Palliative Care

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2005 Postgraduate course
Geneva Foundation
for Medical Education and Research

Mrs R

- 78 yrs old lady, widowed, lives with son + daughter in law, small apartment in Samara, Russian Federation
- 1986: left breast ca., no consultation.
  1998: malignant ulceration, closed after irradiation
- Admitted to Hospice in 2003:
  Asthenia, anorexia, breathlessness, bilateral thoracic pain
  Cachectic, left thoracic nodules with scabs, signs of right pleural effusion.
  Bed bound
- Treatment:
  Morphine 5 mg sc q 4h for breathlessness (no oral form available)
  tamoxifen
  co-danthromer
- Hospice unit has only 4 beds, so keeping her is difficult, and daughter-in-law is unwilling to have her back

Palliative care: WHO definition

Palliative care

«...is an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual »

Palliative care: core principles (1)

- Provides relief from pain and other symptoms
- Affirms life, and regards dying as a normal process
- Intends neither to hasten nor to postpone death

Palliative care: core principles (2)

- Integrates psychosocial and spiritual aspects of patient care
- Offers a support system to help patients live as actively as possible until death
- Offers a support system to help the family cope during the patient's illness and their own bereavement

Palliative care: core principles (3)

- Uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated
- Will enhance quality of life, and may also positively influence the course of illness

Palliative care: core principles (4)

- Is applicable early in the course of illness, in conjunction with a range of other therapies that are intended to prolong life, such as chemotherapy, radiation therapy, and includes those investigations needed to better understand and manage distressing complications

Who needs palliative care?

- Needs are not defined by:

  - diagnosis
  - age group
  - place of care

- .. But by the types of problems patients and families face

Palliative care needs are increasing

- **Ageing population:**

  By 2025: estimated 135 Mo >79 yrs old

  Of those, 80 Mo in the developing world

  Increase in chronic degenerative disorders, disabilities, dementia, malignancies needing palliative care

Palliative care needs are increasing

- **Increase in the incidence of cancer**
  From 2000 to 2015:

  Developing countries:

  new cases of cancer: increase from 5 to 10 Mo
  number of deaths: increase from 3 to 6 Mo
  High proportion of patients diagnosed at late stages

  Developed countries:

  new cases of cancer: increase from 4 5o 5 Mo
  number of deaths: increase from 2 to 3 Mo

Palliative care needs are increasing

- **HIV/AIDS epidemic:**

  2001: 40 Mo people living with HIV, >60 Mo infected since epidemic began

- **Other progressive life-threatening illnesses:**

  TB, respiratory failure, cardiac failure, progressive neurological diseases, etc

Access to palliative care

- Inequitable and insufficient in spite of existing knowledge

- The development of palliative care through effective and low cost approaches represents a priority in order to respond to the urgent needs of the sick and improve their quality of life

Example of symptom management: pain

Symptom prevalence in advanced cancer patients

- **275 consecutive advanced cancer patients**

Symptom	Prevalence	95% confidence interval
Asthenia	90	81-100
Anorexia	85	78-92
Pain	76	62-85
Nausea	68	61-75
Constipation	65	40-80
Sedation-confusion	60	40-75
Dyspnea	12	8-16

Bruera. Oxford Textbook of Pall Med 1998

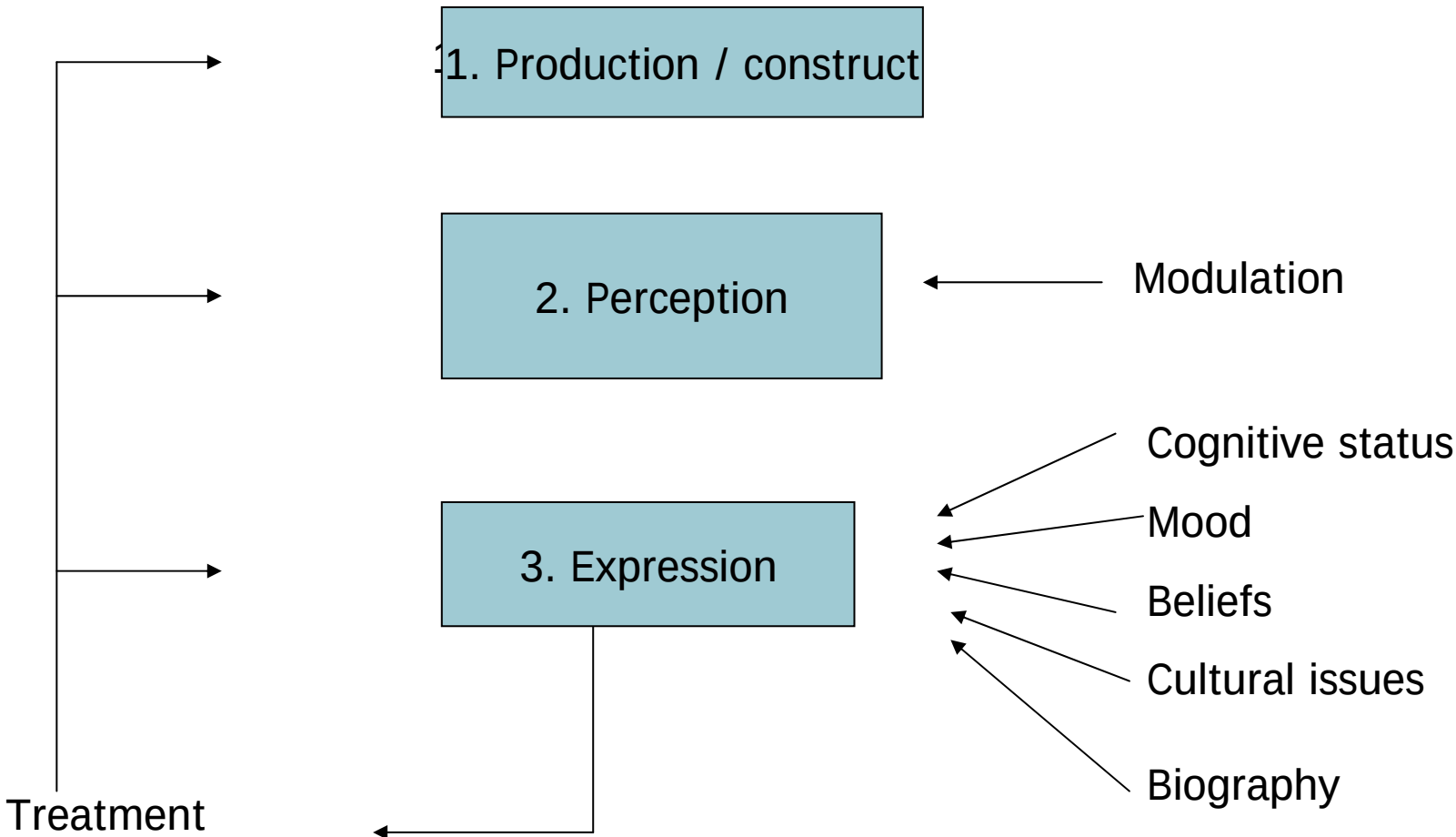
Definition of pain

«Pain is an unpleasant sensory and emotional experience associated with actual and potential tissue damage or described in terms of such damage ».

