

was undertaken in week 1 and 5 of a 5 week breathlessness programme.

Results A Total of 55 patients attended 161 session out of a potential 275, resulting in combined total of 44 separate goals been set using the GAS Light template.

All goals were reviewed and were categorized from 3 options namely, 'a little better'; 'same' or 'worse'. 30 Goals were achieved with patients identifying them as 'a little better'. 15 goals were not achieved of those 11 remained the 'same' and 4 had got 'worse'.

23 patients did not set or complete goal setting activity due to not completing the course, declining to participate in goal setting or not returning/recording data. This is reflective of both the attendance figures and the challenges of implementing a new outcome measure in a MDT.

Conclusions Following a 5 week breathlessness programme some participants achieved and partially achieved goals important to them. Further evaluation is required.

182 IMPROVEMENT IN PALLIATIVE CARE PRESCRIBING

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Background It was recognised that junior doctors in Clatterbridge Cancer Centre were unfamiliar with regional palliative care guidelines and therefore the management of common presentations of oncological and palliative care patients, resulting in delayed prescriptions, particularly out of hours.

The aim of the project was to improve knowledge of, and confidence with, the management of the most frequent palliative care issues and to improve the quality of prescribing prior to initial review by the palliative care team.

Methods Junior doctors completed a questionnaire to assess confidence in symptoms management. As baseline audit, palliative care referrals for December 2018 were reviewed retrospectively, with focus on: reasons for referral, actions carried out prior to referral and whether the interventions were appropriate and in accordance with regional guidance. These guidelines were made available on all computer desktops in March 2019, accompanied by training and communication at ward level to ensure awareness. For the post intervention measure, referrals in March 2019 were reviewed. Identical criteria were used to assess whether ready access to guidelines had improved initial patient management.

Results In December 2018, 31 out of 182 patients were referred to palliative care. Of these, 12 required review by palliative care directly for complex issues, inpatient follow-up, social/psychological support or because they were approaching end of life. Of the remaining 19 patients, 10 (52.6%) had appropriate therapy initiated by junior doctors prior to palliative care review. In March 2019, 41 out of 169 patients were referred to palliative care. Of the 15 qualifying patients, 12 (80%) were started on appropriate treatment. The percentage of referrals to palliative care for non-complex physical symptoms control dropped from 61% in December 2018 to 36% in March 2019.

Conclusions Overall, digital access to guidelines and training in their use resulted in an improvement in symptom management in inpatients.

183 HOW ARE SPECIALIST PALLIATIVE CARE UNITS USING RANITIDINE IN THE MEDICAL MANAGEMENT OF ADULTS WITH MALIGNANT BOWEL OBSTRUCTION? A SURVEY OF UK HOSPICES

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Background Malignant bowel obstruction (MBO) is a common presentation in palliative care and can cause challenging symptoms. It has been suggested that the H2-receptor antagonist ranitidine may have a role in the management of MBO as an antisecretory medication to reduce volume of gastrointestinal secretions.

Methods A questionnaire was sent via email to all UK adult hospices with inpatient units to investigate how ranitidine is currently being used for patients with MBO.

Results 60% (99 of 165) of eligible hospices completed the questionnaire. 76% reported using hyoscine butylbromide most commonly as a first line antisecretory medication for patients with MBO.

84% of hospices reported using ranitidine for selected patients although only 8% reported using it as a first line antisecretory agent. Hospices that use ranitidine are most commonly administering it via continuous subcutaneous infusion for patients with acid related symptoms (88%), combined with other antisecretory medications (80%), as a second or third line antisecretory medication (68%) and for gastrointestinal protection (66%). Reasons cited for not using ranitidine included a lack of perceived need, lack of evidence, non-inclusion in clinical guidelines and issues of practicality.

Responders highlighted the need for an individualised approach to prescribing in MBO with failure of other medications, nature of symptoms and nature of obstruction among factors influencing use of ranitidine.

Multiple hospices reported recently starting to use ranitidine or using it more frequently than they had done previously. An Australian randomised controlled trial that used ranitidine as part of a 'standard' treatment regime in MBO was a commonly cited instigator for change.

Conclusions Ranitidine is being used by the majority of UK hospices for selected adults with MBO despite a limited evidence base. Further research should be encouraged to evaluate the effectiveness of ranitidine and to clarify its role for patients with MBO.

184 COST-EFFECTIVENESS OF PULMONARY REHABILITATION: A SYSTEMATIC REVIEW

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Background Pulmonary rehabilitation (PR) is a complex intervention aimed at decreasing morbidity in patients with long-term lung conditions such as COPD, bronchiectasis and pulmonary fibrosis. In the NHS setting, it is an 8 week programme consisting of exercise training to reduce functional decline, and education to aid patients with self-management of their condition. Extensive evidence exists in support of the clinical effectiveness of PR but there is a paucity of studies evaluating the economics of PR. This review aimed to

evaluate cost-effectiveness studies of PR programmes worldwide.

