CHAMPLAIN DISTRICT
PALLIATIVE CARE
RESOURCE MANUAL

March 2007

Developed by:
Champlain District End-of-Life Care Network,
Education Committee
The following manual represents current practice according to current literature and best practices relevant to all settings across the Champlain District of Ontario. The manual is not a clinical guideline and is not intended to direct or dictate a specific course of action.

It is always recommended to consult the palliative care expert in your organization or community, or the Palliative Pain & Symptom Management Consult Service for assistance, clarification and/or support.
Introduction

The Renfrew Palliative Care Team initiated a research project in 1999 to assess the level of satisfaction of patients and their families receiving end-of-life care. Surveys were completed by families of patients who had died at home, in hospital or in long-term care facilities. Retrospective chart audits were also completed to assess the quality and consistency of palliative care. Results of the research indicated that there was a need for a comprehensive palliative care resource that could be accessed by care providers in any setting, home, hospital or long-term care facility.

The Renfrew Palliative Care team with the assistance of the palliative care education team at SCO Health Service (and the formerly named University of Ottawa Institute of Palliative Care) developed the Renfrew Palliative Care Manual as a community education project. The manual was distributed to all family physicians in Renfrew, each unit of the local hospital, all community agencies as well as long-term care facilities.

In 2001 the community of Cornwall used the Renfrew Manual template to create the Cornwall Palliative Care Resource Manual, with the support and assistance of the Renfrew and SCO Health Service teams. Their manual was specific to Cornwall in that it was also published in French and included local community resources and services.

In 2005 the Ministry of Health and Long-Term Care announced enhanced funding for the establishment of the Champlain District End-of-Life Care Network. This network was also to coincide with the recently announced Local Health Integration Networks. The standing Champlain District Education Committee was formed, and their first priority was to develop a region-wide resource manual.

In 2006, the Champlain District Palliative Care Manual Work Group, consisting of interprofessional regional representatives, updated the original Renfrew manual using the most current practice guidelines for pain and symptom management in palliative care. The format will allow each community to add sections for local service delivery and community resources.
The goal of the *Champlain District Palliative Care Resource Manual* is that all care providers will have access to essential evidence-based information to provide people receiving end-of-life care with high quality, integrated and seamless care across the region.

**Champlain District Palliative Care Manual Workgroup, 2006-07**

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Champlain District Resources

Champlain CCAC
    1-800-538-0520

CHEO, Palliative Care Service
    613-737-7600 (say palliative care)
    See Pediatric Palliative Care section, pages 104-107 for contacts

Ottawa Hospital, Palliative Care Consultation Service
    General Site: 613-737-8490
    Civic Site: 613-761-4555

Palliative Pain and Symptom Management Consultative Service (PPSMCS)
    1-800-651-1139
    Maryse Bouvette - Ottawa
    Sylvie Lefebvre - Five Eastern Counties
    Diane Caughey - Renfrew County

Palliative Radiation Program
    613-737-7700, ext. 10329

Regional Cancer Program
    613-737-7700

SCO Health Service, Clinical Admissions Coordinator for palliative care
    613-562-4262, ext. 4063

Updated March 2007
Community Resources
To be completed by your local community

Community Care Access Centre: CCAC

Hospitals

Hospices

Family Physicians

Long Term Care Facilities

Retirement Homes

Bereavement Services

Palliative Pain and Symptom Management Consultative Service
Reference materials and other helpful resources:

Multifaith Information Manual - copies available in CCAC and other provider's offices. A resource of the Ontario Multifaith Council on Spiritual and Religious Care

[www.omc.on.ca](http://www.omc.on.ca) - access to a library of multifaith resources, including the Multifaith Information Manual.

Canadian Association of Pastoral Practice and Education - [www.cappe.org](http://www.cappe.org) (Professional Practice Standards of Practice) This web page describes the standards of practice that professional chaplains/spiritual care providers are trained to and which guide their practice.

In the space below, add the contact information for your local spiritual and religious leaders. Include those in hospitals, hospices, CCAC, Long Term Care Facilities, as well as independent counsellors and faith practitioners.

<table>
<thead>
<tr>
<th>Local Spiritual Contacts</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
These tools appear on the following pages:

- Guidelines for using the Edmonton Symptom Assessment Scale (ESAS)
- Edmonton Symptom Assessment Scale Graph
- Edmonton Symptom Assessment Scale
- Edmonton Symptom Assessment Scale Patient Instructions
- Palliative Performance Scale (PPSv2)

These screening tools can assist in identifying patients who require indepth assessment of their symptoms.

All palliative patients should be screened using the ESAS tool.

(Standardization and Consistency Committee, February 2007; Champlain District End of Life Care Network)
**Purpose of the ESAS**

This tool is designed to assist in the assessment of nine symptoms common in cancer patients: pain, tiredness, nausea, depression, anxiety, drowsiness, appetite, wellbeing and shortness of breath, (there is also a line labelled “Other Problem”). The severity at the time of assessment of each symptom is rated from 0 to 10 on a numerical scale, 0 meaning that the symptom is absent and 10 that it is of the worst possible severity. The patient and family should be taught how to complete the scales. It is the patient’s opinion of the severity of the symptoms that is the “gold standard” for symptom assessment.

The ESAS provides a clinical profile of symptom severity over time. It provides a context within which symptoms can begin to be understood. However, it is not a complete symptom assessment in itself. For good symptom management to be attained the ESAS must be used as just one part of a holistic clinical assessment.

**How to do the ESAS**

The patient circles the most appropriate number to indicate where the symptom is between the two extremes.

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

The circled number is then transcribed onto the symptom assessment graph (see “ESAS Graph” below).

Synonyms for words that may be difficult for some patients to comprehend include the following:

- Depression  - blue or sad
- Anxiety  - nervousness or restlessness
- Tiredness  - decreased energy level (but not necessarily sleepy)
- Drowsiness  - sleepiness
- Wellbeing  - overall comfort, both physical and otherwise; truthfully answering the question, “How are you?”

**When to do the ESAS**

a) In palliative home care, it is a good practice to complete and graph the ESAS during each telephone or personal contact. If symptoms are in good control, and there are no predominant psychosocial issues, the ESAS can be completed weekly for patients in the home. In hospice and tertiary palliative care units the ESAS should be completed daily. In other settings the palliative consultants will utilize this tool in their assessment on each visit.

b) If the patient’s symptoms are not in good control, daily assessments need to be done in person by the attending health professionals until the symptoms are well-controlled (see “d” below).

c) If symptom management is not attained, or consultation about possible care options is needed, patient assessments by Palliative Care Consultants are available (attending physician must agree). Consultative discussions not requiring in-person patient assessments are available from Palliative Care Consultants upon request.

d) If, after all therapeutic options have been exhausted and consensus is reached that a symptom cannot be further improved, visits and assessments can return to their normal pattern for that patient.

(OVER)
Who should do the ESAS

Ideally, patients fill out their own ESAS. However, if the patient is cognitively impaired or for other reasons cannot independently do the ESAS, then it is completed with the assistance of a caregiver (a family member, friend, or health professional closely involved in the patient’s care). If the patient cannot participate in the symptom assessment, or refuses to do so, the ESAS is completed by the caregiver alone.

Note: when the ESAS is completed by the caregiver alone the subjective symptom scales are not done (i.e. tiredness, depression, anxiety, and wellbeing are left blank) and the caregiver assesses the remaining symptoms as objectively as possible, i.e. pain is assessed on the basis of a knowledge of pain behaviors, appetite is interpreted as the absence or presence of eating, nausea as the absence or presence of retching or vomiting, and shortness of breath as laboured or accelerated respirations that appears to be causing distress for the patient.

When a patient is irreversibly cognitively impaired and cannot participate in doing the ESAS, the caregiver continues to complete the ESAS as outlined above and the Edmonton Comfort Assessment Form (ECAF) may also be used (see ECAF guidelines).

The method in which the ESAS was completed must be indicated in the space provided at the bottom of the ESAS Numerical Scale and the ESAS Graph as follows:

<table>
<thead>
<tr>
<th>Bottom of ESAS Numerical Scale</th>
<th>Bottom of ESAS Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed by (check one)</td>
<td>Completed by □□□□□□□□</td>
</tr>
<tr>
<td>Patient</td>
<td>←insert appropriate</td>
</tr>
<tr>
<td>Caregiver</td>
<td>Key:</td>
</tr>
<tr>
<td>Caregiver-assisted</td>
<td>P = Patient</td>
</tr>
<tr>
<td></td>
<td>C = Caregiver</td>
</tr>
<tr>
<td></td>
<td>A = Caregiver-assisted</td>
</tr>
</tbody>
</table>

Where to document the ESAS

The ESAS is always done on the ESAS Numerical Scale and the results later transferred to the ESAS Graph. Graphing symptom severity directly onto the ESAS Graph without the use of the numerical scale is not a valid use of the ESAS nor a reliable method of symptom assessment (attention to the graphed historical trend may affect the current scores and so undermine one of the main purposes of the ESAS, i.e. to assess the current symptom profile as accurately as possible).

Other Information About the ESAS

The ESAS Graph also contains space to add the patient’s Mini-Mental Status Exam score. The “normal” box refers to the normal range for the patient, based on age and education level (see Instructions for MMSE). As well, a space for the Palliative Performance Scale (PPS) is included. The ESAS is available in other languages and also in faces for those patients who do not read.

| Mini-Mental (Normal _________) |   |   |   |   |   |
| PPS                            |   |   |   |   |   |
| Completed by                   |   |   |   |   |   |
| P = patient                    |   |   |   |   |   |
| C = caregiver                  |   |   |   |   |   |
| A = caregiver-assisted         |   |   |   |   |   |
| Level of Education             |   |   |   |   |   |
| Cage Score                     |   |   |   |   |   |

CH-0208 May 2001
Edmonton Symptom Assessment System Graph (ESAS)

<table>
<thead>
<tr>
<th>Date</th>
<th>Pain</th>
<th>Tiredness</th>
<th>Nausea</th>
<th>Depression</th>
<th>Anxiety</th>
<th>Drowsiness</th>
<th>Appetite</th>
<th>Wellbeing</th>
<th>Shortness of breath</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
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<tr>
<td>0</td>
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<td></td>
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<tr>
<td>0</td>
<td>10</td>
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<tr>
<td>0</td>
<td>10</td>
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<tr>
<td>0</td>
<td>10</td>
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<tr>
<td>0</td>
<td>10</td>
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<td></td>
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<tr>
<td>0</td>
<td>10</td>
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<tr>
<td>0</td>
<td>10</td>
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<tr>
<td>0</td>
<td>10</td>
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<td></td>
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<tr>
<td>0</td>
<td>10</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Edmonton Symptom Assessment Scale: Numerical Scale
Regional Palliative Care Program

Please circle the number that best describes:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Scale</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>Not tired</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Tiredness</td>
</tr>
<tr>
<td>Not nauseated</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Nausea</td>
</tr>
<tr>
<td>Not depressed</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Depression</td>
</tr>
<tr>
<td>Not anxious</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Anxiety</td>
</tr>
<tr>
<td>Not drowsy</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Drowsiness</td>
</tr>
<tr>
<td>Best appetite</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Appetite</td>
</tr>
<tr>
<td>Best Feeling of wellbeing</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Wellbeing</td>
</tr>
<tr>
<td>No shortness of breath</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Shortness</td>
</tr>
<tr>
<td>Other problem</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Other</td>
</tr>
</tbody>
</table>

**Patient’s Name** ________________________________  **Complete by (check one)**

- [ ] Caregiver
- [ ] Caregiver assisted
- [ ] Caregiver assisted

**Patient Date** ________________  **Time** ________________

**BODY DIAGRAM ON REVERSE SIDE**
Please mark on these pictures where you hurt.
Palliative Care Program
Patient Instructions
Edmonton Symptom Assessment Scale (ESAS)

Using the ESAS to check your symptoms is an excellent way to provide your doctor and nurse with information about how you are feeling. You can help them by completing the forms.

When to use ESAS
Please complete these forms once a day, preferably once in the morning before 10am

Who should complete ESAS?
This form is meant to be completed by you, but if you need some help a family member/caregiver. You may ask your nurse to help you if needed. Remember, it is how you feel right now and not how others think you feel.

How to complete your ESAS Log
There are 3 parts to your log:
1. Edmonton Symptom Assessment Scale (ESAS)
2. Body Diagram
3. Patient Log for ESAS

1. Edmonton Symptom Assessment Scale (ESAS)
Each symptom is rated from “0 to 10”. A score of “0” means you do not have the symptom. A score of “10” means that your symptom is at its very worst. Please choose the number that describes how you feel. There are 9 different scales, one for each symptom. The last line can be used for any other problem/symptom you may have.
Example: No pain ____________________ Worst possible pain
0 1 2 3 4 5 6 7 8 9 10

Some people have trouble understanding the words on the scales. The following words may be helpful to you.

Depression - sad or blue
Anxiety - nervousness or restlessness
Tiredness - decreased energy level (but not necessarily sleepy)
Drowsiness - sleepiness
Well-being - overall comfort, physical and otherwise; truthfully answering
2. **Body Diagram**
If you are feeling pain, please mark on the *BODY DIAGRAM* where it hurts.

3. **Patient Log for ESAS**
Please write the number for the scores you have given to your symptom rating in the Patient Log for ESAS. The Body diagram can be shown to your nurse or doctor. Please indicate who completed the ESAS as well.

If you have any questions about how to complete the form, *please ask your nurse.*
Thank you for completing the forms. This information will help the nurse and doctor take better care of you or your family member.
### Palliative Performance Scale (PPSv2)

<table>
<thead>
<tr>
<th>PPS Level</th>
<th>Ambulation</th>
<th>Activity &amp; Evidence of Disease</th>
<th>Self-Care</th>
<th>Intake</th>
<th>Conscious Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Full</td>
<td>Normal activity &amp; work</td>
<td>Full</td>
<td>Normal</td>
<td>Full</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No evidence of disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90%</td>
<td>Full</td>
<td>Normal activity &amp; work</td>
<td>Full</td>
<td>Normal</td>
<td>Full</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some evidence of disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td>Full</td>
<td>Normal activity <em>with</em> effort</td>
<td>Full</td>
<td>Normal or reduced</td>
<td>Full</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some evidence of disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td>Reduced</td>
<td>Unable Normal Job/Work</td>
<td>Full</td>
<td>Normal or reduced</td>
<td>Full</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significant disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td>Reduced</td>
<td>Unable hobby/house work</td>
<td>Occasion assistance necessary</td>
<td>Normal or reduced</td>
<td>Full or Confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significant disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>Mainly Sit/Lie</td>
<td>Unable to do any work</td>
<td>Considerable assistance required</td>
<td>Normal or reduced</td>
<td>Full or Confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extensive disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td>Mainly in Bed</td>
<td>Unable to do most activity</td>
<td>Mainly assistance</td>
<td>Normal or reduced</td>
<td>Full or Drowsy +/- Confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extensive disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30%</td>
<td>Totally Bed Bound</td>
<td>Unable to do any activity</td>
<td>Total Care</td>
<td>Normal or reduced</td>
<td>Full or Drowsy +/- Confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extensive Disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td>Totally Bed Bound</td>
<td>Unable to do any activity</td>
<td>Total Care</td>
<td>Minimal to sips</td>
<td>Full or Drowsy +/- Confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extensive Disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td>Totally Bed Bound</td>
<td>Unable to do any activity</td>
<td>Total Care</td>
<td>Mouth care only</td>
<td>Drowsy or Coma +/- Confusion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extensive Disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>Death</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Instructions for Use of PPS (see also definition of terms)**

PPS scores are determined by reading horizontally at each level to find a “best fit” for the patient which is then assigned as the PPS% score.

Begin at the left column and read downwards until the appropriate ambulation level is reached, then read across to the next column and downwards again until the activity/evidence of disease is located. These steps are repeated until all five columns are covered before assigning the actual PPS for that patient. In this way, ‘leftward’ columns (columns to the left of any specific column) are ‘stronger’ determinants and generally take precedence over others.

**Example 1:** A patient who spends the majority of the day sitting or lying down due to fatigue from advanced disease and requires considerable assistance to walk even for short distances but who is otherwise fully conscious level with good intake would be scored at PPS 50%.

**Example 2:** A patient who has become paralyzed and quadriplegic requiring total care would be PPS 30%. Although this patient may be placed in a wheelchair (and perhaps seem initially to be at 50%), the score is 30% because he or she would be otherwise totally bed bound due to the disease or complication if it were not for caregivers providing totally care including lift/transfer. The patient may have normal intake and full conscious level.

**Example 3:** However, if the patient in example 2 was a paraplegic and bed bound but still able to do some self-care such as feed themselves, the PPS would be higher at 40–50% since he or she is not ‘total care’.

PPS scores are in 10% increments only. Sometimes, there are several columns easily placed at one level but one or two which seem better at a higher or lower level. One then needs to make a ‘best fit’ decision. Choosing a ‘half fit’ value PPS 45% for example, is not correct. The combination of clinical judgment and ‘leftward precedence’ is used to determine whether 40% or 50% is the more accurate score for that patient.

PPS may be used for several purposes. First it is an excellent communication tool for quickly describing a patient’s current functional level. Second, it may have value in criteria for workload assessment or other measurements and comparisons. Finally it appears to have prognostic value.
## Palliative Performance Status Scale (PPSv2)

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to carry on normal activity</td>
<td>100%</td>
<td>Full ambulation and self-care; intake normal; fully conscious; normal activity</td>
</tr>
<tr>
<td></td>
<td>90%</td>
<td>Full ambulation and self-care; intake normal; fully conscious; some evidence of disease</td>
</tr>
<tr>
<td></td>
<td>80%</td>
<td>Full ambulation and self-care; intake normal or reduced; fully conscious; normal activity with effort; some evidence of disease</td>
</tr>
<tr>
<td>Unable to do normal job/work</td>
<td>70%</td>
<td>Full self-care; reduced ambulation; normal or reduced intake; fully conscious; some evidence of disease</td>
</tr>
<tr>
<td>Unable to do hobby/house work</td>
<td>60%</td>
<td>Occasional assistance for self-care; reduced ambulation; intake normal or reduced; fully conscious or confused; significant disease</td>
</tr>
<tr>
<td>Unable to do any work</td>
<td>50%</td>
<td>Considerable assistance for self-care; Mainly sit/lie; intake normal or reduced; fully conscious or confused; extensive disease</td>
</tr>
<tr>
<td>Mainly in bed</td>
<td>40%</td>
<td>Mainly assistance for self-care; intake normal or reduced; fully conscious, drowsy or confused; unable to do any work; extensive disease</td>
</tr>
<tr>
<td>Totally bed bound</td>
<td>30%</td>
<td>Total care; intake reduced; fully conscious, drowsy or confused; unable to do any work; extensive disease</td>
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<tr>
<td>Totally bed bound</td>
<td>20%</td>
<td>Total care; intake minimal sips; fully conscious, drowsy or confused; unable to do any work; extensive disease</td>
</tr>
<tr>
<td>Totally bed bound unable to do any work;</td>
<td>10%</td>
<td>Total care; intake mouth care only; Drowsy or coma; extensive disease</td>
</tr>
<tr>
<td>Death</td>
<td>0%</td>
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</tbody>
</table>

Symptom Management - 13
Symptom Management

If you have questions, it is recommended that you consult your local palliative expert or the Palliative Pain & Symptom Management Consultation Service (1-800-651-1139).

This section includes information on:

- Bowel Obstruction
- Constipation
- Delirium
- Diarrhea
- Dyspnea
  - Malignant Pleural Effusion
- Hiccoughs
- Mouth Problems
- Nausea & Vomiting
- Palliative Emergencies
- Pain
- Pain in the Elderly
- Pediatrics
- Skin and Wound Problems
- Other Issues in Palliative Care
  - Dementia
  - Diabetes
  - Grief & Bereavement
  - Multicultural Issues
  - Nutrition
  - Hydration
  - Palliative Sedation
Bowel Obstruction

If patient is a surgical candidate, stabilize and refer to surgery. If patient is not a surgical candidate, begin medical management.

Treat Nausea, Vomiting, Colicky pain, Obstruction
- Consider hydration and nutrition on an individual basis.
- Give excellent mouth care.
- Allow patients to take small amounts of fluids then their favourite foods, when symptoms settle.
- Only use NG tube only in exceptional circumstances and with patient's agreement. A PEG tube may be a practical alternative.
- Consider the option of surgery if appropriate.

<table>
<thead>
<tr>
<th>Pain</th>
<th>If patient is opioid naïve:</th>
<th>Morphine 2.5mg sc q4h reg or Hydromorphone 1 mg q4h sc and titrate as needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If patient is already on opioid, convert dose to sc by dividing by 2 and titrate.</td>
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</tbody>
</table>

| Colicky pain | Buscopan 10-20mg sc q4h prn [good for nausea] |

| Nausea management choices | Dexamethasone: 4-16 mg po/sc daily, especially if high bowel obstruction is suspected. |
|                          | Haldol: 0.5-2 mg po/sc BID-TID and prn |
|                          | Methotrimeprazine: 10-25mg sc q4-8h |
|                          | Buscopan (Hyoscine Butylbromide): 10-20mg sc q4-8h |
|                          | Dimenhydrinate: 50-100mg sc q4h prn |

| Secretions/ Distention management choices | Buscopan (Hyoscine Butylbromide): 10-20mg sc q4-8h |
|                                          | Octreotide (somatostatin analogue): 25-100mcg sc TID-QID (up to max 700 mcg total daily dose) |
|                                          | Inhibits GI hormones, decreases motility, decreases vomiting, decreases pain, decreases fluid. It has been shown to be more effective at reducing secretions and nausea and vomiting than Buscopan. |

| Suspected peri-tumour edema | Dexamethasone 6-20mg po/sc daily |

Do NOT use the following with complete obstructions:
Prokinetics (for functional bowel obstruction only)
- Domperidone 10mg po QID
- Metoclopramide 10mg po/sc q4h

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
References for Bowel Obstruction


**Constipation**

D ificult to pass  
I nfrequent  
S maller than Normal  
H ard

**Definition:** discomfort, decreasing frequency of bowel movements, hard stools, difficult defecation.

**Constipation leads to** pain, bloating, nausea, vomiting, agitation, overflow incontinence, embarrassment, exhaustion, obstruction

**Causes of Constipation:**  
Decreased mobility  
Decreased fluids and food  
Metabolic: hypothyroid, hypokalemic, hypercalcemia  
Drugs  
Obstruction  
Autonomic dysfunction: diabetes, renal failure, cancer, spinal cord compression  
Severe weakness  
Lack of Privacy and anxiety about using a bedpan or commode  
Anatomical (rectocele, fissure, tumour mass)

**Drug List: Offending Agents**  
Opioids - increase bowel tone, decrease biliary and pancreatic secretions, delay gastric emptying, decrease peristalsis, increase transit time, decrease urge to defecate. Occurs immediately.

**Some Chemotherapy**  
Anticholinergics (includes antispasmodics, antidepressants, neuroleptics)  
Iron  
Antacids (Ca²⁺)  
Ondansetron (Zofran)  
Diuretics  
Anticonvulsants  
NSAIDS  
Others
Ask About Constipation

**History:** Med List, bowel habits, diet
*diarrhea may indicate overflow from impacted stool.

**Examine**
Look for distension
Listen for bowel sounds
Feel for stool, masses, and tenderness

**Rectal Exam**
- Fissures
- Hard stool
- Soft stool
- Rectal tone
- Masses
  - Upper motor neuron lesion → spastic anal sphincter (patient may need daily digital stimulation)
  - Lower motor neuron lesion - absent anal wink (patient may need daily evacuation)
**Treat reversible causes**

**R/O intestinal obstruction.**
(Suspect if vomiting, crampy, visible peristalsis, swollen stomach)
Abdo X-ray if concerned. Will show air fluid levels, increasing bowel diameter if obstructed. Refer to **Bowel Obstruction Section**.

