Current Advances in Palliative Care Integration with Oncology Care?

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Oslo University Hospital and University of Oslo, Norway
More cancer patients are...

- Cured
- Living longer with metastatic disease
- Receiving prolonged end-of-life care

- Many patients will potentially experiencing late side effects from various therapies
Quality of life for the patients
An oncology, palliative and supportive care perspective

- Symptom control
- Improved survival
  - «Good physical performance – better survival»
- Psychological, social and spiritual concerns
- Loss at end of life
- Death
- Grief and bereavement
Six of several reasons for undertreatment of cancer pain, other symptoms and approaches to improve functions

- Insufficient knowledge about the pathophysiology of symptoms and of principles of symptom treatments
- Lack of optimal communication with and about patients
- Lack of standardised diagnostic tools
- Inadequate implementation of evidence-based guidelines for symptom management into clinical practice
- Radiotherapy is an effective pain treatment
- What about chemotherapy?

In an African setting

- I must be careful—little knowledge and experience

- “The use of drugs for pain relief per capita in high-resource settings is about 1000 times that in low-resource settings, showing substantial deficits in access to basic and essential medicines”

A comprehensive clinical approach

• Focus on the tumour-oncologist approach
• Focus in the host – palliative and supportive care approach
• The best clinical approach: Focus on the tumour and the host-”total care”
  – Can be achieved better by complementarity – oncology and palliative care
WHO’s definition of Palliative Care cont.

«Palliative care is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, ...........»
Palliative care: Totally integrated

Parikh *NEJM* 2013
Pain control
Are we good enough?

- 50% of all cancer patients will experience significant pain
- 70% of advanced cancer patients will experience pain
- 50% of these are not sufficiently treated

Teunissen et al. *J. Pain Symptom Manage.* 2007
Thronæs et al. *J. Supp Care in Cancer* 2015
Is it possible to detect an improvement in cancer pain management? A comparison of two Norwegian cross-sectional studies conducted 5 years apart

Morten Thronæs¹,² · Sunil X. Raj¹,² · Cinzia Brunelli¹,³ · Sigrun Saur Almberg² · Ola Magne Vagnildhaug¹,² · Susanna Bruheim¹ · Birgit Helgheim¹ · Stein Kaasa¹,² · Anne Kari Knudsen¹,²

- Comparison of two cross section studies 2008 vs 2014
- PROMS
• Pain prevalence 39% vs 35% NS
• BTP prevalence 43% vs 37% NS

Thronæs et al. Supportive Care Cancer 2015
Symptom Trends in the Last Year of Life From 1998 to 2010
A Cohort Study
Adam E. Singer, MPhil; Daniella Meeker, PhD, MS; Joan M. Teno, MD, MS; Joanne Lynn, MD, MA, MS; June R. Lunney, PhD, RN; and Karl A. Lorenz, MD, MSHS

For author affiliations, see end of text.
• Prevalence of pain increased: 54% to 61%
• Depression and periodic confusion increased: 27% to 31%
• For cancer no changes in pain prevalence
The ideal cancer pain classification system: Content

- Pain
- Other subjective symptoms and comorbidity
- Patient’s demographics
- Cancer disease
- Biomarkers
The ideal cancer pain classification system: Content

Pain domains

- Pain intensity
- Pain relief
- Breakthrough pain
- Neuropathic pain
- Localisation of pain
- Pain treatment
The ideal cancer pain classification system: Content

- Pain
- Other subjective symptoms and comorbidity
- Patient’s demographics
- Cancer disease
- Biomarkers
Other subjective symptoms and comorbidity

- Psychological distress (depression/anxiety)
- Cognitive functioning
- Physical functioning
- Addiction
- Sleep disturbances
- Adverse symptoms
- Other illnesses
The ideal cancer pain classification system: Content

- Pain
- Other subjective symptoms and comorbidity
- Patient’s demographics
- Cancer disease
- Biomarkers
Patient’s demographics

- Sex
- Age
- Social situation
The ideal cancer pain classification system: Content

- Pain
- Other subjective symptoms and comorbidity
- Patient’s demographics
- Cancer disease
- Biomarkers
The ideal cancer pain classification system: Content

Cancer disease

- Cancer diagnosis
- Localisation of metastases
- Anti-cancer treatment
The ideal cancer pain classification system: Content

