



Centre for Palliative Care
Education & Research



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The CENTREPIECE

Newsletter of the Centre for Palliative Care Education and Research

Welcome to the second edition of *The CENTREPIECE*, the newsletter of the Centre for Palliative Care Education and Research (the Centre). The purpose of the newsletter is to promote evidence-based palliative care practice. We welcome your feedback and contributions.

The Centre is part of St. Vincent's Hospital and is a Collaborative Centre of The University of Melbourne. It has a state-wide role in palliative care education and research. For more information about the Centre, including staff and current projects, please visit our website: www.pallcare.unimelb.edu.au.

Associate Professor Peter Hudson, Director,
The Centre for Palliative Care Education
and Research (CPCER)



Case Study – Malignant Bowel Obstruction in Advanced Colorectal Cancer

By Dr Jenny Philip (Co-Deputy Director, CPCER)

We encourage you to consider this case study and discuss it amongst your team

Joe is a 72 year old man with progressive metastatic colorectal cancer involving his liver and lungs. He lives with his wife, and is still active around the home although he is becoming more limited in his performance status. He presents with nausea and vomiting of 4 days duration. He is eating small amounts, has minimal pain and his bowels have not opened for 2 days.

Medications include:

- MS Contin 30 mg bd
- Paracetamol 1 g tds
- Digoxin 62.5 mcg daily
- Frusemide 40 mg daily

In order to treat his symptoms effectively, their most likely cause needs to be established.

What is the differential diagnosis of the possible mechanism of his symptoms?

Investigations to consider: Alb 28, gammaGT 628, ALP 932. Ca 2.2, Digoxin – Normal

AXR: air fluid levels consistent with malignant bowel obstruction.

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The Management of Malignant Bowel Obstruction (MBO) in Advanced Cancer

Malignant bowel obstruction (MBO) is a common complication of advanced ovarian and GIT cancer. Decision making in the management of MBO can be complicated. The following approach may be useful to guide management.

1. Is surgery or stenting appropriate? Surgery offers a high chance of palliation and should be considered if possible, however its role in advanced disease is debated. Stents are emerging as a useful treatment modality in people with MBO accessible to stents, and single level obstruction¹. Factors that will be important to consider in this decision are:

- Single vs. multiple levels of obstruction
- Anti-cancer treatments available
- Patient performance status
- Is a non-malignant cause of obstruction possible?
- Patient preferences and goals
- Patient likely prognosis, will they live long enough to get benefit from surgery?

2. If surgery or stenting is not deemed appropriate, then consider a trial of dexamethasone (6–16mg/day for 3 days minimum). The mechanism of action of steroids in this setting is not established, but may include: antiemetic (central action), co-analgesic, anti-inflammatory (with subsequent reduction of peritumour oedema) or possibly antisecretory. The evidence of efficacy is not strong. A systematic review identified 10 studies (3 unpublished, randomised, placebo, double-blind controlled trials and 7 published both prospective and retrospective trials). The authors concluded that data from the RCTs in this group revealed a trend to resolution of the MBO with corticosteroids, but that this was not statistically significant². Morbidity with corticosteroids appeared to be low.

3. Medical management of the symptoms of MBO: this approach uses medications to achieve control of nausea and pain, and minimisation of vomiting. The following groups of medication are useful in this approach:

- Anticholinergics: e.g. Hyoscine butylbromide (Buscopan) – antisecretory & antiperistaltic
- Somatostatin analogs: e.g. Octreotide – antisecretory – 3 RCT's confirm superiority over hyoscine in a total of 103 patients³.
- Analgesics: e.g. Morphine ± Buscopan for colic/spasmodic pain
- Centrally acting antiemetics: e.g. Cyclizine (antihistamine) acts on vomiting centre, Haloperidol (D2 antagonist) action on chemoreceptor trigger zone, corticosteroids.

Many of the above agents are 'drying', and exquisite mouth care is imperative.

