

14 **COST-EFFECTIVENESS ANALYSIS FOR THE INTEGRATED CARE FOR ADVANCED RESPIRATORY DISORDER (ICARE) PROGRAM – A MULTIDISCIPLINARY PALLIATIVE REHABILITATION PROGRAM FOR CHRONIC LUNG DISEASE IN A COMMUNITY HOSPITAL**

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**Introduction** Patients with chronic breathlessness suffer high symptom burden and unmet needs, driving repeated hospitalizations. ICARE program, based on a novel construct of ‘Palliative Rehabilitation,’ integrates early palliative care with post-exacerbation, inpatient rehabilitation for patients with advanced non-malignant lung diseases. This study aims to examine ICARE’s impact on healthcare resource utility, as well as secondary clinical and functional outcomes.

**Methods** This study compared the number of admissions and total length of stay (TLOS) 6-months pre-enrolment and post-discharge from ICARE. Formal healthcare cost is calculated using daily unit costs provided by Ministry of Health. Functional improvement before-and-after ICARE are measured via 6 minute-walk test (6MWT) and Modified Barthel Index (MBI). Clinical issues are identified and tracked using an assessment template.

**Results** 88 patients were eligible for analysis. There were significant reductions in acute-hospital TLOS (mean 14.0 days, <0.05) and number of admissions (mean 1.17, <0.05). By projection, reduction in TLOS accrued to an annual 2464 bed-days saved for the tertiary hospital. Net cost deficit was \$581 per patient. Subgroup analysis revealed patients with recurrent admissions 6-months prior to ICARE (N=44) generated annual savings of \$308,949, while 1-time admiters (N=44) incurred deficit of \$410,810. Notably, 1-time admiters had longer LOS in their index tertiary hospital admission and had poorer 6MWT and MBI on enrolment, suggesting more severe exacerbations with greater deconditioning. Functionally, significant improvements in 6MWT (median 30 m, <0.05) and MBI (median 12.5points, <0.05) were observed. 76.5% clinical issues identified were improved/resolved.

**Discussion** ICARE leads to a cost deficit of \$581/patient, equivalent to only an additional half-a-day stay in tertiary hospital. Considering that patients functionally were not fit for discharge at point of enrolment into ICARE, this study demonstrates that ICARE is potentially cost-saving, particularly for recurrent admiters. ICARE also alleviates tertiary hospital bed-occupancy rate while improving clinical and functional outcomes.

15 **A STROKE AHEAD: PALLIATIVE CARE IN-REACH WORK ON THE STROKE WARDS**

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**Background** The Intercollegiate Stroke Working Party (2016) outlined that services providing acute and long-term care for people with stroke should provide high quality end-of-life care. Difficulties occur in recognising dying when the trajectory of the disease is not easily predicted.

**Method** A project was developed which involved a band 7 CNS in Palliative care having 15 hours a week designated to the 4 stroke wards for a year. The model was of in-reach work. Data was collected prospectively for patients referred to the CNS using a pro forma. Information was also obtained by identifying patients who were diagnosed with a stroke who had a palliative care code. A survey was also developed to assess the impact of the project on ward staff.

**Results** 113 patients were seen by the project CNS over a 12 month period. The average Karnofsky Performance Score (KPS) of patients seen was 20. 80% of patients lacked capacity.

38% referrals were related to managing patients in their last few days of their life.

66% patients died in hospital but over a third were discharged with CNS support. 73% required symptom management. 66% involved supporting the stroke team with decision making and 42% involved facilitating family discussions. 16% patients were referred with artificial nutrition, but only 1% patients died with nutrition in situ. Satisfaction with palliative care input increased from 43% to 92%

**Conclusions** Regular palliative input to the stroke wards supported complex decision making for patients who often lacked capacity. Key roles included supporting staff to recognise dying and stopping artificial nutrition. Initiating discharge planning was also an important aspect and has led to the development of a discharge coordinator specifically for palliative care patients. The in-reach model was valued by staff.

## Free papers 16 – 18: future

16 **TO DRIP OR NOT TO DRIP: INADEQUATE EVIDENCE TO GUIDE PRACTICE. A SYSTEMATIC LITERATURE REVIEW AND NARRATIVE SYNTHESIS**

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**Background** The impact of clinically assisted hydration on quality of life or survival in the last days of life is not known. A previous systematic review evaluated only trial data, mostly from studies focusing on patients in the last weeks of life, and found insufficient evidence to draw firm conclusions. This issue is often highly emotive. Practice varies significantly worldwide.

**Aim** To review the published evidence concerning assisted hydration in the final days of life, focusing on symptoms, side effects, survival, quality of life, and the views of patients and families.

**Design** Systematic literature review and narrative synthesis of studies using a range of methods. Databases were searched up to September 2019 alongside reference and journal hand searches. Research quality was appraised using Gough’s ‘Weight of Evidence’ framework.

**Results** The search yielded 4053 studies. Of the 27 papers included in the synthesis, only one study was judged to be of high quality and relevance. Most studies demonstrated little or no impact of clinically assisted hydration on quality of life, symptoms, or survival: many were poorly designed or under-powered. Of the ten studies investigating delirium, four (including the only high quality study) suggested an association

between clinically assisted hydration and lower rates or delayed onset of delirium.

