# Palliative Care in the Head and Neck Cancer Patient

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# Talk Outline

- What is palliative care?
- Practical palliative care applications
  - Role of surgery, radiation, chemotherpy
  - Symptom and psychosocial factors
- Integration of palliative care into head and neck practice

# What is Palliative Care?

***Palliative care is interdisciplinary care that provides support for the physical, emotional, and psychological suffering of patients and their families with any advanced illness, regardless of age, diagnosis or life expectancy***

# Palliative Care in Head and Neck Cancer

**Goals of Palliative Care:**

- **Prevent and relieve suffering**
- **Improve quality of life**

**Role of Palliative Care:**

- **Relevant to curative *or* end-of-life care**

# Palliative Care Applications in Head and Neck Cancer: Surgery, Chemotherapy, and Radiotherapy

# Surgery, Chemotherapy, and Radiotherapy

**Surgery**: Airway compromise (e.g., trach), nutritional access (e.g., PEG), other palliative applications for local disease

**Chemo**: Reduce symptom burden due to progressive local and/or distant disease

**Radiation**: Reduce symptom burden due to progressive local disease

# Advanced Disease: Surgery, Chemotherapy, and Radiotherapy

- Weigh goals of care with risks/benefits treatment
- Consider predictors of survival[1]
  - KPS<70, median survivals ~ 2-3 months
  - Others: histology, extent of systemic disease, chemo-sensitivity
- Ongoing EOL discussions[2]
  - EOL discussions → less aggressive care and better QOL at EOL.
  - EOL discussion→ no association w/ poor mental health outcomes (e.g., depression)
  - Only ~35% pts report having EOL discussions

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1. Chow et al. *JCO* 26(36): 5863-9, 2008
2. Wright et al. *JAMA.* 2008;300(14): 1665-1673.


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# Example: Palliative RT Dose

- AIIMS palliative HN RT (n=505) 20Gy in 5 fx[1]
  - ➢50% symptom improvement
  - ➢Median PFS ~3mo
- Tata Memorial palliative HN RT (n=109) 40-50Gy in 16-20 fx[1]
  - ➢74% >50% reduction in symptoms
  - ➢1 year PFS 55%
  - ➢Dose >40Gy predicted PFS
  - ➢63% grade III mucositis

