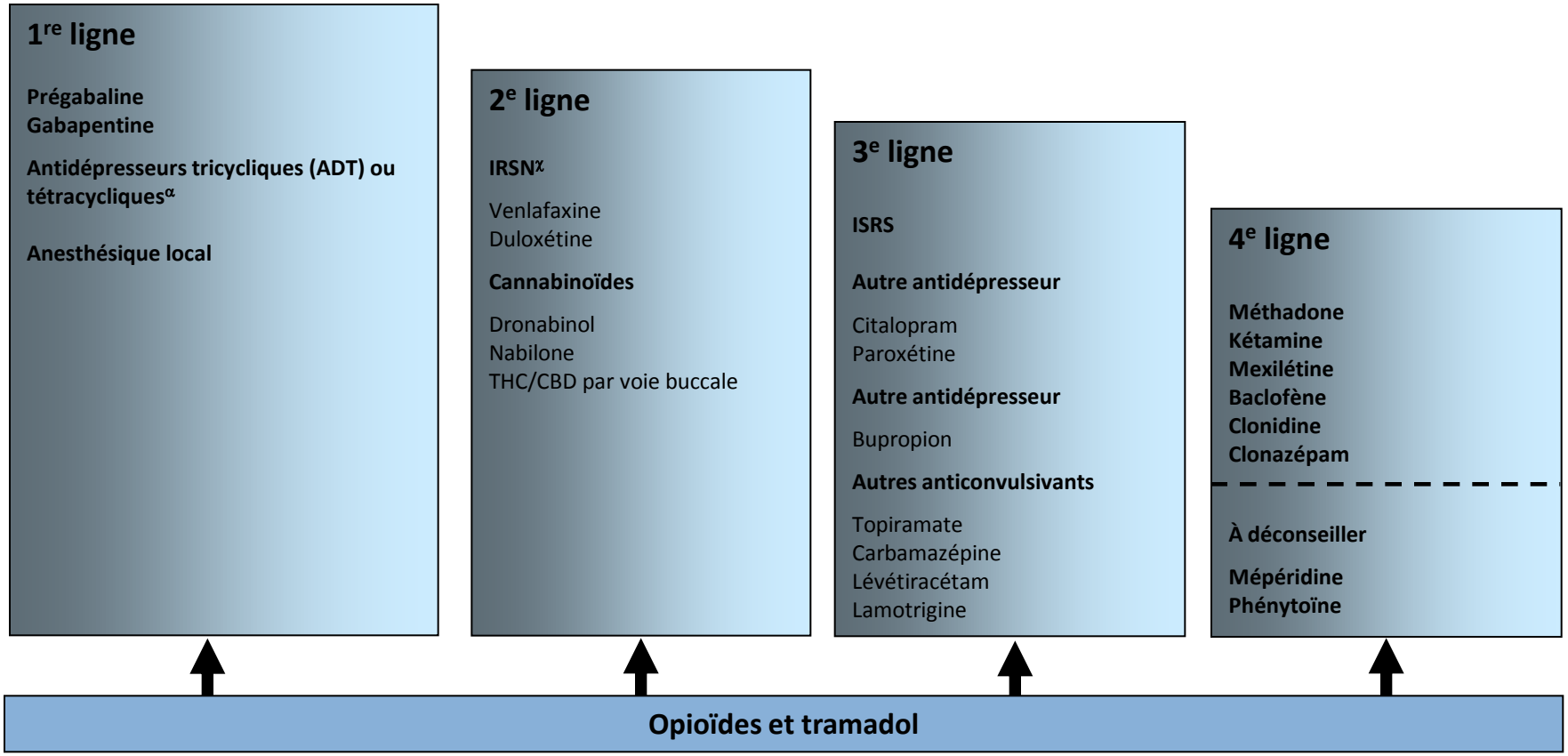
Adaptation analgesic ladder

- This adaptation can be used for nociceptive pain and for combined nociceptive and neuropathic pain.
- Not for pure neuropathic pain.
- In neuropathic pain the treatment algorithm is completely different, and opioids should be considered adjuvant medications and not the principal drugs for the treatment of such pain.
- Several guidelines for the treatment of neuropathic pain were published in 2007, the first by the Canadian Pain Society and the second by the International Association for the Study of Pain, and 2008 Quebec guideline.

