Evidence for the use of Levomepromazine for symptoms control in the palliative care setting: a systematic review

Reference: Isabel Dietz, Andrea Schmiz, Ingrid Lampey and Christian Schulz. *BMC Palliative Care* 2013. 12:2.
Presented by: Dr. Imran Raghavji R2; March 3, 2015
Abstract: BACKGROUND: Levomepromazine is an antipsychotic drug that is used clinically for a variety of distressing symptoms in palliative and end-of-life care. We undertook a systematic review based on the question "What is the published evidence for the use of levomepromazine in palliative symptom control?".
METHODS: To determine the level of evidence for the use of levomepromazine in palliative symptom control, and to discover gaps in evidence, relevant studies were identified using a detailed, multi-step search strategy. Emerging data was then scrutinized using appropriate assessment tools, and the strength of evidence systematically graded in accordance with the Oxford Centre for Evidence-Based Medicine's 'levels of evidence' tool. The electronic databases Medline, Embase, Cochrane, PsychInfo and Ovid Nursing, together with hand-searching and cross-referencing provided the full research platform on which the review is based.
RESULTS: 33 articles including 9 systematic reviews met the inclusion criteria: 15 on palliative sedation, 8 regarding nausea and three on delirium and restlessness, one on pain and six with other foci. The studies varied greatly in both design and sample size. Levels of evidence ranged from level 2b to level 5, with the majority being level 3 (non-randomized, non-consecutive or cohort studies n = 22), with the quality of reporting for the included studies being only low to medium.
CONCLUSION: Levomepromazine is widely used in palliative care as antipsychotic, anxiolytic, antiemetic and sedative drug. However, the supporting evidence is limited to open series and case reports. Thus prospective randomized trials are needed to support evidence-based guidelines.

Strengths: Excellent topic choice. Evidence based methodology for selecting studies. Appropriate outcomes: sedation, nausea, terminal restlessness. Graded evidence well.

Weaknesses: Unable to perform meta-analysis. Many of the drawbacks of this study rest with the data they analyzed: small patient population; not many RCTs; lack of control groups. Uniform outcome measures were lacking in many studies.

Relevance: Levomepromazine is a very common drug on the TPCU and given its prevalence in the field, there is a surprising dearth of high quality evidence asserting its profile. Nevertheless, the case reports and anecdotal evidence shows effectiveness for uses such as nausea, sedation and terminal restlessness. The palliative population is unique in that the side effects or adverse events are of less relevance and although more studies would be optimal, its use for patients can be governed by risk-benefit analysis and expert consultation. This study also highlights the difficulty in conducting trials in palliative patients with respect to sample sizes, ethics and lack of statistical outcome measures.