

## **Journal Watch**

**Prepared by:** Sharon Watanabe, MD

**Presented at:** Journal Club, Cross Cancer Institute

**Title:** Harris DG, Noble SIR. Management of terminal hemorrhage in patients with advanced cancer: a systematic literature review. *J Pain Symptom Manage*  
doi:10.1016/j.jpainsymman.2009.04.027

**Abstract:** Although terminal hemorrhage is an infrequent occurrence in advanced cancer patients, it is extremely distressing for patients, their families, and health care professionals when it does occur. By definition, there is a very short time period to support and comfort the patient, and it is vital that the management approach follows the best available evidence base. A systematic literature search was carried out to retrieve relevant publications relating to the management of terminal hemorrhage in patients with advanced cancer in whom invasive or interventional procedures are no longer appropriate. From 3,564 initial citations, 18 were appropriate to include in the final review, many of which focused on patients with head and neck tumors. The reported incidence of significant bleeding in patients with advanced cancer is 6%-14% and incidence of terminal hemorrhage 3%-12%. Key areas arising from the literature were 1) identifying patients at risk, 2) general supportive measures to use, and 3) use of sedative medication. General supportive measures included use of dark towels to camouflage blood loss, use of suction, and applying external pressure. There was variation in the recommended sedative medication (drug, dose, and route). Drugs recommended included diazepam, midazolam, diamorphine, and ketamine at varying doses and routes of administration. Current guidelines are based completely on isolated case reports and expert opinion. Clinical research is needed in this area but is difficult because of practical and ethical limitations.

**Strengths/uniqueness:** The breadth of the literature search, inclusion/exclusion criteria and determination of levels of evidence appear to be appropriate. The paper represents a useful summary of published opinion on this topic.

**Weaknesses:** The main limitation of this paper is the weakness of the evidence base.

**Relevance to Palliative Care:** The paper highlights the fact that there is little evidence to guide management of this uncommon but distressing problem in palliative care patients. Probably the key learnings are to recognize patients at risk of major hemorrhage, and to proactively discuss and implement a plan for addressing this potential occurrence.