Quebec guideline for neuropathic Pain



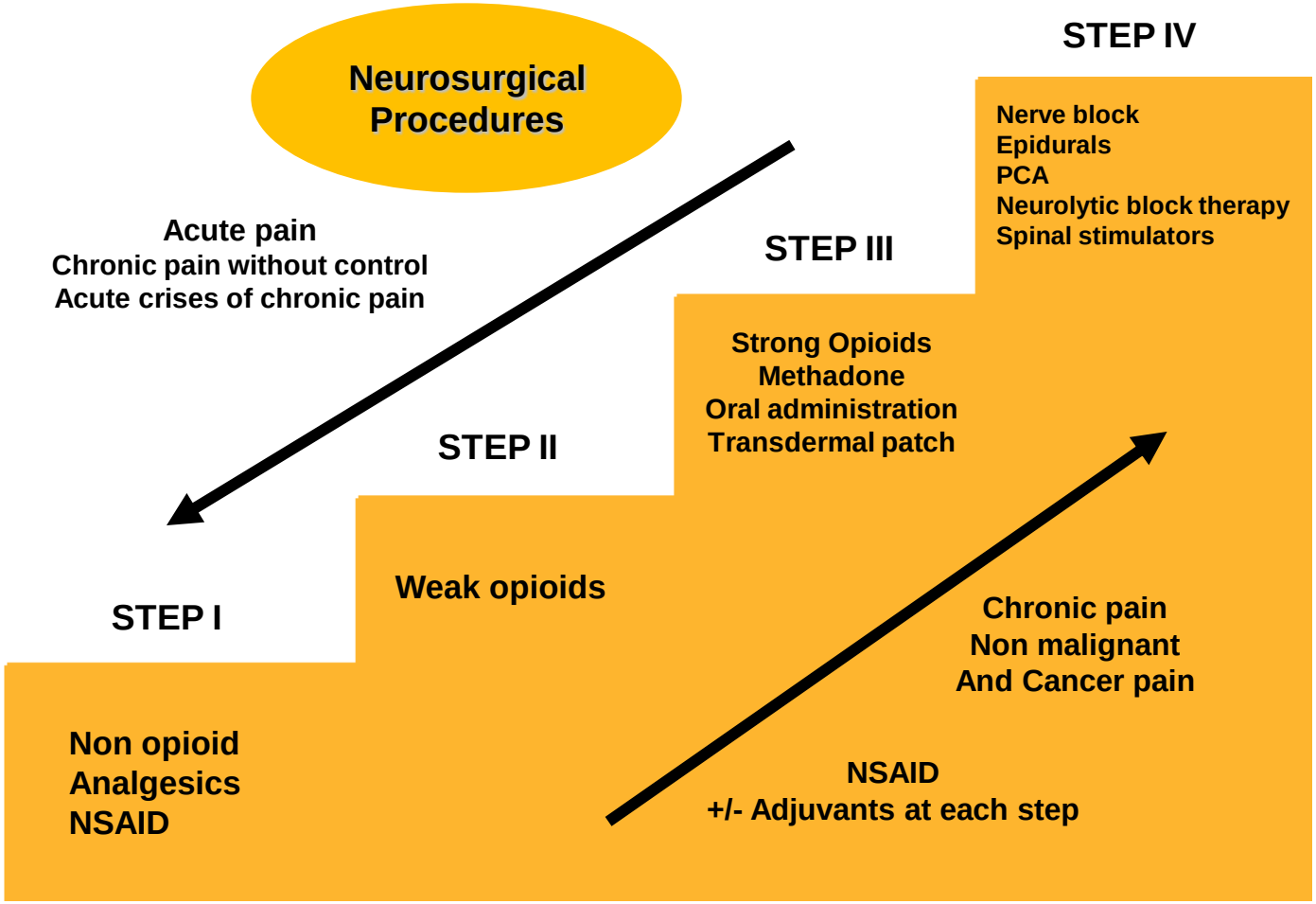
Pour les opioïdes et tramadol:

Utiliser les courtes actions en 1re ligne en association avec les autres agents de 1re ligne en présence des situations suivantes :

- soulagement rapide pendant la titration des agents de 1re ligne (jusqu'à la posologie efficace);
- épisodes d'exacerbation grave de la douleur / douleur neuropathique aiguë / douleur neuropathique liée au cancer.