For people with high MBO, despite the above pharmacological approach, some form of upper GIT drainage (NG tube or in certain circumstances venting gastrostomy) is likely to be necessary to control nausea/vomiting. For those with low MBO, the use of metoclopramide (Maxolon) to keep the upper gut empty may be justified. Conversely, metoclopramide should be avoided in those with mid or high MBO.

Importantly, if MBO is clearly end stage then all (patient, family, treating team) need to be aware of the goals of care.

The mode of death is likely to be:

- Multi-organ failure/shock
- Electrolyte disturbance – arrhythmia
- Ischaemic gut/perforation- relatively uncommon

Therefore aggressive fluid replacement, electrolyte measurement or life prolonging measures are not indicated.

There are some dilemmas in the management of MBO

These include:

- When MBO appears to be present clinically, but the abdo x-ray is normal. BEWARE! There are 2 situations where a MBO may be present with an apparently normal AXR. One, where the obstruction is very high e.g. gastric outlet obstruction and there is insufficient material above the blockage to create dilated loops of bowel. In this case, if clinical suspicion is high, then consider a gastrograffin swallow. Two, when there is a motility disorder and the bowel has 'stopped' due to extensive plexus infiltration e.g. in ovarian cancer. In this setting the history is one of slowing bowel motility often over weeks, and the AXR while not showing air-fluid levels, may well reveal significant faecal loading.
- When a MBO is impending or partial the dilemma arises when to institute a pharmacological or medical approach as described above. Most of these drugs: anticholinergics, opioids will slow bowel motility, yet in the setting of a MBO secondary to a motility disorder, then pro-kinetic agents may be useful. In practice a proper therapeutic trial of prokinetics should be initially undertaken. If the motility disorder is acting as an irreversible obstruction despite this trial, then it would be reasonable to move to the medical management approach outlined above.
- The role of nutritional support in someone with otherwise reasonable performance status. This is very controversial, with home TPN not easily prescribed nor supported in Australia. The provision of TPN in this setting may well prolong life, but there may be considerable attendant costs both financial and personal⁴.

References

1. Tilney HS et al. Comparison of colonic stenting and open surgery for malignant large MBO. *Surg Endosc* 2007; 21(2):225–33
2. Feuer DJ, Broadley KE. Corticosteroids for the resolution of malignant MBO in advanced gynaecological and gastrointestinal cancer. *Cochrane Database Syst Rev* 2000;(2):CD001219
3. Mercadante S et al. Medical treatment for inoperable malignant MBO: a qualitative systematic review. *J Pain Symptom Mngt* 2007;33(2):217–23
4. Mercadante S. Parenteral versus enteral nutrition in cancer patients: indications and practice. *Support Care Cancer* 1998; 6(2):85–93

Recent Publications to Inform Practice

By Associate Professor Peter Hudson

Each edition of the newsletter we will profile a few recent key publications of which we believe the palliative care community should be aware.

Title: Frequency, indications, outcomes, and predictive factors of opioid switching in an acute palliative care unit.

Authors: Mercadante, S. et al.

Source: Journal of Pain & Symptom Management. 2009, 37(4), 632–641

Summary: The aim of this study was to prospectively evaluate the frequency, indications, outcomes, and predictive factors associated with opioid switching. A prospective study was carried out on 118 cancer patients who were receiving opioids but had an unacceptable balance between analgesia and adverse effects, despite symptomatic treatment of side effects. The initial conversion ratio between opioids and routes was as follows (mg/day): oral morphine 100=intravenous morphine 33=transdermal fentanyl 1=intravenous fentanyl 1=oral methadone 20=intravenous methadone 16=oral oxycodone 70=transdermal buprenorphine 1.3. The switch was assisted by opioids used as needed, and doses were changed after the initial conversion according to clinical response in an acute care setting. Intensity of pain and symptoms associated with opioid therapy were recorded. A distress score (DS) was calculated as a sum of symptom intensity. A switch was considered successful when the intensity of pain and/or DS, or the principal symptom necessitating the switch, decreased to at least 33% of the value recorded before switching. Overall, 103 substitutions were successful. Opioid switching was an effective method to improve the balance between analgesia and adverse effects in more than 80% of cancer patients with a poor response to an opioid.