DO NOT give laxatives if undiagnosed acute abdominal pain, nausea, vomiting, or allergies.

**Manage Constipation:**

- Prevent by starting all patients receiving opioids on a laxative regimen (see constipation protocol)
- Use sensitivity and humour
- Provide privacy
- Scheduled toileting
- Monitor patient well (have patient family member or health care member maintain a record of BMs)
- Increase fluid and activity if possible
- Eliminate unnecessary constipating medications

A stool in front of the toilet can help raise the feet to make defecation easier

**Natural Laxatives:**
Hot fluids in the am stimulate heat sensors in the gut.
Flax seed oil is a laxative but increases blood pressure.
Senna tea is a stimulant laxative.
Prune juice (can be warmed) contains phenolphthalein and is a stimulant laxative.
**CAUTION:** Avoid bulk laxatives (e.g. psyllium, Metamucil) as palliative patients cannot take enough fluids for them to be effective.
<table>
<thead>
<tr>
<th>Drug and Dose</th>
<th>Mechanism of Action and When to Use</th>
<th>Side Effects or Warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>BULK</td>
<td>12-72 hours to work → Use only if patient has good performance status and good fluid intake (&gt;1500mL/day).</td>
<td>- Constipation possible make worse</td>
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<tr>
<td>(Metamucil, fibre tablets)</td>
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<tr>
<td>STIMULANTS</td>
<td>12-24 hours to work → Stimulates mesenteric plexus to produce peristalsis, decreases absorption of water in the colon (activated by colonic bacteria)</td>
<td>- Abdominal cramps - Hypokalemia</td>
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<tr>
<td>- Sennosides (Sennokot)</td>
<td>2 tabs po qHS (max 8/day)</td>
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<tr>
<td>- Prune juice</td>
<td>120-240mL daily</td>
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<tr>
<td>SOFTNERS</td>
<td>1-3 days to work → increases water permeability and softens stool</td>
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<tr>
<td>- Sodium docusate(Colace)</td>
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<tr>
<td>1-4 capsules daily</td>
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<tr>
<td>OSMOTIC</td>
<td>12-48 hrs to work → draws fluid into bowel, increases peristalsis → ideal in liver failure since it binds ammonia</td>
<td>- Abdominal pain and distension - Sweet taste</td>
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<tr>
<td>- Lactulose</td>
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<td>30mLs po BID</td>
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<tr>
<td>MILK OF MAGNESIA</td>
<td>1-6 hours to work → draws in water, stimulates peristalsis</td>
<td>- Avoid in severe renal failure</td>
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<td>(Mg+ hydroxide)</td>
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<td>30-60mLs daily in divided doses</td>
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<tr>
<td>PROKINETICS</td>
<td>30-60 mins to work → stimulates bowel (mostly small bowel)</td>
<td>- restlessness, drowsiness, EPS (give diphenhydramine as antidote)</td>
</tr>
<tr>
<td>(used for treatment and relief of N and V but relief of constipation may also be a desired effect)</td>
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<td></td>
</tr>
<tr>
<td>- Metoclopramide 10-20mg</td>
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<tr>
<td>po/IV/sc q6h reg or prn</td>
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</tr>
<tr>
<td>Drug and Dose</td>
<td>Mechanism of Action and When to Use</td>
<td>Side Effects or Warnings</td>
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</tr>
<tr>
<td><strong>RECTAL</strong></td>
<td>Bisocodyl (Dulcolax) Stimulant 5-10mg PR qHS</td>
<td>6-12 hours to work → good for evacuation of soft stool → stimulates myenteric plexus</td>
</tr>
<tr>
<td><em>avoid in neutropenic pts due to infection risk</em></td>
<td>Glycerin supplement - Osmotic 1 PR daily</td>
<td>30 mins to work → increases water retention, initiates peristalsis, best for impacted hard stool</td>
</tr>
<tr>
<td><em>use with spinal cord compression or neurogenic bowel dysfunction or impaction</em></td>
<td>Fleet (Sodium Phosphate enema)</td>
<td>→ Stimulates peristalsis</td>
</tr>
</tbody>
</table>

**Constipation Protocol for Palliative Patients**

(1) Stimulant Sennokot 2-4 tabs po qHS (increase as needed) and Softener Colace 200mg po daily. Increase doses for desired effect.

(2) If needed add osmotic agent: Lactulose 30mL po BID prn or Milk of Magnesia 30-60mL/day

(3) Rectal Agents - If no bowel movements in 48-72 hr use
   Bisacodyl suppository PR q2days prn [best for soft stool]  
   **And/Or**  
   Fleet Enema PR q2days prn [best for hard stool]

(4) If no bowel obstruction may add Go-Lytely* 1 cup-480 mL daily until bowel movement

*All patients prescribed opioids should be started on Step 1

*Tip: Mix Go-Lytely with ginger ale for better taste
Recipe for a Natural Laxative

200 ml prune nectar
125 ml dates
125 ml figs
200 ml raisins
125 ml pitted prunes

Simmer dates and prune nectar until the dates are very soft. Put date mixture in a chopper and blender. Add figs, raisins and prunes. Chop until the mixture is a smooth paste. Refrigerate and use as spread.

References for Constipation


Jarvis V. Teaching Module on Constipation: Constipation in Cancer and Palliative Care. 2006.


Delerium is a disturbance in cognition often described as an acute confusional state. It is characterized by acute onset, a fluctuating course, and inattention. Delirium itself may cause extreme discomfort and increased morbidity and mortality. It has been proposed that excess dopamine and decreased acetylcholine are responsible. It is found in half or more of patients with a terminal illness. It must be differentiated from depression or dementia. Delirium is often under recognized or mis-diagnosed. There are 3 subtypes; hypoactive, mixed and hyperactive.

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
**Delirium Algorithm**

**Assess and Screen for Delirium**
- DSM IV diagnostic criteria (acute onset, change in consciousness, attention, or cognition, disturbance in perception, psychomotor behaviour, sleep-wake cycle, emotional disturbance, labile emotions)
- Abnormal MMSE (<24/30)

**Hyperactive • Mixed • Hypoactive**

(1) **Asses and treat any reversible causes**  
(when clinically appropriate*)  
- Review drugs: discontinue unnecessary medication, consider opioid rotation, minimize or eliminate psychoactive medication.  
- Assess hydration status - Rehydrate as needed: consider hypodermoclysis  
- Metabolic causes: renal/liver failure, electrolyte imbalance, elevated calcium  
- Hypoxemia  
- Sepsis  
- Central nervous system problems, e.g. CNS metastases  
- Consider Paraneoplastic causes

(2) **Management of Symptoms**

**Pharmacologic Options** (for hallucinations or agitation)
- Haloperidol 1-2mg po/sub Q BID-TID and/or prn  
- Methotrimeprazine 6.25mg-12.5mg po/sc TID and/or q4-6h prn (titrate to effect)  
- Atypical neuroleptics (more sedating). Less EPS: Olanzapine 2.5-5mg po q12-24hr OR Resprimone 1-3mg po q12-24h

**Non Pharmacologic Options**
- Provide structure and routine  
- Quiet, well-lit room with visible clock and calendar  
- Simple explanations  
- Continuity of nursing staff  
- Familiar objects and people

(3) **Counsel and Educate**  
Patient • Family • Staff

*Note: Investigation and management of reversible causes will depend on the consent from patients family and the clinical circumstances (prognosis, likelihood of finding a reversible cause etc.)  
*Benzos and anticholinergics often worsen delirium  
*Neuroleptics have been shown to work in both hypoactive and hyperactive delirium
<table>
<thead>
<tr>
<th>Delirium vs Dementia</th>
<th>Delirium</th>
<th>Dementia</th>
</tr>
</thead>
</table>
| **Course**           | Acute onset, hours to weeks  
                       | Fluctuates: Some lucidity during days, worse nights | Insidious onset, months or years  
                       | Can fluctuate throughout the day |
| **Sleep-Wake Cycle** | Always disrupted/hour to hour variation  
                       | Early feature  
                       | Difficult for caregivers | Sleep often fragmented  
                       | Difficult for caregivers |
| **Awareness**        | Clouding of consciousness  
                       | Note hypoactive/hyperactive | Clear |
| **Alertness**        | Abnormal | Usually normal |
| **Attention**        | Distractable  
                       | Fluctuates over the day | Usually normal |
| **Orientation**      | Early stage  
                       | Usually impaired for time and date  
                       | Mistake unfamiliar for familiar place and person | Often impaired |
| **Memory**           | Impaired-immediate, recent | Impaired- recent, remote  
                       | Depends on severity of illness |
| **Thinking/Speech**  | Disorganized - rambling, irrelevant, incoherent, slow or rapid | Impoverished - dysnomia, word finding difficulties |
| **Perception**       | Illusions, visual hallucinations common, if present distressing | Usually normal  
                       | If present low emotional meaning |
| **Behaviour**        | Restless | |
| **Emotions**         | Anxious, emotionally labile | |
| **Reversibility**    | Commonly - organic cause, drug toxicity  
                       | Potentially reversible | Rarely - organic cause, drug toxicity  
                       | Usually irreversible |
Behaviour Changes in the Non-Cognizant Elderly

Behaviour changes are part of particular importance in assessing pain or distress experienced by patients unable to communicate verbally. The aphasic, confused and disoriented persons often communicate their discomfort non-verbally. If there is a change in behaviour such as:

Normal Behaviour has to be defined for each person. The change in behaviour is the important indicator of discomfort.

These behaviours may be normal:
- Moaning, rocking
- Disjointed verbalization
- Friendly/outgoing
- Involved in activities
- Outgoing
- Cheerful
- Eats well
- Quiet, cooperative

These behaviours may indicate Pain/Distress
- Quiet, still
- Accurate description of pain
- Agitated/combative
- Does not participate
- Withdrawn
- Cries easily
- Refuses food, vomits
- Restless, abusive

Gestures such as wringing of the hands, fidgeting with clothes, holding onto the chair (as though needing security), and clenched fists are ways people respond in a distressful situation. Purposeless body movements such as tossing and turning in bed or swinging the arms about indicate discomfort. Involuntary movements such as reflexive jerking away, rhythmic body movements or rubbing may indicate pain.

Posture such as slouched or a slow shuffling gait suggests dejection or physical discomfort. Tense posture and a rapid determined gait suggest anxiety and anger. Sitting and lying positions communicate pain.
**Behaviour Checklist**

Changes in behaviour such as a difference in activity level, sleep patterns, appetite and socialization often indicate anxiety, anger or discomfort in the confused person. The behaviour checklist will assist the care provider in determining the cause of the distress and help them to identify which intervention alleviates the stress.

See next page for sample checklist.

**Use of the behaviour checklist**

The behaviour checklist is a tool that measures degree of behaviour on a scale of 5-1. The behaviours listed are negative in nature and usually indicate stress in any individual. If a change in activity has been noted in a patient and it is suspected that there may be an underlying physical, mental, spiritual or social reason the checklist needs to be filled out for at least three consecutive days. The scoring must be done twice a day, at the same time but during different levels or activity, i.e. sitting/walking. To keep the amount of disruption for the patient and staff to a minimum we suggest that the tool be put in the medication binder. Score the behaviour with the appropriate number. Implement one medical or nursing intervention at a time in order to accurately assess the effect it has bad on the person’s level of distress as reflected in the degrees of change in the behaviour, i.e. “calls out” score would move from a “5” to a “2” if the intervention was effective. This tool can be used until the behaviour of the patient reflects comfort of quality of life.

**Keep In Mind:**

Take time to listen
Break down problems that seem insolvable
Build on patient’s social network or create one for the patient
Physical/emotional discomforts of aging are not inevitable
Pain should not be an accepted part of aging

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
**SAMPLE Behaviour CheckList**

5 - Always  4 - Mostly  3 - Often  2 - Occasionally  1 - Rarely  0 - Never

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<thead>
<tr>
<th>DAY #:</th>
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<td>Eats poorly</td>
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<td>Noisy Breathing</td>
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</table>

Check all behaviours two-four times a day at the same time.

Indicate the level of activity - R = Rest  M = Movement

Assessment intervals may be increased once comfort is achieved.

Score should reflect the previous two to four hours' behaviour

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St. Joseph's Health Center of Sarnia
Palliative Pain Research Team
Rev. Feb. 1998

**References for Delirium**


**Diarrhea**

**Definition:** The passage of frequent loose stool, usually more than 3 unformed stool/24 hours.

Less common problem than constipation.
If persistent can cause dehydration, malabsorption, fatigue, haemorrhoids and peri-anal skin break down.
If duration is longer than 3 weeks it is defined as chronic.
Most common cause at end of life is laxative overuse, followed by infection including overgrowth by Candida.
Colonic sources produce watery diarrhea.
Small bowel sources cause pale fatty steatorrhea.

**Causes:**
- Drugs: Laxatives, antibiotics, antacids (Mg\(^{2+}\)), NSAIDS, iron, sorbitol, chemotherapy
- Antibiotics
- Enteral feeds
- Partial Obstruction
- Constipation causing overflow incontinence: due to fecal impaction with overflow
- Malabsorption: cancer of head of pancreas, or after ileal resection > 100cm, colectomy, enterocolic fistula, gastrectomy.
- Emotional and psychological stress
- GI bleeding
- Radiotherapy: abdomen and pelvis - peak incidence 2\(^{nd}\) or 3\(^{rd}\) week of therapy - usually resolves.
- Tumour- rectal: increases mucous production. Hypokalemia, achlorhydria, pancreatic islet tumour, carcinoid and miscellaneous G.I. malignancy can cause watery diarrhea.
- Post-operative
- *Diet- spicy, greasy, fibre, dairy

*Consider Dietician Consult

**Investigations** depend on the stage of illness - in advanced illness investigation may be inappropriate. If laxatives are to blame it is often due to irregular and too high
dosage - usually resolves 24-48 hrs once stopped - then restart at lower dose - if indicated.

Protocol:

**Non Pharmacological Intervention**
- Rehydration, electrolyte correction: encourage clear fluids orally, or hypodermoclysis
- Avoid milk and gas forming foods, hold laxatives, consider bulk agents such as bran (see section on Constipation)

**Pharmacological Intervention**

(A) **Absorbent** - Kaolin, kaopectate - non specifically absorb dissolved and suspended substances like bacteria, toxins.
  - Treat infections if you can
  - Dilute or slowdown NG feeds
  - Small meals
  Consider: **attapulgite (Kaopectate) 30mL up to 7 times per day**

(B) **Mucosal prostaglandin inhibitors** - ASA, Bismuth
  Block prostaglandin mediated increases of water and electrolyte secretions.
  Bismuth salts have added benefit as antimicrobial against E Coli
  Consider: **Bismuth Salts 15-30mL bid-qid**

(C) **Opioids** - Loperimide (Imodium) 4 mg initially then 2 mg after each loose bowel movement (max: 16 mg/day) or Diphenoxylate (lomotil) 5 mg tid or qid.
  Act by decreasing peristalsis in colon, and they increase anal sphincter tone.
  The most important class of drugs used for diarrhea in palliative care
  If signs of infection, fever, blood, C difficile or Shigella - do not use opioids as you risk toxic megacolon.

(D) **Somatostatin** (Octreotide) inhibits secretions and peristalsis.
  Works in cryptosporidial diarrhea, carcinoid, ileostomy, and entero-colic fistula, can use intermittent injections or continuous infusions SC.
  Use Octreotide (somatostatin) - 50mcg sc q8-12 hr, then titrate - up to 500 mcg q8h sc or by continuous Sc/IV infusion.
If diarrhea due to increased secretions could try **Hyoscine butylbromide (Buscopan)** - It does not cross blood brain barrier, therefore has no CNS side effects.

**Hyoscine hydrobromide (scopolamine)** - It crosses the blood brain barrier and therefore causes CNS side effects.

Natural treatment suggestions: large amount of nutmeg on apple sauce or rice water.

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**References for Diarrhea**


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For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
**Dyspnea**

**Definition:** Shortness of breath, it is one of the most feared symptoms, and probably the most distressing to a dying patient. Regardless of the cause of dyspnea, the patient can be made comfortable without invasive or aggressive measures. It is known that up to 70% of hospice patients in the last weeks of life suffer from Dyspnea. Patients rate Dyspnea as hard to bear as pain. Many patients would rather die than suffer with this symptom. It is often described as air hunger, suffocating, choking, and heavy breathing.

**Management:**
Assess Dyspnea on a scale (you can use the 10 pt scale on the ESAS). Ask about the timing, precipitating and relieving events, associated symptoms, response to meds. Ask your patient if they are afraid of gasping for air or dying by suffocation. Use patients subjective feelings to guide treatment not O2 sats. Confusion may indicate hypoxia - treat with oxygen.

**Correct Reversible Causes, if appropriate:**
- Treat infections with antibiotics
- Treat tumours with radiation, chemotherapy, steroids
- Treat asthma and COPD with bronchodilators and steroids
- Treat pleural effusions with drainage (thoracentesis) or sclerosing agents (see section on Pleural Effusion)
- Treat pneumothorax with a Chest Tube
- Diuretics and medical management of heart failure
- Use transfusions for anemia
- Use paracentesis for ascites

**Treatment Options: Non-pharmacological Measures**
Provide oxygen only if it helps the patient or if hypoxic and symptomatic (a cross over trial between O2 and air can provide accurate indication of usefulness of O2). Try nebulized saline every 4 hours if helpful. Education and support for the family and patient. Explain what is going on. Company and Companionship - use volunteers. Relaxation exercises and imagery. Hypnosis.
Dyspnea

Distraction
Provide a cool draft from an open window or fan
Maintain a calming presence
Positioning may help. Try to position the patient at the side of the bed leaning on a table with a pillow with shoulders raised. If unable to sit at the bedside, encourage patients to try and keep shoulders raised.
Try to prevent accumulation of blankets and keep things away from the patient’s head area
Restrict strong perfumes
Keep odours and cleaning agents away from the room
Encourage or review breathing skills (i.e. pursed lips breathing)
Acupuncture and acupressure have been shown to be beneficial

Cough
- 50% of all terminal patients and 80% of lung cancer patients experience coughing. It can interfere with sleep and can become a source of agitation.

Non-pharmalogical measures:
- postural drainage
- respiratory exercises
- elevate HOB 30%
- cool air

Opioids are a mainstay of treatment for dyspnea. Codeine is not more effective than other opioids.

Productive cough in patients able to cough:
- Bronchodilators
  - Nebulized salbutanol 2.5-5mg q4-6h

Productive cough in patients unable to cough:
- Antitussives
  - Scopolamine 0.3-0.6mg sc q4h

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
<table>
<thead>
<tr>
<th>Medication</th>
<th>Mechanism</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Line Opioids</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>If opioid naïve</strong></td>
<td>1st Line Opioids</td>
<td></td>
</tr>
<tr>
<td>Morphine 1-5mg po q4h regular</td>
<td>Central suppression of dyspnea and cough</td>
<td>GI upset</td>
</tr>
<tr>
<td>OR Hydromorphone 0.25-1mg po q4h regular</td>
<td>Decreases respiratory drive</td>
<td>Nausea</td>
</tr>
<tr>
<td><strong>If Opioid tolerant...</strong></td>
<td></td>
<td>Dizziness</td>
</tr>
<tr>
<td>Increase dose by 25% PRN=10% of 24hr dose q1-2h prn</td>
<td>Decreases O2 consumption</td>
<td></td>
</tr>
<tr>
<td>Divide by 2 to give sc</td>
<td></td>
<td>Drowsiness</td>
</tr>
<tr>
<td><strong>Adjuvants: Neuroleptics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methotrimeprazine (Nozinan) 2.5-10mg po/sc q6-8 prn or regular OR Chlorpromazine 7.5-25mg po/sc q6-8h prn or regular</td>
<td>Direct effect on respiratory center</td>
<td></td>
</tr>
<tr>
<td><strong>If anxiety add anxiolytic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lorazepam 0.5-1mg po/SL/Sub Q q4-12h prn</td>
<td>Reduces anxiety Muscle relaxant</td>
<td>Drowsiness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weakness</td>
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<td>Fatigue</td>
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<td>Ataxia</td>
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<td></td>
<td></td>
<td>Nausea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depression</td>
</tr>
<tr>
<td><strong>Anxiolytic (Non Benzodiazepine)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buspirone 5mg po BID $\rightarrow$6x/day</td>
<td>Central effect</td>
<td>Dizziness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H/A</td>
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<tr>
<td></td>
<td></td>
<td>Anxiety</td>
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<tr>
<td></td>
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<td>Nausea</td>
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<td></td>
<td></td>
<td>Excitement</td>
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<tr>
<td></td>
<td></td>
<td>Clamminess</td>
</tr>
</tbody>
</table>
Managing SEVERE Dyspnea at End of Life:

Goal = relief of symptoms but sedation likely 2nd effect

Start with:
(1) Parental Opioids
   If opioid naive: Morphine 2.5-5mg IV or sc
   If opioid tolerant: increase current dose by 50%
   Reassess every 10 mins for IV OR every 20 mins for sc

(2) Give Methotrimeprazine (Nozinan) 12.5-25 mg sc

(3) If agitated
   Midazolam 2.5-5 mg IV/sc and titrate to effect
   Lorazepam 0.5-1 mg IV/sc and titrate to effect
Death Rattle
In the patient’s final hours, when he or she may be semi-conscious or deeply unconscious, the patient may be unable to swallow or expectorate mucus. The secretions that collect in the back of the throat cause a partial loose airway obstruction. The sound created by breathing through this obstruction is known as the “death rattle”. This sound may be distressing to relatives or patients nearby.

At this point, suctioning (especially deep suctioning) may actually be more distressing for the patient. In these situations, the use of scopolamine may be more beneficial and very helpful.

Anticholinergics
Less Sedating:
→ Glycopyrrolate 0.2-0.4mg sc q2-4h prn
→ Buscopan 10-20mg sc q4h prn

Most Sedating (avoid in alert patients):
→ Scopolamine 0.4-0.6mg sc q4h prn (may use q2h if end-of-life and severe congestion)
(may use scopolamine patch q72h - a lower dose than above)

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
References for Dyspnea


**Malignant Pleural Effusion**

Pleural effusion is an abnormal collection of fluid between the thin layers of tissue (pleura) lining the lung and the wall of the chest cavity. This can occur in many patients with solid cancer tumours and some pulmonary disease. Accumulation of excess fluid in the pleural space, the normal volume is 5-15ml, cancer cells in the pleural space increases capillary permeability from intravascular interstitial compartment.

Diagnosed by physical exam and chest x-ray

**Symptoms:**
- Increased cough
- Dyspnea and shortness of breath
- Fatigue
- Anxiety
- Fear

**Treatment Options**
Depending on the patient’s overall condition, optimal dyspnea management may be sufficient.

Other options to consider:

**Pleura port:** An implanted device in the pleura cavity in which fluid may be drained; it is only used for drainage and is never to be accessed for blood withdrawal or administration of drugs.

**PleureX Catheter:** is a 15.5 French, soft, fenestrated silicone catheter that in tunnelled into the pleural space, it has multiple drainage perforations along the proximal end to allow fluid to enter and a safety valve at the distal end to prevent fluid from leaking out of or air from entering the catheter.

**Resource contacts:**
The Ottawa Hospital PluerX program: 613-737-8899, ext. 72344.

**Reference**
Hiccoughs

Non Drug Treatments
Sit up
Breathe into paper bag
Drink 2 glasses of water
Swallow 2 teaspoons of sugar

Drug Treatments
Haldol 0.5 – 1mg po/sc q8h prn
Chlropromazine 25 – 50mg po q6h for 7-10 days
Metoclopromide 10 – 20mg po/sc q6h prn
Baclofen 5 – 20mg po BID-TID

If caused by a brain tumour, anti-epileptic medication may be effective.

