To learn about the role of supportive and palliative care for thoracic malignancies

What is Supportive & Palliative Care?

What is the Evidence for SO & PC Interventions in pts with thoracic malignancies?

Who should deliver these interventions (Oncologist? APNs? Specialist Teams?)

What shall I do tomorrow in my clinic?
Supportive care in cancer is the prevention and management of the adverse effects of cancer and its treatment. This includes management of physical and psychological symptoms and side effects across the continuum of the cancer experience from diagnosis through treatment to post-treatment care. Supportive care aims to improve the quality of rehabilitation, secondary cancer prevention, survivorship, & end-of-life care.

Multinational Association of Supportive Care in Cancer
Many aspects of supportive care

- Nutrition
- Anaemia
- Cardiotoxicity
- Fertility
- Neurotoxicity
- Psychological support
- Renal toxicity
- New Toxicities (Targeted drugs)

- Diarrhoe/Obstipation
- Antiemesis
- Neutropenia
- Fatigue
- Tumorlysis
- Thrombocytopenia
- Supportive measures in radiation therapy
- Bone complications
- Venous Thromboembolism
- Pulmonary Tox.
- Infections
- Paravasation
- Pain
- Lymphedema

→ Which are of relevance in pts with thoracic malignancies?
Many aspects of supportive care

Nutrition
Anaemia
Cardiotoxicity
Fertility
Neurotoxicity
Psychological support
Renal toxicity
New Toxicities (Targeted drugs)
Immunotherapy toxicities
Mucositis - Stomatitis
Diarrhoe/Obstipation
Antiemesis
Fatigue
Neutropenia
Tumorlysis
Thrombocytopenia
Supportive measures in radiation therapy
Bone complications
Venous Thromboembolism
Pulmonary Tox.
Infections
Paravasation
Pain
Breathlessness
Lymphedema
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<tr>
<th>Topic</th>
<th>Guidelines</th>
<th>Author &amp; Year</th>
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</thead>
<tbody>
<tr>
<td>Central Venous Access in Oncology</td>
<td>ESMO Clinical Practice Guidelines</td>
<td>B. Sousa, 2015</td>
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<td>Symptoms at the End of Life and the Use of Palliative Sedation</td>
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<td>ESMO Clinical Practice Guidelines on Palliative Care: Advanced Care</td>
<td>ESMO Clinical Practice Guidelines</td>
<td>D. Schrijvers, 2014</td>
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<td>Planning</td>
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<td>Bone Health in Cancer Patients</td>
<td>ESMO Clinical Practice Guidelines</td>
<td>R. Coleman, 2014</td>
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<tr>
<td>Cardiovascular Toxicity Induced by Chemotherapy</td>
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<td>G. Curigliano, 2012</td>
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“Supportive care in cancer is the prevention and management of the adverse effects of cancer and its treatment. This includes management of physical and psychological symptoms and side effects across the continuum of the cancer experience from diagnosis through treatment to post-treatment care. Supportive care aims to improve the quality of rehabilitation, secondary cancer prevention, survivorship, & end-of-life care.”

What matters are Supportive & Palliative Care Interventions delivered to every routine patient

Palliative Care – WHO

- provides relief from pain and other distressing symptoms;
- affirms life and regards dying as a normal process;
- intends neither to hasten or postpone death;
- integrates psychological & 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 in their own bereavement;
- uses a team approach to address the needs of patients and their families, including bereavement counseling, if indicated;
- will enhance quality of life, and may also positively influence the course of illness;
- 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, and includes those investigations needed to better understand and manage distressing clinical complications.
“Palliative care means patient and family-centered care that optimizes quality of life by anticipating, preventing, and treating suffering. Palliative care throughout the continuum of illness involves addressing physical, *intellectual*, emotional, social, and spiritual needs and to facilitate patient autonomy, access to information, and choice.”

**Patients with advanced cancer: Evidenced-based (Evidence Quality, Recommendation level)**

<table>
<thead>
<tr>
<th>Event</th>
<th>Evidence Quality</th>
<th>Recommendation level</th>
</tr>
</thead>
<tbody>
<tr>
<td>- referred to interdisciplinary palliative care teams</td>
<td>intermediate</td>
<td>strong</td>
</tr>
<tr>
<td>- consultation available both inpatient and outpatient care</td>
<td>intermediate</td>
<td>strong</td>
</tr>
<tr>
<td>- early in the course of disease, alongside active treatment</td>
<td>intermediate</td>
<td>moderate</td>
</tr>
</tbody>
</table>

**Newly diagnosed pts, referral < 8 weeks: In-formal consensus**

<table>
<thead>
<tr>
<th>Cancer patients with high symptom burden: Evidenced-based</th>
<th>Evidence Quality</th>
<th>Recommendation level</th>
</tr>
</thead>
<tbody>
<tr>
<td>and/or unmet physical or psychosocial needs outpatient cancer care programs shall use dedicated resources</td>
<td>intermediate</td>
<td>moderate</td>
</tr>
</tbody>
</table>

For family caregivers in outpatient setting: Evidenced-based

<table>
<thead>
<tr>
<th>nurses, social workers, et al. caregiver-tailored PC support</th>
<th>Evidence Quality</th>
<th>Recommendation level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>weak</td>
</tr>
</tbody>
</table>
Patients with advanced cancer should receive palliative care services, which *may* include referral to a palliative care provider.