Utiliser en 2e ligne en monothérapie ou en association (lorsqu'une utilisation à long terme est envisagée, favoriser l'administration d'agents à longue durée d'action).

Boulanger A *et al. L'actualité médicale* 2008; 8(12)25-30.



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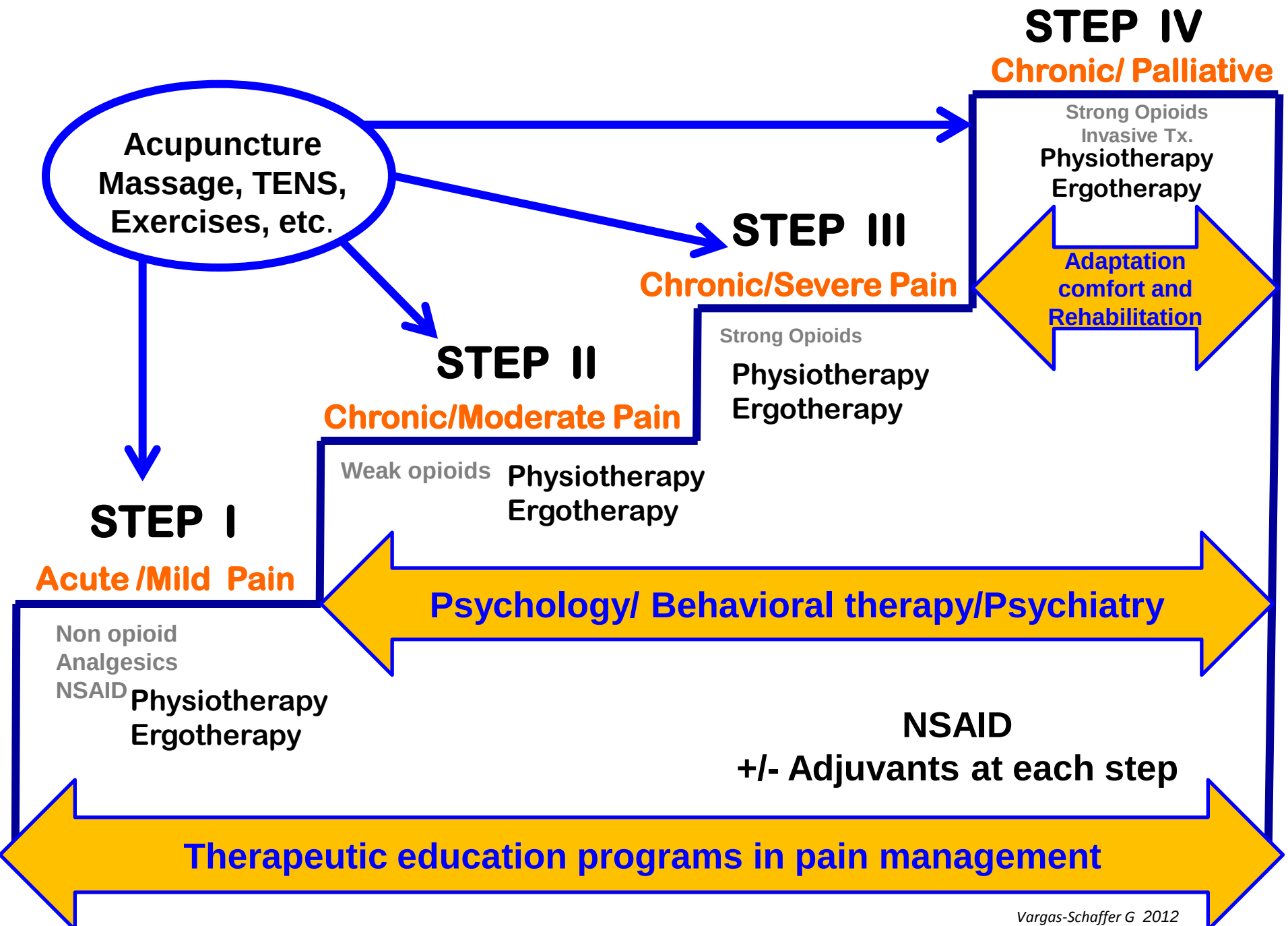
How to step down the analgesic ladder?