Reference

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Mouth Problems

Swallowing difficulties and oral mucosal inflammation are common in patients with a progressive terminal illness. Mouth care is often underreported, underestimated, and overlooked. Mouth care is very important and there is need for proper assessment and care. Without good mouth care and daily assessment consequences can arise; difficulty eating, speaking and communicating can interfere with family time.

Exam
- Always use a penlight
- Gloves
- Gauze to help move the tongue
- Remove Dentures
- Examine the entire mouth

Observe...
- Voice Changes
- Swallowing
- Examine Lips, Teeth, Gums
- Tongue → abnormal surfaces
- Under the tongue
- Mucous membranes for erythema, bleeding, dryness, pain, thick or absent saliva
- Ulcers
- White Patches

Regular Care
- Daily assessment
- Make sure the dentures fit well
- Soft toothbrush and fluoride toothpaste
- Clean dentures, out at night
- Frequent rinsing with water or club soda (or Sodium bicarbonate solution: 500ml water, 5ml salt, 5ml bicarb)
- Eat soft mild foods (avoid acidic or spicy foods)
- Avoid very hot or cold foods
- A bland high protein diet is recommended
- Water based lip balm
**Treat pain**

Keep mouth lubricated with water spray or saliva substitute

If undergoing chemo or radiation, it is recommended that patients receive fluoride treatment

<table>
<thead>
<tr>
<th>Mouth Problem</th>
<th>Symptoms/Presentation</th>
<th>Causes/Complications</th>
<th>Management/Therapy/Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry mouth</td>
<td>Unpleasant, burning, sore</td>
<td>Drugs: anticholinergic, antidepressants, antihistamines, antihypertensives, sedatives, hypnotics, diuretics, chemotherapy</td>
<td>Management&lt;br&gt;Clear history&lt;br&gt;Remove cause if possible (drugs)&lt;br&gt;Frequent sips of water&lt;br&gt;Chew sugar free gum or candy (short term only)&lt;br&gt;Pilocarpine: parasympathomimetic increases saliva.&lt;br&gt;Salivary substitutes: Mucin containing artificial salivas tend to be preferred.&lt;br&gt;OralBalance: lubricant great for radiation damage methylcellulose</td>
</tr>
<tr>
<td></td>
<td>Lack of saliva predisposes to infection</td>
<td>Radiation of the head and neck</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Difficulty swallowing and chewing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dentures do not fit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decreases taste discrimination</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increases risk of cavities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>Pain</td>
<td>Multiple causes</td>
<td>Topical Therapy&lt;br&gt;lidocaine mouth rinse&lt;br&gt;5mg/mL x 15mL&lt;br&gt;Swish &amp; Spit 1-8x/day&lt;br&gt;Sucralfate gargle and swallow&lt;br&gt;200mg/mL x 5mL 4-6x/day&lt;br&gt;Morphine solution 2mg/mL 15mL Swish x3mins 6x/day DO NOT swallow</td>
</tr>
<tr>
<td>Coated tongue</td>
<td>Appears white, brown, black, or furry</td>
<td></td>
<td>Frequent rinses with saline 500 mL + bicarbonate 500 mL or club soda&lt;br&gt;Chewing fresh pineapple chunks&lt;br&gt;Sucking on vitamin C tablets</td>
</tr>
<tr>
<td>Mouth Problem</td>
<td>Symptoms/Presentation</td>
<td>Causes/Complications</td>
<td>Management/Therapy/Treatment</td>
</tr>
<tr>
<td>---------------</td>
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</tr>
</tbody>
</table>
| Stomatitis    | inflammation of the oro-pharyngeal mucosa from any cause
  starts with redness and swelling → progresses to painful ulcerations
  Requires analgesia | Treat Antimicrobial agents have been found to reduce inflammation:
  Chlorhexidine is effective against gram positive and gram negative bacteria
  Treat fungal infections
  Treat apthous ulcers with topical steroids like Orocart paste
  Sulcrate – basic aluminum salt of sucrose → little if any benefit when compared with standard oral hygiene | |
| Bleeding mouth | Bloody lips
  Bleeding gums
  Petechia
  Clots and odour | Try microfibrillar collagen
  OR thrombin
  Tranexamnic acid | |
| Herpes (HSV)  | ulcer and necrotic changes, may be extra-oral
  often atypical presentation | very common in chemoinduced stomatitis
  reactivations are common among immunocompromised hosts | Topical or Systematic
  Therapy
  Valacyclovir 500mg po
  BID for 5 days |
| Thrush        | Angular chelitis (may also contain staph)
  Median rhomboid glossitis
  White patches - adherent
  White coating-rubs off to reveal a red glandular base
  or red oral mucosa
  Red gums under dentures “Denture stomatitis” | debilitated patients are very susceptible | Management
  Clean dentures overnight r/o DM
  check for steroids and antibiotics
  Topical Therapy
  Nystatin 100 000 IU/mL
  1 mL QID
  *If caused by cancer treatments thrush is not cured by Nystatin (Cochrane review 2006).
  Imidazoles are effective.
  Oral Therapy
  Fluconazole (some resistance)
  *Caution: Watch for drug interaction CYP 3A4 |

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
References for Mouth Problems


An unpleasant sensation associated with a sense of impending urge to vomit. Nausea is caused by stimulating either the GI tract, the CRTZ (chemoreceptor trigger zone), the vestibular apparatus (inner ear), or the cerebral cortex. Vomiting is a neuro-muscular reflex coordinated by the vomiting center of the midbrain.

The Vomiting Centre is located in the midbrain and coordinates the muscular action of vomiting. Inputs to the Vomiting Center include the chemoreceptor trigger zone (CRTZ), Vestibular apparatus, Cortex, Vagus nerve from abdominal viscera and heart.

CRTZ: The chemoreceptor trigger zone is located in the floor of the 4th ventricle. It lies outside the BBB and is stimulated by chemicals in the blood. Dopamine and 5HT (serotonin) pathways are stimulated in this process therefore use dopamine antagonists such as metoclopramide (Maxeran), haloperidol (Haldol) or ondansentron (Zofran).

The vestibular apparatus is part of the inner ear and causes nausea through histamine and cholinergic receptors. Use anti-histamines and Anti-cholinergics such as Dimenhydrinate and Scopolamine.

The gastrointestinal system and abdominal organs stimulate the Vomiting Center via vagal and sympathetic nerves. In a damaged gut serotonin (5-HT) is released from the enterochromaffin cells causing nausea. Use serotonin blockers such as Ondansetron.

Increased intracranial pressure (ICP) causes vomiting without nausea. To treat, use Dexamethasone.

It is important to note that Nausea may be caused by a combination of chemical, mechanical, and psychological factors.
VOMITING REFLEX PATHWAYS

Visceral

**Causes**
Ulcer
Thrush
Tumor
Constipation
Liver distension

Dopamine
Serotonin

**CRTZ**

**Causes**
Metabolic (hyper Ca+)
Medication (opioids)
Toxins

Dopamine
Serotonin

**Vestibul**

**Causes**
Meniere disease
Motion
Metastases
Ototoxic

Muscarinic
Cholinergic
Histaminic

**Cortex**

**Causes**
Tumors
↑ICP
↑Anxiety
Odors

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.

Adapted from Lichter, 1993
Nausea and Vomiting Treatment Sheet

History:
Any GI problems- oral candidiasis, gastritis, pre-existing GI motility problems (ie. Diabetic gastroparesis), constipation?
Positional effects?
Medications (ie. NSAIDS, carbamazepine, mexilitine, etc)? brain tumour?
Treatments?

Physical Exam: Examine the mouth and the abdomen. Look for thrush, constipation, dehydration. Look for signs of increasing ICP (papilledema)

Labs: Cr, BUN, Ca++, lytes, liver enzymes, Drug levels (when appropriate)

Tests: Xrays to R/O constipation or obstruction, CT head (when appropriate)

Treatment
  Treat reversible causes when appropriate
  Remember medications can cause Nausea and Vomiting
  Try opioid rotation if continues after 3 days
  Treat constipation aggressively

Non-Drug Treatment
  Avoid sights and smells that induce nausea
  Respect the patient’s wishes
  Frequent small and bland feedings
  Fresh air
  Explanation
  Distraction
  Mouth care
  Acu-pressure with sea bands
  Sit Upright to eat

If no cause identified: Start with regularly administered anti-emetics. Consider use of Metoclopromide; if ineffective, try Haloperidol, then add Dexamethasone. Consider side effect profiles of anti-emetics. For example, if sedation is desirable, consider using Methotrimeprazine in place of Haloperidol.
<table>
<thead>
<tr>
<th>POTENTIAL CAUSES</th>
<th>SITE AND NTs</th>
<th>ANTI-EMETIC</th>
<th>ACTION and SIDE-EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drugs, Uremia, Ketosis, chemotherapy, radiation, carcinomatosis, hypercalcemia, sepsis.</td>
<td>CRTZ (Dopamine) (5HT)</td>
<td>Metoclopromide 10 mg po/sc q 6h and 10 mg po/sc for rescue</td>
<td>Blocks D2 receptors in CRTZ and GI tract. Prokinetic: avoid if bowel obstruction. Watch for EPS: Akathesia, muscle rigidity, diarrhea.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Haldol 0.5-1 mg po/sc BID and q 6-8h prn</td>
<td>Block D2 receptors in CRTZ., sedating and analgesic properties.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methotrimeprazine 5-12.5 mg po/sc/PR q 4-6h</td>
<td>Blocks D2 receptors in CRTZ, sedating, analgesic properties</td>
</tr>
<tr>
<td>Inner ear problems, motion sickness.</td>
<td>Vestibular apparatus (H1) (Ach)</td>
<td>Dimenhydrinate 25-50 mg po/sc q 4-6 h</td>
<td>Blocks Histamine receptors in vestibular and vomiting centers. Prevents EPS. Dry mouth, constipation, sedating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scopolamine 0.2mg- 0.4 mg sc q 4-6h Or 1.5 mg transdermal patch q 72 hours</td>
<td>Blocks Ach receptors in the vestibular and vomiting centers. Dry mouth, sedation, constipation, increased intraocular pressure, urinary retention, confusion</td>
</tr>
<tr>
<td>MI, drugs, irritation, thrush, distension, motility disorder, obstruction, Chemotherapy, Metastasis disease, Radiation damage, hepatitis.</td>
<td>GI tract damage (5HT) (Dop) Upper GI through sympathetic and vagal stimulation</td>
<td>Ondansetron 8 mg po/sc q 8-12 h</td>
<td>Block serotonin receptors in GI tract, VC and CRTZ. Headaches, light headed, constipation, diarrhea, sedation, rash, increase LFTs</td>
</tr>
<tr>
<td>Anxiety, sights, smells, anticipatory nausea</td>
<td>Cortex (H1)</td>
<td>Lorazepam 0.5-1 mg po/SL/sc q8-12h</td>
<td>Sedation, confusion</td>
</tr>
<tr>
<td>Vomiting without nausea</td>
<td>Increased ICP</td>
<td>Dexamethasone 10-20 mg IV then 4-8 mg po/sc BID-QID</td>
<td>Reduces swelling Confusion, psychosis, euphoria, fluid retention, DM, increased appetite</td>
</tr>
</tbody>
</table>

Consider Celiac Plexus block for rare intractable nausea.
### Antiemetic agents with corresponding receptors

<table>
<thead>
<tr>
<th></th>
<th>Dopamine D&lt;sub&gt;2&lt;/sub&gt; -antagonist</th>
<th>Histamine H&lt;sub&gt;1&lt;/sub&gt; - ant agonist</th>
<th>Acetylcholine (muscarinic) antagonist</th>
<th>5HT&lt;sub&gt;3&lt;/sub&gt; -antagonist</th>
<th>5HT&lt;sub&gt;3&lt;/sub&gt; -antagonist</th>
<th>5HT&lt;sub&gt;4&lt;/sub&gt; -antagonist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metoclopramide</td>
<td>++</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>(+)</td>
<td>++</td>
</tr>
<tr>
<td>Domperidone</td>
<td>++&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Cisapride</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>+++</td>
</tr>
<tr>
<td>Ondansetron&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>+++</td>
<td>0</td>
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<tr>
<td>Dimenhydrinate</td>
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<td>++</td>
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<tr>
<td>Hyoscine hydrobromide</td>
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<td>+++</td>
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</tr>
<tr>
<td>Haloperidol</td>
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<tr>
<td>Prochlorperazine</td>
<td>++</td>
<td>+</td>
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<tr>
<td>Chlorpromazine</td>
<td>++</td>
<td>++</td>
<td>+</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Levomepromazine (methotrimeprazine)</td>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>+++</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Pharmacological activity:** 0 = none or insignificant, + = slight, ++ = moderate, +++ = marked.

<sup>a</sup> Domperidone does not cross the blood-brain barrier and therefore does not cause extrapyramidal effects.

<sup>b</sup> Other 5HT<sub>3</sub> antagonists – eg. Granisetron and tropisetron – have comparable receptor affinity.

Adapted from Twycross & Back, 1998.

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### References for Nausea and Vomiting


Palliative Emergencies

Strongly recommended to consult your local palliative care expert or the PPSMCS 1-800-651-1139

→ Superior Vena Cava Syndrome

→ Palliative Radiation Therapy Program

→ Massive Haemorrhage

→ Hypercalcemia

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Palliative Emergencies

Spinal Cord Compression (SCC)

Prompt action is required as there is an 80% improvement in patients who are still ambulatory. Action may not prolong life, but it improves quality of life.

Definition
Compression of the dural sac by an extradural tumor mass.
Compression of the spinal cord leads to:
- Edema of spinal cord
- Diminished blood supply
- Distortion of neural tissue
- Paresis and paralysis
- Occurs in up to 5% of cancer patients

Signs and Symptoms
Presentation can be very subtle in early stages. Any patient with back pain and subtle neurological symptoms or signs should have radiological investigations, with magnetic resonance imaging, when possible.

Back Pain - 1st symptom in 95% cases
- May be days to months before neurological deficit
- Aggravated by supine position
- Pain increases when patient coughs
- Initially localized-close to site of compression, tender on palpation
- Risk of SCC >60% if pain & positive x-ray
- Escalating need for and use of analgesics

Motor Weakness
- Present in approximately 75% of cases
- Muscles affected are heavy or stiff, difficulty standing
- Ataxia, loss of coordination, paralysis

Sensory Loss
- Present in 50% of cases
- Numbness, tingling, loss of touch, pain, temperature
Autonomic Dysfunction

Present in 50% of cases
Bowel and bladder dysfunction- constipation, urinary retention
Bowel and bladder incontinence

Diagnosis:
Identify patients at risk-history
MRI scan investigation of choice, CT scan second valuable tool
Routine x-rays may not show lesion

Treatment Options
To start immediately upon diagnosis.
Steroids- various doses suggested:
  - dexamethasone 10mg IV bolus then 4mg po q6h or
  - dexamethasone 8-10 mg q6-8h

RADIATION IS THE TREATMENT OF CHOICE. Contact Radiation Oncologist at
the Ottawa Hospital Regional Cancer Centre (info below).

For your questions, consult your
local palliative care expert or
the PPSMCS 1-800-651-1139.
Palliative Radiation Therapy Program

The Ottawa Hospital Regional Cancer Centre

INFORMATION FOR REFERRING PHYSICIAN
PALLIATIVE RADIATION THERAPY PROGRAM

GOAL:
The program is established to provide palliative radiation treatment to patients with advanced cancer. The service will provide consultation with the patients radiation oncologist, or substitute, including planning, and radiotherapy for symptom control on the same day if required, more treatments may be added as recommended by the radiation oncologist.

This includes:
1. Consult appointment will be given within 5-7 working days of request;
2. Consult to a palliative care nurse/physician on the same day if necessary;
3. Referral within the Cancer Centre to the tumour site care team if appropriate.

INDICATION:
1. Painful bone metastasis (symptom control)
2. Hematuria, hemoptysis
3. Rectal or vaginal bleeding
4. Airway, Urinary, esophageal obstruction
5. Symptomatic chest wall recurrence

PROCEDURE:
1. Complete the referral form
2. Call 613-737-7700 ext: 10320 to refer patients (and get extra referral forms)
3. Fax to treatment coordinator: 613-725-6301
4. You may receive a call from the radiation therapy staff member to clarify referral information
5. Advise patient to bring appropriate films to their appointment

Patients and referring physicians’ office will be contacted by the treatment coordinator with the appointment date, time and location of The Ottawa Hospital Regional Cancer Centre.
## Palliative Radiation Therapy Program

### Out Patient Referral

<table>
<thead>
<tr>
<th>Patient</th>
<th>DOB (yyyy/mm/dd)</th>
<th>Health card no.</th>
<th>Gender</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
</table>

### Patient Information

- **Is patient currently in hospital?**
  - Y
  - N

- **Means of transportation**
- **Address**
- **Phone no.**

- **Allergies:**

- **Current medications (list and ensure patient brings medications to appointment)**

- **Can the patient give an informed consent for treatment?**
  - Y
  - N

  (If no, the individual with power of attorney must accompany the patient)

- **Is patient receiving palliative care services?**
  - Y
  - N

  **Specify:**

- **Does the patient have the following:**
  - **Oxygen:**
  - **Pain Pump:**
  - **Intravenous:**
  - **Catheters:**
  - **Can patient lie on his/her back-stomach?**
  - **Can patient stay still for 20 min.?**
  - Y
  - N

### Reason for Referral

- **Primary cancer:**
- **Area(s) of concern:**

- **Bone Metastasis**
  - **Location:**

- **Bleeding**
  - **Location:**

- **Airway Obstruction**
  - **Other (specify):**

### Referring Physician Information

- **Referring Physician**
- **Signature**
- **Date (yyyy/mm/dd)**
- **Time**

- **Address**
- **Phone no.**
- **Fax no.**

### Important Instructions:

- *Pathology report should be faxed with referral form (if new patient).*
- *Patients must bring their medications, food and any devices for general care.*
- *An escort or family member must accompany patients.*
- *Relevant imaging done in the last 90 days.*
- *Films must accompany patients.*

### For Office Use Only

- **Patient referred to primary radiation oncologist?**
  - Y
  - N

- **Verbal order from:**

- **Does patient qualify for palliative radiation therapy program?**
  - Y
  - N

- **Appointment date:**
- **Time:**
  - **Given to patient/institution**
  - **Given to referring physician**

### Comments:

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Palliative Emergencies - 54
Superior Vena Cava (SVC) Syndrome

**Definition:** the vena cava is a thin walled major vessel in the mediastinum, which carries blood from the head, neck, and upper extremities to the heart. Obstruction occurs when the SVC is obstructed by a mass, enlarged lymph nodes, or thrombus causing increased venous congestion.

**Etiology:**
- 95% due to malignancy- 80% lung (50% of these small cell carcinoma), 15% lymphoma
- 5% due to TB, Syphilis, Aortic aneurysm, Goitre, Fibrosing Mediastinitis

**Clinical Features:** dyspnea, facial swelling, cough, orthopnea, arm swelling, chest pain, headache, dysphagia
* Because airway management may be an issue, prior discussion regarding interventions is mandatory

**Signs and Symptoms:**
- thoracic vein distention 70%
- neck vein distension 60%
- facial swelling 45% (includes periorbital edema)
- upper extremity or trunk swelling 40%
- cyanosis 15%
- dilated collateral superficial veins of the upper chest
- edema of hands and arms
- symptoms worsen when bending over or lying down.

**Diagnosis:**
- CXR & clinical presentation- mass, mediastinal widening, pleural effusion
- CT / MRI to further define lesion and location
- Histologic diagnosis
Treatments:
Radiation is the primary treatment modality with or without chemotherapy
Chemotherapy is the treatment of choice in pediatrics
Corticosteroids- use for lymphomas, some benefit for lung cancers
(dexamethasone 16 mg po daily)
Diuretics- temporary relief for pulmonary congestion
Management of dyspnea - opioids, with or without benzodiazepines

Summary:
NHL, germ cell neoplasms, and limited small cell lung cancers are usually responsive
to chemotherapy with or without radiation
Long-term remission and durable palliation with standard treatment is achievable
Symptomatic improvement usually occurs within one-two weeks of therapy

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Massive Haemorrhage

Cause of death in 6-10% of advanced cancers.

**Definition:** occasionally, tumours may infiltrate large vessels and vascular structures, resulting in catastrophic exsanguinations. Head and neck cancers are more prone to this. Other causes of haemorrhage can include, thrombocytopenia, liver failure, and disseminated intravascular, coagulation (DIC).

**Management:**
- Anticipate and sensitively warn family and caregivers
- Review medications with anticoagulant effect (i.e. warfarin, NSAIDS, low molecular weight heparins) and assess benefits versus risk of continuing treatment.
- Keep dark towels at hand and apply pressure to the site if bleeding is external
- If risk of hematemesis or hemoptysis, place patient in lateral position
- Maintain regular narcotic schedule
- Maintain an indwelling Sc butterfly to improve Sc access
- Suggest midazolam 2.5-5 mg.Sc as a stat dose (may be kept at bedside in a pre-filled syringe for up to 30 days away from light)
- Ensure that a Do Not Resuscitate (DNR) order has been obtained and that copies are available in the home, as well as filed with hospital/ doctors office.

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Hypercalcemia

Most common metabolic disturbance
Occurs in 10-20% of adults with cancer
  Most common in breast, lung and multiple myeloma, may also occur in prostate cancer.

Signs and Symptoms
Confusion
Nausea
Constipation

Calculate total ionized serum calcium:
Normal albumin level - patient's albumin level x 0.02 PLUS patient's measured total calcium [(40-X) x 0.02 + serum calcium] (where X = patient's serum albumin).

Decision to treat must be considered within the goals of care. There is little evidence to support improvement to quality of life.

Treatment:
Severity of symptoms and goals of care are the basis for determining treatment.

Mild: Corrected total calcium (CTC) is lower than 3.0 mmol/litre
  - Hydration and observation.

Moderate to Severe: CTC is 3.0-3.5mmol/l
  - Hydration - requires 3 litres in 24 hours of .9% normal saline
  - Pamidronate - 60-90mg IV over 3 hours
  - Refer to protocol for Pamidronate in this manual, page 94

TTA Thiazide diuretics are contraindicated as they increase renal tubular calcium absorption and may exacerbate hypercalcemia.

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
References for Palliative Emergencies


Fitzgibbon, E. Power Point Presentation. Oncologic Emergencies. 2003


The International Association for the Study of Pain defines pain as “an unpleasant sensory and emotional experience which we primarily associate with tissue damage or describe in terms of such damage, or both.” Patients have the right to appropriate and effective pain management. Pain is multidimensional and must be regularly assessed in a systematic way.

Pain needs to be treated because it is harmful to total health. Controlling pain is no longer considered just a humane thing to do. If allowed to continue for any length of time, pain can cause severe physical and emotional harm. The body's response to pain can be profound. Once pain has served the purpose of warning someone that something is wrong, it should be relieved. Pain is subjective, believe the patient and ask the patient about his or her goals and expectations. Enable the patient to participate in his own pain management when possible.

Improved Pain control leads to improved physical mobility, decreased risk of DVT, decreased risk of bed sores, improved pulmonary function, decreased risk of pneumonia, and improved quality of life.