**Conclusion** There is insufficient evidence to draw conclusions on the impact of clinically assisted hydration on quality of life in the last days of life. Further research should focus on populations who are in the very final days of life. There is a lack of studies in non-cancer populations, and a lack of evidence relating to communication with patients and families about this uncertain area of clinical practice.

### 17 IN YOUR OPINION WHAT ARE THE MOST IMPORTANT ETHICAL ISSUES FOR THE SPECIALTY IN THE NEXT FIVE YEARS AND HOW COULD WE ADDRESS THEM

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A multitude of challenges are likely to confront the field of palliative care in the coming years, many of these with huge ethical implications. With demographic shifts resulting in the over-65 population resting at almost 12 million, combined with an unprecedented increase in the burden of diseases of old age such as dementia; it is likely that palliative care as a specialty will need to adapt to new demands. These challenges are compounded by considerable uncertainties surrounding funding, which will undoubtedly lead to difficult resource allocation decisions. Furthermore, ease of access to palliative care services varies considerably across society, with individuals with mental health conditions, a non-cancer diagnosis or belonging to BAME or LGBT communities all facing substantial barriers to access. This essay aims to examine how the fundamental principles of medical ethics such as beneficence, non-maleficence, justice and autonomy can be applied to the aforementioned challenges.

No proposals in isolation are likely to address all of the above challenges. Improved integration between general practice and palliative care services could significantly improve access to care however this will require further investment in an already overstretched primary care service. Extending opportunities to learn about palliative care to other health care professionals may also help to improve their confidence in treating this population. With projections indicating that care homes are likely to become the 'hospices of the future' it is vital that individuals working in these areas are adequately trained and able to work within a well-supported multi-disciplinary team. Disparities in access between societal groups will also need to be further studied in order for these to be levelled. Crucially addressing the above challenges must be done in a way that retains the holistic and individualistic nature, that is so integral to the speciality.

### 18 ARE UK PALLIATIVE CARE PATIENTS WILLING TO PARTICIPATE IN A TRIAL OF BISPECTRAL INDEX (BIS) TECHNOLOGY FOR ASSESSING LEVELS OF CONSCIOUSNESS? FINDINGS FROM AN EXPLORATION OF FEASIBILITY FOR I-CAN-CARE

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**Background** Bispectral Index (BIS) monitoring uses electroencephalographic data to measure patients' level of consciousness. Our I-CAN-CARE study sought to explore the use of BIS in palliative care. Our preliminary work indicated that while a few clinicians had some reservations about the technology, patients and relatives did not. We therefore proceeded to investigate BIS in practice.

**Objective** To evaluate the feasibility of trialling BIS monitoring with conscious UK hospice patients.

**Methods** We conducted a prospective study of BIS with hospice inpatients, trialling the technology for a period of four hours. Feasibility was assessed against the following a priori criteria: percentage of recruited patients 15%, and three criteria related to BIS specifically: percentage of eligible patients refusing to be approached for technology-related reasons 10%; percentage of technology-related refusals to participate 10%; and rate of non-completion due to the technology 10%.

**Results** In 12 months, 332 hospice inpatients were screened for eligibility, and 177 (53.3%) deemed eligible for the researcher to approach for consent. For reasons related to the technology, one patient refused approach (1/177); 34 could not be approached for other reasons. Six of those approached (6/142; 4.2%) refused consent due to the technology. In all, 40/142 (28.2%) agreed to participate. Thirty-nine of the 40 recruited were monitored with BIS (it was impossible to monitor the other patient successfully). Two participants (2/39; 5.1%) requested that monitoring stop before the endpoint for reasons relating to the technology.

**Conclusions** Our findings show that it is feasible and acceptable to conduct research into BIS technology with conscious inpatients on a palliative care unit. The use of BIS did not markedly limit recruitment or retention, and most participants were content. Our analysis will proceed to examine data from these participants on the utility of BIS monitoring.

## Free papers 19 – 21: symptoms

### 19 MANAGEMENT OF OPIOID INDUCED HYPERALGESIA

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**Background** Opioid-induced hyperalgesia (OIH) is a clinical phenomenon, characterised by increasing pain in patients who are receiving increasing doses of opioids. Many doctors are unaware of this phenomenon, often leading to a long latency between the classic presentation of the syndrome and its eventual recognition and treatment. There is no recognised management strategy for the treatment of OIH and several interventions have been used, with varying success.

**Aim** To review and assess the management of opioid-induced hyperalgesia in palliative patients.

**Methods** Electronic databases, grey literature, clinical trials registries and handsearching for studies describing OIH. Full papers were obtained if relevant and studies graded.

**Results** 30 papers were included in the analysis, including case reports and case series of a total of 54 patients. Clinical features included worsening or more widely distributed pain. 50% of patients also had myoclonus, 35% allodynia, and 15% agitation. 1 patient (2%) suffered a seizure. Ten different interventions were used for the management of OIH, with many patients receiving more than one intervention