Development of a Cancer Pain Program at the McGill University Health Centre

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Disclosure

None
The MUHC Alan Edwards Pain Management Unit

Staffed by dedicated professionals committed to alleviating pain and suffering by means of the following activities:

- Pain treatment programs for patients
- Research into pain
- Educational programs for clinicians and scientists

Dr. R. Melzack
Criteria for Referral

Cancer patients with pain: Guidelines for referral to the Pain Clinic and Palliative Care

Cancer patients (inpatients and ambulatory patients), whose pain is not easily managed by the treating team may need further assessment and treatment. These patients can be referred to either the palliative care service or the pain centre. It is often unclear which service should be consulted. The following guidelines have been developed to clarify this situation and serve as recommendations only. The referring team can always refer to the service they feel is more appropriate and better serves the patient’s needs. Our services meet regularly to discuss patients in order to optimize patient care.

Referral guidelines

<table>
<thead>
<tr>
<th>Palliative Care</th>
<th>Pain Centre</th>
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<tbody>
<tr>
<td>• Life expectancy shorter than 6 months</td>
<td>• Long life expectancy</td>
</tr>
<tr>
<td>• Patients with a symptomatic multi-organ involvement (e.g., delirium, dyspnea, renal/liver failure)</td>
<td>• Pain condition not directly related to cancer</td>
</tr>
<tr>
<td></td>
<td>• Acute or chronic postoperative pain</td>
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Acute Pain Service

Consults and Advanced Pain Management Strategies in Patients with a Diagnosis of Cancer

<table>
<thead>
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<th></th>
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<tbody>
<tr>
<td>Consults</td>
<td>215</td>
<td>245</td>
<td>325</td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
<td>92</td>
<td>207</td>
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<tr>
<td>Interventions</td>
<td></td>
<td>14</td>
<td>45</td>
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</table>
Proposal for the Development and Implementation of a Comprehensive Cancer Pain Service

Dr. Manuel Borod
Director, Division of Palliative Care
McGill University Health Centre

Dr. Yoram Shir
Director, Pain Service
McGill University Health Centre

July 14 2009
Proposed Model Cancer Pain Service

- The creation of a formal cancer pain program with administrative and nursing resources

- Involvement of the key players including pain service, palliative care, radiation oncology, interventional radiology, orthopedics, and neurosurgery

- Training of the proposed nursing resources to initiate screening mechanisms and coordinating referrals
Proposed Model
Cancer Pain Service (cont.)

- Triage of patients for referral to the appropriate service (palliative care, chronic pain, or cancer pain clinic)

- Creation of a co-managed consult service for cancer pain

- Easier access for diagnostic testing
Proposed Model
Interventional Pain Program

- Dedicated O.R. time for cancer patients in need of advanced interventional pain management e.g. epidural, intrathecal-ports or pumps, kypho/vertebroplasty, cementoplasty, etc.

- Access to immediate O.R. time for patients who are in need emergency interventions
Resources

- One part time clerk

- One full time nurse equivalent – preferably a half time nurse coordinator and a half time clinical nurse

- Space that would be appropriate for an outpatient service – the current outpatient space for palliative care is known to be inadequate

- Physiotherapy? Occupational therapy?
Criteria for Referral

- Cancer diagnosis
- Pain that is a result of the cancer and or its’ treatment
- Basic pain management strategies have been tried
Opened March 2011
Supported by

The Cancer Care Mission of the M.U.H.C.

and

Louise and Alan Edwards Foundation
The Role of the Nurse Clinician in a Cancer Pain Clinic

Sara Olivier, MN (c)
4 Main Components to the Role

- Triage and evaluation of referrals
- Clinic work
- Care coordination
- Telephone interventions
The Quebec Health Care System

Canada Health Act:

- Canada's federal legislation for publicly funded health care insurance\(^1\)

In Quebec:

- Ministry of Health and Social Services, through the Régie de l’Assurance Maladie, administers public health and prescription drug insurance
- Régie ensures that all Quebecers covered by the Quebec Health Insurance Plan have access to the care and services required by their state of health\(^2\)

Referenced from www.hc-sc.gc.ca \(^1\)
Referenced from www.ramq.gouv.qc.ca \(^2\)
Triage and Evaluation of Referrals

Consult is received:
- Review of imaging reports
- Review of note transcription if available
- Discuss with Program Director if needed
Triage and Evaluation of Referrals (cont.)

- Call is placed to patient to:
  - Evaluate pain
  - Inquire about current pain regimen
  - Assess if at risk of opioid toxicity, spinal cord compression, etc.
  - Assess opioid related side effects

- Patient is given an appointment with team
  - According to priority indicated on referral and telephone evaluation
Compliance to Criteria

The percentage of patients who had no opioid prior to the first visit is:

12%
Clinic Work

- Co-evaluation with medical team
  - Focus is placed on psychosocial distress, issues related to transportation, finances, work, etc.
- Review of treatment plan with patient/family members
- Teaching
  - Use of medications
  - Potential side effects
Clinic Work (cont.)