- Stabilize the pain intensity in acute pain for 3-4 weeks.
- Stabilize the pain intensity for 3 months or more in chronic pain.
- Choose the best time with your patient.
- Reduce dose 10% every 2 weeks.
- Do not compromise the quality of life of your patient.
- If necessary use complementary therapy.

How to position the patient at the center of the pain control strategy?


STEP IV
Chronic/ Palliative
Strong Opioids
Invasive Tx.
Physiotherapy
Ergotherapy
Acupuncture
Massage, TENS,
Exercises, etc.
STEP III
Chronic/Severe Pain
Adaptation
comfort and
Rehabilitation
Strong Opioids
Physiotherapy
Ergotherapy
STEP II
Chronic/Moderate Pain
Weak opioids
Physiotherapy
Ergotherapy
STEP I
Acute /Mild Pain
Psychology/ Behavioral therapy/Psychiatry
Non opioid
Analgesics
NSAID
Physiotherapy
Ergotherapy
NSAID
+/- Adjuvants at each step
Therapeutic education programs in pain management
Vargas-Schaffer G 2012

Educating for better care in Pain management

Therapeutic patient education

- Must allow the patient to acquire and maintain skills that help them to live optimally with their illness.
- Is a continuous process, integrated care and patient-centered.
- Includes activities, organized information, learning and psychological support.

Continuing Education Programmes for Health Care Providers in the Field of Prevention of Chronic Diseases WHO 1998

Therapeutic patient education

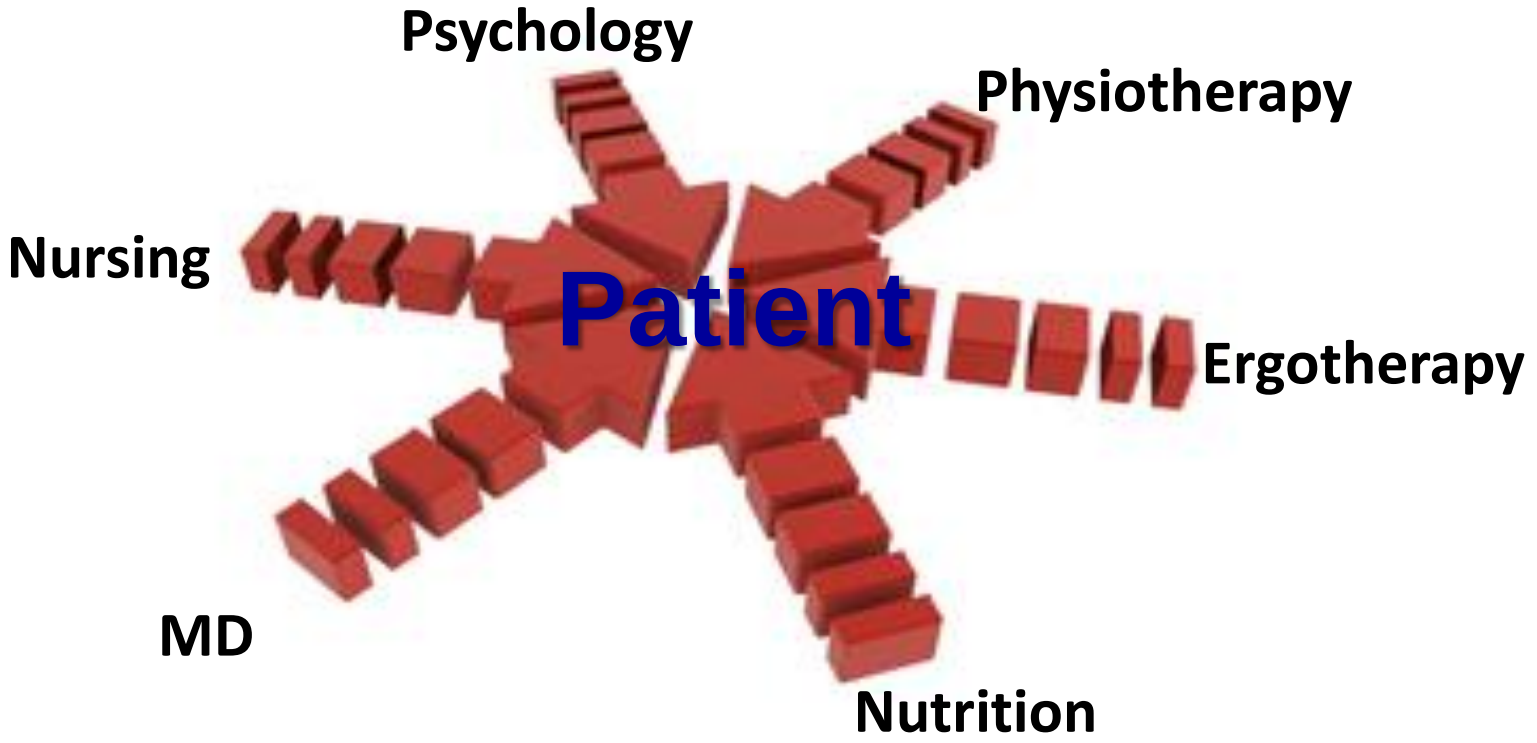
- Is education managed by health care providers trained in the education of patients.