- Pain
- Other subjective symptoms and comorbidity
- Patient’s demographics
- Cancer disease
- Biomarkers
Biomarkers

- Inflammation
- Genetics

Laird et al. *Pain* 2011
Klepstad et al. *Pain* 2011
International agreement on including:

- Pain intensity
- Breakthrough pain
- Neuropathic pain
- Psychological distress
A classification of chronic pain for ICD-11

Rolf-Detlef Treede, Winfried Rief, Antonia Barke, Qasim Aziz, Michael I. Bennett, Rafael Benoliel, Milton Cohen, Stefan Evers, Nanna B. Finnerup, Michael B. First, Maria Adele Giamberardino, Stein Kaasa, Eva Kosek, Patricia Lavand’homme, Michael Nicholas, Serge Perrot, Joachim Soloch, Stephan Schug, Blair H. Smith, Peter Svensson, Johan W.S. Vlaeyen, Shuu-Jiun Wang

June 2015 • Volume 156 • Number 6
A classification of chronic pain

- «Persistent or recurring pain lasting longer than 3 months»
Chronic cancer pain

- Pain caused by the cancer
- Pain caused by cancer treatment
Chronic cancer pain

• Subdivided into
  – Location
    • Visceral
    • Bony
      • Somatosensory (neuropathic)
  – Continuous (background pain)
  – Intermittent (episodic pain)
How may pain and symptom management be improved in all parts of the patient trajectory?

• Follow-up
  – Curative
  – Life-prolonging treatment

• During treatment
  – Palliative intervention

• Survivors
  – Late side effects
Clinical guidelines – do they work?

- Clinical guidelines are recommendations on the appropriate treatment and care of people with specific conditions – based upon the best available evidence.

National Institute for Health and Clinical Excellence
www.nice.org.uk
World Health Organization 1996
SCP – a method for achieving clinical practice of high quality

1. Clinical research
2. National guidelines
3. Standardized care pathways
4. Implementation into practice
5. Evaluation of clinical practice
E-P-A Definition of care pathway

• A care pathway is a complex intervention for the mutual decision making and organization of care processes for a well-defined group of patients during a well-defined period.
E-P-A Definition of care pathway

- The aim of a care pathway is to enhance the quality of care across the continuum by improving risk-adjusted patient outcomes, promoting patient safety, increasing patient satisfaction, and optimizing the use of resources.
E-P-A Definition of care pathway

• An explicit statement of the goals and key elements of care
• The facilitation of the communication among the team members
• The coordination of the care processes
• The documentation, monitoring, and evaluation of outcomes
• The identification of the appropriate resources.
Describe - classify the patient
Improves flexibility

- Step 1: Classify - in order to place the patients in the correct pathway (SCP)
- Step 2: Follow the SCP and also custom make if needed
- Step 3: Assess and re-assess the patient
- Step 4: Always consider to replace the patients in another SCP
Patient reported outcome measures are essential for cancer care
Traditional PROMs
## Traditional PROMs

**EORTC QLQ-C30**

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>A little</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?</td>
<td></td>
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</tr>
<tr>
<td>2. Do you have any trouble taking a long walk?</td>
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<tr>
<td>3. Do you have any trouble taking a short walk outside of the house?</td>
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<tr>
<td>4. Do you need to stay in bed or a chair during the day?</td>
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<tr>
<td>5. Do you need help with eating, dressing, washing yourself or using the toilet?</td>
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</tr>
</tbody>
</table>

**During the past week:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>A little</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Were you limited in doing either your work or other daily activities?</td>
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<tr>
<td>7. Were you limited in pursuing your hobbies or other leisure time activities?</td>
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<tr>
<td>8. Were you short of breath?</td>
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<tr>
<td>9. Have you had pain?</td>
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<tr>
<td>10. Did you need to rest?</td>
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<tr>
<td>11. Have you had trouble sleeping?</td>
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<tr>
<td>12. Have you felt weak?</td>
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<tr>
<td>13. Have you lacked appetite?</td>
<td></td>
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</tr>
</tbody>
</table>
Symptom assessment is central

Computer-based PROMs
Why computer-based PROMs?