**Misconceptions and barriers to proper pain management:**
- Pain is a normal part of aging
- Opioids result in addiction
- Fear of developing a tolerance so there will be nothing left when pain gets worse
- Fear of side effects
- If a patient is not complaining they are not in pain
- Opioids are dangerous
Total Pain
Cicely Saunders first used the term “total pain” in the early 1960s to describe physical, psychological, social, emotional, and spiritual elements in a person’s pain experience (Saunders, 1964).

The international Association of Pain (IASP) describes pain as “an unpleasant sensory and emotional experience associated with actual and potential tissue damage, or described in terms of such damage”. In palliative care, pain is interwoven with other common symptoms of advanced disease. Psychological, social and spiritual aspects interact with physical symptoms, altering the patient’s perception, reflecting total pain (Care Beyond Cure, 2000).

“Pain is a complex phenomenon, an experience very much influenced by the emotional, social, cultural and spiritual context of the individual. The potential contribution of these factors must be considered in any palliative care patient, for whom pain may hold an additional meaning... The experience of suffering reflects the combined contribution of these factors.” (McDonald et al, 2005, p. 20).

Aspects/Domains of Holistic Care

Adapted from: Based on “Domains of Issues Associated with Illness and Bereavement” in A Model to Guide Hospice Palliative Care:
Based on National Principles and Norms of Practice. CHPCA, March 2002
Pain Pathways: understanding how pain happens:

Sensory neurons are located in the skin, muscles, joints, and in the abdominal, thoracic and pelvic organs. Sensations are transformed by these neurons into electrical impulses. These impulses travel along specialized nerve fibers (A-delta fibers and C-fibers). They first synapse at the dorsal horn neuron and then travel up the spinal cord. They stop at the thalamus and then reach the cerebral cortex. It is only once the message reaches the brain that pain is perceived. Along its pathway the pain message is influenced by many factors. The neurons are affected by biochemical substances released in response to injury. In the spinal cord the messages are influenced by signals from the brainstem that may affect the message through the neurotransmitters 5HT and NE. The sensory cortex also receives input from other areas of the brain such as emotional input from the limbic system.
Substances Released from Damaged Cells:
- Bradykinin
- Cations (protons, potassium ions)
- Free radicals (Nitric oxide)
- Histamine
- Prostanoids (prostaglandins, leukotrienes)
- Purines (adenosine, ATP)
- Serotonin
- Tachykinins (substance P, neurokininA)

Nerve injury:
- Decrease in GABA receptors
- Increase in Glutamate receptors
Pain can be divided into 2 types: nociceptive and neuropathic. Many people have a combination of the two types.

**NOCICEPTIVE pain can be somatic or visceral.**
Somatic Pain is pain due to activation of sensory neurons in the skin and deep musculo-skeletal tissues. It is usually localized, aching, squeezing, stabbing, or throbbing. Examples include bone pain, arthritis, or post surgical pain.

Visceral Pain is due to tumour infiltration, compression, or stretching of organs. It is usually described as cramping, gnawing, and poorly localized, with a daily pattern of varying intensity. It may be associated with nausea, vomiting, or sweating. Examples include liver metastases and pancreatic cancer.

**Organ capsule pain** is usually sharp, stabbing, throbbing. Examples include liver capsule pain and increased intracranial pressure causing stretching of the meninges.

**Pain from organs is often referred to sites on the skin:**
- Bile duct pain is often referred to the right shoulder blade
- Pancreas tumours refer to the back
- Prostate tumours refer to the abdomen or leg
- Diaphragmatic irritation is referred to the shoulder.

**NEUROPATHIC Pain** is pain due to nerve injury; which leads to complex and abnormal nerve messages that produce sustained discomfort. When the injury occurs in the brain or spinal cord this pain is called central pain. Examples include strokes or brain cancer. When the injury occurs to the peripheral nerves it is called peripheral neuropathy. Examples include Diabetic neuropathy, chemotherapy induced neuropathy, or direct tumor invasion of a nerve bundle. Patients tend to describe neuropathic pain as burning, shooting, radiating, hot, or cold. It may also be called vice-like with a constant dull ache on which intermittent shooting electric like pains are superimposed. Nerve damage may also produce abnormal sensations; the common types are described below:
  - **Allodynia:** Pain due to a stimulus which does not normally provoke pain.
  - **Dysaesthesia:** An unpleasant abnormal sensation; spontaneous or evoked.
  - **Hyperalgesia:** An increased response to a stimulus which is normally painful.
  - **Vasomotor changes**

**In neuropathic pain...**
Nerves may fire spontaneously
May have decreased opioid receptors
Nerve impulses may spread from one fiber to another
Nerves that normally carry non-painful messages may start carrying painful messages
In some patients - activity in the sympathetic NS accentuates the pain

A note about Chronic pain:
When pain lasts for a long time it becomes chronic. With chronic pain comes new challenges and new consequences. Research has shown that ongoing stimulation of pain nerves results in remodelling of these nerves and changes in the nervous system. These changes can result in nerves that continue to fire spontaneously even after the painful stimulus is gone. It may lead to areas that misinterpret normal touch as pain. Chronic pain is also associated with systemic effects such as a decreased appetite, malaise, trouble sleeping, and irritability.

What factors may affect pain perception?
Age
Gender
Past experiences
Culture

Incident Pain:
Incident pain can be defined as an intermittent exacerbation of pain triggered by movement, weight bearing or increased pressure or procedures such as dressing changes.
MANAGING PAIN

1. DESCRIBE
2. CAUSE
3. TYPE
4. TREAT

1. DESCRIBE: Describing Pain:
Description of pain helps to identify the type of pain, the underlying cause of the pain and therefore the best treatment of that pain. Use the current pain scale at your facility and ask the patient to describe his/her pain.

<table>
<thead>
<tr>
<th>Example Pain History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record the location, duration, severity, radiation of pain, aggravating and relieving factors.</td>
</tr>
<tr>
<td>What is the quality of pain? Let the patient express this in his/her own terms.</td>
</tr>
<tr>
<td>Listen for typical features of nociceptive and neuropathic pain.</td>
</tr>
<tr>
<td>What is the response to past and current analgesic therapy?</td>
</tr>
<tr>
<td>What have been the adverse effects encountered and how have they been handled?</td>
</tr>
<tr>
<td>What has been the effect of the pain on the patient’s daily living?</td>
</tr>
<tr>
<td>Are they keeping a pain diary?</td>
</tr>
<tr>
<td>What fears do they have about analgesics?</td>
</tr>
<tr>
<td>Are there any cultural/family beliefs that pertain to pain and its management?</td>
</tr>
<tr>
<td>What is their understanding about their illness?</td>
</tr>
</tbody>
</table>

(from Ian Anderson Education Program, University of Toronto, www.cme.utoronto.ca/endoflife/)

2. CAUSE: Determine the cause of the Pain:
Pain description Pertinent Physical Exam
Pertinent Studies Patient’s idea

Think about:
Pain due to cancer Pain due to treatments
Pain due to debility Pain unrelated to cancer
Consider PMHx
Could this pain be......
BONE
TUMOR
VASCULAR
TOTAL PAIN
NERVE
INFECTION
TOXICITY
BLADDER SPASM
MUSCLE
BLEED
METABOLIC
CONSTIPATION

3. TYPE: Determine the type of pain:
   Neuropathic
   Nociceptive
   Mixed

4. TREAT
   Is it reversible? Can we treat the underlying cause?
   Examples:
   Disease modifying treatments: Radiation, chemotherapy
   Decrease angina by transfusing someone who is anemic
   Treatment of infections like thrush
   Treat constipation

   Always use the WHO ladder: Start with the simplest step, this is often skipped yet works very well
   Always prescribe a bowel regime with opioids
   Always objectively and systematically record assessment of pain
   Ask yourself if a non-pharmacological treatment might be as or more effective
   Remember education and information sharing is often a big reliever of anxiety and therefore of pain
WHO Analgesic Ladder

**STEP 1 MILD**
- ASA/Acetaminophen
- NSAID

**STEP 2 MILD to MODERATE**
- Non-Narcotics & Weak Narcotics
  - Acetaminophen + Codeine
  - Codeine
  - ASA + Codeine
  - Oxycodone + ASA
  - Oxycodone + Acetaminophen

**STEP 3 SEVERE**
- Strong Narcotics
  - Morphine
  - Hydromorphone
  - Fentanyl
  - Oxycodone

± Coanalgesics

Co-analgesics:
- Corticosteroid (e.g. dexamethasone)
- Antidepressants
- Anticonvulsants
- Topical creams and gels
Pain Treatments by level of pain:

<table>
<thead>
<tr>
<th>LEVEL OF PAIN</th>
<th>TREATMENT</th>
</tr>
</thead>
</table>
| Mild Pain     | **If patient is not taking an opioid:**  
|               | Acetaminophen 650mg po q4-6h regularly OR  
|               | NSAID - Try Ibuprofen 400mg QID.          |
|               | **If patient is taking an opioid**       |
|               | Ensure breakthrough dose is available. Total the 24 h amount taken and calculate the change in dose. (See titration guide at the end of this section) |
|               | **If the patient is taking a long-acting opioid** |
|               | Ensure breakthrough dosing of a short acting opioid is available. Calculate increased dose according to 24 hour use (See Titration Guide). Use the same opioid for BT. |
| Moderate Pain | **If patient is not taking an opioid:**  
|               | Codeine 30-60 mg po q4h OR  
|               | Oxycodone/Acetaminophen (Percocet) 5mg/325mg 1-2 tabs po q4h OR  
|               | LOW doses Morphine: 2.5 - 5mg po q4h regularly and 2.5mg po q2h prn (If the sc route is needed divide the po dose by half and the prn can be q1h)  
|               | Titrate the dose by 25% every 3 doses as needed until pain is relieved. (See Titration Guide) |
|               | **If patient is taking an opioid with q4h dosing regularly, increase the regular dose by 25% and continue with q2h breakthrough dosing at 50% of regular dose.** |
|               | **If patient is taking a long-acting opioid**, change back to an equivalent q4h dosing and increase the regular dose by 25%. |
|               | Alternatively increase both the long-acting and the breakthrough doses by 25%. Give breakthrough dose q2h prn.  
|               | Titrate the dose by 25% every 3 doses until pain is relieved.  
|               | If significant side effects are present (nausea, drowsiness, myoclonus) consider switching to another opioid (see conversion tables) and re-titrate  
|               | Use adjuvant therapy  
|               | When patient is stable consider switching to a long-acting opioid. Ranges are given here; for clarity we suggest you chose one dose.  
|               | Percocet is effective but also has more abuse potential than other opioids |
|               | **Ranges are given here; for clarity we suggest you chose one dose.**  
<p>|               | Percocet is effective but also has more abuse potential than other opioids |</p>
<table>
<thead>
<tr>
<th>LEVEL OF PAIN</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe Pain</td>
<td><strong>If patient is not taking an opioid:</strong> Initiate short-acting opioid: Morphine 5 mg po q4h regularly and 5 mg po q1h prn OR Morphine 2.5 mg sc q4h regularly and 2.5mg sc q30 mins prn. Titrate dose by 25% every 2 doses until pain is relieved. (See titration guide) <strong>If patient is taking an opioid</strong> with q4h dosing, increase the regular and breakthrough doses by 25%. Change the frequency of the breakthrough to q1h prn if po and q 30 mins if sc. <strong>If patient is taking a long-acting opioid</strong>, change back to equivalent q4h dosing and increase the dose by 25%. (see Equi-analgesic conversion table) DO NOT try to manage severe pain with long acting opioids. Change the breakthrough dose to half of the regular dose, either q 1h prn po or q 30 mins prn sc. Titrate dose by 25% every 2 doses until pain is relieved. (See titration guide) If unmanageable opioid limiting side effects are present (example nausea, drowsiness, myoclonus) Consider switching to another opioid (Equi-analgesic Conversion table and re-titrate.</td>
</tr>
<tr>
<td>Severe Pain Crisis</td>
<td><strong>If patient is not taking an opioid:</strong> If IV access present, stat morphine 5 mg IV q 10mins until pain is relieved. If no IV access, stat morphine 5 mg sc q20-30 mins until pain relieved. When pain is controlled, order morphine 10-20 mg po q 4h regular and 5 mg-10 mg po q 1h prn OR morphine 5-10 mg sc regular and 2.5-5 mg sc q 30-60 min prn and titrate vigilantly. <strong>If patient is taking an opioid and has IV access:</strong> Stat opioid administration as follows: If taking a PO opioid give same dose IV and repeat q10 mins until pain is controlled. If taking a sc opioid give double the sc dose IV, as often as q 10 mins until pain is controlled (i.e., doubling effective dose). When pain is controlled, continue q 4h dosing with breakthrough q30-60 min prn (will likely need a higher dose than previously) and titrate vigilantly. Adjuvant sedation: Consider lorazepam, diazepam, midazolam, m ethotrimeprazine or Phenobarbital as part of pain control.</td>
</tr>
</tbody>
</table>

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
## Co-analgesic Treatment Table, by Type of Pain

<table>
<thead>
<tr>
<th>Type of Pain</th>
<th>Drug</th>
<th>Co-analgesics used with opioids</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neuropathic</strong></td>
<td><strong>Tricyclic antidepressants</strong></td>
<td>Nortriptyline 10-150 mg po qhs- start low and titrate</td>
</tr>
<tr>
<td></td>
<td>Amitriptyline 10mg po- 100mg po- start low and titrate</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Anticonvulsants</strong></td>
<td>Carbamazepine 100 mg po bid &amp; titrate to a maximum dose of 1200 mg po.</td>
</tr>
<tr>
<td></td>
<td>Gabapentin (ODB section 8)</td>
<td>Day 1 = 300 mg po daily Day2 = 300 mg po bid Day 3= 300mg po tid Titrate upwards to a maximum dose of 3600 mg po per day over 3 weeks as tolerated. For frail elderly patients start low &amp; go slow</td>
</tr>
<tr>
<td></td>
<td>pregabalin (Lyrica)</td>
<td>Day 1 = 300 mg po daily Day2 = 300 mg po bid Day 3= 300mg po tid Titrate upwards to a maximum dose of 3600 mg po per day over 3 weeks as tolerated. For frail elderly patients start low &amp; go slow</td>
</tr>
<tr>
<td><strong>Tumor causing:</strong></td>
<td>Dexamethasone</td>
<td>Start 4mg po/sc/IV q6h x 5 days and titrate down or discontinue as tolerated</td>
</tr>
<tr>
<td>- Neuropathic pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Bowel obstruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Lymphatic obstruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Cerebral Edema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Spinal Cord Compression</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bone Pain</strong></td>
<td>NSAIDS</td>
<td>Ibuprofen 400mg po q6h</td>
</tr>
<tr>
<td></td>
<td>Bisphosphonates: Oral clodronate</td>
<td>1600-2400mg po daily</td>
</tr>
<tr>
<td></td>
<td>IV Pamidronate</td>
<td>60 or 90 mg IV monthly</td>
</tr>
<tr>
<td></td>
<td>Zolidronic acid</td>
<td>4 mg dose adjust based on renal failure x1 week</td>
</tr>
<tr>
<td></td>
<td>Calcitonin</td>
<td>50 IU sc daily or Miacalcin 200 IU daily in alternating nostrils x1-2 months</td>
</tr>
<tr>
<td><strong>Muscle spasms</strong></td>
<td>Baclofen</td>
<td>5 mg po bid and titrate to a maximum of 20 mg po QID</td>
</tr>
</tbody>
</table>

*Prior to using Calcitonin give a sc test dose on the inner forearm: 1mL syringe draw up 0.1mL of Calcitonin 100u/mL. If allergic a wheal will develop within 15 minutes.*

---

### TITRATION GUIDE
Calculate the total opioid dose taken by the patient in 24 h (regular q4h dose x 6 PLUS the total number of breakthrough doses given x breakthrough dose). Divide this 24 h total by 6 for the equivalent q4 h dose.
The breakthrough dose is 10% of the 24 hour dose.
Use clinical judgment regarding symptom control as to whether to round up or down to obtain result (both breakthrough and regular dosing). Remember to consider available doses (in case of PO medications especially)
If the patient is very symptomatic a review of how many breakthrough doses have been given in the past few hours might be more representative of her/his needs.

Example:
Patient is ordered morphine 20 mg q4h po and 10 mg q2h PRN and has taken 3 doses in the past 24 h.
1. Add up the amount of morphine taken in the last 24 h:
   6x 20 mg of regular dosing, plus 3x 10 mg of PRN doses equals a total of 150 mg in 24 h.
2. Divide this total by 6h to obtain the new q4h dose:
   150 divided by 6 = 25 mg q 4h
3. Divide the newly calculated q 4 h dose by 2 to obtain the new breakthrough dose:
   25mg divided by 2 = 12.5mg q 1-2 h PRN
4. If this dose provides reasonable symptom control, then order:
   25 mg po q 4h, with 12.5mg po q 1-2 h prn
   (It would be reasonable to order 10 mg or 15 mg po q 2 h for breakthrough)

### Long Acting Opioid Preparations

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Brand Name</th>
<th>Dose Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codeine</td>
<td>Codeine-Contin®</td>
<td>(50, 100, 150, 200mg)</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Oxy-Contin®</td>
<td>(10, 20, 40, 80mg)</td>
</tr>
<tr>
<td>Morphine</td>
<td>MS-Contin® Q12h</td>
<td>(15, 30, 60, 100, 200mg)</td>
</tr>
<tr>
<td></td>
<td>M-Elson ®</td>
<td>(10, 15, 30, 60, 100, 200mg), Kadian: sustained release pellets (10, 20, 50, 100mg)</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>Hydromorph-Contin® Q12H</td>
<td>(3, 6, 12, 18, 24, 30mg)</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Duragesic Patch® Q72h</td>
<td>(25, 50, 75, 100), only use Fentanyl once patient stabilized on appropriate opioid dose, do not use on opioid naïve patients</td>
</tr>
</tbody>
</table>

Only switch to long-acting preparations when pain is well controlled.
To switch from immediate-acting preparations: Calculate total amount of opiate taken in previous 24 h, including breakthrough doses and divide this total by 2 to calculate the Q12h dosing.
Include a breakthrough dose equal to 1/10 of the Q12h dose
If pain control wears off between 10-12h and increasing the dose is not effective, the dose interval can be changed to q8h.
If pain becomes difficult to control and the patient needs frequent breakthrough doses, consider changing back to immediate-acting preparation to allow quicker titration.
Long-acting medications: DO NOT BREAK, CRUSH, OR CHEW (microencapsulated granules in M-Elson can empty out of capsule provided granules are not crushed or chewed)

**CONVERSION GUIDE: LONG-ACTING TO SHORT-ACTING**
Add total amount of opioid used in the last 24 hours including prn. Divide by 6 to get regular q4h dose. Your breakthrough is equal to 10% of the 24h dose.
Consider available doses when converting.

*Tip: If patient is having redness to Fentanyl patch, use a spray of Flovent to skin ahead of time.
PALLIATIVE PAIN AND SYMPTOM MANAGEMENT CONSULTATION SERVICE

GUIDELINES FOR OPIOIDS

EQUIVALENCY TABLE OF OPIOIDS

<table>
<thead>
<tr>
<th>DRUG</th>
<th>DOSE p.o. (mg)</th>
<th>DOSE s.c. (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>Codeine</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td><strong>Fentanyl transdermal</strong></td>
<td>See example</td>
<td>Morphine 90 mg/24 hr</td>
</tr>
</tbody>
</table>

** Not recommended for uncontrolled pain

Remember: Morphine (oral) is always used as the drug reference. These conversions are guidelines but patients require ongoing assessment and adjustments made accordingly.

SAMPLE CALCULATIONS FOR CONVERSION OF ONE OPIOID TO ANOTHER

Subcutaneous dose is usually ½ p.o. dose.

When converting from one opioid to another, it is often possible to reduce the calculated equivalent dose by 33%.

This is because of incomplete cross-tolerance. When opioids are changed due to toxicity (‘opioid rotation’), the calculated equivalent dose may be reduced even further (up to 75%).

Breakthrough pain is treated with a prn dose. Patients with constant pain should have both regular and a prn analgesic. The prn dose is calculated as approximately 10% of the 24-hour dose and is made available Q2h.

EXAMPLE A : Conversion of Codeine p.o. to Morphine p.o.

**Patient’s present dose: Codeine 80 mg p.o. Q4h**

Step (1) From the table above: Codeine 200 mg p.o. = Morphine 20 mg p.o.

Therefore: Codeine 80 mg p.o. Q4h = Morphine 8 mg p.o. Q4h

Step (2) To account for incomplete cross-tolerance, reduce this dose by 33%

Therefore, the starting dose would be Morphine 5 mg p.o. Q4h

The prn dose would be Morphine (5 mg X 6) /10 = 3 mg p.o. Q2h

As the Morphine tablets are 5 mg, 2.5 mg (1/2 tablet) could be used.
EXAMPLE B: Conversion of Morphine p.o. to Hydromorphone s.c.

Patient’s present dose: Morphine 60 mg p.o. Q4h

Step (1) From the table above: Morphine 20 mg p.o = Hydromorphone 2 mg s.c.
Therefore: Morphine 60 mg p.o. Q4h = Hydromorphone 6 mg s.c. Q4h

Step (2) To account for incomplete cross-tolerance, reduce this dose by 33%
Therefore, the starting dose would be Hydromorphone 4 mg s.c. Q4h
The prn dose would be Hydromorphone (4 mg X 6) /10 = 2 mg s.c. Q2h

EXAMPLE C: Conversion of Morphine to Fentanyl Transdermal *

Fentanyl is a continuous systematic delivery system dosed in micrograms per hour. Conversion to equianalgesic doses is less well documented by usually based on the p.o. Morphine dosage. The following formula makes it easy to convert between Morphine and Fentanyl Transdermal.

Converting from Morphine to Fentanyl Transdermal
DIVIDE the 24 hr p.o. Morphine dose by 3.6 for the equivalent dose of Fentanyl in mcg per hour.

Converting from Fentanyl Transdermal to Morphine
MULTIPLY the Fentanyl dose in mcg per hour by 3.6 for the equivalent p.o. Morphine dose per 24 hrs.

Patient’s present dose : Morphine50 mg p.o. Q4h

Step (1) Morphine 50 mg p.o. Q4h = Morphine 300 mg p.o. Q24h

Step (2) To account for incomplete cross-tolerance, reduce this dose by 33%.
Therefore : Morphine 300 mg – 100 mg = 200 mg p.o. Q24h

Step (3) Morphine 200 mg p.o. Q24h = 200/ 3.6 = Fentanyl 55 mcg per hour
Therefore : the starting dose would be Fentanyl Transdermal = 50 mcg per hour

Morphine is generally used as the prn for breakthrough pain.
In this example, the prn dose is Morphine 200/10 = 20 mg p.o.Q2h prn

### Guidelines for the Conversion from p.o. to Transdermal Route and from Transdermal Route to p.o.

<table>
<thead>
<tr>
<th>Conversion Type</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>From 12 hours sustained release p.o. to Transdermal:</strong></td>
<td>Apply the patch and give last p.o. dose</td>
</tr>
<tr>
<td><strong>From Transdermal to 12 hours sustained p.o.:</strong></td>
<td>Remove the patch and give the first p.o. dose after 8 hours</td>
</tr>
<tr>
<td><strong>From immediate release p.o. to Transdermal:</strong></td>
<td>Apply the patch and continue to give p.o. for the next 3 doses</td>
</tr>
<tr>
<td><strong>From Transdermal to immediate release</strong></td>
<td>Remove patch and give p.o. after 12 hours</td>
</tr>
<tr>
<td><strong>From continuous s.c. to Transdermal:</strong></td>
<td>Apply the patch and continue the infusion for 12 hours at the same time</td>
</tr>
<tr>
<td><strong>From Transdermal to continuous s.c.drip:</strong></td>
<td>Remove the patch and start the infusion after 12 hours.</td>
</tr>
</tbody>
</table>

**Note:** Guidelines are very broad and therefore you need to ensure good pain assessment and the appropriate use of PRN doses during the conversion.