**Essential components** of palliative care may include:

- Rapport and relationship building with patients and family caregivers
- *Symptom*, distress, and functional status management (e.g., pain, dyspnea, fatigue, sleep disturbance, mood, nausea, or constipation)
- Exploration of understanding & education about *illness* and *prognosis*
- Clarification of [anticancer] treatment *goals*
- Assessment and support of coping needs (e.g., dignity therapy)
- Assistance with medical *decision* making
- Coordination with other care providers
- Provision of referrals to other care providers as indicated

→ May adapt to local settings, may brand it «Supportive & Palliative Oncology» Service
71y old man, former smoker (30 py), Adenocarcinoma lung, Stage IV (lung, adrenal, LyNo, bones), no mutation (ALK, EGFR, other)
- Pain (3-8/10, chest wall), Fatigue (6), Anorexia (7), Anxiety (5), Depression (4), Weight loss 7%/3 months, BMI 21, Cough (20x/d)
- CIRS-G 0 (no relevant comorbidities), m-MMSQ & SQID negative

1st line **Carbo/Pemetrex** x 6 (@3 PR, @6 PD), Fatigue G2, Febrile NP
- NSAR, Bisphosponates (after teeth care), Opioids, education barriers
- Nutritional advice (many small meals, protein rich), constipation mgmt
- Shared care with Supportive & Palliative Oncology (+Cachexia) team

2nd line **Nivolumab** x 7, skin toxicity G1, PD
- Physical activity & strenght training advice, family support

not eligible current regionally open Phase I trial

3rd line **Docetaxel** wkly, x 8, Neurotox G2, Neutro-penia G3
- Local palliative bridge service, joint care with GP

Death in local hospital

**Topics covered**

CINV (chemotherapy-induced nausea/vomiting)

Neurotoxicity

Febrile Neutropenia

Geriatric Oncology

Fatigue

Cachexia

Cancer Palliative Care
## ACUTE Nausea and Vomiting: SUMMARY

<table>
<thead>
<tr>
<th>Emetic Risk Group</th>
<th>Antiemetics</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Non-AC</td>
<td>5-HT&lt;sub&gt;3&lt;/sub&gt; + DEX + NK&lt;sub&gt;1&lt;/sub&gt;</td>
</tr>
<tr>
<td>High AC</td>
<td>5-HT&lt;sub&gt;3&lt;/sub&gt; + DEX + NK&lt;sub&gt;1&lt;/sub&gt;</td>
</tr>
<tr>
<td>Carboplatin</td>
<td>5-HT&lt;sub&gt;3&lt;/sub&gt; + DEX + NK&lt;sub&gt;1&lt;/sub&gt;</td>
</tr>
<tr>
<td>Moderate (other than carboplatin)</td>
<td>5-HT&lt;sub&gt;3&lt;/sub&gt; + DEX</td>
</tr>
<tr>
<td>Low</td>
<td>5-HT&lt;sub&gt;3&lt;/sub&gt; or DEX or DOP</td>
</tr>
<tr>
<td>Minimal</td>
<td>No routine prophylaxis</td>
</tr>
</tbody>
</table>

**NOTE:** If the NK<sub>1</sub> receptor antagonist is not available for AC chemotherapy, Palonosetron is the preferred 5-HT<sub>3</sub> receptor antagonist.

**5-HT<sub>3</sub> = serotonin<sub>3</sub> receptor antagonist**

**DEX = Dexamethasone**

**NK<sub>1</sub> = neurokinin<sub>1</sub> receptor antagonist such as Aprepitant or Fosaprepitant or Rolapitant or Nepa**

**DOP = dopamine receptor antagonist**
## DELAYED Nausea and Vomiting: SUMMARY

<table>
<thead>
<tr>
<th>EMETIC RISK GROUP</th>
<th>ANTIEMETICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Non-AC</td>
<td>DEX or (if APR 125mg for acute: (MCP + DEX) or APR )</td>
</tr>
<tr>
<td>High AC</td>
<td>None or (if APR 125mg for acute: DEX or APR )</td>
</tr>
<tr>
<td>Carboplatin</td>
<td>None or (if APR 125mg for acute: APR )</td>
</tr>
<tr>
<td>Oxaliplatin,</td>
<td>DEX can be considered</td>
</tr>
<tr>
<td>or Anthracycline,</td>
<td></td>
</tr>
<tr>
<td>or Cyclophosphamide</td>
<td></td>
</tr>
<tr>
<td>Moderate (other)</td>
<td>No routine prophylaxis</td>
</tr>
<tr>
<td>Low and Minimal</td>
<td>No routine prophylaxis</td>
</tr>
</tbody>
</table>