Pain is always subjective.

IASP (International Association for the Study of Pain)

Schema of symptom construct



Bruera Cancer Treat Rev 1996;22(supp A):3-12

Principles of pain management (1)

- **Systematic multidimensional assessment:**

  History
  Validated assessment tools
  Clinical examination +/- complementary tests when needed
  Patient's understanding about his/her pain
  Impact on patient's life and family

- **Pain diagnosis:**

  Origin: (cancer, treatment, other causes)
  Type of pain: (neuropathic, nociceptive)
  Most probable mechanisms

Principles of pain management (2)

- **Treat the cause:**

  - when possible and reasonable

- **Treat symptoms:**

  - systemic analgesics (WHO guidelines)
  - local measures: e.g.; cold, heat, position, local application of anaesthetics or opioids in painful ulcerations
  - invasive treatments: injection of trigger zones, blocks (e.g. coeliac plexus in painful pancreatic cancer if specialist available and simple analgesics fail)

- **Holistic care** (body, mind, spirit), considering patient as family as the unit of care

- **Consider patient and family as the unit of care**

Types of pain

Nociceptive pain

Activation of nociceptors in the different tissues/organs

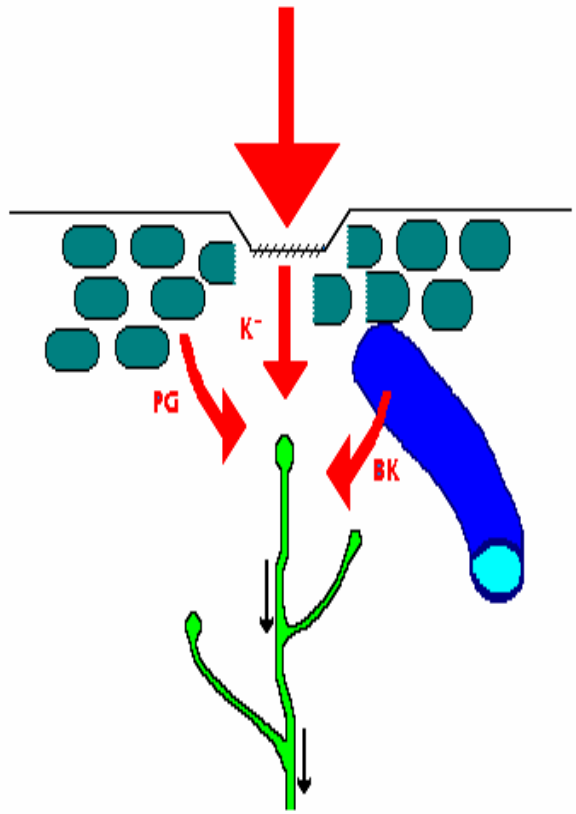
by tissue damage

Somatic pain

Well localised

Visceral pain

Poorly localised, deep, dull, cramping, referred



Modified from Mazzocato, Sylvana 02

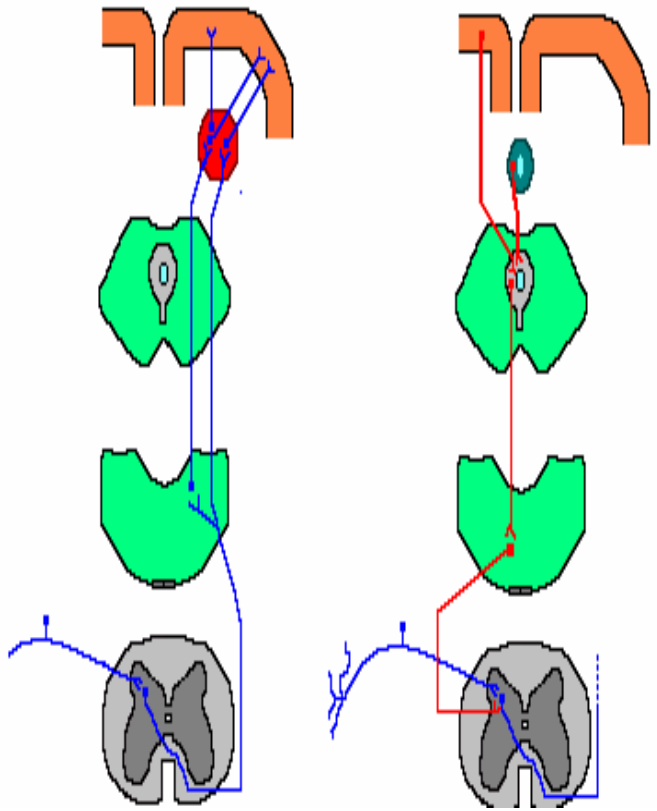
Types of pain

Neuropathic pain

Peripheral or central alteration of nerve conduction

Dysesthesias: burning sensation, numbness, tingling, as well as sharp and shooting, paroxystic exacerbations

Associated with a sensory deficit, hyperesthesia, allodynia; in the region innervated by the affected nerve structure (dermatoma, radicular distribution, etc.)