### Possible Indications for Parenteral Opioids:
- Inability to Swallow
- Rapidly escalating pain
- Intractable adverse effects such as nausea with oral opioids
- Cognitive dysfunction
- Compliance problems
- Large doses of opioids with many tablets to swallow
- Bowel obstruction
- Severe stomatitis

All opioids can cause constipation, nausea, vomiting, drowsiness, confusion, agitation, urinary retention, and respiratory depression. Real allergies to opioids are rare.

### Opioid Toxicity:
Opioid toxicity may present in a variety of ways. Look for agitation, vivid dreams, visual and auditory hallucinations, confusion, and myoclonic jerks. Beware of rapidly escalating doses of opioids, sometimes patients with agitation are given more opioid because they are assumed to be in pain when they are actually opioid toxic.
Reduce dose of opioid, ensure adequate hydration, and treat agitation with haloperidol (1.5-3 mg po/sc prn) or olanzapine 2.5 mg po BID (consider opioid rotation).

**Opioids to Avoid:**
Meperidine (Demerol) is not recommended for routine dosing because of the high risks of adverse effects from accumulation of the metabolite normeperidine.

**Withdrawal:**
Physical dependence is the result of neurophysiologic changes that occur in the presence of exogenous opioids. Abrupt opioids withdrawal may result in tachycardia, hypertension, diaphoresis, pilo-erection, nausea and vomiting, diarrhea, body aches, abdominal pain, psychosis, and/or hallucinations.

Physical dependence is not the same as addiction. Physical dependence is not evidence of addiction. Its presence does not mean that opioids cannot be discontinued. If the pain stimulus decreases or disappears, opioids doses usually can be reduced in decrements of 50% or more every 2 to 3 days, and finally stopped. If the dose is lowered too quickly and withdrawal symptoms occur, a transient increase in the opioids dose, treatment with clonidine, or a small dose of a benzodiazepine may be necessary to settle distressing symptoms.

**Use of a Continuous Infusion Pump**
**When to consider:**
- Patient is unable to swallow oral meds
- Patient is unable to tolerate oral meds (intractable nausea and vomiting)
- Patients in who rectal administration, transdermal patch or intermittent sc administration are not reasonable alternatives.

Calculate the 24 hour dose converting the daily narcotic dose to sc including breakthrough doses. Bolus doses are 10% of 24 hour total. The bolus doses should be at least 30 mins apart. Calculate the hourly rate. Your pharmacist can help with concentrations and cassette sizes.

### Sample Prescription

<table>
<thead>
<tr>
<th>Sample order: Continuous Infusion Pump</th>
<th>Concentration: 10mg/ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate: 8mg/h</td>
<td></td>
</tr>
<tr>
<td>Bolus Dose: 4mg q 30 min prn</td>
<td></td>
</tr>
<tr>
<td>Total Dose: discuss with community or hospital pharmacist</td>
<td></td>
</tr>
</tbody>
</table>

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Flowchart for Response to Possible Excessive Opioid Dosing in Patients

### SUSPECTED EXCESSIVE OPIOID DOSING:
- Clinical scenario raises possibility based on: medication history, unexpected or otherwise unexplained decline
- Decreased level of consciousness – Sedation Scale ≥ 3
- Progressive slowing of respiratory rate
- Small pupils, poorly reactive

- Stimulate patient
- Administer Oxygen 5 L / minute nasal prongs (if available)

Reassess patient for level of consciousness + respiratory rate
Count Respiratory Rate for at least one minute
Recall the patient’s clinical scenario and goals of care

**INTERVENTION APPROPRIATE**

**YES**

- Stop all opioid administration (eg. discontinue oral, infusions; remove Fentanyl patches and wipe skin clean).
- **DILUTE** Naloxone (Narcan) 1:10 in Normal Saline by drawing up 1 ml (0.4 mg) and adding 9 ml sterile NS into a 10 ml syringe.
- Administer 1 ml of the 0.04 mg/ml naloxone dilution STAT SC or IV (IV as per policy)
- **CALL MD**
- Repeat administration of 1 ml of the 0.04 mg/ml dilution every 5-10 minutes until patient rouses (ie. Sedation scale < 3)

If > 4 doses of naloxone are required, physician may consider infusion (call MD).

**NO**

- Supportive Measures

**SEDATION SCALE**
- S – sleep, easily aroused
- 1 – awake and alert
- 2 – occasionally drowsy, easy to arouse
- 3 – frequently drowsy, arousable, drifts off to sleep during conversation
- 4 – somnolent, minimal or no response to stimuli

- **RR** ≤ 6/min
- **RR** 7-10/min
- **RR** > 10/min

Patient does not become alert with stimulation
**CALL MD**

Patient becomes more alert with stimulation
**CALL MD** to review and consider options

---

Naloxone Response Flowchart 2004 References:
1. Ref: [www.palliative.info/resource_material/Flowchart_Narcotization.pdf](http://www.palliative.info/resource_material/Flowchart_Narcotization.pdf) - M. Harlos MD, CCFP, Winnipeg Regional Health Authority, St. Boniface Hospital, Winnipeg, MB
References for Pain


Pain in the Elderly

Pain has been reported by approximately 50% of elders living in the community, and in as many as 80% of nursing home residents.

**Barriers to Pain Control in the Elderly:**
- Patients' beliefs about pain
- Desire to be 'good' patients, less likely to complain
- Fear of addiction
- Perception of health care professionals' apathy
- Pain is part of the aging process

Cognitive impairment does not alter an elder's ability to state that they have pain and indicate its location. Use of simpler pain scales, such as the faces scale, may be easier. Assure nonverbal patients using behavioural indicators. **Allow more time.**

**Choosing Medication for Pain Control in the Elderly**
- Use the least invasive route
- Start low and go slow
- Use NSAIDs with caution - acetaminophen is drug of choice for mild pain
- Opioids are effective in moderate to severe pain
- Pharmacological therapy is most effective when combined with non-pharmacological therapies

**Opioids**
- Should be started at doses 25-50% lower than the recommended dosage
- There is increased sensitivity to the peak effect of short acting, therefore stabilizing pain with long acting medication and give lower rescue doses (prn). Rescue doses should be 5% of total daily dose and given every 4 hours.
- Morphine must be used with care in case of renal insufficiency. Metabolites can accumulate and cause agitation, myoclonus and increased sedation.
- Oxycodone is the preferred opioid due to its short half life and availability in short and long acting doses.
- Hydromorphone has no known toxic metabolites, has high solubility and a short half life. It may produce less side effects than morphine in the elderly.

**Reference:**
Strongly recommended to consult your local palliative care expert or the PPSMCS 1-800-651-1139

The following protocols appear on the following pages.

- Protocol for the Infusion of Pamidronate
- Methadone Rotation Guidelines - Ottawa
- Ketamine Infusion - Guidelines for Use as a Co-analgesic
- Guidelines for the use of IV or SC Lidocaine for pain management
- Epidural
- Midazolam
Protocol for Infusion of Pamidronate

Primary uses
1) **Tumor-induced hypercalcemia**: 60 mg in 500mL of D5W/NS over 3 hours OR 90mg in 500mL over 4 hours
2) **Pain management (Osteolytic bone metastases)**: 60mg to 90mg in 250mL of D5W/NS over 60 minutes. Must be infused using a pump to ensure that medication is not administered in a shorter time frame. Patients with known renal or cardiac insufficiencies, the medication must be administered over a longer period of time.
3) **Bone loss due to androgen suppression in prostate cancer**: 60mg in 250mL of D5W/NS over 3 hours.
4) **Treatment of Multiple Myeloma**: 60mg in 500mL D5W/NS over 1.5 hours OR 90mg in 500mL over 2.5 hours.

Special notes:
- There have been 7 reported cases of renal toxicity when pamidronate is given too rapidly and therefore the following is the recommendation of the Ottawa Regional Cancer Centre Community Oncology Program June 2001.
  The infusion rate is dependant on dose and reasons for administration.
  - **First dose must be administered in hospital in case of allergic reaction.**

<table>
<thead>
<tr>
<th>Serum Calcium Level</th>
<th>Dose of Pamidronate</th>
<th>Infusion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 3.0</td>
<td>30 Mg</td>
<td>250ml D5W or normal saline over 2 hours</td>
</tr>
<tr>
<td>3.0-3.5</td>
<td>60 mg</td>
<td>500 ml D5W or normal saline over 3 hours</td>
</tr>
<tr>
<td>3.5-4.0</td>
<td>60- 90 mg</td>
<td>500 ml D5W or normal saline over 3 hours</td>
</tr>
<tr>
<td>Over 4.0</td>
<td>90mg</td>
<td>500 ml D5W or normal saline over 3 hours</td>
</tr>
</tbody>
</table>

No adjustment is required when the recommended dose schedule is used. However, a maximum infusion rate of 22.5 mg/h is recommended in patients with renal dysfunction or cardiac disease.

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Methadone Rotation Guidelines -Ottawa
SCOHS - Regional Palliative Care Unit

Introduction:
Methadone is a synthetic opioid, structurally unrelated to morphine. It is highly lipophilic and highly protein-bound, and is well absorbed orally. It has both mu receptor agonism and NDMA receptor antagonism. Several studies/case reports describe its efficacy as an analgesic for severe pain e.g. cancer pain syndromes and neuropathic pain.

In palliative care, the therapeutic intervention of opioid rotation is useful for opioid-induced neurotoxicity, opioid tolerance. Methadone is an important second-line opioid for opioid rotations.

Methadone is more difficult to prescribe than traditional opioids because of its pharmacokinetics. As it accumulates in the body, methadone becomes increasingly potent, and its duration of analgesia increases. Its potency relative to other opioids increases with increasing doses of the previous opioid. For this reason, various methadone rotation protocols have been developed. There has been no international consensus about the superiority of any one protocol over another.

Consult your local palliative care expert prior to use.

Mandatory Requirement:
The prescribing physician has to have a Special Exemption from the Office of Controlled Substances, Health Canada.

Indications for use:
1. Poorly controlled pain
2. Opioid-induced neurotoxicity:
   • Delirium
   • Hallucinations
   • Myoclonus
   • Sedation
3. Allergy to morphine or other alkaloid opiates
4. Neuropathic pain

Preliminary screening:
- Labwork to rule out metabolic causes of delirium and/or altered levels of consciousness, e.g. calcium, magnesium
- Renal function, i.e. creatinine and urea
- Liver function
- Possible drug-drug interactions

**Precautions:**
Methadone has a long and unpredictable half-life which can lead to accumulation and resulting delayed-onset side-effects without a change in the prescribed dose. Regular monitoring for respiratory depression and sedation are necessary during the first ten days when initiating methadone.

**Note:**
The only available formulation in Canada is methadone hydrochloride, which is not indicated for parenteral use, but is given orally or as a micro-enema per rectum (suppositories could also be made). Methadone tablets and oral liquid are available commercially as "Metadol" by Pharmascience.
Ottawa Guidelines for Methadone Use in Palliative Care

This is a methadone rotation guideline. Patient care needs to be individualized from patient to patient.
1. Stop regular dosing of previous opioid at an appropriate time before starting methadone depending on its pharmacokinetics and its formulation.
2. Methadone dose = 1/30 (one thirtieth) of 24 hour oral morphine-equivalent dose.
   - Maximum methadone dose is 30 mg.
   - For opioid-naive patients, methadone dose is 2.5 mg.

Day 1:
3. Prescribe the first methadone dose as a mandatory dose, ideally at 8 a.m.
4. Prescribe this methadone dose q3h p.r.n.
5. Prescribe the previous p.r.n. (as needed) opioid q1h p.r.n for breakthrough pain occurring within 3 hours of the last methadone dose.*
6. Assess and document pain, sedation and respiratory rate q3h and with each methadone dose for the first ten days.†

Day 6:
7. Sum up total methadone used in the previous 48 hours and divide it by 6 to get the new methadone dose, and prescribe this new dose q8h around the clock.

Day 7 or 8: (i.e. after 24 to 48 hours on regularly prescribed methadone)
8. Calculate the methadone p.r.n. (as needed) dose = 10% of daily methadone dose, and prescribe calculated methadone as needed dose “q1h p.r.n.” for breakthrough pain.
9. Stop the previous p.r.n. opioid, once the p.r.n methadone is prescribed.

Ongoing while on methadone:
10. Titrate the methadone dose every 2 to 4 days according to the patient’s needs.

*If patient is receiving the previous p.r.n. opioid as patient-controlled CADD pump boluses, then consider allowing only nurses or physicians to give boluses so patients do not miss opportunities for a p.r.n methadone dose during the titration period.

†If excessive sedation, or respiratory rate ≤ 10 per minute then manage according to the ‘Flowchart for Response to Suspected Narcotization in Palliative Care Patients’

Updated: June 2005 smt
Approved by SCOHS Pharmacy and Therapeutics Committee: June 2005
METHADONE DRUG INTERACTIONS:

Other Central-Nervous-System Depressants: Methadone should be used with caution and in reduced dosage in patients who are concurrently receiving other narcotic analgesics, general anaesthetics, phenothiazines, other tranquillizers, sedative-hypnotics, lidocaine, tricyclic antidepressants, and other CNS depressants (including alcohol). Respiratory depression, hypotension, and profound sedation or coma may result.

Monoamine Reuptake Inhibition: Avoid using MAOI’s with methadone

Opioid antagonist or mixed agonist/antagonist drugs: Patients who are on prolonged methadone therapy may experience withdrawal symptoms when given opioid antagonists (e.g. naloxone etc.) or mixed agonist/antagonist drugs (e.g. pentazocine etc.).

Methadone is metabolized by N-demethylation mediated mainly by CYP 3A4, 2D6, and 2B6 (minor): inhibits 2D6

Inhibitors of CYP 3A4 = will induce toxicity:
- amiodarone
- Azole antifungals: fluconazole, itraconazole, ketoconazole
- cannabis
- cimetidine
- ciprofloxacin, norfloxacin
- cyclosporine
- diltiazem
- grapefruit juice
- macrolides: azithromycin, clarithromycin, erythromycin
- metronidazole
- nifedipine
- protease inhibitors (HIV drugs)
- SSRI’s: citalopram, fluoxetine, fluvoxamine, norfluoxetine, paroxetine, sertraline,
- tamoxifen
- valproic acid
- verapamil
- zafirlukast

Inducers of CYP 3A4 = will lower methadone doses over time:
- barbiturates
- carbamazepine
- corticosteroids
- phenytoin
- rifampin
- risperidone

**Inhibitors of 2D6 metabolism will induce toxicity:**
- cimetidine
- dextromethorphan
- haloperidol
- lidocaine
- metoclopramide
- quinidine
- SSRI's: citalopram, fluoxetine, norfluoxetine, paroxetine, sertraline
- methylphenidate
- mirtazapine
- venlafaxine

**Selected Bibliography for Methadone:**
Methadone (Metadol) product monograph for tablets and liquid (Pharmascience) 2003.
Chan R, Fitzgibbon E, Viola R, Leger R, Lachance J, Fiset V. Chart Audit of 75 Methadone Rotations Using a Modified Morley-Makin Protocol at the Ottawa Regional Palliative Care Unit. 2004

Prepared: October 2004
Updated: June 2005 smt, rc
Approved by SCOHS Pharmacy and Therapeutics Committee: June 2005
SCOHS Palliative Care Program
Contact: Raphael Chan, MD, Sallyanne Tierney, Pharmacist
Consultation with your local palliative care expert strongly recommended prior to use.

**Purpose:**
Ketamine is used in low dose (sub-dissociative anaesthetic dose) as a co-analgesic for pain control in palliative care.
Ketamine is a potent non competitive N-methyl D-aspartate [NMDA] receptor antagonist. Hyperactivity of NMDA receptors may be involved in the induction and maintenance of certain pain states such as neuropathic pain and hyperalgesia.

There is evidence to support the use of ketamine in the following pain types/syndromes:
- Neuropathic Pain
- Phantom limb pain
- Complex pain syndrome
- Tenesmus
- Any pain syndrome with the triad of:
  - Allodynia
  - Hyperalgesia
  - Prolongation of pain response
- Ischemic pain (including peripheral vascular disease)

**INDICATIONS FOR USE:**
1. Opioid tolerance
2. Opioid toxicity
3. Pain poorly responsive to opioids
4. Pain crisis

**CONTRAINDICATIONS:**

**Absolute**
Uncontrolled seizures
Symptomatic raised intracranial pressure (ICP) (eg. Clinical signs of uncontrolled headaches with nausea and vomiting)
Not contra-indicated in uncomplicated intracranial metastases

**Relative**
- Hypertension
- Cardiac failure
- Previous cerebral vascular accident (CVA)
- Severe neurological impairment
SIDE EFFECTS:
Psychomimetic: Emergence Phenomena - vivid dreams, de-personalisation, hallucinations, delirium, agitation, excess sedation
Sympathomimetic Actions - increased blood pressure, tachycardia, increased cardiac output
Hyper-salivation
Increase in intra-cranial pressure
Vision changes: diplopia, nystagmus, eye pain.
Nausea, skeletal muscle hyperactivity, nystagmus, rash, itching
Painful induration at S.C. injection site (10-15%) – monitor sites and change subcutaneous sites more frequently to prevent skin problems.

DRUG PRECAUTIONS:
Benzodiazepines increase the bio-availability of Ketamine, thus may potentiate respiratory depression.
May decrease or even reverse opioid tolerance due to blocking of NMDA receptors. This improved response to opioids may lead to increased opioid side effects such as sedation and respiratory depression if the opioid dose is not adjusted appropriately.

SUGGESTED DOSE SCHEDULE FOR LOW DOSE KETAMINE CO-ANALGESIC

<table>
<thead>
<tr>
<th>KETAMINE</th>
<th>Routine Initiation Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading dose</td>
<td>10 mg Sub Cut or IV infusion over 30 minutes</td>
</tr>
<tr>
<td>Use of loading dose depends on acuity of the pain syndrome.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infusion Rate</th>
<th>Subcutaneously/ Intravenously</th>
<th>Titration: Adjust dose every 24 hours based on patient response.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start @ 1-4 mg/hr (range 25-100 mg per 24 hrs)</td>
<td>Usual: 50mg/24hr (2mg/hr)</td>
<td></td>
</tr>
<tr>
<td>Titration rate: Increase by 1mg/hr q24hr until @ 4mg/hr thereafter increase by 1-2mg/hr q 24hr up to a maximum daily dose of 700mg/day</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments
When commencing Ketamine, reduce previous 24 hr. total opioid dose as follows:
Stable opioid dose of < 3 breakthroughs per 24hrs, reduce opioid dose by 25 to 50%
If > 6 breakthroughs per 24hrs, reduce opioids by 10%
Start prophylactic Benzodiazipine / Haloperidol prior to or concurrently with initiation of Ketamine

Pain control adequate but experiencing side effects (SE) attributable to ketamine:
Mild SE – reduce ketamine by 50% and titrate upwards once tolerance to SE has developed
Severe SE – stop ketamine until SE dissipate. Restart ketamine at 50% of previous dose and titrate as tolerated.
Switch to IV if SC sites not tolerated
Equianalgesic dose of IV : Sub Cut (1:1)

*Total Opioid dose
*Total Opioid dose for previous 24 hrs. = regular Opioid + (plus) breakthrough doses
NOTES:

**Breakthrough Opioid:**
Prior breakthrough (PRN) Opioid dose should be maintained.

**Prophylaxis of Psychomimetic Side Effects:**
Start either a Benzodiazepine or Haloperidol **before or with** Ketamine: Lorazepam 0.5 mg - 1 mg BID, oral/Sub Cut /Sublingual; Midazolam 5-20 mg Subcutaneously over 24 hours., **OR** Haloperidol, 1-2 mg BID, oral/Sub Cut dependent on the individual patient. Reassess need for prophylaxis after 5 days of ketamine infusion.

**KETAMINE INFUSION MONITORING:**

**Monitoring:** (The first 12 -24 hours are the most important.)
(1) Respiratory rate, Heart rate, Blood pressure,
(2) Mental Status
(3) Sedation score **
(4) Pain score
(5) Signs of increased Intracranial pressure i.e., headache with nausea & vomiting.

**Day 1 monitoring** : Evaluate at **time 0 (zero)**, again **60 minutes** after initiation of infusion, then **q 4 hourly for first 24 hours**.
Thereafter pain + sedation scores should be checked every nursing shift or every 8 hours.
If route of infusion is changed from CSCI (continuous subcutaneous infusion) to I.V. **or** dose increased by more than 1 mg/kg or 100 mg/day, then revert to Day 1 monitoring schedule.

**SEDATION SCALE**

<table>
<thead>
<tr>
<th>S</th>
<th>sleep, easily aroused</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>awake and alert</td>
</tr>
<tr>
<td>2</td>
<td>occasionally drowsy, easy to arouse</td>
</tr>
<tr>
<td>3</td>
<td>frequently drowsy, arousable, drifts off to sleep during conversation</td>
</tr>
<tr>
<td>4</td>
<td>somnolent, minimal or no response to stimuli</td>
</tr>
</tbody>
</table>

If toxicity suspected:
**STOP KETAMINE infusion and notify physician if:**
Systolic blood pressure drops by more than 30%.
Respiratory rate drops to less than or equal to 6 per minute.
Patient has profound sedation refer to sedation scale**.

**Notify Physician if patient experiences:**
Vomiting; hallucinations; irrational behaviour; excess salivation; increase in systolic blood pressure by greater than 30% of baseline; or visual changes.
Guideline for Maximum Ketamine Infusion Dose:
If there has not been a significant analgesic effect before reaching an infusion rate of MAXIMUM 700 mg/day, then it is unlikely to occur.

PHARMACOLOGY:
Metabolism of ketamine: in the liver (N-demethylation) via cytochrome P450 pathway (primarily cyp 2B6, 3A4, also 2C8/9) to Norketamine believed to be responsible for the analgesic effect and has 3 times the anaesthetic potency of ketamine. The half-life (T½) of ketamine is 2.5 hrs and of nor-ketamine is much longer. In Canada, ketamine is a regulated control drug due to its potential for abuse.

Drug - drug Interactions:
The following may increase the ketamine levels/ effects:
Inhibitors of 2B6: desipramine, paroxetine, sertraline, methadone
Inhibitors of 2C8/9: delavirdine, fluconazole, gemfibrozil, ketoconazole, nicardipine, NSAIDS, pioglitazone, sulfonamides
Inhibitors of 3A4: azole antifungals, ciprofloxacin, clarithromycin, diclofenac, doxycycline, erythromycin, imatinib, isoniazid, nefazodone, nicardipine, protease inhibitors, quinidine, verapamil, grapefruit.

With high (anesthetic) doses of ketamine (given over short period of time) may increase the ketamine levels/ effects:
Neuromuscular blockers (e.g., atracurium, tubocurarine)
Theophylline
St. John’s Wort
Tramadol
Phenobarbital

Compatibility of ketamine with other injectable drugs for syringe drivers and CADD pump infusions:
The following is compatible with ketamine:

Graseby Syringe Driver (Sub Cut):
- Opioids – fentanyl, sufentanil, morphine, hydromorphone
- Haloperidol
- Metoclopramide
- Midazolam,
- Nozinan (methotrimemazine, levopromazine)
- Scopolamine
- Normal Saline

CADD infusion pumps (Sub Cut, IV):
- Opioids – fentanyl, hydromorphone, morphine
- Normal Saline
References for Ketamine:

INSTITUTE\POLICY & PROCEDURE\KETAMINE PROTOCOL.wpd SCOHS Palliative Care Unit April 2000


Lexi-Drugs (Comp & Specialties) “ketamine” file date: Feb 6, 2005. Lexi-Comp Inc.