- Can be completed at any site by the patients and be «sent» to the healthcare provider
- Intelligent way of asking – the next questions follows according to answers of the previous
- May give diagnostic guidance
- Electronically document and follow the needs of the patients
- Give decision support to
  - Patients
  - Health care providers
  - Family members
Decision support and palliative care

Patient

Specialist

www.ntnu.no/prc  European Palliative Care Research Centre (PRC)
Patient module at the clinic
Have you had any of these symptoms during the past week?

- Pain
- Shortness of breath
- Tiredness
- Anxiety
- Numbness in fingers or toes
- Drowsiness
- Insomnia
- More alternatives
Patient module – in clinic

How severe has your pain been on average the past week?

No pain

Worst possible pain
Patient module – in clinic

Could you please show me one painful area?
Patient module – in clinic

Could you please show me one painful area?

Cancel
Patient module – in clinic

How intense is the pain right here?

No pain

Worst possible pain
Patient module – in clinic

In this area - might your pain be described as:

<table>
<thead>
<tr>
<th>Burning</th>
<th>Tingling sensations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitive to touch</td>
<td>Pins and needles</td>
</tr>
<tr>
<td>Like electric shock</td>
<td>None of these</td>
</tr>
<tr>
<td>Numbness</td>
<td></td>
</tr>
</tbody>
</table>

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www.ntnu.no/prc  European Palliative Care Research Centre (PRC)
Health care provider screen
Health care provider screen

- Patient ID: EST102
- Last registration: 01.11.2014
- Wellbeing: NRS 4
- Performance status: 1-2
- Motinntak: Mindre enn normalt
- Weight: 67 kg → 65 kg / -3 %

Symptoms:
- Træthet: 6
- Savnåløsheit: 6
- Smerter: 4
- Nedsternethet: 4
- Når jeg spiser, blir jeg fort mett: 4
- Nummenhet i fingre eller tær: 3

Chart showing changes over time.
PATIENT ID: EST102
Eirin Steira
LAST REGISTRATION: 01.11.2014

Wellbeing: NRS 4
Performance status: 1-2
Food intake: Less than normal
Weight: 67 kg → 65 kg / -3%

Symptoms
- Drowsiness: 6
- Insomnia: 6
- Pain: 4
- Depression
- When I eat, I eat quickly
- Numbness in hands or toes
- Nausea
- Dry mouth

Pain
- Neuropathic pain: yes (reported by patient)
- Episodic pain: yes (reported by patient)
- Is pain cancer related: probably

POSSIBLE ACTIONS
- Increase or start opioids
  - Starting opioids:
    - Prescribe Dolcontin 20 mg x 2
    - Prescribe Short acting morphine 5-10 mg on demand.
    - Prescribe Laxantia
  - Increase opioids:
    - Increase Dolcontin based on use of short acting morphine
    - Increase dose of short acting morphine if insufficient effect.
    - Consider increasing frequency of short acting morphine.
    - Increase Laxantia
- Evaluate neuropathic pain further.
- Consider use of gabapentin.
- Prescribe short acting pain medication

Decision support

Intensity of pain site: 5
Descriptors neuropathic pain: Burning
Temporary flares of severe pain?: Yes
Intensity of pain flares: 10
Triggering factors of pain flares: Movement
Early integration Oncology and Palliative Care
The Palliative Medicine Unit (PMU)
University Hospital, Trondheim

• Opened in 1994
• In-patient (12 beds) and out-patient clinics and a multidisciplinary consultant team
• Within the department of oncology
• All doctors where trained in oncology and did PC
• Close cooperation with the community service
• Home care provided by family physicians and community nurses
• Hospital service provided by the PMU
“A palliative-care intervention and death at home: a cluster randomised trial”

Lancet 2000: 356:Sept.9; 888-893
Together – against cancer

National Cancer Strategy 2013–2017
National objectives

*Some key points for palliative care*

- «Early palliative care»
- Specialised palliative care
- Coordinated palliative care
- Better home-based care
- GP’s and home care nurses must be available for patients and their families
- Improved communication – information technology
- High level of competence in health care professionals
Effectiveness of Specialized Palliative Care: A Systematic Review

Camilla Zimmermann; Rachel Riechelmann; Monika Krzyzanowska; et al.


http://jama.ama-assn.org/cgi/content/full/299/14/1698

- 22 RCTs, 19 including cancer
- Strong evidence for family satisfaction with care
- 4/13 studies assessing QOL had significant results
- Many trials were underpowered
- Challenges with recruitment, attrition, and co-intervention
- None specifically assessed early palliative care in patients with cancer
US trials of early palliative care