Modified from Mazzocato, Sylvana 02

Assessment of pain intensity

- Visual analog scale:

No pain _____ Worst possible pain

- Numerical scale:

No pain 0 1 2 3 4 5 6 7 8 9 10 Worst possible pain

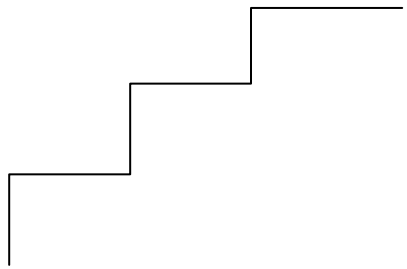
- Categorical scale:

No pain | Week pain | Moderate pain | Severe pain | Very severe pain | Extreme pain

Symptomatic pain medication

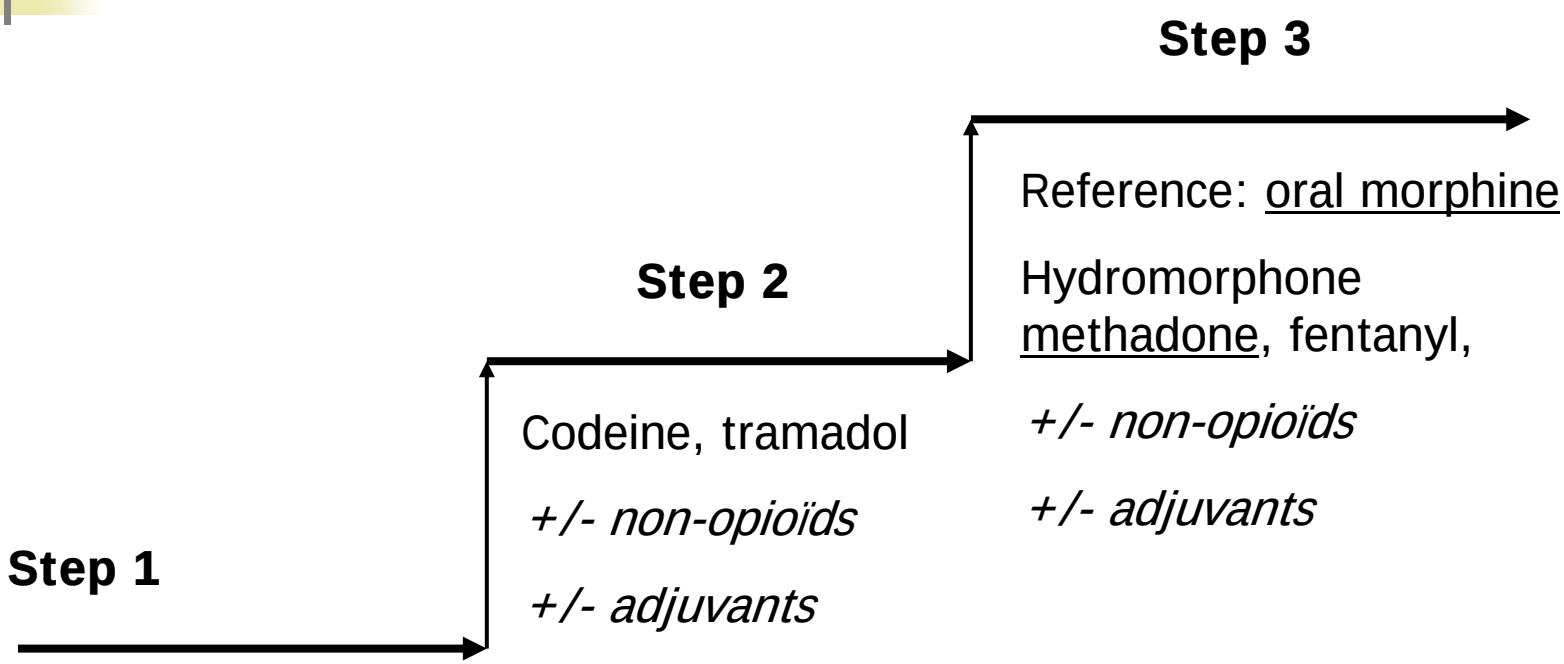
By the mouth

By the ladder



By the clock

WHO analgesic ladder



WHO, in collaboration with IASP 1999

Step 2: Codein

- Biotransformation into morphine by Cyt. P450.

  Iso-enzyme absent in 7-10% Caucasians. In those cases, codein will probably be poorly effective

  Dose: 30-60 mg/4h

Step 2: tramadol

- Weak Opioïd + noradrenergic effect (noradrenalin and serotonin)
- Kidney elimination
- Doses:
  initially: 50 mg/6-8h and 15-20 mg breakthrough
  (analgesic effect: 3-7h with chronic administration)
  maximal studied dose: 400 mg/d. In the elderly > 75 yrs: 300 mg
- Frequent side effects:
  nausea/vomiting, dizziness, sweating, dry mouth, constipation
  risk of convulsions

Step 2: tramadol

- Potentially dangerous drug interactions, particularly with antidepressants: SSRIs, tricyclics, IMAO:

  serotoninergic syndrome

Schaad, Med et Hyg 2001;2346

Serotoninergic syndrome

Gastro-intestinal	Cramps Diarrhea
Neurological	Headaches Dysarthria Incoordination Myoclonia
Cardiovascular	Tachycardia Hypo/hypertension Cardiovascular collapsus
Psychiatric	Confusion Dysorientation
Other	Sweats Hyperthermia Hyperreflexia

Step 3: initiation of treatment

- **Morphine is the narcotic of first choice, since it is the most cost-effective**

Give explanations to the patient, patient and family education

- Start with a short acting substance; oral morphine

A. Opioid naive patient:
5 mg/4h
Breakthrough, if pain in between regular dosis: 4-hourly dose, to be repeated if needed up to every hour. Monitor treatment response (analgesic as well as possible adverse effects)

B. Patient previously treated with another opioid (ex.: step2):
Start at least by the equianalgesic dose!

Step 3: dose titration

A / Increases by approx. 30%

B / $\frac{\text{Regular doses + breakthroughs taken in 24h}}{6}$ = new 4 hourly dose

☺ Adjust breakthrough doses (4 hourly dose)

☺ Reassess if need for more than 3 breakthroughs/day

Step 3:
when stable and well controlled pain

- Switch to a slow-release form if necessary: e.g. MSContin
  24h dose slow-release form= 24h dose short acting form
  Slow release morphine tablets: q 12h

- Prescribe breakthrough doses (in short acting form):
  Equivalent to the 4 hourly dose, q 1h

- Reassess at regular intervals
  Adapt doses by approx. 30%

Another interesting opioid: methadone!

