

## Journal Watch

### **Intraspinal Techniques for Pain Management in Cancer Patients: a Systematic Review.**

**Presented by:** Riley Boyle, Sept 30 2010, at Grey Nuns Hospital TPCU Journal Watch.

Reference: Myers J, Chan V, Jarvis V, Walker-Dilks C. Supportive Care in Cancer 2010 Feb; 18(2): 137-49.

#### **Abstract**

**PURPOSE:** This systematic review outlines current evidence regarding the effectiveness of intraspinal techniques for cancer pain and addresses practical implementation issues.

**METHODS:** A search of electronic databases identified systematic reviews and randomized controlled trials (RCTs) evaluating the effectiveness of intraspinal techniques in the setting of cancer pain. An environmental scan was completed via the internet to identify practice guidelines and resource documents addressing organizational and implementation issues in the delivery of intraspinal analgesia. Elements reviewed included patient selection, contraindications, monitoring, aftercare, follow-up, hospital discharge equipment, health personnel, patient education, and safety.

**MAIN RESULTS:** Three systematic reviews, three consensus conferences, and 12 RCTs met the inclusion criteria for evidence of effectiveness. No single systematic review or consensus conference included all relevant RCTs or specifically addressed the use of intraspinal techniques for cancer pain. Six RCTs compared intraspinal techniques alone or combined with other interventions alone or in combination, four compared different intraspinal medications, and two compared different intraspinal techniques. In general, the evidence supported the use of intraspinal techniques for cancer pain management. The two main indications consistently identified were intractable pain not controlled by other conventional medical routes and/or side effects from conventional pain management strategies preventing dose escalation. Reports indicate intraspinal analgesia is equally or more effective than conventional medical management and often associated with fewer side effects. Thirteen resource documents addressed issues surrounding the delivery of intraspinal analgesia and program implementation.

**CONCLUSIONS:** Intraspinal techniques monitored by an interprofessional health care team should be included as part of a comprehensive cancer pain management program.

#### **Strengths:**

- The review of systematic reviews and randomized controlled trials seems well designed. It has a well-defined clinical question; a broad set of databases to search from, and stated inclusion and exclusion criteria. Quality features assessed in each trial were listed and broad.

- The review included studies that assessed the use of non-opioid medications in intraspinal techniques for intractable cancer pain.
- An attempt was made to summarize Clinical Practice Guidelines, which can be useful repositories for expert opinion when high-quality evidence is lacking.
- The review of Clinical Practice Guidelines summarized indications, contraindications, and practical considerations for the safe implementation of intraspinal analgesia for patients with cancer pain.
- The review underscored the need for appropriate training, monitoring, ward/hospital policy, patient and family education, and availability of appropriate pain physician support around-the-clock.

### **Weaknesses:**

- The studies that passed inclusion and exclusion criteria were small in number: 2 systematic reviews, 12 randomized controlled trials, and 13 clinical practice guidelines and resources.
- The studies were often of poor quality or did not report the quality features assessed by the reviewers.
- Power calculations reported in only 2 of 12 RCT's; allocation concealment reported in only 2 RCT's; intention-to-treat analysis reported in only 2 RCT's; pharmaceutical or medical product companies provided funding in 6 RCT's and funding was unreported in 3; follow-up was <80% in 3 RCT's; and some studies were open-label.
- The review of Clinical Practice Guidelines did not comprehensively deal with side-effects and complications of intraspinal techniques.

### **Relevance to Palliative Care:**

Cancer pain management is one of the most important goals of Palliative Care. Oral and parenteral (IV/IM/SC) administration of opioids is the mainstay of treatment for the majority of patients. However, non-opioid adjuvants like radiotherapy, corticosteroids and anticonvulsants are not uncommonly needed, and opioid treatment is often complicated by the need to manage side-effects. Rarely, cancer pain can become refractory to oral and parenteral opioid therapy as well as conventional adjuvants, and worsening opioid side-effects can also preclude further titration of opioid in the face of escalating cancer pain. In these patients intraspinal (i.e. intrathecal or epidural) procedures have the potential to provide pain relief and reduce side-effects. Unfortunately, evidence in the form of well-designed randomized controlled trials supporting intraspinal techniques for cancer pain is lacking, perhaps in part because of the rarity of patients in whom these techniques are ideal. Although these techniques may provide relief to these patients, careful consideration must be given to safe implementation, monitoring, maintenance, discharge planning, education and availability of trained pain physicians before choosing an intraspinal technique.