Editorial

Delirium and the acute hospital system of the Republic of Ireland: Challenges, solutions and opportunities.

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Delirium is a major public health concern both internationally and in the Republic of Ireland. Delirium is an acute onset brain failure, and as a neuropsychiatric syndrome, the aetiology of delirium is complex and reflective of multiple contributing factors, e.g. acute medical illness, polypharmacy, and pre-existing cognitive impairment. It is estimated to have a prevalence of 20% in general hospital inpatients, over 50% of the over 65's inpatient population, and then it can escalate to a prevalence of over 80% of inpatients in the intensive care unit and palliative care setting[1]. Several studies have confirmed its high prevalence and incidence in the Irish acute hospital setting[2,3].

It is associated with increased morbidity, mortality, reduced socio-adaptive functioning and more challenging still, is that it significantly increases the length of stay (LOS) in the hospital[4]. Since the financial crisis of 2008-2011, the Republic of Ireland has significantly readdressed its national priorities in terms of public health care delivery, and amongst them is redesigning the health care system to tackle the challenges of dementia and delirium[5,]. Despite its widespread occurrence, delirium has been reported that it is overlooked in up to two thirds of cases and hence such cases are either misdiagnosed or simply untreated[1]. However, there are many challenges to establishing standards of delirium care which include either treatment or prevention strategies. Indeed, it has been reported in the literature that there is no clear rationale for use of appropriate pharmacotherapy for delirium, however, the evidence for multicomponent prevention strategies aimed at delirium in the acute hospital setting is significantly stronger[6]. Although the specific details are an evolving point within the discourse, one of the major elements that has attained a foundational consensus is the development of cognitive friendly or delirium friendly hospitals[7]. Delirium friendly hospitals are characterised by several features which include 1: guidelines for prevention/management of delirium, 2: routine delirium screening, 3: education about delirium for staff, patients and families, and 4: specialist care for delirium.

In 2014, as part of the New Programme for Government 2011-2016, *The National Dementia Strategy* was launched which mapped out the different aspects of dementia/ delirium care in Ireland[5]. It highlighted the economic (estimated cost €21 million), and healthcare burden of dementia (estimated prevalence of 29%), in the acute hospital setting. *The National Strategy for Dementia* identified the

interface between dementia and delirium in the Irish acute hospital setting and the vulnerability of these patients to developing both. A key component to this strategy was the establishment of cognitive-friendly hospitals[5]. Although there is a broad-based Irish national dementia strategy that highlights delirium care, hospitals in the Republic of Ireland typically utilise the UK *National Institute for Health and Clinical Excellence (NICE) Guidelines for Delirium (2010)* when it comes to both research and clinical work. The NICE guidelines are much more detailed than *The National Strategy for Dementia (2014)* when it comes to delirium and cover the evidence based standard of care for delirium in the acute hospital setting. When applied to the Irish context, it has been found that there are significant gaps (e.g. routine screening for delirium) between the guidelines and their application to the real-world clinical setting[8]. However, the persistent gap between policy and practice is reported in the UK as well[9]. Although there is no unified consensus amongst clinicians in the screening for delirium, Irish research has highlighted the role frontline staff can take when screening for delirium[2]. However, a national audit of dementia care in Irish acute hospitals highlighted the absence of delirium screening in over 70% of patient records[8]. This disparity between policy and practice is unfortunately a common trend internationally[9].

Irish researchers have reported on the use of innovative strategies to optimise educational workshops without relying heavily on didactic lectures. One such method include the development of e-learning modules in order to enhance the professional competencies programme[10]. However, despite these innovations, significant gaps between every day practice and ideal public health policy remain. Meanwhile, Irish researchers have also highlighted the role of the paradigm that operates at the centre of the ward culture surrounding delirium management and prevention in Irish hospitals, and have outlined an integrated strategy for delirium which focuses upon the *bench-to-bedside* approach adopted in other fields of translational medicine. Such an integrated strategy sign posts the role each contributor (e.g. policy makers, lab based scientists, and clinician scientists) can make to optimising delirium care and prevention in the acute hospital setting[7]. Applying to the Irish healthcare system some of the innovations in delirium care from other countries may significantly contribute to tackling this issue in the Irish acute hospital setting. Although The National Dementia Strategy (2014) forms the foundation for policies to optimise delirium care in the acute hospital system, a more detailed Irish national guideline based upon the UK NICE Guidelines for Delirium (2010) should be developed to suit the Irish context. The Irish acute hospital system may also benefit from the implementation of multicomponent interventions which have been developed in the United States to support frontline staff by reducing the burden of care for delirium. These interventions include nursing and medical care plans which focus on key domains that are identified from the literature of modifiable risk factors for delirium such as dehydration, sensory impairment, polypharmacy, and immobility. Implementation of these programmes has significantly demonstrated positive impacts upon hospital length of stay, total health care costs incurred and duration of delirium episodes[1,6]. In order to successfully execute these