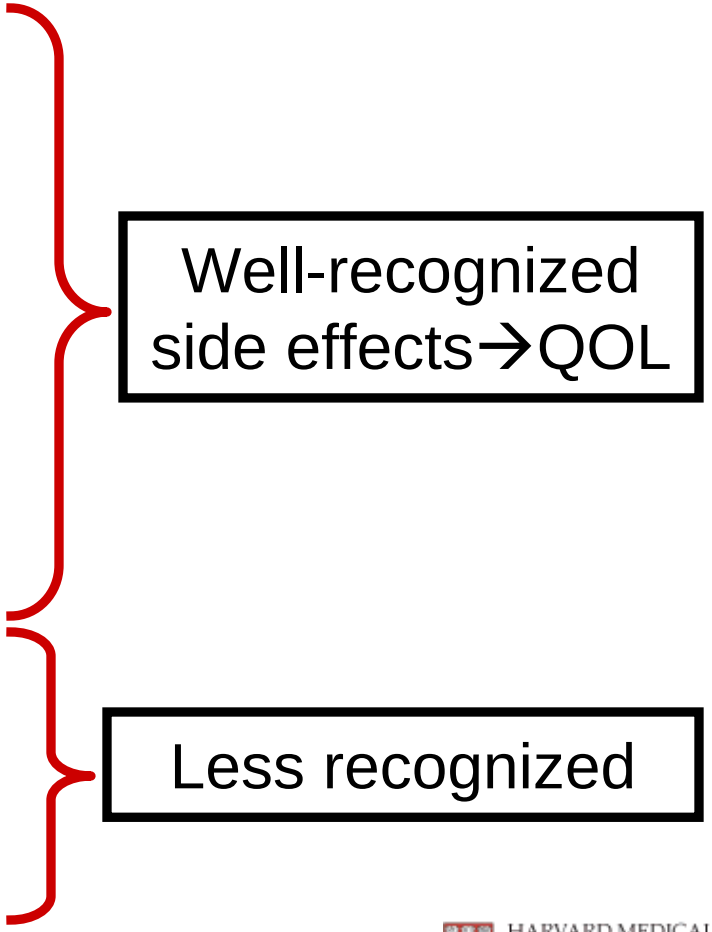


1. Agarwal et al. *Rad Onc.* 89(1): 1-126
2. Mohanti et al. *Rad Onc.* 71: 275-280

# Palliative Care Applications in Head and Neck Cancer: Symptoms and Psychosocial Factors

# Common Symptoms in the Curative Head and Neck Cancer Patient

- Pain
- Anorexia/weight loss
- Dysphagia
- Skin breakdown
- Thick secretions
- Xerostomia
- Depression, anxiety
- Caregiver distress
- Economic distress



# Depression in Curative HN Cancer Patients

- Prospective study of 40 HN cancer pts
- Evaluating prevalence of depression/ anxiety pre- and post-RT (Hospital Anxiety and Depression Scale and Beck Depression Inventory)

Chen et al. *IJROBP,* 2009; 73(1): 187-193

# Depression in Curative HN Cancer Patients

| Timing | Mild Depression | Moderate Depression | Severe Depression | Total |
|---|---|---|---|---|
| Pre-RT | 23% | 20% | 15% | **58%** |
| RT Completion | 20% | 23% | 30% | **73%** |
| 3 week FU | NA | NA | NA | **70%** |

→Anxiety: Mild-severe 48%, did not change over time

**Chen et al. *IJROBP,* 2009; 73(1): 187-193**

# Depression in Curative HN Cancer Patients

**Predictors of post-RT depression:**

- **Pre-RT depression**
- **Young age (<55 years)**
- **Unmarried (single/separated)**
- **Living alone**
- **Working**

**Chen et al. *IJROBP*, 2009; 73(1): 187-193**

# Psychological Distress in Caregivers of HN Cancer Patients

- 89 family caregivers of HN ca patients treated at MSKCC
- Evaluation 6-24 months after treatment completion
- Caregiver QOL Index and Mental Health Inventory (psychological distress subscale)

Ross et al. *Supp Care Cancer,* 2010; 18(1): 171-178

# Psychological Distress in Caregivers of HN Cancer Patients

| Timing | Mild distress | Moderate distress | Severe distress | Total |
|---|---|---|---|---|
| 6-24 months post-RT | 18% | 22% | 16% | **56%** |