- Very cheep
- Probably more effective in neuropathic pain
- To be used by experienced professionals only: particular pharmacological characteristics (long half-life: 1 to > 60 hrs, important interindividual variability, pharmacological interactions)

Some other opioids

- **Fentanyl: Ex Transdermal Duragesic:**

  Pure μ agonist, 100x more potent than morphine
  Only for stable pain, previous titration with short acting opioid
  Mainly liver metabolism
  Very expensive!

- **Buprenorphine:**

  Partial agonist, ceiling effect
  Do not associate it with other opioids
  Liver metabolism, no accumulation in renal failure

- **Meperidine / pethidine:**

  Contraindicated for chronic use
  Neurotoxic: risk of myoclonus and seizures

Opioids: feared effects

- **Addiction:**

  Almost *never* in a well managed pain treatment

- **Physical dependence:**

  Means withdrawal when medication abruptly stopped of in the case of administration of an antagonist

- **Tolerance:**

  Need to increase doses in order to maintain the same effect
  Very rarely a problem in clinical practice

Opioid side effects

Type of effect	Characteristics	Treatment
Constipation	No tolerance	Systematic prevention and treatment Stimulant and osmotic laxatives
Nausea-vomiting	Approx. 30% patients 1st week	Metoclopramide or haloperidol
Drowsiness	Often mild during 1st days of treatment	Assess. If major, decrease dose. Rule out aggravating factors
Neurotoxicity	Particularly if renal failure. Myoclonus, delirium, hyperalgesie/allodynia, hallucinations	Hydrate. If possible change opioid. Rule out aggravating factors. Treat symptoms (ex haloperidol)

Adjuvant analgesics

Type of drugs	Indications	Precautions
NSAIDS	Bone pain, inflammatory process	Beware side effects, eg renal failure and opioid toxicity
Corticosteroids: Ex: dexamethasone	Intracranial hypertension, epidural spinal cord compression, distension of liver capsule	Beware side effects, especially long term. Decrease to minimal effective dose
Spasmolytics (Buscopan)	Intestinal or urinary muscle spams	
Anticonvulsants Ex: Gabapentin	Neuropathic pain	Beware side effects
Antidepressants Ex: amitryptiline	Neuropathic pain	Beware side effects and interactions
Bisphosphonates Ex: Pamidronate, Zoledronate, Clodronate	Metastatic bone pain and decreased « bone events »	Flue-like symptoms, beware renal failure. Expensive

Efficacy of cancer pain management

- WHO stepladder is said to be able to successfully manage pain in approximately 80-90% of patients

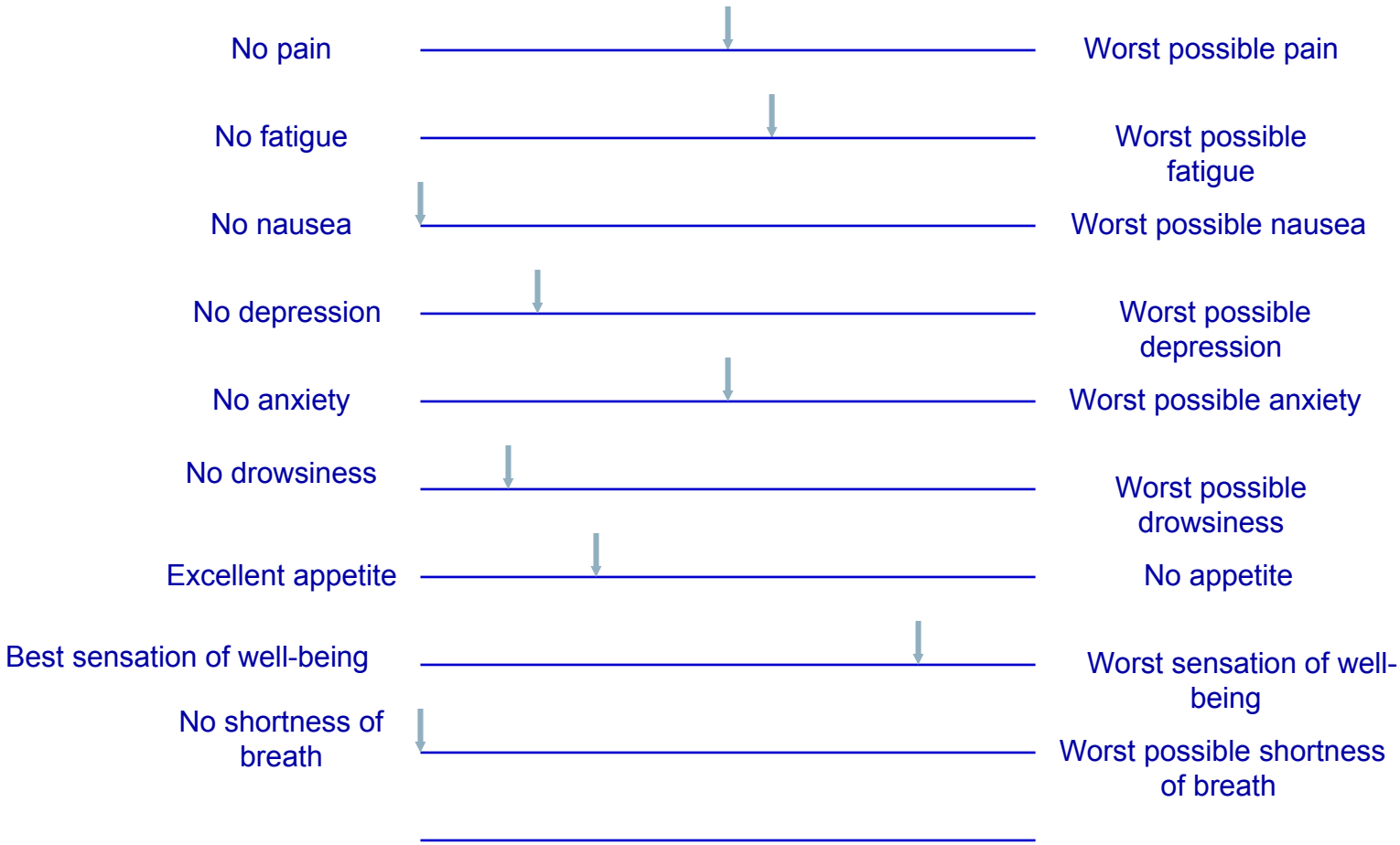
- Despite available knowledge and drugs, studies show that 38-74% cancer patients suffer from unrelieved pain

