

Data were extracted and checked by two authors. Cochrane Collaboration guidelines assessed bias risk in 6-domains. GRADE criteria rated overall evidence.

Results Six papers were identified (including two from previous review), outlining five RCTs and two n-of-1 trials. Five used MPD alone and two MPD as adjunct to mirtazapine or SSRI, for a total of 229 patients. Trials compared MPD to placebo or desipramine. Small sample sizes and poor recruitment meant all trials were at high bias risk. Unfortunately, trials were heterogeneous and meaningful meta-analysis could not be performed. Most trials showed a trend toward effectiveness, however results were frequently not statistically significant. One recent trial found no evidence of effect. Methylphenidate was generally well-tolerated.

Conclusion There remains no conclusive evidence as to whether methylphenidate is an effective antidepressant in PC cohorts.

REFERENCE

1. Candy, *et al.* Psychostimulants for depression. *Cochrane Database* 2008;(2): CD006722.

168 A RAPID EVIDENCE ASSESSMENT OF THE OPTIMAL PHENOBARBITAL DOSAGE REGIMEN FOR MANAGEMENT OF INTRACTABLE AGITATION IN THE LAST DAYS OF LIFE TO PRODUCE A CLINICAL GUIDELINE

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Background Agitation is a common symptom at the end of life; without prompt assessment and management it can cause significant distress to patients and relatives. Clinical practice in the pharmacological management of intractable terminal agitation varies, particularly if the commonly used agents (benzodiazepines and antipsychotics) have failed to be effective. These difficult clinical scenarios require a robust approach to control symptoms effectively. This review aims to facilitate production of an evidence-based guideline for the use of Phenobarbital for intractable agitation at the end of life, for use within a Specialist Inpatient Palliative Care Unit.

Method A literature search was carried out through EMBASE, Medline, CINAHL and PubMed databases, using synonyms of 'Phenobarbital?', 'Palliative' and 'Agitation?' as search terms.

Two researchers reviewed the search results. Articles specifying doses of injectable Phenobarbital were included for review. Additionally, in the case of review articles, the original sources stating dosage were reviewed where available.

Results 11 of the 25 articles from the initial search met inclusion criteria. Of these, 6 were excluded as they lacked sufficient detail. With the inclusion of one further source referenced in a review article, a total of 6 core sources were used. They described various doses of Phenobarbital used for end-of-life agitation.

Conclusions This review of the current evidence base provided no standard or optimal dosing regime. However, based on the available evidence, a clinical guideline will be produced for use of Phenobarbital in intractable agitation at the end of life in our unit: with an IM loading dose of 200 mg followed by a continuous subcutaneous infusion of 800 mg-1600 mg/24 hrs. Due to the infrequency of this presentation and the use of Phenobarbital; sharing and evaluating the guideline at a

regional level would facilitate more rapid efficacy assessment and refinement.

169 VITAMIN D SUPPLEMENTATION FOR ADULTS WITH ADVANCED CANCER: IMPACT ON QUALITY OF LIFE, PAIN AND FATIGUE

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Background Vitamin D deficiency is common and can be associated with multiple symptoms including fatigue and pain. These symptoms are common in advanced cancer, and the prevalence of vitamin D deficiency in adults with advanced cancer has been estimated at 47–90%. The aim is to systematically review the available evidence for the supplementation of vitamin D for adults with advanced cancer, to assess the impact on pain, fatigue and quality of life.

Methods An electronic search (PubMed, clinical trial databases) was undertaken in October 2017, using search terms 'Vitamin D' and 'cancer', filtered for clinical trials. This was supplemented by a search of palliative and oncological journals.

Inclusion criteria:

- Population- adults with advanced/metastatic cancer;
- Intervention- systemic vitamin D, any dose;
- Comparison- placebo or other;
- Outcomes- quality of life, pain or fatigue.

Exclusion criteria:

Conference abstracts; studies in which the effect of vitamin D could not be distinguished from another agent, because given with e.g. chemotherapy.

Results Electronic searches yielded 419 titles and abstracts (PubMed), 449 titles (journal search), 110 registered studies (trial databases), including duplicates. Of these, 79 articles were reviewed in detail. No completed randomised controlled trials were identified. One case-control study (retrospective controls) and four single-arm studies were identified. Four of these studies reported an improvement in symptoms or reduction in opioid dose, suggesting that vitamin D supplementation may have a role in symptom relief for people with advanced cancer, but there is a high risk of bias.

Two double-blind placebo-controlled RCTs (VIDAFAC, Palliative D) are ongoing.

Conclusion There is low quality evidence that vitamin D supplementation may improve pain and weakness in adults with advanced cancer. Two ongoing placebo-controlled RCTs should provide more robust evidence to guide clinical practice. In the meantime it seems reasonable to remain vigilant for vitamin D deficiency, and to recommend supplementation if deficiency appears symptomatic.

170 THE USE OF SUBCUTANEOUS LEVETIRACETAM IN THE WEST MIDLANDS' PALLIATIVE CARE POPULATION: A RETROSPECTIVE AUDIT

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Background Subcutaneous Levetiracetam is increasingly used to control seizure activity in selected palliative patients. Despite this becoming a well-recognised approach quality evidence to support this remains sparse. This retrospective audit explores the use of subcutaneous Levetiracetam in palliative patients across the whole of the West Midlands, UK.