**Medical Terms**

- **DEX** = Dexamethasone
- **MCP** = Metoclopramide
- **APR** = Aprepitant

*Slide from Karin Jordan, Heidelberg, 2.2017*
C I Peripheral Neuropathy: – clinical presentation

- **Type of polyneuropathy**
  - Distal-symmetric
  - Mostly lengths dependent
  - Glove and stocking distribution
  - Axonal-sensory
  - Loss of vibration sense
  - Loss of ankle jerks

- **Negative symptoms**
  - Numbness
  - Gaint disturbance
  - Trophic dysfunction
  - Vegetative dysfunction

- **Positive symptoms**
  - Neuropathic pain
  - Burning and tingeling
C I Peripheral Neuropathy: risk factors (patient/drugs)

Pre-existing diseases Chaudry et al., 2003
- Alcoholic or diabetic polyneuropathy
- Pre-existing immuno-neuropathy
- Hereditary polyneuropathy

Type of malignancy
- Multiple myeloma, amyloidosis
- SCLC with paraneoplastic anti-Hu syndrome

Prior exposure to neurotoxic agents
- Recurrent disease, x-line therapy
- Secondary malignancy

Age Akerley et al., 2003
- Older patients carry a higher risk
- More comorbidities

Cachexia Hundsberger et al., 2014
- Systemic inflammation
- Catabolic state

Drug-related factors
- Type of drug
- Cumulative dose
- Dose intensity
- Combination therapies
- Route of administration

No effective prevention available
(Hershman DL., JCO 2014; S3 Guideline "Supportive Therapy": K. Jordan AWMF#: 032-0540L)
Chemotherapy Induced Peripheral Neuropathy – symptomatic treatment

Moderate level of recommendation

- Duloxetine (sSRI*) effective / Dosage: 30 mg week 1. 60 mg week 2 §

Worth a try**

- Tricyclic antidepressants (e.g. also may use desipramine)
  - Nortriptylin (RCT, 100mg/d; 8 wks) Hammack 2002
  - Amitriptylin (RCT, 50 mg/d; 8 wks) Kautio 2008
- Gabapentin (RCT, 2700 mg/d; 6 wks) Rao 2007
  - Lamotrigin (RCT, 300 mg/d; 10 wks) Rao 2008
- Topical gel: Baclofen (10 mg), Amitriptylin (40 mg), Ketamin (20 mg) NO6CA/Barton 2011

* sSRI: Selective Serotonin Reuptake Inhibitor
** Explored evidence: no studys for chemotherapy-induced PNP (S3 Guidelines, K. Jordan et al.)

## Management of febrile neutropenia: ESMO Clinical Practice Guidelines

### Assessment of Frequency of FN

- **FN risk ≥ 20%**
  - Assess factors that increase the frequency/risk of FN
    - Age > 65 years
    - Other comorbidities

- **FN risk 10-20%**
  - Define the patient’s overall FN risk for planned chemotherapy regimen

- **FN risk ≤ 10%**
  - Reassess at each cycle

### Risk of febrile neutropenia

<table>
<thead>
<tr>
<th>Risk of febrile neutropenia</th>
<th>Recommendation</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>High &gt; 40 %</td>
<td>G-CSF</td>
<td>MAID, BEAC OPP</td>
</tr>
<tr>
<td>Moderate 20-40%</td>
<td>G-CSF</td>
<td>TAC, CHOP (qd14)</td>
</tr>
<tr>
<td>Intermediate 10-20% (additional individual risk factors)</td>
<td>G-CSF when individual risk factors are present</td>
<td>FOLFOX, FOLFIRI, Carboplatin/Etoposid</td>
</tr>
<tr>
<td>Low &lt; 10% (no individual risk factors)</td>
<td>NO administration of G-CSF</td>
<td></td>
</tr>
</tbody>
</table>

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S3 Guideline "Supportive Therapy": K Jordan, F Jahn 2016  AWMF# 032-054OL

Slide from Karin Jordan, Heidelberg, 2.2017; adapted by FS
Still controversial: Definition of individual risk factors