→Studies in other cancer settings: 20-30% any distress

**Ross et al. *Supp Care Cancer,* 2010; 18(1): 171-178**

# Economic Impact of Terminal Cancer on Patients and Family

Emmanual et al. *Annal Int Med,* 2000; 132 (6): 451-459

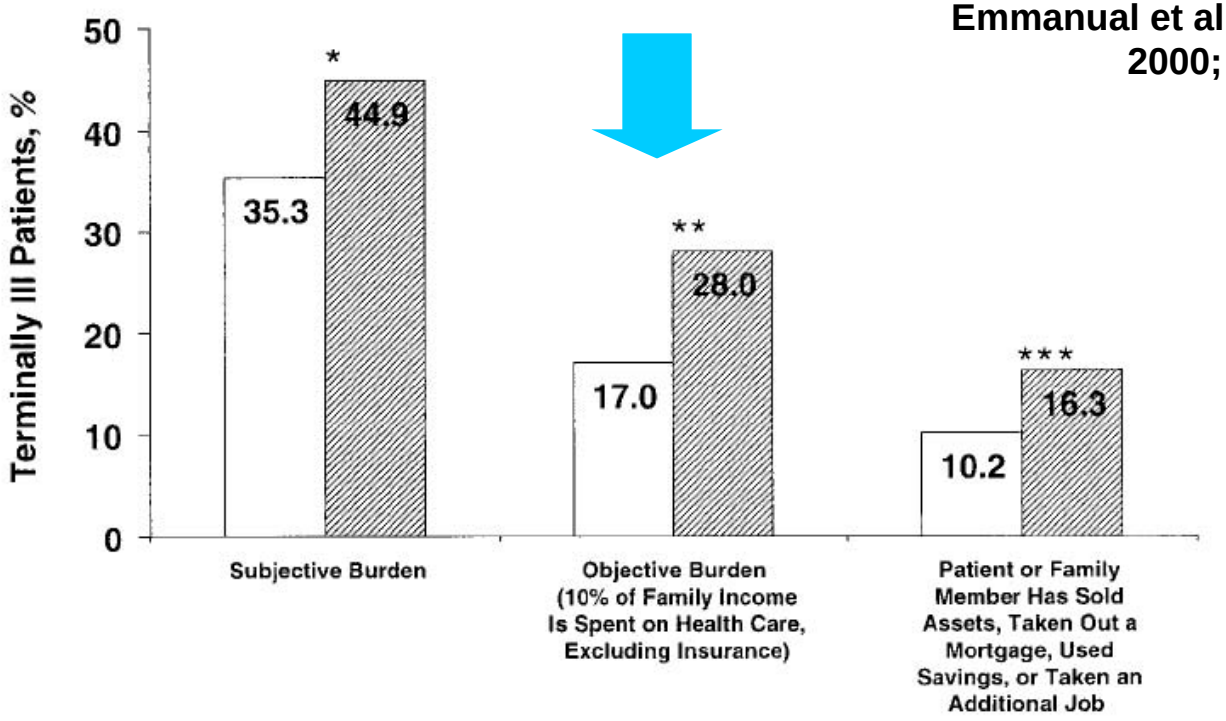



**Figure 2. Effect of care needs and economic burdens on terminally ill patients.** White bars indicate patients with few care needs; striped bars indicate patients with substantial care needs. *$P = 0.005$; **$P = 0.001$; ***$P = 0.004$.

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# Symptom Burden in HN Cancer Patients at the End of Life

- Retrospective chart review of patient dying of HN cancer at the Mayo Clinic, n=93.
- Evaluated symptoms in last 6 months of life (documented in the chart).

Price et al. *J Pall Med,* 2009; 12(2): 117-188

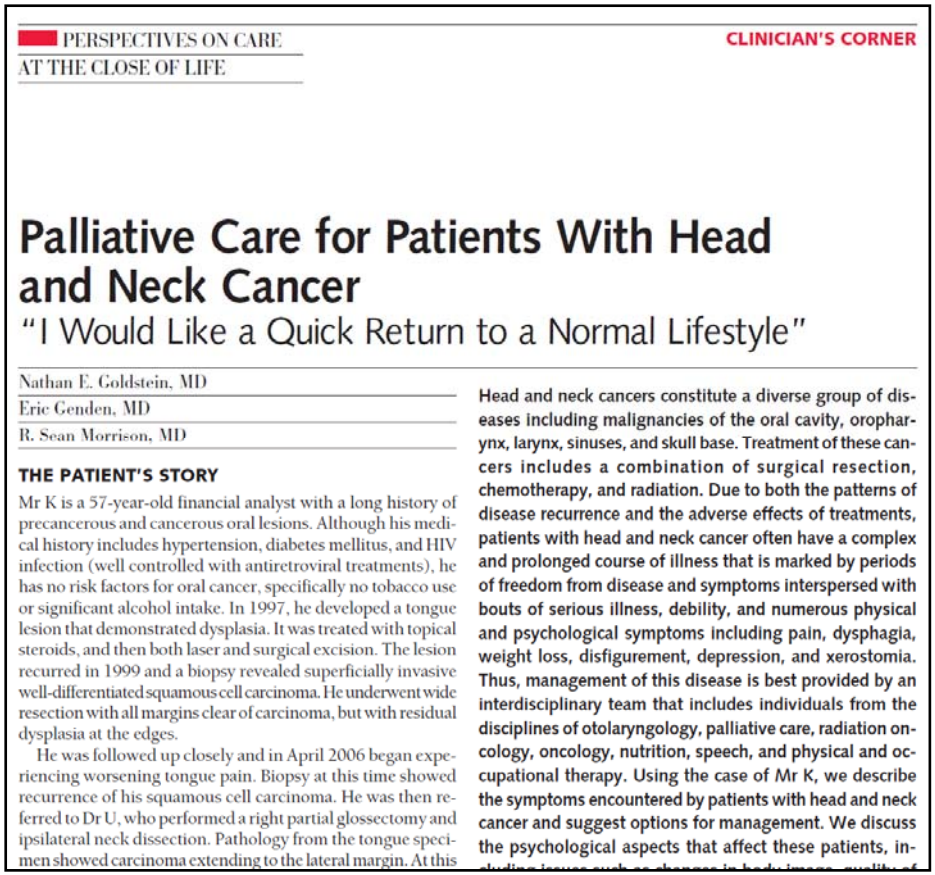
# Symptom Burden in Last 6 Months of Life