- Methadone rotation
  - Test dose given in clinic
  - Pt provided with methadone information booklet
  - Teaching

- Follow-up appointments and contact information
Care Coordination

Key point: **maintain continuity of care**

Referrals to other departments/services, for example: radiation-oncology, social services, physio, occupational therapy, psychosocial oncology program, etc.

Communication of key information to professionals already involved

Link with community services and resources when needed
Care Coordination (cont.)

- Coordination of interventional pain management procedures
  - Make sure appropriate bloods are drawn
  - Consent signature during clinic visit
  - Avoiding nadir period for patients on chemo

- Facilitate transitions to Palliative Care when needed, together with Palliative Care MD
Telephone Interventions

Calls initiated by nurse:

- After initiation of opioid therapy or opioid rotation
- Symptom management
- After interventional pain management procedure
  - Assess effectiveness
  - Assess pain and signs of toxicity
  - Adjust medication with physician
Unexpected incoming calls

- Pain crisis
- Symptom management
- Medication renewals
The Role of the Nurse Clinician

- Key person for cancer pain patients
  - Easy to contact
  - Close monitoring
  - Continuity of care
  - Source of support for patients and family members

“It’s reassuring to know I can call you”
Interventional Pain Strategies in the Cancer Pain Clinic

Juan-Francisco Asenjo, MD FRCPC
Jordi Perez, MD
Pain Physicians – McGill Cancer Pain Clinic
Patient’s Expectations about Pain Relief

Great efficacy
- WHO Ladder does not relieve all patients (Jaddad A, JAMA 1996, Azevedo, Support Care Cancer 2006)
- Even considering the Paradoxal phenomenon (Dawson R, JPSM 2002)

Improved quality of life
- Patients want to be treated right
- Like to have a safety net
- Feel in a partnership with their team
- Have an efficacious treatment (Beck SL, JPSM 2010)

Least amount of pills and shots
Patient’s Expectations about Pain Relief (cont.)

- **Low profile of side effects**
  - Cognitive (delirium, somnolence, memory, etc), gastric irritation, intestinal, sleep problems, water retention, hormonal complications, osteoporosis, etc.

- **Possibility of "freedom"** especially for patients in remote locations with less resources
Interventions for Cancer Pain Patients

Should cancer pain consultants be systematically better educated about interventions along the WHO-Ladder?

- When to think about them?
- Cost?
- Needs more “evidence”? The experience of working together!
Interventions for Cancer Pain Patients (cont.)

Main reasons to consider interventions?

- What to do with the “toxic” patient?
- What to do with the unrelieved patient?

Pain evaluations made by pain specialist vs. palliative care specialist could be different and complementary.
Interventions for Cancer Pain Patients (cont.)

Cancer Patients may develop Chronic Non-Cancer Pain problems along side the fight against Cancer:

- Low Back Pain
- Herpes Zoster - PHN
- Surgery-related neuropathies
- Chemotherapy-induced neuropathies
- Radiotherapy-related plexopathies
- Osteoporotic Vertebral Compression Fractures
Pain Physician and the Cancer Pain Patient

How may cancer pain interventions contribute to the WHO-Ladder?

- Our expertise in opioid-sparing approaches and techniques
- Diagnostic injections to confirm source of pain
- Neurolysis
- Bone-related procedures
- Continuous intrathecal/epidural techniques
- Peripheral continuous techniques
Pain Physician and the Cancer Pain Patient

Our expertise in opioid-sparing approaches and techniques
Pain Physician and the Cancer Pain Patient

Diagnostic injections to confirm source of pain
Pain Physician and the Cancer Pain Patient

Neurolysis
The average time before death for the procedure was 79 (23 – 240) days.

The mean decrease in pain scores (VAS) was 4 points (1 – 6) which is a statistically significant reduction (p=0.003).

Opioid toxicity (somnolence, hallucinations, myoclonous or delirium) was present in 30% of patients prior to the procedure, 11% at two weeks and 23% at 6 - 8 weeks after the procedure. Opiate maintenance dose decreased at the two-week mark in 43% of cases.