Relevance of individual risk factors

<table>
<thead>
<tr>
<th>ASCO-2015</th>
<th>EORTC-2010</th>
<th>NCCN-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Age 65 years</td>
<td>• Older age (≥65 years)</td>
<td>• Prior chemotherapy or radiation therapy</td>
</tr>
<tr>
<td>• Advanced disease</td>
<td>• Advanced disease/metastasis</td>
<td>• Persistent neutropenia</td>
</tr>
<tr>
<td>• Previous chemotherapy or radiation therapy</td>
<td>• Prior episode of FN</td>
<td>• Bone marrow involvement by tumor</td>
</tr>
<tr>
<td>• Preexisting neutropenia or bone marrow</td>
<td>• No antibiotic prophylaxis</td>
<td>• Recent surgery and/or open wounds</td>
</tr>
<tr>
<td>involvement with tumor</td>
<td>• No G-CSF use</td>
<td>• Liver dysfunction (bilirubin &gt;2.0)</td>
</tr>
<tr>
<td>• Infection</td>
<td>• Poor performance and/or nutritional status</td>
<td>• Renal dysfunction (creatinine clearance &lt;50)</td>
</tr>
<tr>
<td>• Open wounds or recent surgery</td>
<td>• Female gender</td>
<td>• Age &gt;65 years receiving full chemotherapy</td>
</tr>
<tr>
<td>• Poor performance status or poor nutritional</td>
<td>• Haemoglobin &lt;12 g/dL/anaemia</td>
<td>dose intensity</td>
</tr>
<tr>
<td>status</td>
<td>• Cardiovascular disease</td>
<td>• Other:</td>
</tr>
<tr>
<td>• Poor renal function</td>
<td>• Renal disease</td>
<td>• Poor performance</td>
</tr>
<tr>
<td>• Liver dysfunction, most notably elevated</td>
<td>• Abnormal liver transaminases</td>
<td>• HIV- infections</td>
</tr>
<tr>
<td>bilirubin</td>
<td>• Low pre-treatment or pre-cycle ANC</td>
<td></td>
</tr>
<tr>
<td>• Cardiovascular disease</td>
<td>• Serum albumin &lt;3.5 g/dL</td>
<td></td>
</tr>
<tr>
<td>• Multiple comorbid conditions</td>
<td>• Prior chemotherapy</td>
<td></td>
</tr>
<tr>
<td>• HIV infection</td>
<td>• Prior infection</td>
<td></td>
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S3 Guideline "Supportive Therapy": K Jordan, F Jahn 2016 AWMF# 032
Individual risk factors for Neutropenia

4.16. Consensus-based Statement

An individual risk factor can not be clearly identified. The following factors, in particular when they occur in combination, probably increase the risk for febrile neutropenia:

- **Age > 65 years**
- **Low performance status (low Karnofsky Index, high ECOG)**
- **Comorbidities** (COPD, Heart failure NYHA III-IV, HIV disease, Autoimmune disease, significantly impaired renal function)
- **Highly advanced symptomatic tumor disease**
- **Chemotherapy in the past**
- **Laboratory parameters** (anemia, lymphocytopenia < 700/µl, hypalbuminemia, hyperbilirubinemia)

→ Issues of Geriatric Oncology, Cancer Cachexia & Malnutrition and Cancer Palliative Care

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### Individual risk factors for Neutropenia

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<td>- Female gender</td>
<td>- Age &gt;65 years receiving full chemotherapy dose intensity</td>
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S3 Guideline "Supportive Therapy": Karin Jordan
Guideline coordinator, Franziska Jahn Guideline
secretary 2016, AWMF Register-No: 032-054OL

Slide from Karin Jordan,
Heidelberg, 2.2017; adapted by FS
Medical treatment of cancer: some specific issues for the older patient

- renal clearance: SIOG guidelines
- anemia: EORTC guidelines
- febrile neutropenia: EORTC guidelines
- issues in symptom control (confusional status with morphine, cancer pain, etc.),
- diabetes as a complicating factor
- bone health (prostate & breast cancer treatment): SIOG guidelines
- risk (toxicity prediction) & benefit assessment: Hurria (CARG) / Extermann (CRASH)
- issues with "targeted" agents….and « immunotherapy »

Screen all patients ≥ 70 years with G8 tool

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* SIOG (Intl. Society Geriatric Oncology) Guidelines: www.SIOG.org

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Cancer (treatment-) Related Fatigue

- 2-week period significant fatigue
- feel weak all over or heavy all over?
- trouble concentrating or paying attention
- losing your interest or desire to do things
- trouble falling asleep, staying asleep
- don’t feel rested or refreshed

→ side-effect of anticancer treatments in curative & non-curative situations
→ Causes are not fully understood: inflammatory, «neuro-hormonal»

Fatigue in cancer patients – «PS»

→ In clinical reality many co-occurring causes, need step-wise assessment

Phenotype approach

Physical  Emotional
Cognitive  Mixed

In clinical practice: screen for Fatigue, if ≥ 4/10, assess phenotypes first:

«How much are you tired because:»
- Cognitive: Problems thinking, concentrate, dizzy
- Emotional: No meaning, no energy, depressed
- Physical: No strength in the body, muscle weak

Strasser F, Käser I, Dietrich D. JPSM 2009;38:505-14
Mechanistic approach: search causes