Lidocaine Guidelines

Consultation with your local palliative care expert strongly recommended before use.

POLICY STATEMENT:

- Prior to initiation of intravenous (IV) or subcutaneous (SC) lidocaine, the patient must have had adequate trial of opioids.
- Only a Palliative Care physician can order IV or SC lidocaine initial doses, boluses, or any dose adjustment.
- Patient on IV or SC Lidocaine must be cared for by a Registered Nurse due to the possibility of unexpected outcomes.
- IV Lidocaine must be administered through a reliable IV site preferably through a central venous access device.
- The Registered Nurse will ensure safe infusion of medication.
- The physician is responsible for explaining the procedure to the patient and family.
- The physician or RN may witness the consent for treatment required before initiating Lidocaine.
- Usual range for Lidocaine infusion is 0.5mg to 2mg/kg/hour.

Definitions:

Lidocaine:

- Is a membrane stabilizing agent and sodium channel blocker. It is used as an anesthetic and a cardiac anti arrhythmic agent. It is also used for the relief of neuropathic pain in cancer and non cancer patients. It can also be used during a pain crisis. It can be administered by IV, SC, or IV bolus.

Drug Interactions:

- Lidocaine is metabolized by the liver; however the clearance is more dependent on the liver blood flow than enzyme. Drugs affecting hepatic blood flow will have an impact on lidocaine plasma concentration.

Antibiotics: ciprofloxacin, norfloxacin, erythromycin
Antifungal: fluconazole
Antidepressants: fluoxetine, fluvoxamine, sertraline
Beta Blockers: they reduce hepatic blood flow and can cause increase in lidocaine levels of 20-30%. Patients on beta blockers may require lower doses of lidocaine. When given as continuous infusion, this population may require lidocaine levels to be followed.

Phenytoin: additional cardiac depressant, use with caution

Herbal remedies: St John’s wart

**ALERT:**
Observe for signs of toxicity which include:
- Twitching
- Tremors
- Seizures
- Hypertension (early warning)

Other possible effects to monitor are:
- Perioral numbness
- Drowsiness
- Metallic taste
- Somnolence
- Dizziness
- Confusion
- Blurred vision
- Double vision
- Agitation

**Assessment:**
- Conduct a pain and symptom assessment prior to initiation and repeat every 4 hours and as required for the first 48 hours.
- Assessment should include respiratory rate, blood pressure, pulse, confusion rating scale and sedation scale

Patients may experience a sudden reduction in their Opioid requirements in the first 24 hours of initiating Lidocaine

**Procedure:**

**Prior to treatment:**
- Vital signs
- Pain assessment
- Weigh patient
- O2 saturation levels

**Pre treatment medications:** (administered by RN)
- Zofran 4mg IV
- Midazolam 1-2mg IV
- O2 @3 litres via nasal prongs to maintain O2 saturation at 92% or above
Lidocaine Administration (administered by Physician)
- Lidocaine 1.5mg/kg given slow IV push over 2-4 minutes
- Lidocaine 3.5-5 mg/kg in 500ml of 0.9% normal saline IV over 30-60 minutes
*Rate should be decreased with patients with known congested heart failure*

During treatment (By Registered Nurse)
- Assess pain, respiration rate, blood pressure, heart rate, sedation scale and O2 saturation levels every 3 minutes during the infusion and repeat q 15 minutes for the first hour of the infusion
- Administer Midazolam 1-2mg IV prn if patient develops twitching, tremors or seizures

Continuous Lidocaine Infusion
- Assemble IV equipment, prime tubing with normal saline
- Initiate IV as ordered
- Establish pump parameters as ordered, program pump
- Two registered nurses must independently verify patient name, medication (type, concentration and dose), pump settings against the physician's order at the following times
  - Prior to initiation
  - At the beginning and end of each shift
  - Any change in infusion settings
  - Every time the bag is changed

Verification check must be signed by two Registered Nurses
- Assess pain, vital signs, O2 saturation, sedation scale every shift for the first 7 days of infusion
- Nurse is to notify physician of any possible effects as described above.

Documentation
- Document on assessment tool and in progress notes q shift
- Identify on treatment sheet that patient is receiving continuous Lidocaine and to follow guidelines

Patient Teaching
- Instruct patient on the assessment scale to be utilized
- Instruct patient on when to notify nurses of effects such as tremors, twitching, problems with vision, hallucinations, or decreased pain control
- Review the goal of the pain management therapy
- Provide a patient information sheet if patient is being discharged home
- Ensure that CCAC referral is completed 48hours prior to discharge
References for Lidocaine Guidelines:


McCleane, G (2001) Intravenous infusion of lidocaine is not associated with changes in cardiovascular parameters, *The Pain Clinic*, Volume 13, Number 1, 83-86 (4)

Epidural
Requires anesthesia consultation.
Is used for severe pain with neuropathic components.

What is it?
An intraspinal/epidural catheter lies within the epidural space which is between
the dura matter and the vertebral column. When medication is injected into the
epidural space it binds to opiate receptors located on the dorsal horn of the spinal
cord and blocks transmission of pain impulses to the cerebral cortex of the brain.
Opioids do not cross the blood-brain barrier, and therefore decreasing the
systemic effects.

What types are there?
1. Untunneled:
A short term catheter is inserted by anesthesiology and is used for short term
pain management; it exits form the insertion site on the back, and may run up the
back to be looped over the patient’s shoulder.

2. Tunneled:
This catheter is tunneled subcutaneously and exits on the side of the body or on
the abdomen, this is preferred for longer term use, it is accessed using a port a
cath gripper needle.

Indications for use
• Patients who have intractable pain with other types of administration routes
• Patients who present with complex pain profile
• Patients who experience visceral and neuropathic pain

Contraindications:
• Local infections at insertion sites
• Systemic infections
• Bleeding disorders
• Progressive neurological disease
• Spinal or skeletal anomalies

Advantages
• Excellent analgesia with minimal sedation
• Long duration of action
• Mobility and awareness can be maintained
• Lower doses of opioids are required
Possible problems that may occur:

**Local infections** at the site can be treated and do not automatically require catheter removal. If site is red, swollen, or there is drainage: a swab for culture and sensitivity is to be taken and the physician notified.

**Occlusions**: catheter may be kinked; it may be disconnected, or dislodged. Monitor catheter q shift and document positioning and condition of catheter.

**Migration**: occurs when the catheter location has changed and the tip of the catheter has moved. May cause an inadequate amount of medication being delivered resulting from damage to the nerve roots or the spinal cord, if pain scores increase, assess using the PSAR and notify physician.

**Device Failure**: CADD pumps must be monitored q shift, batteries should be changed with every cassette change or every 5 days.

**Opioid**

The distal end of the spinal cord is required for use in administering analgesics because of the risk of opioid ascension and the resulting adverse effects of sedation and respiratory depression caused by sympathetic blocking. A small catheter is inserted into the epidural space, usually in the region between the L3 and L4 vertebrae. The catheter is securely taped or sutured in place and a sterile dressing is applied to the site.

Morphine is the most common opiate to be given epidurally. Any drug given epidurally must be **preservative-free** to avoid the neurotoxic effects caused by some additives and preservatives. Because it has a lower solubility, morphine has a slow rate of uptake and tends to linger in the cerebral spinal fluid. This accounts for the 30- to 60- minute delay in the onset of analgesia and its 8- to 24- hour duration of action.

**Narcotics**: examples: Morphine, Dilaudid, Fentanyl
- Interferes with pain perception
- No motor/sensory loss

**Anesthetics**: examples: Lidocaine, Bupivacaine
- Block nerve conduction
- Sensory/motor deprivation
Typically, a combination of morphine (analgesic) and bupivicaine (anesthetic) is used. This combination produces a synergistic effect while reducing the incidence of side effects. The concentration can be varied. A combined amount per ml is prescribed. It is prescribed on a continuous basis without bolus doses via an infusion pump. Any breakthrough pain medication that is needed must be taken by another route (P.O. or s/c).

The medication prescribed must be preservative-free, as some of these preservatives contain alcohol, which could have a neurotoxic effect on the spinal cord.

Side effects from the medications are more common than complications from the administration route itself.

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
**Midazolam Protocol**

*Consultation with your local palliative care expert strongly recommended before use.*

**Note:** In hospital please use hospital protocol, this protocol has been modified for use in the community and long term care settings.

**Purpose:**
*Midazolam is a very short acting benzodiazepine. It is used to induce palliative sedation in agitated or poorly pain controlled terminal patients. It can be given by oral, IV, or Sc routes.*

**Contraindications:**
*Known hypersensitivity to Benzodiazepines.*

**Administration:**

**Continuous Intravenous Infusion:**
*Intravenous infusion may be used in palliative patients. The bolus dose is 1-4mg and the infusion rate is 0.02 - 0.1 mg/kg/hr OR 1-7 mg/hr. Higher loading doses or maintenance infusion rates may be required in some patients. Midazolam diluted by pharmacy is stable for 10 days in NS at 1mg/mL.*

**Subcutaneous Route:**
*Midazolam can be administered subcutaneously as a bolus dose of 2.5-10mg and repeated every 2 hours. It can also be given as a continuous subcutaneous infusion. Subcutaneous infusion is preferred to both IV infusion and intermittent Sc dosing in terminal patients. The reasons that subcutaneous infusion is preferred is that there is a lower overall fluid requirement to keep it running and it then is not necessary to change the IV lines. The subcutaneous infusion dose is the same as in continuous IV infusion (0.02 mg/kg/hr OR 1-7 mg/hr). Doses of up to 7mg/hr have been reported. It is compatible with both hyoscine and morphine.*

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For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
**Pediatric Palliative Care**

Developed by CHEO Pediatric Palliative Care Outreach Team

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**Pediatric Palliative Care**

- Focuses on quality of life for the child/youth and support for the family
- Is an active, total approach, embracing physical, emotional, social and spiritual elements
- Includes the management of distressing symptoms, the provision of respite and follow through of illness, death and bereavement.
- Provided when curative treatment is not, or is no longer feasible - may run parallel to active treatment
- Palliative treatment may extend over many years

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**THE CONTINUUM OF PALLIATIVE CARE**

Adapted from the Canadian Palliative Care Association.
Why is pediatrics care different than in adults?

- Children are not little adults; there is a developmental component to the care
- Children are often born with life-threatening conditions; may be on palliative care for their entire lives
- In contrast to adult palliative care, most children receiving palliative care do not have cancer
- The approach must be tailored to children, family and their special needs

Medications Used in Pediatric Palliative Care

This document is a guideline and should be adapted for each individual patient. Feel free to consult the physician group for the CHEO Pediatric Palliative Care Outreach Program if you have any questions or concerns.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drug</strong></td>
</tr>
<tr>
<td><strong>Acetaminophen</strong></td>
</tr>
<tr>
<td><strong>Ibuprofen</strong></td>
</tr>
<tr>
<td><strong>Naproxen</strong></td>
</tr>
<tr>
<td><strong>Morphine</strong> (immediate release)</td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Hydromorphone</strong> (Dilaudid®)</td>
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<td></td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th>Secretions</th>
<th>Drug</th>
<th>Route</th>
<th>Dose</th>
<th>Comments/Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Glycopyrrolate</td>
<td>PO</td>
<td>50 mcg/kg/dose q4h prn</td>
<td>Injectable given orally</td>
</tr>
<tr>
<td></td>
<td>(0.2mg/mL = 200 mcg/mL)</td>
<td>SC/IV/IM</td>
<td>&lt; 50 kg: 5 mcg/kg/dose q4h prn &gt; 50 kg: 200 mcg/dose q4h prn</td>
<td>Relatively non-sedating</td>
</tr>
<tr>
<td></td>
<td>Scopolamine</td>
<td>SC/IV/IM</td>
<td>&lt; 50 kg: 6 mcg/kg/dose q4h prn &gt; 50 kg: 400 mcg q4h prn</td>
<td>End stage only. Very sedating. May cause delirium.</td>
</tr>
<tr>
<td></td>
<td>(0.4mg/mL = 400 mcg/mL)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3

<table>
<thead>
<tr>
<th>Nausea</th>
<th>Drug</th>
<th>Route</th>
<th>Dose</th>
<th>Comments/Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Metoclopramide</td>
<td>PO/IV/IM</td>
<td>&lt; 50 kg: 0.1 mg/kg/dose q6h prn &gt; 50 kg: 10 mg q6h prn</td>
<td>Rarely used in pediatrics due to extrapyramidal symptoms. Give with Gravol®</td>
</tr>
<tr>
<td></td>
<td>(Maxeran®)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dimenhydrinate</td>
<td>PO/IV/PR/SC/IM</td>
<td>&lt; 50 kg: 1 mg/kg/dose q4h prn &gt; 50 kg: 50 mg q4h prn</td>
<td>Sedating</td>
</tr>
<tr>
<td></td>
<td>(Gravol®)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ondansetron</td>
<td>PO/IV</td>
<td>&lt; 50 kg: 0.1mg/kg/dose q8h prn &gt; 50 kg : 8mg q8h prn</td>
<td>Non-sedating</td>
</tr>
<tr>
<td></td>
<td>(Zofran®)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4

<table>
<thead>
<tr>
<th>Pruritus</th>
<th>Drug</th>
<th>Route</th>
<th>Dose</th>
<th>Comments/Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diphenhydramine</td>
<td>PO/IV/SC</td>
<td>&lt; 50 kg: 1mg/kg/dose q4h prn &gt; 50 kg: 25-50 mg q4h prn</td>
<td>Sedating</td>
</tr>
<tr>
<td></td>
<td>(Benadryl®)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydroxyzine</td>
<td>PO/IV/SC/IM</td>
<td>&lt; 50 kg: 1 mg/kg/dose q6h prn &gt; 50 kg: 25 mg q4h prn</td>
<td>For IV give slowly via central line only. Sedating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5

<table>
<thead>
<tr>
<th>Constipation</th>
<th>Drug</th>
<th>Route</th>
<th>Dose</th>
<th>Comments/Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Gentlest to most potent)</td>
<td>Docusate (Colace®)</td>
<td>PO</td>
<td>&lt; 50 kg: 2 mg/kg/dose q12h prn &gt; 50 kg: 100 mg q12h prn</td>
<td>Stool softener. May double the dose.</td>
</tr>
<tr>
<td></td>
<td>Lactulose</td>
<td>PO</td>
<td>&lt; 50 kg: 0.5 mL/kg/dose q12h prn &gt; 50 kg: 30 mL q12h prn</td>
<td>Osmotic. May double the dose.</td>
</tr>
<tr>
<td></td>
<td>Sennosides 1.7mg/mL (Senokot®)</td>
<td>PO</td>
<td>&lt; 2 yr: 1-2 mL daily hs prn 2 – 5 yrs: 2-5 mL daily hs prn 6 – 12 yrs: 5-10 mL daily hs prn</td>
<td>Stimulant. If definitely constipated and NOT obstructed, may double the dose</td>
</tr>
<tr>
<td></td>
<td>Sennosides 8.6mg tabs (Senokot®)</td>
<td>PO</td>
<td>6 - 12 yrs: 1-2 tabs daily hs prn Adult: 2-4 tabs daily hs prn</td>
<td></td>
</tr>
</tbody>
</table>
### Table 6

**Anxiety/Delirium**

(Any medication used to treat delirium may cause delirium. Need to titrate and reassess frequently)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Dose</th>
<th>Comments/Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chloral Hydrate</strong></td>
<td>PO/PR</td>
<td>&lt; 50 kg: 25 mg/kg/dose daily hs prn &gt; 50 kg: 1000 mg daily hs prn</td>
<td>Maximum 2g/day. Oral liquid may be given PR.</td>
</tr>
<tr>
<td>100 mg/mL oral liquid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lorazepam</strong></td>
<td>PO/IV/SC/IM I</td>
<td>&lt; 50 kg: 0.02 mg/kg/dose q4h prn &gt; 50 kg: 1 mg q4h prn</td>
<td>May double PRN titrate to response</td>
</tr>
<tr>
<td>(Ativan ®)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Methotrimeprazine</strong></td>
<td>IV/SC/PO</td>
<td>&lt; 50 kg: 0.2 mg/kg/dose q4h prn &gt; 50 kg: 10 mg q4h prn</td>
<td>May double PRN</td>
</tr>
<tr>
<td>(Nozinan®)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phenobarbital (for sedation)</strong></td>
<td>IV/PO</td>
<td>&lt; 50 kg: 1 mg/kg/dose q8h prn &gt; 50 kg: 30- 60 mg q12h prn</td>
<td>Injection is special access.</td>
</tr>
</tbody>
</table>
Champlain District

Pediatric Palliative Care Resources

Please note that the list below is not exhaustive. Consult the CHEO Pediatric Palliative Care Outreach Team for assistance with other resources

Children's Hospital of Eastern Ontario (CHEO)

- 401 Smyth Rd, Ottawa, ON, K1H 8L1
  613-737-7600
  www.cheo.on.ca

CHEO Pediatric Palliative Care Outreach Program

- Interdisciplinary, Timely, Holistic, Patient focused, Family Centered, Culturally Sensitive
- The team includes the child/youth and family, Physicians, Registered Nurses, a Social Worker, a Coordinator of Volunteers, a Child Life Specialist, Bioethics, a Pharmacist, and Spiritual Support Services
- In house consultation and follow up
- Outreach to the Ottawa community and region
- Education, debriefing and support to professionals
- Pain and symptom management
- Bereavement support
- Assistance with ethical decision making

Settings

- Hospital/Institutional care
  - CHEO and other regional referral centers
- Community care
  - Roger's House
  - In-home acute palliative care and surveillance

Inquiries: 613-523-6300 # 600

- Medical Director: Dr William Splinter
  - 613-523-6300, fax: 613-523-3617
  - Page through CHEO locating: 613-737-7600 #0

- Clinical Manager: Marion Rattray, RN
  - 613-523-6300 # 603
  - Page through CHEO locating: 613-737-7600 #0

- Operations Director: Lloyd Cowin
  - 613-523-6300 # 602
Roger’s House Pediatric Hospice

- 399 Smyth RD, Ottawa, ON K1H 8L2
- 8 bed free-standing pediatric residential hospice set in a homelike, family environment providing:
  - Temporary respite (planned and emergency)
  - Acute pain and distressing symptom management
  - Holistic “end of life” care
  - Temporary “transition to home” care
  - Grief and bereavement care
- Located on the grounds of the Children’s Hospital of Eastern Ontario in Ottawa, Ontario.
- Modeled after Canuck Place Children's Hospice in Vancouver, BC.
- Inquiries
  613-523-6300, fax: 613-523-3617
  [www.rogershouse.ca](http://www.rogershouse.ca)

Criteria for Admission to Roger’s House

- Children/Youth 0-18 years of age
- Having a valid OHIP card and eligible to receive CCAC (Community Care Access Centre/Home Care) services
- Must have a life limiting illness with progressive decline in health status
- Must be referred to and involved with CHEO’s Palliative Care Program
- Must be willing to confront, with the help of the interdisciplinary team, the challenging issues around a child’s illness and death
- A palliative plan of care (care directives) will have been developed.
Champlain Districts Community Care Access Centre (Ottawa Office)

- CHEO Case Manager: 613-737-2652, fax: 613-738-4289
- Champlain District CCAC Extended Hours Case Manager (Ottawa): 613-145-5525, fax: 613-745-6984
- To locate the Community Care Access Centre office in your community visit the web site: Ontario Association of Community Care Access Centers
  www.oaccac.on.ca

Interlink Childhood Cancer Nurses: Member group of the Pediatric Oncology Group of Ontario

- 480 University Avenue, Suite 1014, Toronto, ON, M5G 1V2
- “These nurses coordinate cancer care for children by linking hospital and community services”.
- Inquiries: 416-592-1232, Fax: 416-592-1285
  e-mail: info@pogo.ca
  www.pogo.ca
- CHEO Interlink Community Cancer Nurses
  613-738-3992, toll free 1-888-545-8898, Pager 613-593-3325, Fax 613-738-4846
  Marilyn Cassidy: 613-593-3325 (pager), Isabelle Sjoberg: 613-593-3721 (pager)

The Kaitlin Atkinson Family Resource Library

- 401 Smyth Road
  Ottawa, ON K1H 8L1
- Located at the Children’s Hospital of Eastern Ontario
- “The library has materials on child health, illness and injury, and parenting. It is free and open to the public”.
- Inquiries
  613-738-3942
  www.cheo.on.ca
Ronald MacDonald House

- 401 Smyth RD, Ottawa, ON, K1H 8M8
- "Provides a home-away-from-home for families of seriously ill children being treated at a nearby children's hospital. Offers a warm, compassionate and comfortable home environment for a nominal overnight fee".
- Inquiries
  613-737-5523, fax: 613-737-5524,
e-mail: info@rmhottawa.com

Rotel

- 411 Smyth Road Ottawa, ON K1H 8M8
- "A non-profit motel facility serving patients and families using Ottawa-area hospitals. Designed to keep patients and their loved ones in close touch and to ease the stress on the lives of outpatients. It is conveniently located on Smyth Road, next to the Children's Hospital of Eastern Ontario, Ottawa Children's Treatment Centre, National Defence Medical Centre, Ottawa General Hospital and Royal Ottawa Regional Rehabilitation Centre".
- Inquiries and Reservations
  613-733-1412, Toll-Free 1-800-267-4700
e-mail: inquiries@rotel.ca
Problems associated with skin integrity may be related to either the disease or the treatment. Causes include:

- Decreased mobility
- Malignant skin lesions
- Infectious skin lesions
- Skin rashes
- Irritation from urinary/fecal incontinence
- Abrasions from shearing forces/scratching
- Invasive therapeutic procedures (e.g. surgery)
- Radiation skin reactions
- Chemotherapy reactions
- Lymphatic and/or vascular obstruction
- Pressure ulcers
- Malnutrition

**Pruritus (itching)**

Assessment of the causes(s) of pruritus is important. It may be a result of the cancer itself or from treatment (chemotherapy or radiation). Early and consistent management of pruritus can prevent breaks in skin integrity.

**Tips for management of pruritus:**

- Keep the itchy area well moisturized. **Dry skin may make itching worse**
- Bathe in cool water to prevent or manage vasodilation. Avoid hot baths as this will further dehydrate the skin and cause irritation
- Use mild soaps and rinse well
- An oatmeal bath may relieve itching. Wrap 240 ml of oatmeal in a cotton cloth, and boil as you would to cook it. Use this as a sponge and bathe in tepid water without soap. Or try an Aveeno colloidal oatmeal bath
- Dry skin by gently patting
- Use water soluble lotions and emollients immediately after bathing. Avoid products containing perfumes and scents
- Take oral fluids as tolerated to prevent dehydration
- Apply cornstarch to areas of irritated skin following bath but avoid applying it to areas of skin folds.
- Increase moisture with humidifier.
- Use cotton or silk clothing and sheets. Avoid wool and acrylic fabrics next to the skin
• Wear loose fitting clothing
• Avoid scratching, which damages the skin. Cut the nails short or wear gloves and/or socks at night to prevent scratching
• Use methods of skin stimulation, such as massage, vibration, and cold compresses to decrease the sensation of itching

Medications for pruritus:
Medications that may be prescribed to manage pruritus include antihistamines, corticosteroids, tranquillizers, and topical agents.

Wet Skin
Wet skin can be caused by excessive perspiration, urine, feces, blisters, or wound exudate. Skin that is constantly wet becomes macerated and is at risk for skin breakdown.

Treatment:
• Ensure that skin and genitalia are clean and free of excretion and drainage
• Protect the skin with appropriate barriers, i.e. barriers cream, zinc
• Vaseline should not be applied to macerated skin as it will contribute to keeping the skin too moist leading to skin breakdown.