Huni G, Asenjo JF  IASP-WCP  Montreal 2010
Bone-related procedures

Peters S, Asenjo JF

ASRA 2009

D I S A B I L I T Y  I M P R O V E M E N T  A F T E R  V P / K P
(Reported by patient)

(n=127)

Pain Physician and the Cancer Pain Patient

Disability Improvement After VP/KP (Reported by patient)

- None: 1.5%
- Mild: 4.75%
- Moderate: 34.75%
- Significant: 59%
Continuous intrathecal/epidural techniques

Diagnosis

- Lung cancer 31%
- Renal cancer 16%
- Esophageal cancer 6%
- Leiomyosarcoma 6%
- Rectal cancer 2%
- Colon cancer 2%
- Prostate cancer 6%
- Breast cancer 4%
- Retro Peritoneal cancer 4%
- Mesothelioma 2%
- Osteosarcoma 2%
- Pancreatic cancer 4%
- Tonsil cancer 2%
- Unknown metastatic cancer 6%
- Failed back surgery syndrome 2%
- Phantom limb 2%
- Skin cancer 2%
- Urinary bladder cancer 2%
Pain Physician and the Cancer Pain Patient

Continuous intrathecal/epidural techniques

**VAS improvement**

Immediate: 6
2-4 weeks: 8
6-8 weeks: 9
20-24 weeks: 7

46% of patients had a Q-o-L improvement of 100% and another 48% had a 50% improvement at 2-4 weeks

At 2-4 weeks, 82% were totally free of opioid side-effects

All catheters were placed successfully. No catheter related complication was recorded.

Lower limb weakness/numbness: 9
Decrease in level of consciousness: 3
Decrease in respiratory rate: 1
Urinary retention: 1
Nausea: 1

Al-Hujairi M, Asenjo JF  IASP-WCP Montreal 2010
Pain Physician and the Cancer Pain Patient

Perioperative Peripheral Continuous Techniques

Pacenta HL, Anaesth Intensive Care 2010
Fischer HB, Reg Anesth 1996
In summary

- The patient benefit of having another expert opinion to assess and treat his condition.
- The team learns about new approaches to the clinical challenges.
- The collaboration should enhance patient care and satisfaction along all treatment phases.
The Role of a Radiation Oncologist in a Cancer Pain Clinic

Dr. Marc David
The Role of RT

- Verify if pt is known to RT
- Verify past RT treatments, tolerance, and efficacy
- Complex cases with multiple treatments
Issue Re-treatment with RT

- Tolerance depends on the following:
  - Volumes
  - Total dose, dose/FX
  - Timing
  - RT techniques
Issue Re-treatment with RT (cont.)

- Tolerance depends on the following:
  - Nature of tissue (serial, parallel)
  - Concomitant treatment
  - Patient factors and comorbidities
The Role of a Palliative Care Physician in the Cancer Pain Clinic

Dr. Véronique Chaput
Physical:
- Pain due to disease location
- Other symptoms e.g. nausea
- Physical decline & Fatigue

Social:
- Relationships with family/carers
- Role in family
- Work life
- Financial problems

Psychological:
- Grief, Depression
- Anxiety, Anger
- Adjustment to condition

Spiritual:
- Existential issues
- Religious faith
- Meaning of life and illness
- Personal value as a human being
Dealing with Total Pain and Psychosocial Distress

- Good communication skills
- Early referral to psycho-social oncology, multi-disciplinary team approach
- Red flags: escalating doses without pain relief, “chemical coping”, difficult social situations, CAGE+, etc..
- Anxiety, depression
Making the Link with Oncology

- Palliative care physicians/nurses work closely with oncologists.
- Recognize oncological emergencies early: spinal cord compressions, SVC syndrome, bowel obstruction.
- We are well-aware of the barriers that preclude early referral to palliative care.
- Better communication between physicians in terms of care planning.
Dealing with Other Symptoms

- Early detection and treatment of delirium
- Bowel obstruction
- Dyspnea
- Depression and anxiety
Dealing with Side-Effects of the Medication

- Constipation
- Nausea, early satiety
- Opioid toxicity: early detection
- EPS
Transition

- Progressive approach to discussions on goals of care and eventual transfer of care to palliative care for more global management including end-of-life care planning

- “Planting the seed”: opening communication about disease progression and expected outcomes
Transition (cont.)

Because often

Increasing Pain = Increasing Burden of Disease

Transition of the patient, the family and their treating oncology team…
Pain Predicts Overall Survival in Men With Metastatic Castration-Refractory Prostate Cancer

Susan Halabi, Nicholas J. Vogelzang, Alice B. Kornblith, San-San Ou, Philip W. Kantoff, Nancy A. Dawson, and Eric J. Small
Improved Continuity of Care

- When disease progresses, patient declines, it’s easier to transition them from CPC to palliative care if it’s the same team.

- Patients and families feel supported through that difficult transition.