- Malnutrition: nutritional intake measurement & impact causes, weight loss
- Cancer cachexia: weight loss, anorexia, CRP, tumor activity & influncability
- Side effect cancer-directed therapy: history
- Depression: ESAS, Hospital AnxietyDepression Scale (scores <10, 10-12, >12)
- Uncertainty: illness- and prognosis-understanding
- Pharmacological: history & reality check, opiates, benzod., antidepress., etc.
- Delirium: DOS, other tools, fluctuation during the day
- Dehydration: history (urin, oral intake), skin, neck veins
- Electrolyte: Phosphate, Calcium, Na & ev Osmolality, Glucose, ev Mg
- Organ-Function: kidney, liver, heart, lung (RR, O2-Sat)
- Infection: history, dynamics of CRP (double in 2-3 days), ev. ProCalcitonin
- Endocrine: TSH, free Testosteron (male)
- Anemia (Hb < 10g/dl)
- Sleep-disturbances (e.g. symptoms)
How do I manage in clinical practice a fatigued patient?

● «symptomatic» Intervention → *Patients without «clear» cause*
  - *Methylprednisolon* 16mg bid¹ / 7d or Dexamethasone 4 mg bid / 14d²
  - Methylphenidate 5-10mg bid (controversial in multiprofessional care³, worth a try)

● Tailored, mechanism-based Intervention
  → *Malnutrition*: treat Secondary Nutrition Impact Symptoms, protein-rich food⁴
  → *Cachexia*: multimodal care . nutrition, education & SNIS important
    . physical activity / strength training, education
    . psycholog. care incl. family, illness understand.

  → *Delirium*: symptomatic & cause-specific treatment
  → *Depression*: Psychotherapy, counselling, SSRIs
  → *Anemia*: Blood transfusions, consider EPO
  → *Electrolytes, Organs, Endocrine, Infection*Internal Medicine

Sarcopenia

Malnutrition

Cachexia

Weight loss¹
Edema
Muscle mass

2d food diary²
Symptoms
S-NIS³

CRP, Albumin⁴
NLR, Tumor «activity»

I. Depletion of Reserves
Muscle & Fat loss

II. Limitation of food intake
Gut-brain-axis

III. Catabolic Drivers
Inflammation, ...

IV. Impact and outcomes

Sarcopenia: poorer Survival more Toxicity

4: Laird BJ Clin Cancer Res 2013;5456
Multidimensional Cachexia interventions delivered by multiprofessional teams

- **Nutritional intake** (educate, oral nutrition supplement; alleviate distress)\(^1,2\)
- **Physical activity & strength** increase & maintenance\(^3\)
- **Disease coping, life goals**, support of and by **family**\(^4\)
- **Tumor control** - slowing progression / activity\(^5\)
- **Various anti-cachexia drugs** (some [maybe] soon available)\(^6\)

**«Best Supportive Care\(^1\)»**
**«Early Integrated Palliative Care\(^2\)»**

| 1: Cherny JCO 2009; Zafar Lancet Oncol 2012 |
Palliative Care Interventions (PCIs)

Definable interventions as part of the specialist PC «package»

From the US Mass General RCT: documented PCIs

Few AdvCarePlan: expanded role of modern PC beyond just end-of-life care issues

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1: Temel J et al. JCO 2016; Dec 28
2: Roeland EJ JCO 2017;1-3
Incurable Lung Cancer (NSCLC, SCLC, Mesoth)

Incurable non-CRC GI Cancer (pancreatic, esophageal, gastric, hepatobiliary)

Effects of specialized Palliative Care are different in incurable Lung and non-CRC GI Cancer Patients

«Dose» of specialized PC in 24 weeks: 6.54 (mean, range 0-14)

→ Once a month: recommended dose*

Temel J et al. JCO 2016; Dec 28
Ferrrel BL et al. JCO 2017;35:96-112
<table>
<thead>
<tr>
<th>Pharmacological</th>
<th>Procedural (e.g. pleural pct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational</td>
<td>(e.g. prognosis)</td>
</tr>
<tr>
<td>Counselling</td>
<td>(e.g. decisions)</td>
</tr>
<tr>
<td>Coaching, Empower</td>
<td>(e.g. prompt list)</td>
</tr>
<tr>
<td>Psychological</td>
<td>(e.g. behavioural)</td>
</tr>
<tr>
<td>Coordinative</td>
<td>(e.g. HCP network)</td>
</tr>
</tbody>
</table>

**Complex: relevant interactions between interventions**

**Simplified PCIs**

- **Illness understanding**
  (prognosis, mechanism, trajectory)

- **Symptom control**
  (bio-psycho-social-spiritual)

- **Decision processes**
  (cancer-specific Tx, nutrition, ...)

- **Continuity of care Network**
  (various HCP, home-out- inpat)

- **Care of family members**
  (incl. pre-mortal grief, coaching)

- **End of life preparation & care**
  (family; double way, legacy, dying)

- **Spirituality**
  (meaning, transcendence, ..)