Methodology West Midland based Specialist Palliative Care Units (n=14) and Hospital Teams (n=17) were invited to participate in an electronic survey collecting anonymised retrospective data on patients in whom subcutaneous Levetiracetam had been used. Information gathered included; seizure aetiology and type, antiepileptic history, delivery of Levetiracetam, side effects and effectiveness.

Results Information generated from 31 cases demonstrated subcutaneous Levetiracetam use in a wide range of seizure aetiologies (space-occupying lesions (50%), pre-existing epilepsy, cerebrovascular disease, seizures secondary to Creutzfeldt-Jakob disease, leptomeningeal disease and Multiple Sclerosis). 48% patients had experienced seizure activity within the week prior to commencement on subcutaneous Levetiracetam and nearly all (93%) were already using antiepileptic drugs. Levetiracetam was delivered most commonly via a McKinley T34© continuous subcutaneous infusion (84%). The median dose of Levetiracetam on commencement was 1000 mg (range 250 mg – 3000 mg) and 12% of infusions were titrated over time due to seizure activity.

Levetiracetam was successfully mixed with Morphine, Midazolam, Metoclopramide and Dexamethasone. Concurrent Midazolam administration was used in 68% due to varying rationale. 81% reported no side effects attributable to Levetiracetam and 16% reported a local skin site reaction. No further seizures were documented in 70%, and 65% subcutaneous Levetiracetam continued until death.

Conclusions This study outlines current practice within the West Midlands, adds to the relatively small evidence base, will help inform the composition of regional guidelines and provide a platform upon which to develop future research.

171 STAFF PERCEPTIONS OF NON-PHARMACOLOGICAL INTERVENTIONS TO MANAGE DELIRIUM IN THE INPATIENT PALLIATIVE CARE SETTING

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Background and aim Delirium is a complex neuropsychiatric syndrome occurring in up to 88% of patients in palliative care inpatient settings in the weeks or hours preceding death. It is characterised by a disturbance in attention and awareness that develops over a short time and fluctuates in severity throughout the day. Management of a delirium episode includes the consideration of potentially treatable precipitating and aggravating factors followed by symptomatic treatment with drug therapy. A recent randomised clinical trial found no benefit of antipsychotic medication in the treatment of terminally ill patients, and called for an examination of the role of supportive interventions (Agar *et al.* 2017). The aim of the present study was to explore staff perspectives regarding supportive or non-pharmacological strategies to manage delirium in palliative care settings.

Methods Semi-structured interviews were conducted with nine members of the medical and nursing inpatient teams across

two Scottish hospices. Interviews were transcribed verbatim and analysed thematically.

Results Most participants employed a mix of pharmacological and non-pharmacological approaches to treat delirium at the end of life. Non-pharmacological strategies included i) reorientation, ii) modifying environmental factors, iii) familiar surroundings, iv) enabling and retaining autonomy, v) distraction from delirium, and vi) tactile stimulation.

Inadequate staffing was viewed as a barrier to the use of non-pharmacological interventions; whereas involving families in delirium management was viewed as helpful.

Conclusion A variety of non-pharmacological interventions were identified which were both commonly used and perceived to be effective by staff members in two palliative care inpatient units. An intervention study is now required to examine the effectiveness of supportive interventions to reduce delirium symptoms and severity in terminally ill patients, and to minimise delirium related distress in both the patient and their families.

172 PILOT STUDY: POINT PREVALENCE OF GLUCOCORTICOID TREATMENT IN ONCOLOGY INPATIENTS

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Background Glucocorticoids are widely used for symptom and disease control in patients with cancer. Despite this, there is no recent data on the prevalence of glucocorticoid treatment, or guidance regarding weaning, within this population. This study aimed to determine the point prevalence of glucocorticoid treatment within oncology inpatients at a large tertiary hospital.

Methods On 08.08.2017, the notes of all oncology inpatients in the hospital were reviewed (n=50). Further data was then collected regarding: cancer diagnosis, glucocorticoid indication, weaning plan, and capillary blood glucose (CBG) measurement in the preceding 24 hours.

Results 18 out of 50 (36%) oncology inpatients were taking glucocorticoids. The underlying cancer diagnoses were skewed towards rarer cancers (sarcomas n=7, brain tumours n=3, other diagnoses n=8), reflecting the study's tertiary setting.

The reasons for glucocorticoid treatment included cerebral oedema, queried metastatic spinal cord compression, and immunotherapy related complications.

One patient had a documented short prognosis and was therefore excluded from further analysis. Of the remaining 17 patients, 13 (77%) had documented evidence of a glucocorticoid weaning plan in the previous week. This included 5 patients who were prescribed glucocorticoids as part of an elective inpatient chemotherapy regime.

Only 6 patients out of 17 (35%) had a recorded CBG in the preceding 24 hours; this includes 3 patients with pre-existing diabetes.

Discussion This study, though small, demonstrates the high prevalence of glucocorticoid use within oncology. Weaning of glucocorticoids appears to have been considered in most patients, though not all. Measuring CBGs does not appear to be routine, though it was not possible to determine which patients were at high risk of steroid induced hyperglycaemia.