Title: A conceptual analysis of spirituality at the end of life.

Authors: Vachon et al.

Source: Journal of Palliative Medicine. 2009 12(1), 53–57

Summary: The definition of spirituality is the subject of debate in the literature. This content analysis sought to:

i) review the empirical literature on end-of-life spirituality to extract definitional elements of this concept and ii) elaborate on these definitional elements to create an integrative and inclusive definition of end-of-life spirituality. A search of the literature on spirituality published in the last 10 years was conducted revealing 71 articles. A qualitative analysis yielded 11 dimensions for the concept of end-of-life spirituality: 1) meaning and purpose in life, 2) self-transcendence, 3) transcendence with a higher being, 4) feelings of communion and mutuality, 5) beliefs and faith, 6) hope, 7) attitude toward death, 8) appreciation of life, 9) reflection upon fundamental values, 10) the developmental nature of spirituality, and 11) its conscious aspect. This definition may be useful in informing the development of new measures of spirituality and new protocols to assess spirituality.

Title: Prospective validation of the Palliative Prognostic Index in patients with cancer.

Authors: Stone, C. et al.

Source: Journal of Pain & Symptom Management. 2008, 35(6), 617–622

Summary: The Palliative Prognostic Index (PPI) was devised and validated in patients with cancer in a hospice inpatient unit in Japan. The aim of this study was to test its accuracy in a different population, in a range of care settings, and in those receiving palliative chemotherapy and radiotherapy. The information required to calculate the PPI was recorded for patients referred to a hospital-based consultancy palliative care service, a hospice home care service, and a hospice inpatient unit. Included in the study were 194 patients, 43% of whom were receiving chemotherapy or radiotherapy or both. Use of the PPI split patients into three subgroups based on PPI score. Group 1 corresponded to patients with PPI ≤ 4 , median survival 68 days (95% CI 52, 115 days). Group 2 corresponded to those with PPI > 4 and ≤ 6 , median survival 21 days (95% CI 13, 33), and Group 3 corresponded to patients with PPI > 6 , median survival five days (95% CI 3, 11). Using the PPI, survival of less than three weeks was predicted with a positive predictive value of 86% and negative predictive value of 76%. Survival of less than six weeks was predicted with a positive predictive value of 91% and negative predictive value of 64%. The PPI is quick and easy to use, and can be applied to patients with cancer, in hospital, in hospice, and at home. It may be used by general physicians to achieve prognostic accuracy comparable, if not superior, to that of physicians experienced in oncology and palliative care, and by oncology and palliative care specialists, to improve the accuracy of their survival predictions.

2009 Palliative Care Education and Training

- Specialist Certificate in Palliative Care through The University of Melbourne. The course is conducted over one year and is targeted at all health professionals with an interest in palliative care.

Upcoming short courses:

- Psycho-social aspects of palliative care (10 Sep)
- Family centred palliative care & bereavement (11 Sep)

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Simplifying Research

By Rachel Zordan (Research Coordinator, CPCER)

What type of study is that?

A study can be grouped into one of two types – descriptive or analytic (see Figure 1).

A descriptive study tries to give a picture of what is happening in a population. For example, a descriptive study might try to describe the prevalence (total number), incidence (how often something occurs) or experience of a group. Examples of descriptive studies use in palliative care are:

- Case series reports – Sitte, T. et al. (2009). Intranasal Fentanyl for Episodic Breathlessness. *Journal of Pain & Symptom Management* 36(6) e3–e6
- Qualitative studies – Walshe, C. et al. (2008). What influences referrals within community palliative care services? A qualitative case study. *Social Science & Medicine* 67 (1) 137–146
- Cross-sectional surveys – Gelfman, L. et al. (2008) Does palliative care improve quality? A survey of bereaved family members. *Journal of Pain & Symptom Management* 36 (1) 22–28

In the next edition of *The CENTREPIECE*, we will address the question – What is an analytic study?