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Many HCPs believe patients and caregivers should be told the truth about the prognosis → but in practice avoid discussion / withhold info¹

- no time (?)
- fear of a negative impact on patient
- uncertain prognosis
- family requests
- feel inadequate/hopelessness

Illness & Prognosis Understanding Intervention

In daily practice: HCP learn and apply, empower patients

- Ask proactive patients about their illness understanding „In your own words, what do you tell proxies what you have?“

- Truth telling about prognosis, expected trajectory² worst (5%) & best case (95%) scenarios: weeks, months, years

- Fair information to make decisions, use time left well → normalization approach: „many patients want to know...“

Question prompt list: patients can ask clinicians³

Communication skills training for oncologists important⁴

Many symptoms are still poorly controlled
- insufficient access to drugs (e.g., opioids)¹
- no proactive screening
- non-specialized setting²
- silent symptoms (fatigue, depression) neglected

**Symptom Control Intervention(s)**

Manage symptoms & syndromes **multidimensional**
- physical, emotional, intellectual, social, spiritual

Define **Syndrome** and **risk factors**
- Pain: incident, neuropathic, cognitive, emotional⁶
- Cachexia: concurrent malnutrition, constipation⁷
- Depression: concurrent delirium, dementia

**Management** by drugs, education, counseling, etc.⁸
- always consider mechanism, ev. location
- always ask for impact of symptom on quality of life
- pharmacological management: Guidelines⁸

1: Cherny N Ann Oncol 2013;S11:xi7-13
2: Greco MT JCO 2014;32:4149-54
3: Berry DL JCO 2014;32:199-205
5: Basch E JCO 2016;34:557-65
7: Aapro M Ann Oncol 2014;25:1492-9
8: Sheinfeld Gorin S et al. JCO 2012; 30:539-547
Edmonton Symptom Assessment System Revised (ESAS-R)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Scores (0-10)</th>
<th>Worst Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Pain</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Pain</td>
</tr>
<tr>
<td>No Tiredness</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Tiredness</td>
</tr>
<tr>
<td>No Drowsiness</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Drowsiness</td>
</tr>
<tr>
<td>No Nausea</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Nausea</td>
</tr>
<tr>
<td>No Lack of Appetite</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Lack of Appetite</td>
</tr>
<tr>
<td>No Shortness of Breath</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Shortness of Breath</td>
</tr>
<tr>
<td>No Depression</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Depression</td>
</tr>
<tr>
<td>No Anxiety</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Anxiety</td>
</tr>
<tr>
<td>Best Wellbeing</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Wellbeing</td>
</tr>
<tr>
<td>No Other Problem</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Other Problem</td>
</tr>
</tbody>
</table>

Watanabe SM JPSM 2011;41:456-68

- Completed in daily routine care
- as paper or by computer
- verbally
- by a Scale Device

Can be completed by proxies, HCP

- Patient
- Family caregiver
- Health care professional caregiver
- Caregiver-assisted

www.palliative.org/NewPC/professionals/tools/esas
Who should deliver Supportive & Palliative Care Interventions?
Role of Medical Oncologist

Evidence for specialized PC teams → but Medical Oncology Curriculum includes many topics

Primary Palliative Care by Oncologists: see Bickel KE et al. JOP 2016;12:e828-38

Palliative care and oncology have roles that are distinct and overlapping

A medical oncologist may need to train 3 months in a specialized palliative care unit during the 3 year Curriculum
Referral criteria for outpatient Palliative Care

Which Patients? When?

The 11 major criteria

**Methods**: 60 int'l Cancer PC experts (26 North America, 19 Australia/Asia, 11 Europe) rated 39 needs-based & 22 time-based criteria, 3 iterative rounds

Hui D Lancet Oncol 2016;17:e552-e559
Practice change in my clinic fostering Supportive & Palliative Care Interventions

- Implement routine **screening** for main **symptoms** (e.g. ESAS)
- Proactively monitor anticancer treatment **toxicities** incl. pts **impact**
- Deliver and document in flow charts main **Palliative** and **Supportive care Interventions** (pharmacologic, education, coordination, etc.)
- **Collaborate** with other health care professionals¹
- **Rotate** three months in a specialized Palliative Care Service, OR become a **double boarded** Palliative Oncologist²

²: Hui D JCO 2015;33:2314-7
Thank you
florian.strasser@kssg.ch
**Patient-centred care** requires adequate assessment of patients cachexia domains