Davis MP, Walsh D. Am J Hospice and Palliative Care 2004

Causes of failed pain management

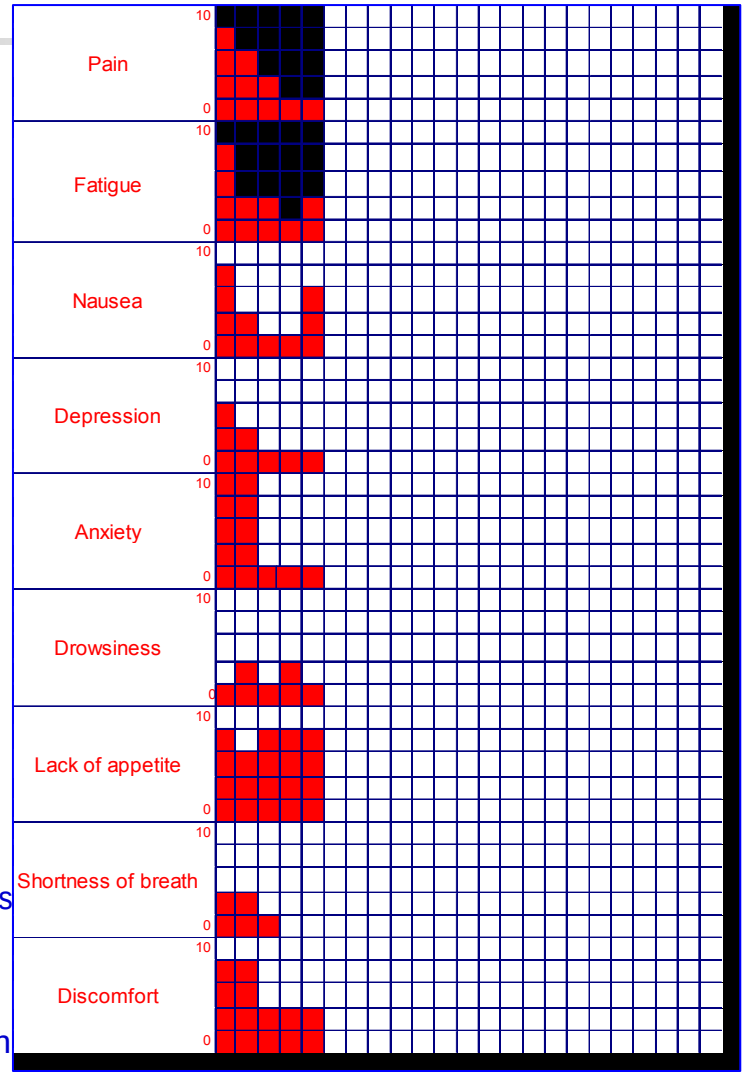
- Focus on disease
- Failure to systematically assess and document pain
- Lack of knowledge on pain management
- Fear of opioid side effects, tolerance, addiction
- Analgesia based on prognosis rather than severity of pain
- Limited access to services and to strong opioids