- Implies good communication between the 2 clinics.
The Impact of a Cancer Pain Program on Pain Related Outcomes

Rosemary O’Grady, MN
Statistics and Indicators

- Patient volume
- Patient population
- Demographic measures
- Pain intensity
- Symptom distress
- Psychosocial distress
Total Visits per Period for Cancer Pain Clinic 2011-2012

Number of Visits

1. 27
2. 30
3. 31
4. 41
5. 31
6. 33
7. 38
8. 50
9. 50
10. 53
11. 32
12. 48
13. 49
14. 78

Total Visits: 559
Total New Patients: 199
## Patient Population

<table>
<thead>
<tr>
<th>Diagnoses Group</th>
<th>Number Of Patients</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Lung &amp; Bronchus</td>
<td>21</td>
<td>21.65%</td>
</tr>
<tr>
<td>Breast</td>
<td>14</td>
<td>14.43%</td>
</tr>
<tr>
<td>Urology</td>
<td>11</td>
<td>11.34%</td>
</tr>
<tr>
<td>Hematology</td>
<td>11</td>
<td>11.34%</td>
</tr>
<tr>
<td>Lower GI</td>
<td>9</td>
<td>9.28%</td>
</tr>
<tr>
<td>Musculo-Skeletal System</td>
<td>9</td>
<td>9.28%</td>
</tr>
<tr>
<td>Liver / Pancreas</td>
<td>7</td>
<td>7.22%</td>
</tr>
<tr>
<td>Head and Neck</td>
<td>6</td>
<td>6.19%</td>
</tr>
<tr>
<td>Gynecology</td>
<td>5</td>
<td>5.15%</td>
</tr>
<tr>
<td>Upper GI</td>
<td>3</td>
<td>3.09%</td>
</tr>
<tr>
<td>Non Malignant</td>
<td>1</td>
<td>1.03%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>97</strong></td>
<td><strong>100.00%</strong></td>
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# Demographics

<table>
<thead>
<tr>
<th>Sex</th>
<th>Number Of Patients</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Male</td>
<td>51</td>
<td>52.58%</td>
</tr>
<tr>
<td>Female</td>
<td>46</td>
<td>47.42%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>97</strong></td>
<td><strong>100.00%</strong></td>
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<table>
<thead>
<tr>
<th>Age</th>
<th>Number Of Patients</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>&lt; 30 yrs</td>
<td>3</td>
<td>3.09%</td>
</tr>
<tr>
<td>30 ≤ Age ≤ 45</td>
<td>5</td>
<td>5.15%</td>
</tr>
<tr>
<td>45 &lt; Age ≤ 60</td>
<td>38</td>
<td>39.18%</td>
</tr>
<tr>
<td>&gt; 60 yrs</td>
<td>51</td>
<td>52.58%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>97</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
Tools Selected to Monitor Outcomes

- Brief Pain Inventory short form (BPIsf)
- Edmonton Symptom Assessment Scale (ESAS)
- Distress Thermometer and Canadian Problem Checklist

Bennett, 2009, The Lancet Oncology
Carlson et al., 2009, Cancer Journey Action Group, Canadian Partnership Against Cancer
Holen et al., 2006, Journal of Pain and Symptom Management
# Brief Pain Inventory

## Average Pain Intensity

<table>
<thead>
<tr>
<th>(N = 74)</th>
<th>Mean</th>
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<tbody>
<tr>
<td>Visit 1</td>
<td>5.4595</td>
</tr>
<tr>
<td>Visit 3</td>
<td>3.0811</td>
</tr>
<tr>
<td>Difference from Visit 1 to Visit 3</td>
<td>2.3784</td>
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</table>
ESAS
Average Pain Intensity

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N = 87)</td>
<td></td>
</tr>
<tr>
<td>Visit 1</td>
<td>6.9195</td>
</tr>
<tr>
<td>Visit 3</td>
<td>4.9540</td>
</tr>
<tr>
<td>Difference from</td>
<td>1.9655</td>
</tr>
<tr>
<td>Visit 1 to Visit 3</td>
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</table>

For patients who reported an improvement in pain intensity, the average change on 0 – 10 scale was **4.27**
Psychosocial Distress

59% of Patients seen in the Cancer Pain Clinic reported a distress score $\geq 4$

**Canadian Problem Checklist**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Physical</td>
<td>38%</td>
</tr>
<tr>
<td>Emotional</td>
<td>30%</td>
</tr>
<tr>
<td>Practical</td>
<td>16%</td>
</tr>
<tr>
<td>Information</td>
<td>12%</td>
</tr>
<tr>
<td>Spiritual</td>
<td>11%</td>
</tr>
<tr>
<td>Social / Family</td>
<td>11%</td>
</tr>
</tbody>
</table>
Conclusion & Future Directions

- Team composition key factor contributing to success
- Continue current measures
- Measure outcomes according to treatment provided
- Measure patient experience
Questions