Wounds Associated with Palliative Patients/ Clients
• Pressure ulcers (decubiti)
• Malignant (fungating, metastatic, malignant, oncological)
• Fistulae
• Vascular (venous stasis or arterial insufficiency)
• Trauma/post surgical
• Infection/inflammation

Principles of Wound Management
• Identify the type of wound (pressure, malignancy, pressure etc.)
• Identify & manage factors that will impede healing (e.g. co-morbid conditions such as diabetes, nutritional deficiencies, edema, vascular insufficiency, medications such as corticosteroids)
• Identify client concerns/priorities (e.g. quality of life issues, odour, drainage, pain)
• Determine whether the wound has the ability to heal
• Manage the local wound environment. This includes:
1. Cleansing the wound with normal saline or tap water. Use minimal force. Irrigation or compress are recommended

2. Controlling infection. Avoid topical antibiotics that are also used systemically (e.g. garamycin). Many topical antibiotics (e.g. fucidin) are common sensitizers. Systemic antibiotics should be considered if the infection extends beyond the wound margin or the ulcer probes to bone.

3. Removal of necrotic tissue (nonviable tissue). Debridement of nonviable tissue (black eschar or yellow slough) can be achieved through autolytic, mechanical or surgical/sharp debridement.
   - Autolytic (breakdown of dead tissue by body's own cells and enzymes) is facilitated by a moist wound environment (hydrogel, hydrocolloid, film)
   - Mechanical debridement physically removes tissue from the wound. (Pressure irrigation, whirlpool therapy, wet-to-dry dressing). Wet-to-dry dressings are non-selective and removes granulation and epithelial as well as non-viable
   - Surgical/sharp refers to instrument debridement. Surgical debridement with a scalpel should be used if there is an urgent need for debridement as with advancing cellulites or sepsis. Debridement with a scalpel should be undertaken with caution and performed by specially trained health care professionals.

- If the wound is not healable, stabilize the eschar (black necrotic tissue) with topical antiseptics such as providone iodine or chlorhexidine.
- Use moist interactive dressings balanced with exudate management
- Fill dead space (e.g. wound cavity)
- Maintain a constant temperature (change the dressing only as required as determined by the amount of exudate or presence of infection)
- Protect periulcer area from exudate

Refer to ET or wound care specialist if: i) the cause of wound is unknown, ii) dealing with a complex wound, or iii) the wound size does not decrease by 20-30% with 3-4 weeks of treatment. This expertise is available through most hospitals, the CCAC, and long term care settings.
# Dressing Selection: Commonly Used Dressing Products
(Adapted from the Ottawa CCAC Wound Protocol, 2004)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Indications</th>
<th>Precautions</th>
<th>Hints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wound Hydration</strong></td>
<td><strong>Hydrogels</strong> e.g. duoderm gel, normagel, intrasite gel, curagel</td>
<td>Do not use for heavily exudating wounds</td>
<td>Viscosities of gels vary</td>
</tr>
<tr>
<td></td>
<td><strong>Hydrocolloid</strong> e.g. duoderm, restore, comfeel, duoderm CGF (moderate drainage) duoderm extra thin (very light drainage)</td>
<td>Hydrocolloids Do not use if anaerobic infection suspected Do not confuse characteristic odour with infection</td>
<td>Sheets customized to fit difficult areas Size must extend 2.5 - 5 cm beyond wound border</td>
</tr>
<tr>
<td><strong>Moisture Retentive</strong></td>
<td><strong>Transparent Films</strong> e.g. tegaderm, opsite</td>
<td>Caution on fragile skin May cause wound maceration</td>
<td>Use skin barriers on periwound (e.g. cavulon, proshield) Avoid wrinkles For removal, stretch product to break adhesive and prevent skin stripping Use antiseptics when concern for bacteria load is greater than concern for healing Avoid using antibiotic</td>
</tr>
<tr>
<td><strong>Non-adherents</strong></td>
<td><strong>Petroleum</strong> e.g Adaptic jelonet</td>
<td>Antiseptics damage granulation tissue Products containing antibiotics ↑ local skin sensitization &amp; development of resistant bacteria</td>
<td></td>
</tr>
<tr>
<td>Classification</td>
<td>Indications</td>
<td>Precautions</td>
<td>Hints</td>
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<td>-----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Absorbant</td>
<td>Moderate to heavily exudating wounds</td>
<td>Do not use alginates, hydrofibers or hypertonic saline on minimal draining wounds</td>
<td>Alginates, hydrofibers and hypertonic saline dressing require secondary dressings</td>
</tr>
<tr>
<td>Alginates</td>
<td>Promotes autolytic debridement</td>
<td>Foam dressing do not provide pressure relief</td>
<td></td>
</tr>
<tr>
<td>e.g. Kalotosat, fibrocal</td>
<td>Foams may ↓ wound pain</td>
<td>Protect periulcer with protective barrier (cavulon, proshield, maalox)</td>
<td></td>
</tr>
<tr>
<td>Hydrofiber</td>
<td>Hypertonic saline useful in presence of infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.g. Aquacel</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Foams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.g. allevyn, biatain, mepilex</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hypertonic saline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.g. Mesalt</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Composites</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Combiderm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charcol dressing</td>
<td>Odorous wounds</td>
<td>Ensure underlying infection has been evaluated and treated</td>
<td>Ensure dressing edges are sealed for maximum odour containment</td>
</tr>
<tr>
<td>e.g Actisorb</td>
<td></td>
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</tbody>
</table>

**Pressure Ulcers (Decubiti)**

The risk for developing pressure ulcers increases when mobility is compromised. The use of a validated and reliable tool such as the Braden Scale for Predicating Pressure Sore Risk is recommended. Interventions should be based on risk factors identified. Categories in the Braden scale include sensory perception, mobility, moisture, nutrition, friction and shear.

All pressure ulcers should be identified and staged using the National Pressure Ulcer Advisory Panel (NPUAP). Use proper positioning, transferring and turning techniques.

For all stages of pressure ulcers it is imperative to:
- relieve the pressure and other causative factors (shear, friction, moisture)
- control systemic conditions as much as possible (e.g. fluid & nutritional imbalances; co-morbid conditions such as diabetes)
- Encourage systematic and frequent repositioning of patient/resident
- Use pillows/positioning devices to prevent contact between bony prominences
- Use lifting devices to move patient
- Obtain pressure relieving devices such as alternating air or gel mattress/silicone
Consult Occupational Therapy/Physiotherapy (OT/PT) regarding transfer and positioning techniques and devices to reduce friction and shear and to optimize client independence.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Persistent area of skin redness that does not disappear when pressure is relieved.</td>
<td>Apply transparent protective film such as tegaderm, opsite or duoderm thin</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Partial thickness skin loss (presents as an abrasion, blister, or shallow crater).</td>
<td>Select dressing based on the amount of exudate. Usually a moist interactive dressing is sufficient (e.g. hydrocolloid, foam dressing)</td>
</tr>
</tbody>
</table>
| Stage 3 | Full thickness skin loss exposing subcutaneous tissue but does not extend through the underlying fascia. | Select a dressing based on the amount of exudate Dry wounds  
  • Hydrocolloid, hydrogel  
For a moderately exudating wound, choose absorbent hydrocolloid, foam, or composite  
For heavily exudating wounds choose a calcium alginate or hydrofiber |
| Stage 4 | Full thickness skin loss with extensive destruction or damage to muscle, bone or supporting structures. | Select dressings according to exudates and presence of infection  
Check for sinus tracts and fill lightly with packing, i.e. kaltostat rope  
NOTE: over packing increases the pressure to surrounding tissue. |
| Stage X | Pressure ulcers covered with necrotic tissue cannot be staged until this non viable tissue is removed. | Only debride tissue if the wound has been assess as healable  
Foot ulcers with dry eschar do not need to be debrided if there are no signs of edema, erythema, fluctuance, or drainage. |
### Other Type of Common Wounds

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Interventions</th>
</tr>
</thead>
</table>
| Oncology   | If non-healing wounds, goals include:                                        | • Metronidazole gel or crushed metronidazole tablets (250-500 mg) sprinkled over the wound (↓ anaerobes in necrotic tissue that cause odour).
|            | • Identify & treat underlying infections                                     | • Charcoal dressing to control odour (ensure dressing is sealed at the edges)
|            | • Control drainage & bleeding                                                | • Petroleum-impregnated gauze dressing to ↓ sticking
|            | • Promote comfort                                                            | • Foam dressing for heavier exudating & painful wounds
|            | • Control odour                                                              | • Calcium alginate (e.g. kaltostat) or gelfoam sponge for bleeding wounds
|            | • Promote quality of life                                                     | • Hydrofiber or calcium alginate for heavily exudating wound
| Fistulae   | An abnormal opening between one hollow organ and the skin (external) or 2    | • Contain odour & drainage
|            | hollow organs (internal). Goal: Protect skin from exudates, urine, enteric    | • Protect surrounding skin
|            | fluids, & mucus (depending on the site)                                       | • Pouching external fistula to collect drainage
|            |                                                                             | • Manage local pain
|            |                                                                             | • Correct fluid & electrolyte imbalances
| Venous Ulcers | Ulcers are most often superficial & irregular in shape. May be very painful | • Vascular assessment including Ankle Brachial Index (API) to screen for arterial disease
|            | Legs are edematous with brown/reddish brown staining                         | • In the absence of signs & symptoms of arterial disease, and an ABPI ≥ 0.8 graduated compression bandages applied by trained professionals to reduce edema and promote wound healing
|            | May feel hard (wood-like) with scaling                                        | • Reduced compression may be applied for an ABPI between 0.6 and 0.8
|            | Often drain heavily.                                                         | • Do not use any form of compression bandages or stockings for ABPI < 0.6
|            |                                                                             | • Dressings should be simple, non adherent
|            |                                                                             | • Frequent elevation of extremities and ankle exercises to aid venous return
<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial Ulcers</td>
<td>Pallor and pain especially with exercise or elevation of extremity.</td>
<td>• Vascular assessment(^7)</td>
</tr>
<tr>
<td></td>
<td>Taut, shiny skin.</td>
<td>• Arterial ulcers should not be debrided unless circulation is adequate to support healing.(^4)</td>
</tr>
<tr>
<td></td>
<td>Dependent rubor (red when legs are dependent)</td>
<td>• Client taught risks of infection and instructed in measure to prevent deterioration.</td>
</tr>
<tr>
<td></td>
<td>Extremity cool or cold.</td>
<td>o Keep extremities warm</td>
</tr>
<tr>
<td></td>
<td>Ulcer has punched out appearance.</td>
<td>o Protective foot wear</td>
</tr>
<tr>
<td></td>
<td>Usually increased necrotic tissue or slough in the wound bed</td>
<td>o Protection from trauma</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• If correction of the underlying problem is not possible (corrective surgery) the goal is maintenance</td>
</tr>
</tbody>
</table>

**Ontario Drug Benefit for Skin and Wound Care and Odour**

Refer to the most recent ODB formulary / Comparative Drug Index for the complete list of covered products. Home Care (CCAC) patients and residents of Long Term Care (LTC) facilities are eligible for the same coverage as ODB patients. LU = Limited Use.

**Drugs Covered**
- Most antibacterial, antifungal, and steroid creams are covered by ODB.
- Systemic antibiotics such as Clindamycin and Metronidazole (see exceptions) are covered.

**Exceptions**
- Metronidazole powder is **not** covered by ODB, costs about $20.00 for 25 g.
- Moisturizing and lubricating creams or ointments are **not** covered by ODB and are available non-prescription.
- Maalox (for use topically) is **not** covered and is available non-prescription.
- Barrier cream is **not** covered by ODB and costs about $6.00 for a 50 g tube.

**Note:** For products **not** covered by ODB or by LU criteria the physician may apply to ODB for a "section 8" which may provide coverage. The pharmacist can supply further information on applying for "section 8" coverage for a patient.

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
References for Skin and Wounds:


Other Issues in Palliative Care

This section contains information on:

- Dementia
- Diabetes
- Grief and Bereavement
- Multicultural Practices and Beliefs at End of Life
- Nutrition
- Hydration
- Palliative Sedation

For your questions, consult your local palliative care expert or the PPSMCS 1-800-651-1139.
Dementia

Causes:
Alzheimers, Lewy Body Dementia, Vascular Dementia, Frontotemporal dementia

Strategies for Dementia-Induced Behaviour Problems:
- Engage resident in some activity or outing that helps to use their energy. Activities involving repetitive routine, previous learned behaviour, rummaging, etc are effective.
- Avoid or minimize use of antihistamines, traditional antipsychotics, tricyclic antidepressants, bowel/bladder antispasmodics, benzodiazepines, muscle relaxants and barbiturates.
- Antidepressant therapy must be considered in treating depression
- Reducing isolation for the resident
- Providing support and reassurance to combat feelings of loneliness by talking to the resident during care
- Alternating quiet times with more active periods; planning outings and activities for when the resident is rested
- Ensuring physical needs are being met including rest, food, drink, voiding
- Optimizing vision and hearing
- Reducing environmental stimulation if causing agitation and restlessness; alternatively, moving the resident to a quieter place. Reducing noise, number of people and clutter
- Planning tasks to match the capabilities of the resident by breaking tasks into small steps
- Keeping daily routine as consistent as possible; avoid changes and surprises. For some dementia patients the slightest change may lead to confusion and disorientation. Try scheduling meals, bathing, and walks at the same time everyday.
- Removing the person from stressful situations, persons, and places by gently guiding them away while speaking in a calm and reassuring voice.
- Distracting the person with a favourite food or activity which may help to reduce the agitation
- Playing soft music; appropriate touch and quiet reading can calm the resident

Consultation with the Royal Ottawa Health Care Group may be appropriate.
613-722-6521
If the resident is delusional or demented, communication strategies include:
- Avoid asking questions that rely on memory
- Avoid reasoning with the resident
- Speak slowly and clearly; use short simple sentences
- Approach the person slowly and from the front, approaching from behind or side may startle the person
- Be sure you have the person’s attention before speaking

**Drug Treatment for Dementia**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallucinations or Delusions</td>
<td>Risperidone 0.25 - 1mg po BID</td>
</tr>
<tr>
<td>Agitation</td>
<td>Trazodone 50-100 mg po daily</td>
</tr>
<tr>
<td>Anxiety Chronic</td>
<td>Sertraline 50-100 mg daily</td>
</tr>
<tr>
<td></td>
<td>Citalopram 10-40 mg daily</td>
</tr>
<tr>
<td>Acute Anxiety</td>
<td>Lorazepam 0.5 mg orally, short term</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Trazodone 50-100 mg po qHS</td>
</tr>
</tbody>
</table>

* As dementia progresses - discussions should include plans for hospitalization, tube feeds, medications (continue or when to discontinue), and futility of treatment. Try to avoid having these discussions during a crisis.

**References for Dementia**


**Diabetes in Palliative Care**

Hyperglycemia is often asymptomatic but blood sugar levels over 20mmols/L may be associated with thirst, polyuria and altered consciousness.

Hypoglycemia is unpleasant and potentially dangerous. Glucagon may be less effective in a cachectic patient.

There may be difficulty adjusting to a more relaxed approach to diabetes care.

Always have something available to treat hypoglycemia.

**To monitor or not to monitor...**

Altered mental status, thirst, polyuria and dehydration may impair quality of life, but invasive monitoring of blood sugar and administering insulin injections is uncomfortable and probably inappropriate for the patient in the terminal phase.

**The general approach to diabetes in patients with advanced cancer and a prognosis of weeks to months...**

- Consider referral to palliative care and/or the diabetes team
- Relax all dietary restrictions
- Reduce blood glucose monitoring to an acceptable minimum
- Aim for blood sugar level between 10 and 20 mmols/L to avoid hypoglycemia (use sliding scale and short acting insulin)
- Reduce dose of oral hypo-glycemics as appetite reduces
- Review necessity of steroids and ask about symptoms of hyperglycemia
- Identify and treat oral Candida and other infections
- Explain measures to the patient and family and document in the medical notes
- Skin and foot care
- Recognize psychological impact of relaxing tight control of sugars on family.

**True insulin dependence**
It will often be possible to withdraw insulin in the terminal phase. However, there is a small group of truly insulin-dependant patients. Some patients will require insulin after food intake has ceased.

**Management of diabetes in patients with prognosis of days**

- **Conscious?**
  - NO: Stop monitoring BS, stop all oral medication, stop all insulin
  - YES: Symptomatic?
    - NO: Check BS, give 6 units short-acting insulin if BS>20
    - YES: (McCoubrie et al. 2005)

**Principle of Care**: The emphasis at the end of life must be on measures to maximize the patient’s quality of life, rather than the usual strict control of blood sugars to prevent long-term complications.

**References for Diabetes**


Grief and Bereavement

Grief is a normal response to loss.
Understanding the grieving process is essential for those providing grief and bereavement care.

Tasks of Grieving (formerly known as 'Stages of Grieving' - Elisabeth Kubler-Ross)

1. To Accept the Reality of the Loss: This first need of mourning involves confronting the reality that someone you care about will never physically come back into your life again. Whether the death was sudden or anticipated, acknowledging the full reality of the loss may occur over weeks and months. You may discover yourself replaying events surrounding the death and confronting memories, both good and bad. This replay is a vital part of this need of mourning. It's as if each time you talk it out, the event is a little more real. The opposite of accepting the reality of the loss is not believing through some type of denial.

2. Experiencing the Pain of Grief: It is necessary to acknowledge and work through the physical pain associated with grief or it will manifest itself through some symptom or other form of abnormal behaviours. There is a subtle interplay between society and the mourner which makes the completion of task #2 more difficult. Society is uncomfortable with the mourner's feelings and gives the message "You don't need to grieve". The negation of this second task, of working through the pain is not to feel. One of the aims of grief counselling and mutual aid support is to help facilitate people through this difficult second task so they do not carry the pain with them throughout their lives.

3. Adjust to an Environment in which the Deceased is Missing: Adjusting to a new environment means different things to different people, depending on what the relationship was with the deceased and the various roles the deceased played. The survivor usually is not aware of all of the roles played by the deceased until after the loss occurs. The aborting of this task is not adapting to the loss. People work against themselves by promoting their own helplessness, by not developing the skills they need to cope, or by withdrawing from the world and not facing up to environmental requirements.
4. Withdraw Emotional Energy and Reinvest it in Another Relationship: The fourth and final task in the grieving process is to affect an emotional withdrawal from the deceased person so that this emotional energy can be reinvested in another relationship. Many people misunderstand this fourth task and need help with it. They think that if they withdraw their emotional attachment, they are somehow dishonouring the memory of their loved one. In some cases they are frightened by the prospect of reinvesting their emotions in another relationship because it too may end. It is difficult to find a phrase that adequately defines the incompletion of this task, but perhaps the best description is not loving. The fourth task is hindered by holding on to the past attachment rather than going on and forming new ones.

Complicated grief
Complicated grief is experienced when the work of grief is too difficult to bear. If any of the following symptoms are present, the individual is at risk and is in need of intensive counselling:

- Severe depression (as diagnosed by a physician)
- Drug or alcohol dependency
- Major personality changes
- Chronic health problems
- Feelings or expressions of suicide
- Loss of decision—making power

What is anticipatory grief?
What many people don’t understand is that when we learn a loved one is dying we begin to grieve the loss even while he or she is still alive. This experience is known as anticipatory grief. In some ways anticipatory grief isn’t much different from the grief we experience after the death occurs. Even though the patient is still living, this period of time is when the family begins the process of “letting-go”. It happens naturally; it is a subconscious process.

Bereavement care before death
Patients also experience anticipatory grief as a result of many losses and changes in lifestyle, such as:

- Loss of their home, or loss of home as they once knew it
- Loss of work, loss of contact with co-workers
- Periodic separation from family when hospitalized
• Loss of health and independence
• Saying goodbye to everyone they know and love

Given the Tasks of Grief and the determinants of grief, there are certain implications for a comprehensive program of palliative care through which the bereaved can be helped:

First - recognize that both the dying patient and the family can and do grieve before a death. Being aware of this and helping the patient and family to understand this can help them to cope with the alienation that can occur when someone is dying.

Second - encourage families of the dying to say those things to each other that need to be said before the death. This can leave the survivor with less unfinished business to be dealt with after the death. Family members often need permission from the caregiver to do this. A sentence or two can go a long way to help the family members do what they inwardly want to do but may feel awkward doing.

Third - allow the family to be with the person as he or she is dying, and allow them to be with the body after the death. This can be quite salutary in facilitating the first task. There is nothing like the confrontation with the loved one’s body to bring home the reality of the loss. A program that encourages this and makes provision for it can make an important contribution to bereavement.

Resources:
- www.bfocornwall.ca - Bereaved Family of Cornwall website.
Multicultural Practices and Beliefs at End of Life

With the population in the Champlain District and the remainder of Canada becoming increasingly multicultural, it is essential that we equip our health care providers with the knowledge and tools to deliver culturally-sensitive and appropriate care. Although insights into the manner in which cultures shape one’s notions of health and family are important in all aspects of health care, the understanding of these beliefs is critical at the end of life. This module will assist us to better understand the beliefs about death and dying that our primary cultural groups hold, which will contribute to better care. As health care professionals, we can help them understand the dying process and be able to ease their burden by knowing more about their practices, views, and values related to end of life.

Assessment
Team members assess each patient and family to ascertain their cultural perspective with regard to illness, goals of care, healing and dying. The following guide could be used as a tool to assist health care workers in assessing the beliefs and needs of their patients and families.

FICA

F = Faith or Beliefs
- What is your faith or beliefs?
- What do you believe in that gives meaning to your life?

I = Importance and Influence
- Is it important to you?
- What influence does it have on how you take care of yourself?

C = Community
- Are you part of a spiritual or religious community?
- Is this of support to you?
- Who are really important to you?

A = Address
- How would you like me to address these issues in your health care?
**Care Planning**

- Encourage patients and families to *teach* us what is important to them, including what is done and not done, acceptable or not acceptable, comfortable or not comfortable.

- As appropriate, explore ways to enable patient and family members to practice identified customs and rituals.

- Where difference of views arises between patient/family and staff based on differing cultural perspectives regarding best practice, a conflict resolution approach is taken.