Edmonton symptom assessment

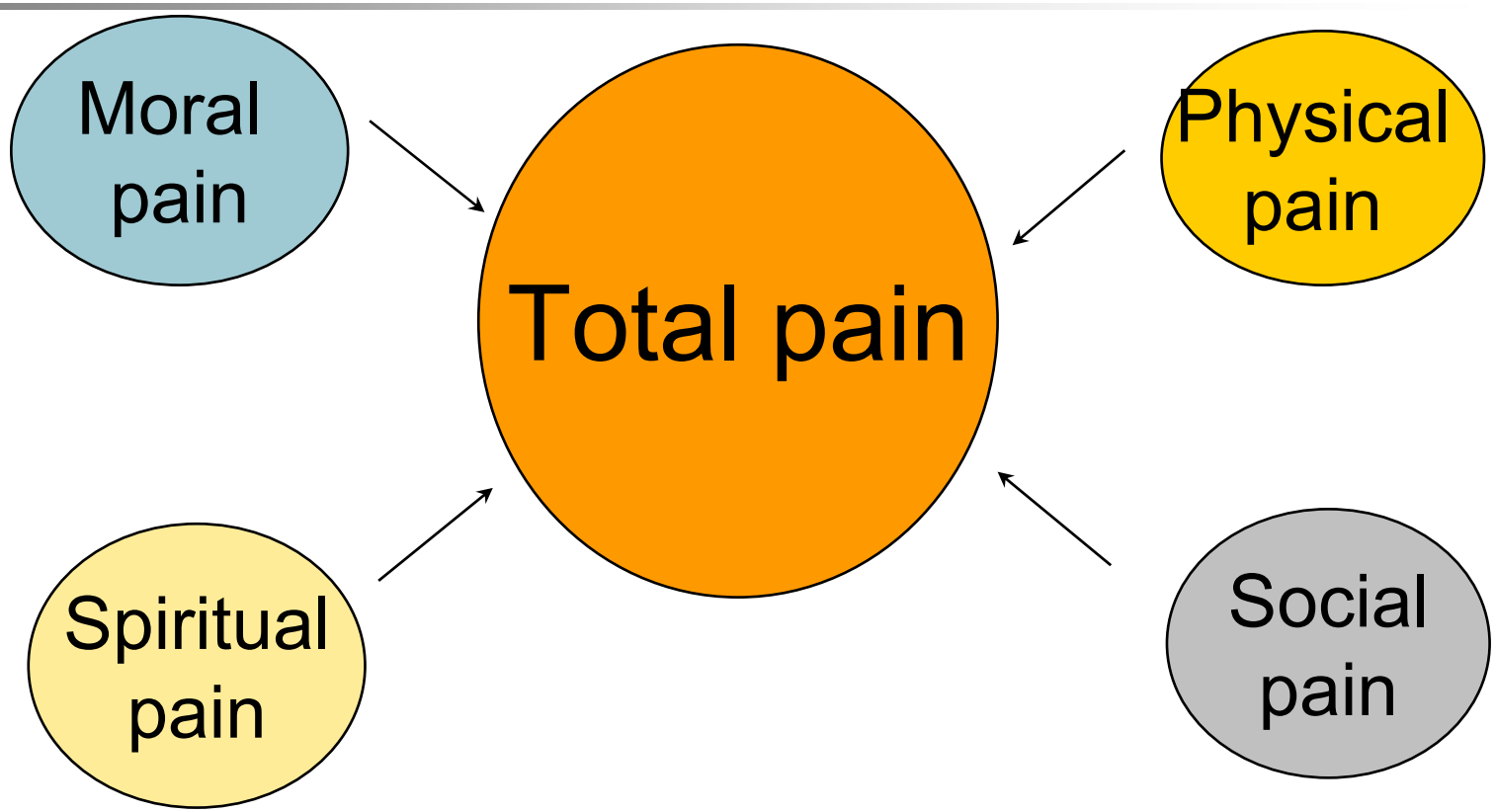


Edmonton Symptom Assessment System

No pain		Worst possible pain
No fatigue		Worst possible fatigue
No nausea		Worst possible nausea
No depression		Worst possible depression
No anxiety		Worst possible anxiety
No drowsiness		Worst possible drowsiness
Excellent appetite		No appetite
No shortness of breath		Worst possible shortness of breath
Best sensation of well-being		Worst possible sensation of well-being



Care of the whole person
Need for competence and empathy

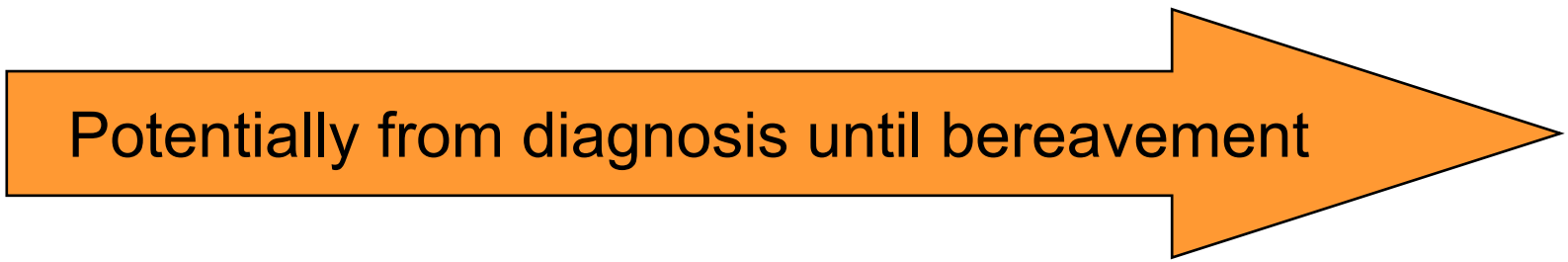


Cicely Saunders - OMS - 1990

Palliative care: continuity of care

Palliative care: when?

- Palliative care spans the period from the diagnosis of advanced disease until the end of bereavement; this may vary from years to weeks or (rarely) days. It is not synonymous with terminal care, but encompasses it.

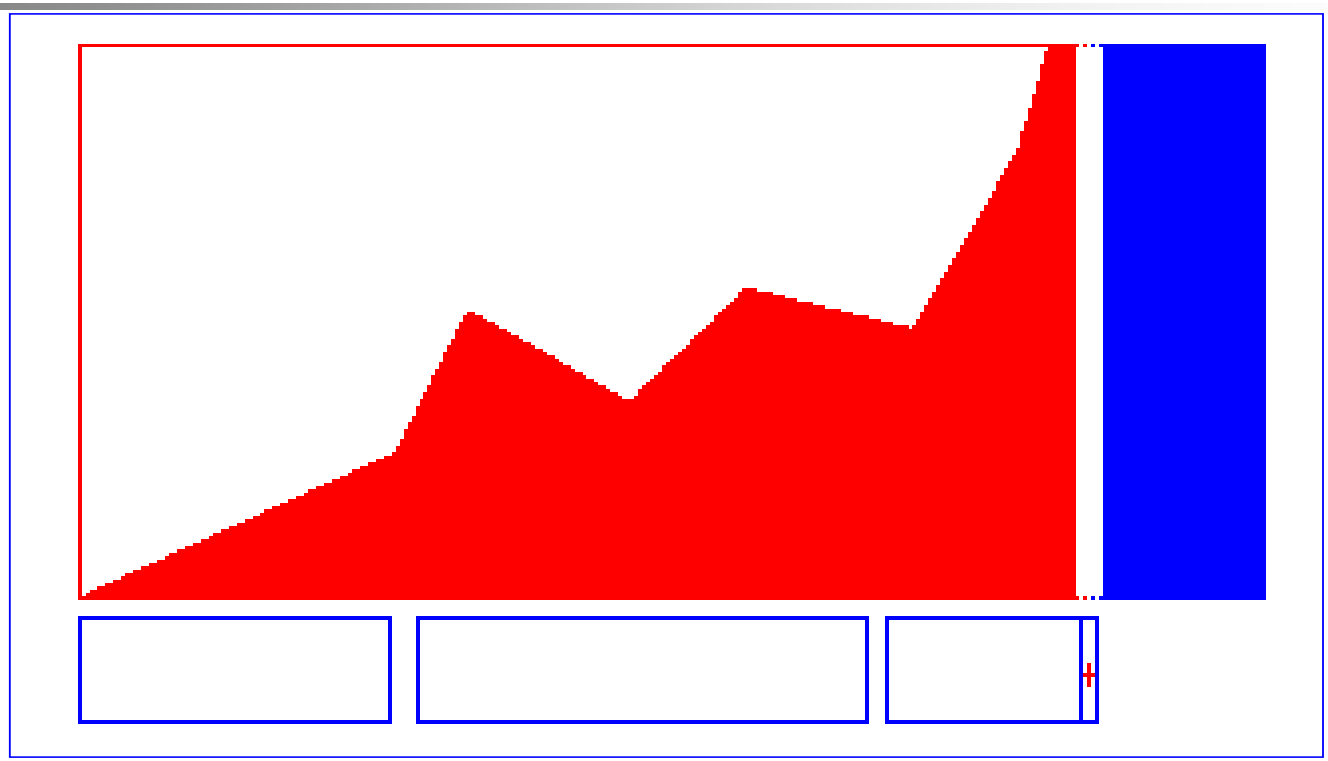


COUNCIL OF EUROPE Recommendation Rec(2003)24 of the Committee of Ministers to member states on the organisation of palliative care and explanatory memorandum. www.coe.int