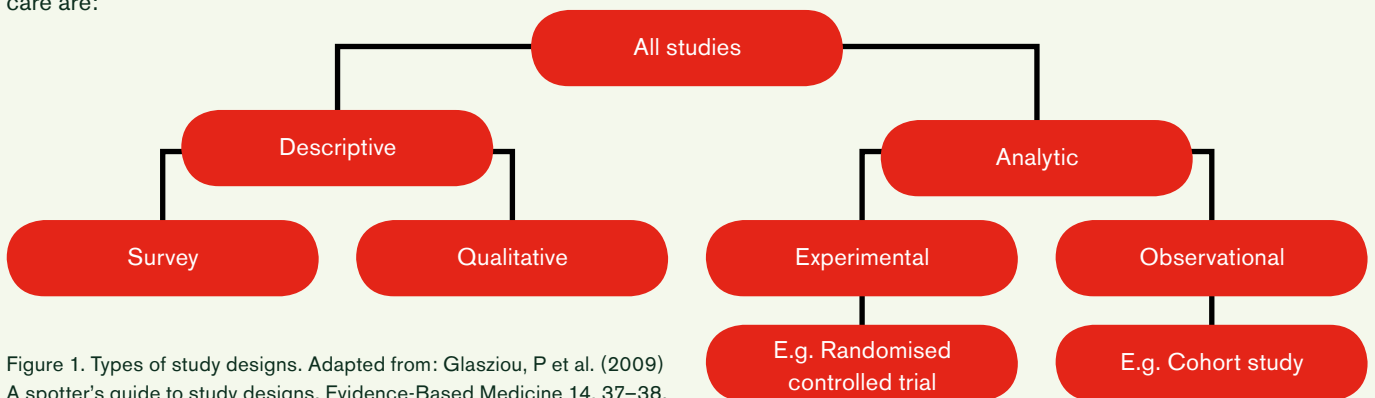


Figure 1. Types of study designs. Adapted from: Glasziou, P et al. (2009) A spotter’s guide to study designs. *Evidence-Based Medicine* 14, 37–38.

Centre News

Project Update – Psychosocial support for family carers of people receiving palliative care

It is well documented that family carers have a variety of unmet needs and are at greater risk of poor psychosocial wellbeing. The Centre is undertaking a longitudinal study of family carers of patients receiving palliative care in an effort to: i) better understand the psychosocial impact of the carer role, ii) identify at-risk carers, and iii) develop best practice guidelines for health professionals to support carers pre-death and in bereavement. This is one of very few studies to provide a detailed psychosocial profile of carers of patients receiving palliative care. The study is funded by Beyond Blue, and is conducted in collaboration with Mercy Western Palliative Care, Caritas Christi Hospice and South East Palliative Care. To date, approximately 300 carers have participated in the study. Initial findings indicate that almost half of carers (44%) have a probable anxiety and/or depressive disorder (based on a standardised screening tool). These carers also report higher levels of pre-death grief while caring for their relative. Higher levels of pre-death grief were associated with a number of negative consequences including a lack of family support, demoralisation and lower levels of optimism, and impact on finances, schedule, and health. These findings highlight the considerable psychosocial burden experienced by many family carers.

Victorian Palliative Medicine Training Program

The Victorian Palliative Medicine Training Program (VPMTMP) has been created to provide a coordinated state-wide palliative medicine training program. Lead by the Centre, the program aims to address the training requirements for specialist palliative medicine physicians, physicians in other specialties and general practitioners, in order to build and sustain a high quality palliative medicine workforce in Victoria.

Victorian Palliative Care Nurse Practitioner Collaborative

The Victorian Palliative Care Nurse Practitioner Collaborative (VPCNPC) is lead by the Centre, with collaborative partners Melbourne City Mission and Banksia Palliative Care. It aims to assist with the development, support and mentorship of palliative care nurse practitioners in Victoria. Eleven health services across rural and metropolitan regions have received state funding to develop nurse practitioner models that will enhance palliative care service delivery. For further information on either the VPMTMP or the VPCNPC, please contact the Centre.

Upcoming Palliative Care Conferences
 For information on national and international conferences go to the CareSearch website: www.caresearch.com.au.