**Tips on communicating through a cultural interpreter**

- Ideally, the translator should not be a family member.
- Translators should be trained to respect patient confidentiality.
- Request a literal, word-for-word translation.
- Look directly at the patient, rather than at the translator.
- Speak directly to your patient.
- Encourage interpreter to present his/her insights if she/he observes that some misunderstanding is affecting the communication process.
- Avoid using slang and medical jargon.
<table>
<thead>
<tr>
<th>FICA</th>
<th>Faith:</th>
<th>&quot;What do you believe in that gives meaning to your life?&quot; A broad, open-ended question is usually asked. There is no single correct question, although Dr. Pulchalski has found the above and the following to be useful. &quot;Do you consider yourself to be a religious or spiritual person?&quot; Both religious and spiritual are used because individuals may relate to one and may even take offense at the other. Many individuals who will say they are not religious will admit to being spiritual, which should prompt a discussion of what this means to them. Conversely, an answer such as, &quot;Yes, I’m Catholic,&quot; tells you something but begs exploration of what this means.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Importance and Influence:</td>
<td>&quot;How important is your faith (or religion or spirituality) to you?&quot; Just hearing that the person is spiritual or a member of a particular religion tells you little. How important is this? How is it important? There is a big difference between a Catholic who has not been to Mass since childhood and one who goes to Mass daily.</td>
</tr>
<tr>
<td>C</td>
<td>Community:</td>
<td>&quot;Are you a part of a religious or spiritual community?&quot; Particularly for those who participate in an organized religion, community is often a central part of their spiritual and social experience. It is not uncommon that just when this community becomes most important, when death approaches, the individual is cut off from that community because of illness and caregiving needs.</td>
</tr>
<tr>
<td>A</td>
<td>Address or Application:</td>
<td>&quot;How would you like me to address these issues in your health care?&quot; &quot;How might these things apply to your current situation?&quot; &quot;How can we assist you in your spiritual care?&quot; Patients and families often feel better simply because they have been given permission to share their beliefs. That you have inquired is usually seen as a sign of respect. However, there may be very specific things you can do to be of assistance. In a talk on assessing suffering, Baines told the story of a man who reported 10 of 10 on a scale of suffering that related entirely to his spiritual care. He had regularly attended a certain service and was now unable to do so, which resulted in unbearable suffering. With permission the hospice team contacted the ministry, which sent a home ministry team to the patient’s home. His suffering score drop to 0 of 10. As in this case, assistance for many will mean access. A simple phone call to the proper clergy member can significantly relieve distress. Patients and families may also have fears related to spiritual issues that they may be hesitant to express. For example, Sikhs wear sacred regalia that should not be removed from the person at any time. Patients and families may become terrified that health care workers will remove them. Asking if patients have any special concerns or fears and then addressing them may be of great assistance.</td>
</tr>
</tbody>
</table>
**QUICK GUIDE - What to remember at time of death**

*Do not assume these apply universally. Always verify these with the family.*

<table>
<thead>
<tr>
<th>BUDDHISM</th>
<th>ASIAN</th>
<th>JUDAISM</th>
<th>MUSLIM</th>
<th>ORTHODOX CHRISTIAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enlightenment and awakening</td>
<td>Reverence and calmness</td>
<td>Honor and dignity</td>
<td>Respect and modesty</td>
<td>Devotion and expression</td>
</tr>
<tr>
<td>Do not reposition Leave body as is</td>
<td>Privacy for family</td>
<td>Close eyes and mouth</td>
<td>Close eyes and mouth (bandage)</td>
<td>Cross in hands</td>
</tr>
<tr>
<td>Do not touch</td>
<td>Cover head</td>
<td>Straighten body arms to the side, feet together</td>
<td>Icon or book of gospels near body</td>
<td></td>
</tr>
<tr>
<td>Cover body with sheet</td>
<td>Feet towards the doorway</td>
<td>Turn face to the right</td>
<td>Light to guide</td>
<td></td>
</tr>
<tr>
<td>Total silence</td>
<td>Cover body with a sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
References for Multicultural Practices


www.jewishottawa.org/content_display.html


Ottawa Regional Palliative Care Centre, Clinical Practice Module: Cultural Diversity in Palliative Care (1999)
Petit de Mange E (1998) The story of Rabbia, a Dying Person, Holistic Nursing Practice:12,1: ProQuesr Nursing Journals This is the nursing care to a dying Muslim woman compared to the care provided by the patient’s family and religious community.


Sarhill N, LeGrand S, Isambouli R, Davis M, Walsh D, The terminally ill Muslim: Death and Dying from the Muslim perspective, American Journal of Hospice & Palliative Care July (18)4


Shamshad M, Crown L, A Muslim family’s experience in acute care, Cross-Cultural Medicine, January (27) 1

The goals of nutritional support should be consistent with the palliative care goals. The beneficial aspects of nutrition and the pleasurable experience of eating should always outweigh the burdens. The patient’s food preferences and tolerances should be the focus of meal planning and nutritional support.

Randomized control trials have demonstrated that in terminally ill patients, parental feeding failed to provide benefit and is associated with a greater risk of infection. Giving unrequested nutritional support to the terminally ill is medically futile as it does not improve prognosis, comfort or general state of health. There is evidence that starvation may be associated with a sense of euphoria and well-being. Comfort may be enhanced by reduced diarrhea, respiratory secretions and urine output.

The Patient
The management of pain and discomfort related to eating and digestion is important to reduce the negative effects of oral intake. The loss of independence, fear, hopelessness, and depression may also limit the patient’s interest in food and drink. Patients may feel added stress knowing that they are incapable of fulfilling their own or other’s expectations of food intake.

The Caregiver
Caregivers often focus a considerable amount of time and energy on food and feeding issues. Consequently, the caregiver’s approach to meals and nutrition may have a very positive or negative influence on the patient’s quality of life. The caregiver may need to come to terms with their feelings such as “feeding him is my job” or “he won't eat his favourite foods anymore”. Forcing a patient to eat is not consistent with the goal of providing a comfortable and relaxed atmosphere for meals. Patient and caregiver interaction can be rewarding when expectations are discussed and food issues and mealtime situations are accepted. The caregiver may require reassurance that their efforts to support balanced nutrition are not wasted, and instead, learn to redirect their energies toward the other caring activities.
Therapeutic Diets
Promoting enjoyment in eating may mean relaxing previous dietary restrictions. The rationale for adherence to strict diet guidelines may not be appropriate to the palliative care goals. This issue should be reviewed with the patient, physician and caregiver.

Safe Feeding
Ensure the patient is: alert and 90° upright
Minimize distractions
Avoid foods that are difficult to swallow
Watch for difficult swallowing
Sit for 30 mins after the meal
Follow with Mouth Care

Appetite
Small frequent meals
Attractive foods
Offered when well rested, pain free, and relaxed
Nutritional supplements
Eat with company and wine
Good mouth care
Do not force the patient and remove uneaten food without comment
Small snacks readily available

Medications to Stimulate Appetite
It must be remembered that the use of appetite stimulant medications is at best controversial in the literature and that these medications may have no effect.
- Gastrokinetic agents – metoclopramide 10 mg qid, Domperidone maleate (motilium) 10 mg qid
- Corticosteroids – dexamethasone 4 mg po/sc qam- 16mg po/sc then taper.
- Progesterone analogs – megesterol acetate (megace) 40 mg tid (do not use if high risk of DVT)
- Cannabinoids – nabilone (cesamet) 1-2 mg PO bid
- Alcohol – 1 glass beer/sherry/wine before meals
- Vitamins – multivitamins, vitamin C 500 mg qid

Dysphagia or Sore Mouth
Use moist foods – pureed or minced
Lubricate with creams, gravies and oils
Use thickened liquids
Avoid HOT or COLD foods
Suck on ice chips or fruit popsicles
Try small pieces of frozen fruit
Avoid salty, spicy, acidic or crunchy foods
Rinse with club soda or sodium bicarbonate solution after meals

**Nausea**
Treat cause if possible. Use anti-emetics pre-meals
Small bland meals (no odour)
→ Starchy foods (rice, pasta, potato)
→ Clear fluids (broth, jello, ginger ale)
→ Cold food - (avoid the smell of hot food. Avoid greasy, sweet, or spicy foods)
→ Try hot tea with honey and/or ginger
→ Avoid your favourite foods when nauseous
→ Sit for 30 mins after eating

**Taste Aversions**
Listen to the patient and serve desired foods
Rinse mouth before eating
Use lemon flavoured drinks to stimulate taste buds
Serve meat chilled
Marinate meats with sweet sauce
Plastic utensils instead of metal ones
Good oral hygiene

**Indigestion and Heartburn**
Eats small meals
Do not lie down after eating
Limit caffeine, acidic foods, peppermint and chocolate
Limit high fat or spicy foods
Avoid gas producing foods or beverages
References for Nutrition


Hydration

Assess intake and output.

Dehydration

Physical exam signs of dehydration
- Dry mucous membranes
- Reduced skin turgor
- Reduced sweating
- Postural hypotension
- Tachycardia
- Decreased urine production

Symptoms of dehydration
- Thirst
- Dry mouth
- Myoclonus
- Nausea
- Fever
- Increased Risk of: bed sores and constipation
- Cognitive failure

Laboratory Findings
- Increased plasma proteins
- Increased hematocrit
- Increased sodium, BUN and Creatine

To hydrate or not to hydrate?
Individualized approach: based on risks and benefits, patient and family wishes.

Can be used to ameliorate: opioid induced toxicity or delirium

If unsure:
- a short trial (e.g. 3 days) of rehydration is appropriate
- assess impact and benefit
How to Give Fluid
Oral is preferred if possible
Any IV solution can be used e.g. NS or 2/3+1/3
Intravenous – only if sc contraindicated or IV line needed for something else or if good IV in place already
Subcutaneous (Hypodermoclysis) - 1st choice when oral intake restricted, options include continuous 24hr, overnight 12hr or 1hr bolus. Easy access, safe, sites can last 7 days. Easily turned off.
Enteral - in head and neck cancer patients by nasogastric tube or gastrostomy
Proctoclysis - if no other route possible, only if no cancer of colon, usually intermittent. Use tap water or NaCl 0.9%

Hypodermoclysis
• do not use if bleeding disorder or severe edema
• can be used at home

How to order hypodermoclysis:
Rehydration:
Normal saline or 2/3+1/3 solution
Rate: 70-100mL/hr by continuous infusion
To maintain fluid intake:
Normal saline or 2/3+1/3 by continuous infusion
40-80 mL/h or 1L overnight

Monitor the patient - ensure patient is not being over hydrated

References for Hydration
Fainsinger RL, Bruera E. When to treat dehydration in a terminally ill patient? Support Care Cancer 1997;5:205-211.
Palliative Sedation for Intractable Symptoms

Strongly recommended to consult your local palliative care expert or the PPSMCS (1-800-651-1139)

Palliative Sedation is the use of sedative medications to relieve suffering of intractable symptoms by inducing a light to deep sleep in the patient. The purpose of the medication is to provide comfort and relieve suffering and not to hasten death. Palliative Sedation is different from Euthanasia and is both ethical and legal. Sedation may be used as continuously until end of life or intermittently. (i.e. providing periods when the patient is more alert by reducing or discontinuing sedative medications).

Palliative Sedation is only used when:
- There are refractory symptoms (this means all alternative means of relieving symptoms have been explored with a palliative care team)
- Prognosis is hours to days
- Consent is obtained from the patient or the family
- Patient has a DNR order

Sedation:
1. Discuss with your palliative care team information leading to the need for considering palliative sedation. Involve the patient as much as possible and the family in the decision making process.
2. Insure all team members, including patient and family, are aware of the care plan and know what to expect.
3. Reassess regularly.
4. Start Midazolam at 10-30mg/day with 5-10mg sc q2h. Once sedation is induced use the lowest dose required for maintenance
5. Continue pain medications.
6. If Midazolam is ineffective or delirium is present, consider changing to methotrimpeprazine 12.5 - 50 mg q4-6h Sc/IV or Chlorpromazine 25-50 mg q4-6h Sc/IV. Consider reducing dose once sedation is achieved.
7. If Midazolam is ineffective or seizures or agitation is present use Phenobarbital injectable (currently available through the Special Access Program)at 15-60mg q4-6h (100mg-800mg/ day) (sc/IV or rectal) and dose reduce once sedation is achieved.
8. Assess patients regularly for suffering, LOC, comfort, communication skills, oral intake, adverse effects from meds, and possibilities for symptom relief other than sedation. This should be done q 20 min until sedation is achieved and then three times a day when stable.
References for Palliative Sedation


Practical Information

The following practical information appears on the following pages.

→ Insurance Coverage for Prescriptions (ODB)
→ Common Palliative Care Billing Codes for Physicians
Insurance Coverage for Prescriptions (ODB)

Medications that enhance control of pain and symptoms may be costly if patients do not have insurance. In Ontario, the Ontario Drug Benefit (ODB) Program covers prescriptions for: 1) all seniors over the age of 65 years, 2) those on the social assistance program, or 3) recipients of Community Care Access Centre (CCAC) services.

Private Insurance
Although many medications are covered through the ODB program, some medications for pain and symptom control are not. If a medication is not a benefit of the ODB program, the patient may have alternative private insurance which may cover the costs of the medication. Contact the retail pharmacy to verify if the medication would be a benefit under the patient’s private insurance.

Section 8 and Limited Use Sections of the ODB Program
A physician may request that the ODB program accept a medication for coverage for a specific patient. If the medication is listed as a Limited Use (LU) product and the indication for use is applicable to the specific patient, the physician may note the limited use code on the patient’s prescription and the ODB program will cover the medication.

Alternatively, if the medication is not a limited use product or the indication does not comply with the approved indication, the physician may complete a Section 8, requesting approval for this specific patient.

Additional information for medications commonly prescribed in palliative care is provided below. The retail pharmacist is an excellent resource for drug plan coverage issues.
## I. Medications Commonly Used in Palliative Care NOT Routinely Covered by ODB Except via Section 8* (Patients must pay until approval received)

<table>
<thead>
<tr>
<th>Analgesics</th>
<th>Approximate Cost for Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(rounded to the nearest dollar; does not include professional fee)</td>
</tr>
<tr>
<td>Ketamine</td>
<td></td>
</tr>
<tr>
<td>10 mg/mL x 20 mL</td>
<td>$22</td>
</tr>
<tr>
<td>50 mg/mL x 10 mL</td>
<td>$42</td>
</tr>
<tr>
<td>Gabapentin (unless for seizures, then use LU) (Available in generic)</td>
<td></td>
</tr>
<tr>
<td>100 mg caps x 30 caps</td>
<td>$9</td>
</tr>
<tr>
<td>300 mg caps x 30 caps</td>
<td>$21</td>
</tr>
<tr>
<td>400 mg caps x 30 caps</td>
<td>$24</td>
</tr>
<tr>
<td>Codeine injectable</td>
<td></td>
</tr>
<tr>
<td>30 mg/mL x 10 amps</td>
<td>$11</td>
</tr>
<tr>
<td>Morphine injectable 10 mg/ml (Note: Morphine 15 mg/mL is covered by ODB)</td>
<td></td>
</tr>
<tr>
<td>10 mg/mL x 10 amps</td>
<td>$10</td>
</tr>
<tr>
<td>Oxycodone IR tablets</td>
<td></td>
</tr>
<tr>
<td>5 mg tab x 30 tabs</td>
<td>$9</td>
</tr>
<tr>
<td>10 mg tab x 30 tabs</td>
<td>$13</td>
</tr>
<tr>
<td>20 mg tab x 30 tabs</td>
<td>$22</td>
</tr>
<tr>
<td>suppositories (Supeudol)</td>
<td></td>
</tr>
<tr>
<td>10 mg sup x 12 sups</td>
<td>$26</td>
</tr>
<tr>
<td>20 mg sup x 12 sups</td>
<td>$33</td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
</tr>
<tr>
<td>10 mg tabs x 30 tabs</td>
<td>$28</td>
</tr>
<tr>
<td>25 mg tabs x 30 tabs</td>
<td>$52</td>
</tr>
<tr>
<td>5 mg tabs x 30 tabs</td>
<td>$17</td>
</tr>
<tr>
<td>1 mg/mL liquid 100 mL</td>
<td>$10</td>
</tr>
<tr>
<td>10 mg/mL liquid 100 mLs</td>
<td>$24</td>
</tr>
<tr>
<td>Fentanyl injectable</td>
<td></td>
</tr>
<tr>
<td>50 mcg/mL 10 x 2mL amps</td>
<td>$38</td>
</tr>
<tr>
<td>Sufentanyl injectable</td>
<td></td>
</tr>
<tr>
<td>50 mcg/mL 10 amps</td>
<td>$38</td>
</tr>
<tr>
<td>Calcitonin spray (Miacalcin) (Note: Calcitonin 100 iu/mL injection is covered; Injection can be given subcutaneously)</td>
<td></td>
</tr>
<tr>
<td>200mcg/spray 1 box</td>
<td>$60</td>
</tr>
<tr>
<td>GI</td>
<td></td>
</tr>
<tr>
<td>Octreotide</td>
<td></td>
</tr>
<tr>
<td>100 mcg/mL 5 x 1 mL</td>
<td>$55</td>
</tr>
<tr>
<td>200 mcg/mL 5 mL vial</td>
<td>$105</td>
</tr>
<tr>
<td>Hyoscine (Buscopan ) tablets</td>
<td></td>
</tr>
<tr>
<td>10 mg tabs x 30 tabs</td>
<td>$13</td>
</tr>
<tr>
<td>Injectable</td>
<td></td>
</tr>
<tr>
<td>20 mg/mL x 10 amps</td>
<td>$46</td>
</tr>
</tbody>
</table>
### GI cont’d

<table>
<thead>
<tr>
<th>Drug</th>
<th>Formulation</th>
<th>Dose/Unit</th>
<th>Quantity</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metoclopramide</td>
<td>injectable</td>
<td>10 mg/2mL</td>
<td>x 10 amps</td>
<td>$27</td>
</tr>
<tr>
<td>(Maxeran)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Note: Oral tablets are covered)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimenhydrinate</td>
<td>oral</td>
<td>50 mg tabs</td>
<td>x 100 tabs</td>
<td>$4 + tax (OTC)</td>
</tr>
<tr>
<td>(Gravol)</td>
<td>suppository</td>
<td>100 mg sup</td>
<td>x 10 sups</td>
<td>$5 + tax (OTC)</td>
</tr>
<tr>
<td>injectable</td>
<td>50 mg/mL</td>
<td>x 10 amps</td>
<td></td>
<td>$12</td>
</tr>
<tr>
<td>CNS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopolamine</td>
<td>injectable</td>
<td>0.4 mg/mL</td>
<td>x 10 amps</td>
<td>$17</td>
</tr>
<tr>
<td>Glycopyrrolate</td>
<td>injectable</td>
<td>0.2 mg/mL</td>
<td>20 mL vial</td>
<td>$25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.2 mg/mL</td>
<td>10 x 1 mL amp</td>
<td>$35</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>injectable</td>
<td>4 mg/mL</td>
<td>x 10 amps</td>
<td>$25</td>
</tr>
<tr>
<td>Diazepam</td>
<td>injectable</td>
<td>10 mg/2mL</td>
<td>x 10 amps</td>
<td>$12</td>
</tr>
<tr>
<td>(Note: Diazepam rectal gel is covered by ODB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midazolam</td>
<td>1mg/ml</td>
<td>1mg/mL</td>
<td>5 ml vial</td>
<td>$3</td>
</tr>
<tr>
<td>(Versed)</td>
<td>5 mg/ml</td>
<td>5mg/mL</td>
<td>10 ml vial</td>
<td>$17</td>
</tr>
<tr>
<td>Respiratory:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerochamber</td>
<td></td>
<td>1 aerochamber</td>
<td></td>
<td>$27</td>
</tr>
</tbody>
</table>

* Sometimes the medication can be delivered by CADD pump (or equivalent) and will then be covered.

December, 2006
II. Medications Commonly Used in Palliative Care NOT Routinely Covered by ODB Except with Limited Use Prescription Code (LU)*

**Analgesics:**
Long-acting Codeine (Codeine Contin)
Fentanyl patch  
(Duragesic)
Long-acting Oxycodone (OxyContin)
Celecoxib (Celebrex)

**GI:**
Ondansetron (Zofran)
Granisetron
Diphenoxylate (Lomotil)
Loperamide (Imodium)
Panreatic enzymes (e.g. Pancrelipase)
Marinol (synthetic cannabinoid)
Lansoprazole
Omeprazole
Pantoprazole

**Respiratory:**
Salbutamol nebulas (Ventolin)
Ipratropium nebulas (Atrovent)
Combivent nebulas

**Other:**
Fluconazole
Dalteparin (Fragmin)

*If the physician does not use the correct LU prescription code (see Ontario Drug Benefit Formulary), the patient will have to pay directly.

Note – Phenobarbital injection is currently only available through the Special Access Program of Health Canada.

December 2006
Common Palliative Care Billing Codes for Physicians
(Revised November 2005)

A945, C945 $127.50 Palliative care consult: time documentation, 50 minutes. If the duration exceeds 50 mins, one or more units of K023 are payable in addition provided that the minimum time requirements for K023 are met. The start time for K023 is 50 min after the start time for A945. ie, 70 minutes for consultation would be A945 (50 min) and K023 (20 min).

E070 15% added May add to some codes - A003, NOT to A945 nor K023
E071 15% added to A007 for patients > 70 years

A003 $58.20 General assessment (admission)
A006 $42.35 Repeat consultation
A007 $29.70 Intermediate assessment
A933 $77.25 On call adm assess, must be on call roster with hospital

Signing death certificate alone
A771 $17.75 Sign d/cert when pronounce by RN

Pronouncement of death and signing death certificate
A777 with visit premium $29.70 Pronounce and sign, not at patient’s home
A902 with h/v $40.75 Pronounce and sign in home

Counseling codes:
1 unit/20 minutes. Second unit starts after first half hour. All K codes require start and stop times to be in the patient’s permanent record.
K023 $51.70 Palliative care support: providing pain and symptom management, emotional support and counselling to patients. This can be combined with is A945 and visit premium code ONLY.
K015 $51.70 Counselling relatives of someone terminally ill.
*K121 $51.70 Conference with medical/paramedical personnel regarding a hospital patient. Limit of 2/patient/physician/yr. prebooked. payable to each physician at the conference. Each MD initial common chart with stop/start times (a suggested way to document)
**SPECIAL VISITS**
(Determines where pt was seen with the first letter of each code)

B = patient’s home  
K = trip to emerge  
U = trip to outpatient area  
W = trip to LTC  
Q = trip to any non professional setting  

Any 990 code (ie: B990, B992, B994, B996) is for first patient seen at each establishment, if more than one use 991)

<table>
<thead>
<tr>
<th>Code</th>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B990</td>
<td>$20.50</td>
<td>Elective h/v, regardless of time</td>
</tr>
<tr>
<td>B992</td>
<td>$40.95</td>
<td>Emergency call with sacrifice of office hours</td>
</tr>
<tr>
<td>B994</td>
<td>$62.55</td>
<td>1700-2400, Sat/Sun “urgent”</td>
</tr>
<tr>
<td>B996</td>
<td>$93.90</td>
<td>00-0700</td>
</tr>
<tr>
<td>*B998</td>
<td>$63.80</td>
<td>Special palliative visit</td>
</tr>
</tbody>
</table>

Visit to patient’s home, elective or non-elective, if the purpose of the visit is to provide palliative care (last year of life, when the decision has been made there will no aggressive treatment of the underlying disease and care is to be directed to maintaining the comfort of the patient until death occurs).

**HOSPITAL VISITS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Amount</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>C002</td>
<td>$29.20</td>
<td>wk 1-5</td>
</tr>
<tr>
<td>C007</td>
<td>$29.20</td>
<td>wk 6-13, 3/week</td>
</tr>
<tr>
<td>C008</td>
<td>$29.20</td>
<td>Concurrent</td>
</tr>
<tr>
<td>C010</td>
<td>$17.75</td>
<td>Supportive</td>
</tr>
<tr>
<td>C882</td>
<td>$29.20</td>
<td>Palliative, retroactive, 1 month daily</td>
</tr>
</tbody>
</table>

**FORMS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>K070</td>
<td>$17.45</td>
<td>CCAC form to initiate CCAC</td>
</tr>
<tr>
<td>K071</td>
<td>$10.95</td>
<td>written orders to CCAC 1 each/2weeks=2/month</td>
</tr>
<tr>
<td>K072</td>
<td>$10.95</td>
<td>written orders to CCAC 1/month, 13 weeks +</td>
</tr>
</tbody>
</table>
Please help us maintain our quality for you, by filling out this form each time you use this manual.

<table>
<thead>
<tr>
<th>Date</th>
<th>Your Discipline</th>
<th>Section Consulted</th>
<th>Was it helpful?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td>Yes</td>
<td>No</td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
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Your setting:  ____ Long term care  ____ Home care  
               ____ Hospital  ____ Specialized unit  
               ____ Hospice  ____ Private Practice  
               ____ Other: _______________________________________

When you have filled this page, please fax it to:

Lynda Weaver, at 613-562-6371.