<table>
<thead>
<tr>
<th>Reserves</th>
<th>Weight loss history (%; 1, 2, 6 mts), <strong>BMI</strong> check for edema (thigh), <em>(if fluid retention consider CT L3/4 or DEXA)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intake</strong></td>
<td><strong>2 day diet diary</strong>, % kcal/protein / needs (Harris Benedikt) Appetite, hunger, satiety, taste/smell</td>
</tr>
<tr>
<td>(gut-brain)</td>
<td><strong>Search nutrition impact symptoms</strong> (S-NIS checklist, PG-SGA), <strong>treat</strong></td>
</tr>
<tr>
<td><strong>Catabolism</strong></td>
<td><strong>Estimate cancer disease dynamics &amp; responsiveness to Tx</strong> <strong>CRP &gt;10mg/l</strong> (no clinical infection, consider PCT/CRP) <strong>Albumin</strong></td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td><strong>Physical function (KPS), muscle strength</strong> (stairs – floors) <strong>Estimate Patients Motivation/Participation</strong></td>
</tr>
</tbody>
</table>

→ Decide on cachexia phase* and goals of intervention

Malnutrition (Starvation) caused by:

- Diet mistakes / misconceptions: too healthy, ..
- neglect for maintenance of nutritional intake
  - “no eating” due to procedures, hospitalization\(^1\)
  - helping patients to eat (edentulousness\(^1\))
- **Secondary Nutrition-Impact symptoms**\(^2\)
  - Pain, breathlessness, constipation, dysgeusia, ...
  - Periods of nausea/vomiting, stomatitis, dysphagia, gastric acid
  - (partial) bowel obstruction, diarrhea, malabsorption, prolonged constipation, ..
- **Cachexia**

PC—an expert interdisciplinary approach focused on patient and family-centered support that anticipates, prevents, and treats suffering throughout the continuum of illness—not only improves quality of life (QoL) but also improves symptom burden, mood, caregiver outcomes, end-of-life outcomes, health-care use, and possibly even survival. Most importantly, not a single study has shown any harm.

Fig 1. Palliative care integration in modern cancer care.

Understanding what constitutes an effective PC intervention is key to implementation across diverse cancer types

Roeland EJ. JCO 2017:1-3
# Recommendation Type and Strength

<table>
<thead>
<tr>
<th>Type of Recommendation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence based</td>
<td>There was sufficient evidence from published studies to inform a recommendation to guide clinical practice.</td>
</tr>
<tr>
<td>Formal consensus</td>
<td>The available evidence was deemed insufficient to inform a recommendation to guide clinical practice. Therefore, the Expert Panel used a formal consensus process to reach this recommendation, which is considered the best current guidance for practice. The Expert Panel may choose to provide a rating for the strength of the recommendation (ie, “strong,” “moderate,” or “weak”). The results of the formal consensus process are summarized in the guideline and reported in the Data Supplement.</td>
</tr>
<tr>
<td>Informal consensus</td>
<td>The available evidence was deemed insufficient to inform a recommendation to guide clinical practice. The recommendation is considered the best current guidance for practice, based on informal consensus of the Expert Panel. The Expert Panel agreed that a formal consensus process was not necessary for reasons described in the literature review and discussion. The Expert Panel may choose to provide a rating for the strength of the recommendation (ie, “strong,” “moderate,” or “weak”).</td>
</tr>
<tr>
<td>No recommendation</td>
<td>There is insufficient evidence, confidence, or agreement to provide a recommendation to guide clinical practice at this time. The Expert Panel deemed the available evidence as insufficient and concluded it was unlikely that a formal consensus process would achieve the level of agreement needed for a recommendation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating for Strength of Recommendation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong</td>
<td>There is high confidence that the recommendation reflects best practice. This is based on (1) strong evidence for a true net effect (eg, benefits exceed harms); (2) consistent results, with no or minor exceptions; (3) minor or no concerns about study quality; and/or (4) the extent of Expert Panels’ agreement. Other compelling considerations (discussed in the guideline’s literature review and analyses) may also warrant a strong recommendation.</td>
</tr>
<tr>
<td>Moderate</td>
<td>There is moderate confidence that the recommendation reflects best practice. This is based on (1) good evidence for a true net effect (eg, benefits exceed harms); (2) consistent results, with minor and/or few exceptions; (3) minor and/or few concerns about study quality; and/or (4) the extent of Expert Panels’ agreement. Other compelling considerations (discussed in the guideline’s literature review and analyses) may also warrant a moderate recommendation.</td>
</tr>
<tr>
<td>Weak</td>
<td>There is some confidence that the recommendation offers the best current guidance for practice. This is based on (1) limited evidence for a true net effect (eg, benefits exceed harms); (2) consistent results, but with important exceptions; (3) concerns about study quality; and/or (4) the extent of Expert Panels’ agreement. Other considerations (discussed in the guideline’s literature review and analyses) may also warrant a weak recommendation.</td>
</tr>
</tbody>
</table>
Evidence of Palliative Care: specialized teams