| Symptom | Percent |
|---|---|
| Pain | 62% |
| Anorexia/weight loss | 45% |
| Fatigue/weakness | 43% |
| Dyspnea | 39% |
| Cognitive changes | 26% |
| Hoarsness/dysphonia | 14% |
| Neuropathic pain | 11% |
| Anxiety | 10% |
| Depression | 5% |

→Median 4 (+/- 2.7) symptoms

# Symptom Management Strategies for HN Cancer Patients

# Overview of Symptom Management



PERSPECTIVES ON CARE
AT THE CLOSE OF LIFE

CLINICIAN'S CORNER

## Palliative Care for Patients With Head and Neck Cancer

### "I Would Like a Quick Return to a Normal Lifestyle"

Nathan E. Goldstein, MD
Eric Genden, MD
R. Sean Morrison, MD

**THE PATIENT'S STORY**

Mr K is a 57-year-old financial analyst with a long history of precancerous and cancerous oral lesions. Although his medical history includes hypertension, diabetes mellitus, and HIV infection (well controlled with antiretroviral treatments), he has no risk factors for oral cancer, specifically no tobacco use or significant alcohol intake. In 1997, he developed a tongue lesion that demonstrated dysplasia. It was treated with topical steroids, and then both laser and surgical excision. The lesion recurred in 1999 and a biopsy revealed superficially invasive well-differentiated squamous cell carcinoma. He underwent wide resection with all margins clear of carcinoma, but with residual dysplasia at the edges.

He was followed up closely and in April 2006 began experiencing worsening tongue pain. Biopsy at this time showed recurrence of his squamous cell carcinoma. He was then referred to Dr U, who performed a right partial glossectomy and ipsilateral neck dissection. Pathology from the tongue specimen showed carcinoma extending to the lateral margin. At this

Head and neck cancers constitute a diverse group of diseases including malignancies of the oral cavity, oropharynx, larynx, sinuses, and skull base. Treatment of these cancers includes a combination of surgical resection, chemotherapy, and radiation. Due to both the patterns of disease recurrence and the adverse effects of treatments, patients with head and neck cancer often have a complex and prolonged course of illness that is marked by periods of freedom from disease and symptoms interspersed with bouts of serious illness, debility, and numerous physical and psychological symptoms including pain, dysphagia, weight loss, disfigurement, depression, and xerostomia. Thus, management of this disease is best provided by an interdisciplinary team that includes individuals from the disciplines of otolaryngology, palliative care, radiation oncology, oncology, nutrition, speech, and physical and occupational therapy. Using the case of Mr K, we describe the symptoms encountered by patients with head and neck cancer and suggest options for management. We discuss the psychological aspects that affect these patients, in-

Goldstein et al. *JAMA*, 2008; 299 (19): 1818-1825

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# Symptom Management Highlights in HN Cancer

- Pain Management
- Management of Depression

# 4 Steps to Pain Management in HN Cancer Patients

**Step 1 – Ongoing and Frequent Assessment:**

- **P lace:  where?**
- **A mount: how much?**
- **I ntensifiers: worse?**
- **N ullifiers: better?**
- **E ffects: medication? Effect on activities?**
- **D escription:  pain in patient's words**

# 4 Steps to Pain Management in HN Cancer Patients

**Step 2 - Define patient context:**

- **Pain history: e.g., prior analgesic use**
- **Medical history: e.g., other health issues (CRI), other medications, current treatment**
- **Good physical exam**
- **Diagnostic tests if warranted (e.g., evaluate for new bone metastases).**