**Bakitas et al, 2009, JAMA 302;7:741-749**
- early PC: telephone problem-solving intervention by APNs
- 322 pts, newly-diagnosed advanced GI, GU, lung, breast cancer
- prognosis of one year
- outcomes FACIT-Pal, ESAS, CES-D (every 3 months)
- **Results:** improved QOL, mood, but not symptom intensity or reduced days in hospital, ICU, emergency department

**Temel et al, 2010, NEJM 363;8:733-742**
- early PC: palliative care team (MD and APN)
- 151 pts, newly-diagnosed advanced non-small cell lung cancer
- ECOG 0, 1, 2
- outcomes FACT-Lung, HADS, PHQ-9 at 12 weeks
- **Results:** improved QOL, mood; longer survival (11.6 vs. 8.9 months), despite less aggressive treatment
Canadian trial of early palliative care

- Setting: Princess Margaret Cancer Centre, Toronto, Canada
  - 120-bed cancer centre
  - 18,000 new patients with cancer seen yearly
  - oncology outpatient clinics organized by tumour site

Palliative care clinic
- established 2002
- >1000 new patients seen yearly
- most patients seen late in cancer trajectory
Early palliative care for patients with advanced cancer: a cluster-randomised controlled trial

Camilla Zimmermann, Nadia Swami, Monika Krzyzanowska, Breffni Hannon, Natasha Leigh, Amit Oza, Malcolm Moore, Anne Rydall, Gary Rodin, Ian Tannock, Allan Donner, Christopher La

Early palliative care: palliative care team (MD and nurse)

461 patients in 5 sites: lung, gastrointestinal, genitourinary, breast, gynecological

• prognosis 6-24 months, ECOG 0-2
Overview of study design

24 oncology clinics

Cluster randomized 1:1
Stratified by tumour site

Early palliative care
- Seen within 4 weeks
- Follow-up monthly x 4 mo

Standard oncology care
- Palliative care on request
- Follow-up as required
Results (n=461)

3 months:
- FACIT-Sp: $p=0.07$
- QUAL-E: $p=0.05$
- FAMCARE-P-16: $p=0.0003$

4 months:
- FACIT-Sp: $p=0.006$
- QUAL-E: $p=0.003$
- ESAS: $p=0.05$
- FAMCARE-P-16: $p<0.0001$
Caregiver results (n=182)

- Significant improvement in satisfaction with care (FAMCARE) in the intervention compared to the control group over 4 months
Norway: 385 186 km², 5.200.000 inhabitants
“Test the efficacy of a complex intervention integrating oncology and PC services for cancer patients with life-expectancy <12 months who shall start chemotherapy"
Content of the intervention

➤ The intervention - 3 specific elements;
  ❑ Development & implementation of standardized care pathways
    ▪ The backbone for integration
  ❑ Systematic electronic assessment of symptoms
  ❑ An educational program for oncologists/PC physicians
Specific elements: Education program

- Major content
  - Prognostication, symptom-assessment & treatment, communication skills, care pathways, the intervention

- Common for oncologists and palliative care physicians

- Teaching modes
  - Lecturers, e-learning, skills-training
  - Adapted to SCPs and to be used at 6 different hospitals
  - Communication skills based upon Australian guidelines (2007)
    - Aims to empower the patient and the family
Electronic symptom assessment - Eir

- To be used at regular basis in consultations at hospitals
- The patients responds to IPADs before meeting physician
- Results transferred to physicians’ PCs
- Presented to physician as predefined output

Content
- Different PROMs (patient-reported outcome measures)
- Relevant for this population
Eir to be used prior to consultations in pathways

Eir for patients
- Patients respond on an iPad
- iPad connected to web

Eir for health care personnel
- Summing up patients’ responses
- Transferred via Internet
“Doctor” module
A contribution to Optimal Cancer Care

- “Early palliative-supportive care “ can contribute
  - More balanced use of chemotherapy during end of life
  - Better symptom management
  - Better emotional function
  - Better family care

- A total integration with the right use of palliative and supportive care resources will also help out in a hectic oncology outpatient clinic
  - But the palliative care specialist need to have competence on oncology
  - How much - need to be discussed to local needs