- Is designed to enable a patient (or a group of patients and families) to manage the treatment of their condition and prevent avoidable complications, while maintaining or improving their quality of life.

Therapeutic patient education

- Is therefore designed to train patients in the skills of self-managing or adapting treatment to their particular chronic disease, and in coping processes and skills.
- It should also contribute to reducing the cost of long-term care to patients and to society.
- It is essential to the efficient self-management and to the quality of care of all long-term diseases or conditions, though acutely ill patients should not be excluded from its benefits.

Educational program in pain management

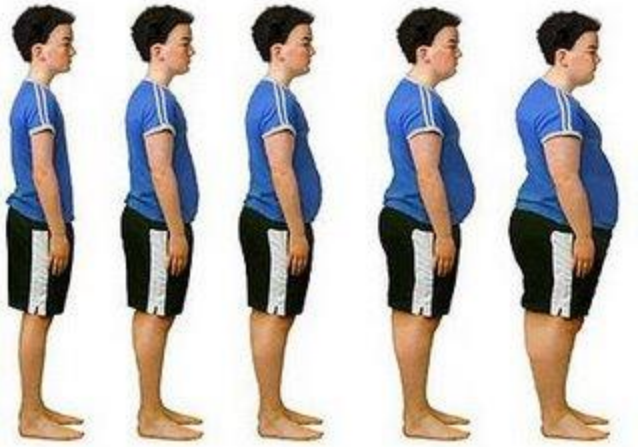


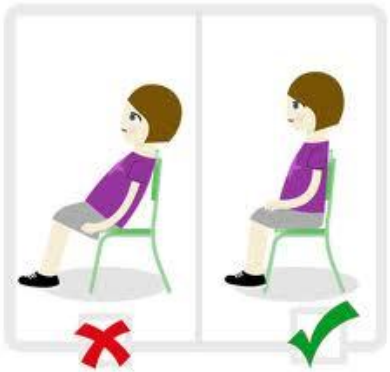
Educational program in pain management

- Improves adherence.
- Helps the patient understand medication responses.
- Allays fears about particular treatments or medications.
- Increases satisfaction with treatment by promoting realistic expectations.
- Strengthens the clinician–patient relationship by demonstrating respect and enhancing patient feelings of self-efficacy.
- Improves health, well-being, and outcomes.

Continuing Education Programmes for Health Care Providers in the Field of Prevention of Chronic Diseases WHO 1998

Why patient education in pain management?





Therapeutic decision

Interdisciplinary teamwork

Quality of life

Side effets

Functional recovery

Conclusion

- The WHO analgesic ladder remains a tremendously valuable tool for clinical practice

- This proposed modification of the WHO analgesic ladder is not intended to negate or advise against use of the original ladder.

Conclusion

After 26 years of use the analgesic ladder has demonstrated its effectiveness and widespread usefulness; however, modifications are necessary to ensure its continued use for knowledge transfer in pain management.

Thanks for your attention …

Questions?...

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