Palliative care: a change of vision

" We can't do anything any more… »

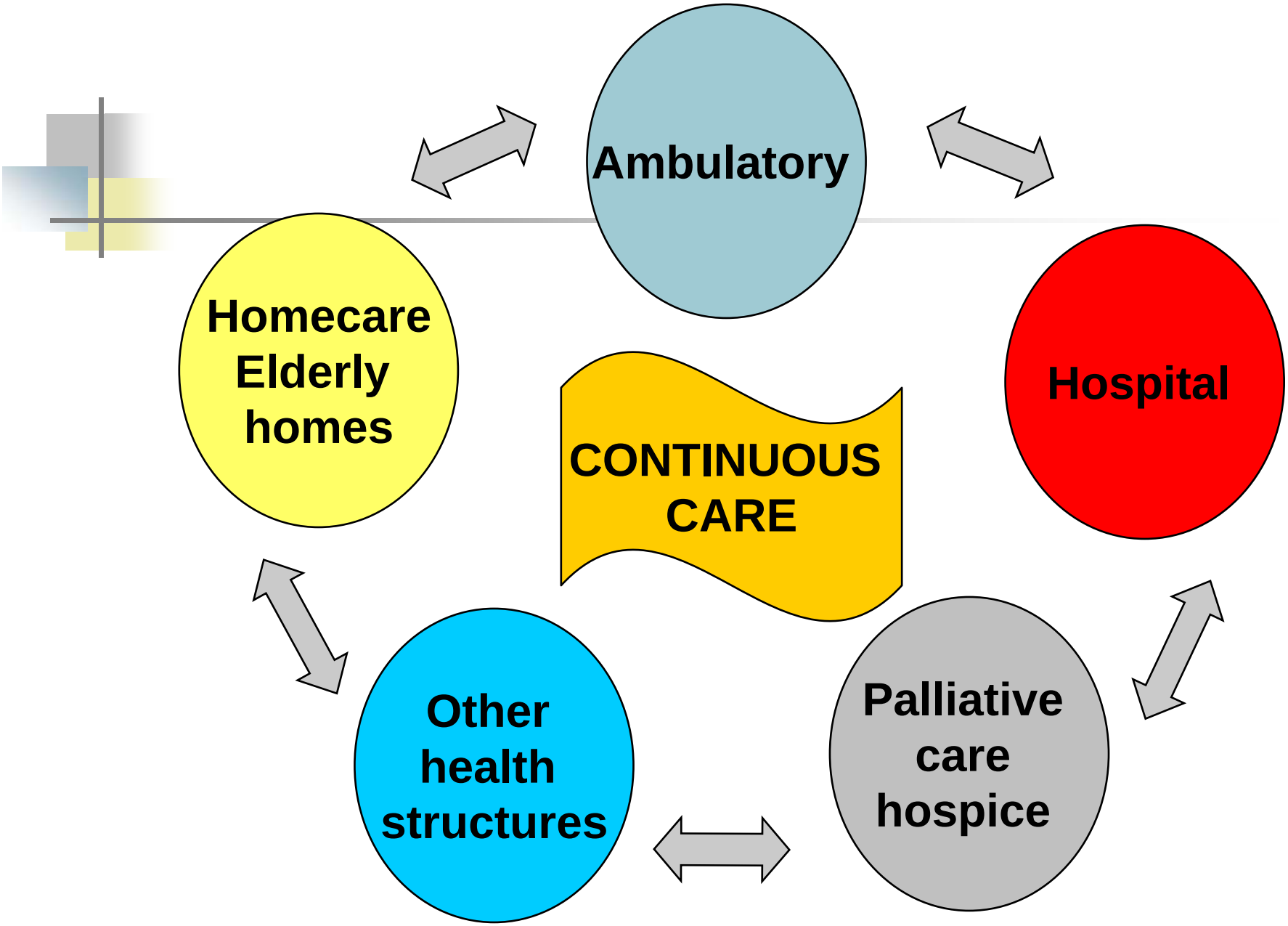
Complementarity between curative approach and palliative care



Usual trajectory

Minimal trajectory

Potential reversibilities


Ambulatory
Homecare
Elderly
homes
Hospital
CONTINUOUS
CARE
Other
health
structures
Palliative
care
hospice

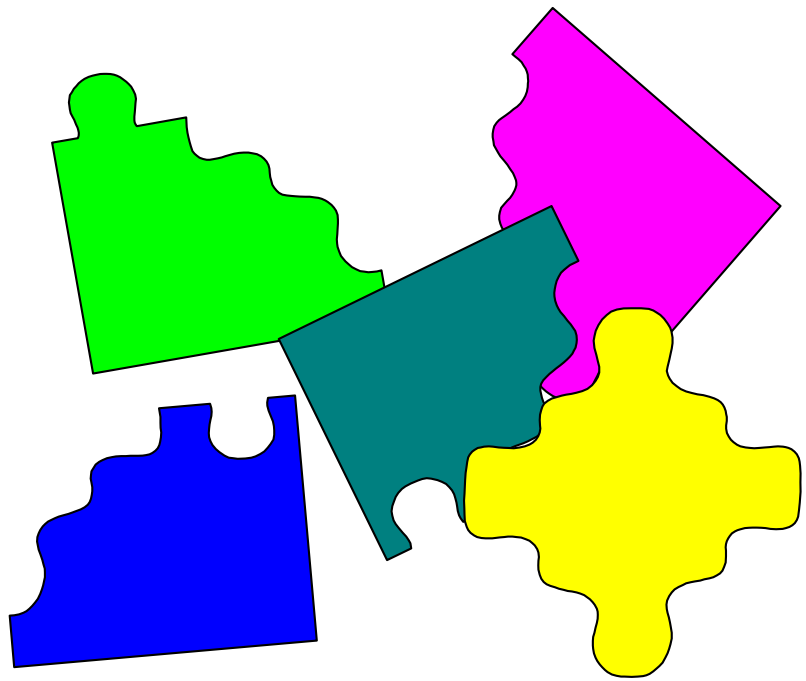
Guiding principles for service planning

Care for incurable patients: levels of care needed

1. **Palliative approach**

2. **Specialist palliative interventions**

3. **Specialist palliative care teams**



Levels of care needed

1. Palliative approach

Possible by all healthcare professionals, provided appropriate training, drug availability and recognition