Methods A systematic review was conducted in accordance with PRISMA guidelines. A thorough literature search strategy was employed across PubMed, the Cost-Effectiveness Analysis Registry (CEA Registry), National Health Service Economic Evaluation Database (NHS EED), Physiotherapy Evidence Database (PEDro) and Google Scholar from inception to October 2019 for studies comparing the cost-effectiveness of PR programmes with that of usual care. Included studies had to meet the Cochrane definition of PR; at minimum, exercise training for at least 4 weeks. Cost-effectiveness measures included cost per quality-adjusted life year (QALY), cost per clinically significant outcome, incremental cost-effectiveness ratio (ICER) and/or cost savings to the healthcare system involved. These findings were then narratively synthesised.

Results 8 studies consisting of 1437 patients were included. Settings for the PR programmes were UK, Ireland, France, Netherlands, Canada and Australia. 7 studies included COPD patients only. 1 study assessing the uncertainties around the cost and outcome found that the cost per QALY was below £17000, below the willingness to pay threshold suggested by the NICE. Evidence from the studies suggests that PR is cost-effective with savings for the healthcare provider involved.

Conclusion PR is a cost-effective intervention with potential savings for the service providers. Future studies should examine whether cost-effectiveness varies with the age of patients undergoing PR.

185 THE MANAGEMENT OF BREATHLESSNESS IN A PALLIATIVE CARE INPATIENT UNIT

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10.1136/spcare-2020-PCC.205

Background Breathlessness is prevalent in patients at the end of their life and the aetiology is often multifactorial. This symptom is distressing for both patients and their families and can be a significant cause of morbidity. Current evidence based regional guidelines recommend the use of non-pharmacological and pharmacological interventions, of which, modified-release opioids are the mainstay. This audit examines how successfully these guidelines are complied with in an inpatient palliative care setting.

Methods A retrospective case note analysis collated a list of all patients admitted to the academic palliative care unit (APCU) from 1st October to 30th November 2019. Data on breathlessness management was gathered through the trust's electronic documentation system and compared with regional guidelines.

Results Out of 80 patients admitted to the APCU, 32 (40%) had breathlessness. Of these 32, the most common diagnosis was cancer (not lung primary) at 43.8%, followed by cancer (lung primary) at 21.9%. Around 80% had a reversible cause of breathlessness, all of which were treated. Non-pharmacological options were offered to 68.8% of patients, which was a hand-held fan in 31% of cases. Half of the patients had symptoms of anxiety and of these, 93.8% were offered

anxiolytics. Nebulisers were utilised in 50% of patients of which 88.2% were saline. Opioids were suggested for patients who were not already prescribed one. Modified-release morphine and instant-release oxycodone were most commonly used followed by instant-relief morphine. It was common for steroids, oxygen and antibiotics to be used as adjuvant treatment.

Conclusion This audit confirms previous findings that breathlessness is a significant symptom in palliative patients. Based on the current regional guidelines, non-pharmacological interventions and modified-release morphine could be offered to more patients. Further discussion through interactive feedback and education is a priority to comply with current guidelines.

186 OLANZAPINE FOR THE MANAGEMENT OF DELIRIUM IN THE PALLIATIVE CARE SETTING – A SYSTEMATIC REVIEW OF THE EVIDENCE

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Background Delirium is a neurocognitive syndrome common in palliative care. Although typical antipsychotics are the pharmacological management of choice for distressing symptoms of delirium, the atypical antipsychotic olanzapine may have a role.

Aim To evaluate the evidence for olanzapine, given orally or subcutaneously (sc), in the management of delirium in adults in the palliative care setting.

Methods Electronic databases (Embase, MEDLINE, and PsycINFO) were searched in March 2019 complemented by hand-searching using reference lists and review articles. All studies excluding case reports were included. The primary and secondary outcomes were reduction in delirium severity and toxicity respectively. Relevant studies were summarised and synthesised. Meta-analysis was not performed due to heterogeneity in the studies.

Results Five studies with 244 participants were included in the analysis - one randomised controlled trial, one non-randomised trial with a control arm, two prospective cohort studies, and one cross-sectional study. All studies were in cancer patients. Delirium severity reduced by an average of 6.93 on the Memorial Delirium Assessment Score at one week, with no statistical difference seen between olanzapine and alternative antipsychotics. Olanzapine did not cause extrapyramidal side effects (EPSE) in any study but did lead to sedation in three studies (10–30% of participants affected). One study assessed the safety and efficacy of sc olanzapine - no injection site toxicity was seen but the sample was small, attrition was high, and systemic toxicity was noted. The overall quality of the studies was graded as weak.

Conclusion Olanzapine has weak evidence of comparative effectiveness to other antipsychotics in reducing delirium severity in patients with cancer. A lack of EPSE suggests a potential role in the management of delirium in Parkinson's disease and Lewy body dementia but further studies are required to evaluate this. There is insufficient evidence to support the use of olanzapine sc in this setting.