# 4 Steps to Pain Management in HN Cancer Patients

**Step 3 - Define type and etiology of pain:**

- **Nociceptive somatic pain: tissue injury, inflammation (e.g., mucositis, bone metastases)**
- **Nociceptive visceral pain: obstruction, causing poorly localized, cramping pain.**
- **Neuropathic pain: nerve irritation/injury with abnormal somatosensory processing (e.g., referred ear pain)**

# Step 4: Therapeutic Strategies

**Pain-etiology Directed Therapies**

- Antibiotics
- Cancer-therapies
  - Radiation therapy
  - Chemotherapy
  - Surgery
- Other interventional procedures

**Pain Pharmacotherapy**

1. Non-opioid analgesics
   - NSAIDS
   - Acetaminophen
   - Steroids
2. Opioid analgesics
   - Codeine
   - Hydromophone
   - Morphine
   - Oxycodone
3. Adjuvant analgesics
   - Anticonvulsants
   - Antidepressants

# WHO Analgesic Ladder

**Starting Point:**

- **Mild pain: non-opioid analgesics with or without adjuvant**
- **Moderate pain: mild opioid +/- non-opioid analgesic +/- adjuvant**
- **Severe pain: strong opioid +/- non-opioid analgesic +/- adjuvant**

**Strategies in Particular Pain Syndromes:**

- **Neuropathic pain: Above + decadron (short term), anticonvulsants (eg, neurontin) or antidepressants**
- **Bone pain: Above + decadron (short term), NSAIDs**

# Case Example: Mucositis in HN Cancer Patient

***62 yo gentleman with T4N0 SCC of BOT, undergoing concurrent chemoradiotherapy. 2 weeks into treatment notes mouth/throat pain, described as 'soreness' when he swallows, only 'discomfort' at rest. Ranges from 1-3 on pain scale. Physical exam reveals mild, patchy mucositis, no thrush. Recommendations?***

# Case Example: Mucositis in HN Cancer Patient

- **Maalox/Benadryl/Lidocaine 1:1:1 solution**
  - **Consider SEs of benadryl (8mg per 10cc of MBL)**
  - **Viscous lidocaine – no GI absorption, but ? in severe mucositis (0.67mg per 10cc of MBL)**
- **Acetaminophen (eg, 1000mg tid)**
  - **Pill or liquid preparations (avoid preps with opiates)**
  - **Consider hepatic toxicity**
- **NSAIDS (less indications, eg, 600-800mg tid with meals)**
  - **Pill or liquid preparations**
  - **Consider renal insufficiency or platelet dysfunction**
  - **Consider adding a PPI**

# Case Example: Mucositis in HN Cancer Patient

***Patient's pain managed well on this regimen until 3 weeks into treatment when pain escalated to 3/10 at rest, 6/10 with swallowing, described as "stabbing" pain. PE: Mucositis worsening, no evidence of thrush.***

# Case Example: Mucositis in HN Cancer Patient

Short-acting opiate added to non-opiate analgesic regimen – oxycodone 5-10mg q4 hours prn

Common short-acting preparations:

- Codeine: weak opiate, not adequate for escalation
- Morphine: least per pill $, metabolites excreted by kidney→ avoid with moderate-severe renal dysfunction
- Hydromorphone: highest $, less kidney excretion→ better with renal dysfunction (with caution)
- Oxycodone: least liquid prep $, intermediate pill cost

# Case Example: Mucositis in HN Cancer Patient

***Week 4: Escalated oxycodone to 10mg every 3-4 hours, average 6 doses per day. Pain 4-6/10. Decision to add a long-acting opioid.***

# Principles of Opioid Rotation

- Reduce equinalgesic dose by 25-50% → incomplete cross-tolerance
- Reduce less if pain severe
- Reduce more if medically frail
- Fentanyl generally can be reduced at most 25%
- Methadone reduced more, ~75-90%

# Long-acting Opioids in HN Cancer Patients

Long acting morphine (eg, MSContin)

- Pros: quick escalation, low cost
- Cons: oral only

Long-acting oxycodone (eg, Oxycontin)

- Pros: quick escalation
- Cons: oral only, higher cost

# Long-acting Opioids in HN Cancer Patients

**Duragesic transdermal patch**

- **Pros: subcutaneous route**
- **Cons: poor absorption with little subcutaneous fat**