* Central role of GP and nurse providing home visits

* Importance of care provided by family and friends, who need to be empowered as effective caregivers

Levels of care needed

2. Specialist palliative interventions

Provided by different specialists:

* Oncologists. Ex: chemo-hormone therapy for sensitive tumors
* Radio-oncologists. Ex: irradiation of bone mets, epidural spinal cord compression
* Surgeons. Ex stabilisation of an impending fracture
* Anesthesiologists. Ex: nerve blocks, coeliac plexus block

Levels of care needed

3. Specialist palliative care teams

- **Specially trained teams in:**

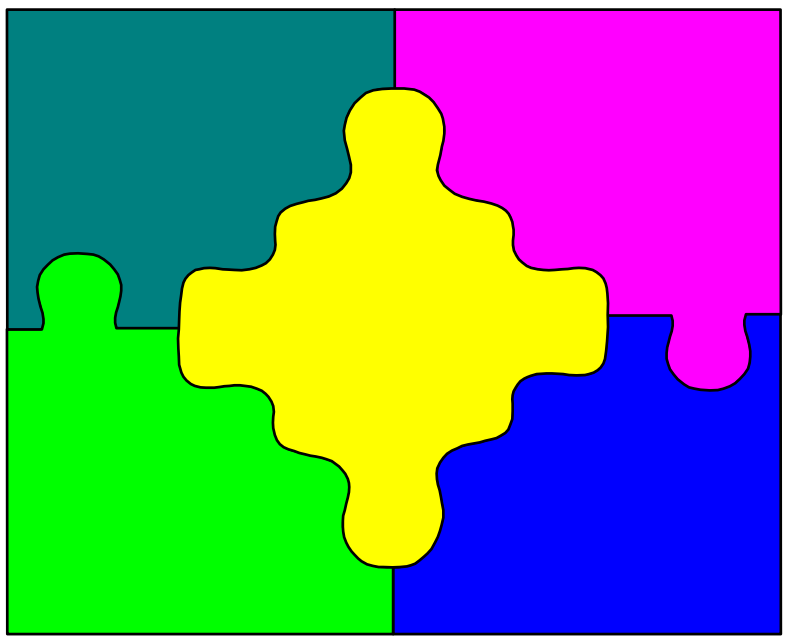
  * Inpatient hospices

  * Consult hospice or palliative care home care teams

  * Hospital palliative care consult teams

  Complex patient and family situations, support for the healthcare professionals, teaching and research

Care for incurable patients: levels of care needed



Each of those levels must learn to work in close communication and coordination with eachother

Foundation measures:

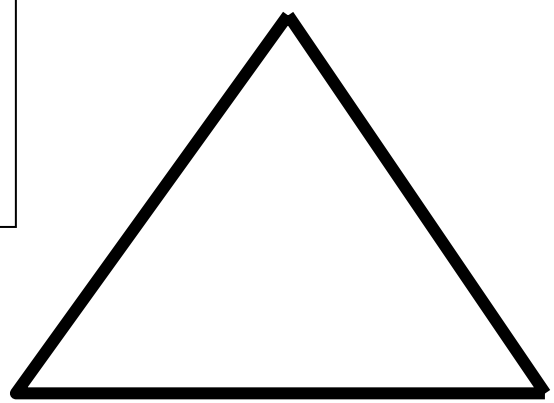
little cost, big effect (Stjernswärd J. JPSM 2002;24(2)259)

Education

-Public, professionals
- Undergraduate education for doctors and nurses
- Postgraduate training
- Advocacy (policy makers, administrators, drug regulators)

Drug availability

- Changes in legislation to improve availability especially of cost effective opioids
such as morphine sulfate tablets
- Prescribing made easier and distribution, dispensing and administration improved



Governmental policy

- National policy emphasizing the need to alleviate unnecessary pain and suffering of the chronically and terminally ill
- Governmental policy integrating PC into the healthcare system
- Separate systems of care are neither necessary nor desirable

Palliative care: importance of research and audit

Research and audit are necessary

- Assess and review needs:

  patients, families, community, healthcare system

- Set priorities

- Develop, implement, monitor and continuously improve palliative care delivery

Adjust services to local needs

- Burden of illness and symptom distress related to cancer, AIDS, tuberculosis, malaria, etc

  ➲ need to adapt tools to the main symptoms and problems

- Levels of literacy

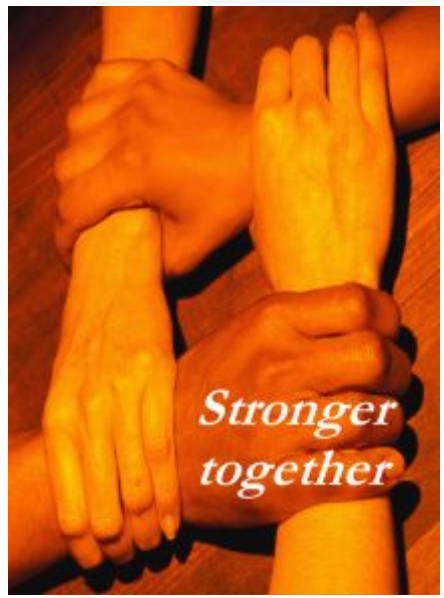
  ➲ completion of self-assessment forms difficult

- Beliefs and attitudes amongst patients, families and healthcare professionals, cultural context

  ➲ different communication strategies / organisation of care

Importance of networks and partnerships

- Share knowledge, ideas and practices
- Through creative and systematic efforts, collect informations and evaluate the most promising approaches
- Add visibility to palliative care



Palliative care: useful international organisations

- International Association for Hospice and Palliative Care www.hospicecare.com
- WHO Programme on Cancer Control
- EAPC (European Association for Palliative Care) www.eapcnet.org and www.eapcare.org
- Hospice Information Service St Christopher's Hospice London www.hospiceinformation.co.uk

Palliative care: some references

- Oxford Textbook of Palliative Medicine 2005
- Palliative Care in the developing world: principles and practice
- WHO guidelines on Cancer pain, opioid availability, symptom control and palliative care
- Ripamonti et al. Clinical-practice recommendations for the management of bowel obstruction in patients with end-stage cancer. Support Care Cancer 2001;9:223-233
- Edmonton Regional Pallative Care Program: www.palliative.org
  (useful contents about: clinical work, educational opportunities, informations for general public, links, research and literature)