interventions, education and training needs to be offered to support frontline staff to actively screen delirium using suitable methods.

Although many of the features of a cognitive friendly hospital have been established in Ireland, there is significant room for improvement in terms of staff training and routine screening[8]. The Republic of Ireland is in an excellent position to develop and implement a national screening programme as a focal point of cognitive friendly hospitals. It has contributed significantly to its research and its economy of size, offers an exciting prospect of utilising an effective management strategy to enable the Irish healthcare system to tackle this major public health problem.

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References

1.Inouye, S.K., Westendorp, R.G. and Saczynski, J.S., 2014. Delirium in elderly people. The Lancet, 383(9920), pp.911-922.

2.Ryan, D.J., O'Regan, N.A., Caoimh, R.Ó., Clare, J., O'Connor, M., Leonard, M., McFarland, J., Tighe, S., O'Sullivan, K., Trzepacz, P.T. and Meagher, D., 2013. Delirium in an adult acute hospital population: predictors, prevalence and detection. BMJ open, 3(1), p.e001772.

3.FitzGerald, J.M., O'Regan, N., Adamis, D., Timmons, S., Dunne, C.P., Trzepacz, P.T. and Meagher, D.J., 2017. Sleep-wake cycle disturbances in elderly acute general medical inpatients: Longitudinal relationship to delirium and dementia. Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring. Inpress.

4.Jackson, T.A., Wilson, D., Richardson, S. and Lord, J.M., 2015. Predicting outcome in older hospital patients with delirium: a systematic literature review. International journal of geriatric psychiatry.

5.Department of Health. Irish National Dementia Strategy. Dublin, Ireland: Department of Health; 2014. Available: http://health.gov.ie/blog/publications/the-irish-national-dementia-strategy/. Accessed 19 December 2017.

6.Hshieh, T.T., Yue, J., Oh, E., Puelle, M., Dowal, S., Travison, T. and Inouye, S.K., 2015. Effectiveness of multicomponent nonpharmacological delirium interventions: a meta-analysis. JAMA internal medicine, 175(4), pp.512-520.

7.O’Hanlon, S., O’Regan, N., MacLullich, A.M., Cullen, W., Dunne, C., Exton, C. and Meagher, D., 2014. Improving delirium care through early intervention: from bench to bedside to boardroom. Journal of Neurology, Neurosurgery & Psychiatry, 85(2), pp.207-213.

8.Timmons, S., Manning, E., Barrett, A., Brady, N.M., Browne, V., O’Shea, E., Molloy, D.W., O’regan, N.A., Trawley, S., Cahill, S. and O’sullivan, K., 2015. Dementia in older people admitted to hospital: a regional multi-hospital observational study of prevalence, associations and case recognition. Age and ageing, p.afv131.

9.Royal College of Psychiatrists. National Audit of Dementia Care in General Hospitals 2012-2013: Second Round Audit Report and Update. London: Healthcare Quality Improvement Partnership; 2013.

10.Barrett, A., Kennelly, S., Lynch, A., Chorcorain, A.N. and O’Regan, N., 2014, September. Think Delirium, Write Delirium, Treat Delirium! An E-Learning Collaboration to Improve Detection, Diagnosis and Management of Delirium. In IRISH JOURNAL OF MEDICAL SCIENCE (Vol. 183, pp. S325-S325). 236 GRAYS INN RD, 6TH FLOOR, LONDON WC1X 8HL, ENGLAND: SPRINGER LONDON LTD.

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