**Methadone**

- **Pros: any enteral route, lowest cost**
- **Cons: long, variable half-life and cardiac conduction effects**
- **Need experience ( "Prescribing Methadone" at www.supportiveoncology.net/journal/articles/0103216.pdf)**

# Principles of Opioid Rotation: Equinalgesic Conversion

| Drug | PO |
|---|---|
| Morphine | 30mg |
| Codeine | 200mg |
| Oxycodone | 20mg |
| Hydromorphone | 10mg |

| Morphine (mg/dy) | Duragesic |
|---|---|
| 45-134 | 25mcg/hr |
| 135-224 | 50mcg/hr |
| 225-314 | 75mcg/hr |
| 315-404 | 100mcg/hr |
| 405-494 | 125mcg/hr |
| 495-584 | 150mcg/hr |
| 585-674 | 175mcg/hr |
| 675-764 | 200mcg/hr |

1. 10mg x 6 = 60mg oxycodone
2. 60/N = 20mg oxycodone/30mg morphine
3. N = 90 mg morphine
4. 90 x 0.75 = 67.5 mg morphine
5. ~ 25 mcg duragesic patch

# Opioid Side Effects: Constipation

## Constipation

- Ensure adequate hydration, ambulation
- Start stool softener + laxative (colace + senna) daily with initiation of opiates
- Add break through agents: milk of magnesia, lactulose etc.
- Consider prokinetics (e.g., metoclopramide)

# Opioid Side Effects: Nausea

- Improved tolerance with time
  - Nausea due to opiates tends to dissipate in 1-2 weeks
- Opioid rotation
- Pharmacologic agents
  - Dopamine antagonists (e.g., prochlorperazine, chlropromazine, metoclopramide)

# Managing Depression in HN Cancer Patients

# Managing Depression in HN Cancer Patients

- Diagnosis:  low mood/anhedonia x 2 wks + 4 of 9 SIGECAPS
  - Sleep, interest, guilt, energy, concentration, appetite, psychomotor, suicidal
- Differentiate from adjustment disorder
  - Situational anxiety/depressive symptoms below disorder threshold.
- Consider risk factors, e.g. h/o depression, poor supports

# Managing Depression in HN Cancer Patients

**Adjustment disorder:**

- **Help patient/family talk about feelings/issues (e.g., relational strain etc)**
- **Enlist support of team → nursing, social work, chaplaincy**
- **Medications for symptoms control (e.g., benzos for anxiety)**

# Managing Depression in HN Cancer Patients

## Depression

- Provide support and referral to supports
- Consider referral to psychiatry
- First line agents: SSRIs (e.g., citalopram, sertraline, fluoxetine etc)
- Evaluating efficacy: if no response at ~3 weeks, switch. If partial response, then increase dose

# Head and Neck Cancer Care: Importance of a Multidisciplinary Team

**Head and Neck Care team:**

- **Physicians (e.g., surgeons, med oncs, rad oncs)**
- **Nurses**
- **Social Work/Chaplaincy**
- **Speech and Swallow Therapists**
- **Nutritionists**
- **Palliative Care Specialists (MDs, nurses etc)**
  - **Refractory symptoms**
  - **Prior history of addiction/methadone users.**
  - **High risk patients (e.g., poor social support, mental health history etc).**

# In Summary

- In incurable setting, weigh goals of care, risks, benefits of therapy (including EOL discussions) to maximize pt QOL
- Attention to physical and psychosocial symptoms key to HN cancer patient/family QOL
- Multi-disciplinary approach (physicians, nursing, social work, speech and swallow, nutrition, palliative care etc)

# Average Wholesale Costs of Opioids (cheapest = #1)

| Opioid | | Cost per amount |
|---|---|---|
| Morphine IR pill | 1 | $0.18/15mg, 0.31/30mg |
| Oxycodone pill | 3 | $0.48/5mg, 0.74/15mg |
| Morphine liquid | 4 | 2mg/ml x 500cc = $38.56 |
| Oxycodone liquid | 2 | 1mg/ml x 500cc = $25.20 |
| Morphine SR | 1 | $0.75/15mg, 1.43/30mg |
| Oxycontin | 3 | $2.01/10mg, 3.46/20mg |
| Duragesic patch | 2 | $14.24/25mcg patch, $26.38/50mcg patch |