- **US Lung Cancer** (Temel, NEJM 2010)  QoL, Depression, Survival
- **US Lung & non-crc GI** (Temel, JCO 2016)  QOL Lung wk 12/24, GI wk24
- **US Hemonc trspl.** (El-jawahri JCO 2016)  Prognostic awareness
- **Canadian** (Zimmermann, Lancet 2014)  Qol wk 2
- **ENABLE I, II, III** (Bakitas, JCO 2015)  QoL Pat & Caregiver, Survival
- **Japan** (Nakajima JPSM 2014)  Communikation, QOL
- **Denmark** (Groenvold, DanPact EAPC 2015)  negativ (Intensity PC too low)
- **Italy** (Franciosi ESMO 2016)  negative (contamination?)
- **US** (Ferrel, JPSM 2015)  Family QoL, Survival
- **Japan** (Murakami BMC Pall 2015)  Survival
- **England** (Higginson Lancet Resp 2015)  Qol, Survival
The Palliative Intervention Illness understanding improves Outcomes

### Prognostic Understanding and Communication Outcomes

<table>
<thead>
<tr>
<th>Measure</th>
<th>Usual Care</th>
<th>Early PC</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary goal of cancer treatment is cure</td>
<td>34.5%</td>
<td>28.7%</td>
<td>0.29</td>
</tr>
<tr>
<td>Prefer to extend life as long as possible, even if meant more pain and discomfort</td>
<td>34.5%</td>
<td>33.6%</td>
<td>0.99</td>
</tr>
<tr>
<td>Knowing about prognosis is very/extremely helpful for:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making decision about treatment</td>
<td>89.8%</td>
<td>96.5%</td>
<td>0.043</td>
</tr>
<tr>
<td>Coping with the disease</td>
<td>83.6%</td>
<td>97.3%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Discussed wishes about care if dying</td>
<td>14.5%</td>
<td>30.2%</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Greer, El-Jawahri, [et al.] Temel: Pall Onc 2016
3728 pts & caregiver rated 26 concerning issues of support related to their cancer\(^1\).
- 91% „making decisions about about care“ in top categories important & very important.

Syst Lit Rev 5 databases decision making\(^2\)
- 37 articles (original research, western, adult)

Majority pts want participate in DM process
- Most not achieve level of involvement:
  - Decisions are delayed.
  - Alternative treatment options not discussed.

Anticancer treatment close to end-of-life «aggressive», if no spec. Pall Care unit\(^3\).

---

### Decision support Intervention

#### Preparing the decisional encounter\(^4\)
- Consider emotional burden of patient
- Assess illness & prognosis understanding
- Check individual meaning of hope
- Relate symptoms to cancer disease
- Address family emotional / logistic burden
- Discuss preparation for End-of-Life
- Ask for preferred decisional involvement

#### Decision\(^4\)
- Define specific goal, when & how measure
- Inform about non-abandonment if no Tx
- Prepare worst & best case scenarios
- Empower pts to cope with & report toxicity

---

1: Gralla RJ Supp Care Cancer 2011;19(S2);S160
2: Bélanger E Palliat Med 2011;242-61
4: Ribi K […] Strasser F; submitted
Continuity of care Network Intervention

Prepare with the multiprofessional team a **concrete care plan** for community-based patients
- what symptoms are expected, what drugs needed
- who will assess patient, who gives drugs, how?
- who cares for the patients’ care needs?
- which phone numbers 1\textsuperscript{st} – 2\textsuperscript{nd} - 3\textsuperscript{rd} to call? 24/7

Care of family members Intervention

Discuss & acknowledge family members double role
- carer, advocate, „nurse“, coordinator,..
- own burden, grief work, prepare role after death

Preparing for End-of-life Intervention

Evidence That Early Communication About Goals of Care and End-of-Life Preferences Improves Care

End-of-life conversations are associated with better quality of life, reduced use of life-sustaining treatments near death, earlier hospice referrals, and care that is more consistent with patient preferences. Patients who received early palliative care showed significant improvements in quality of life and mood, and survived 25% longer.

Patients who engaged in advance care planning were more likely to have their wishes known and followed.

Preparation for the end of life is associated with improved bereavement outcomes for family.

Intervention is (cost-) effective

Discuss living will, DNR, value-based diagnostic / therapeutic interventions

Solve legal and financial issues

Support concrete legacy work (dignity therapy\(^2\), narratives, books)

Use of remaining life time & finish business: dreams, duties, people, etc.

Support pre-mortal grief work

Preferred place of death, funeral

Care in dying phase (awakeness, skin care, pastoral care, catheter, etc.)

Prepare family for after death roles

1: Zhang B Arch Int Med 2009;169:480-8
2: Chochinov HM Lancet Oncol 2011;12:753-6
Martinez M Palliat Med 2016 Aug 26
966 PC service items as candidate elements of primary PC for pts with advanced cancer or high symptom burden. Modified Delphi by 31 experts: importance, feasibility, scope within medical oncology practice.

Bickel KE et al. JOP 2016;12:e828-38
Referral criteria for outpatient Palliative Care

When?

Hui D Lancet Oncol 2016;17:e552-e559
Hui D Oncologist 2016;21:895-901