AN AUDIT TO IDENTIFY PATIENTS AT RISK OF SEROTONIN SYNDROME AT TIME OF ADMISSION TO A SPECIALIST PALLIATIVE CARE UNIT

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Introduction
Serotonin syndrome is a potentially life-threatening condition caused by overstimulation of serotonin receptors. Clinical manifestations include altered mental state, autonomic dysfunction and neuromuscular abnormalities. Basal levels of serotonin are higher in malignancy and recent drug alerts have implicated some opioids in serotonin syndrome. Many of the drugs used by palliative medicine specialists also have the potential to affect serotonin. The palliative care patient population may therefore be at increased risk of serotonin syndrome.

Methods
A retrospective audit was conducted of 100 consecutive patient admissions to the specialist palliative care unit. A data
collection tool was designed to identify patients at risk of serotonin syndrome and if any of these patients demonstrated features of the condition.

**Results** 68 of the 100 patients audited were taking at least one drug implicated in serotonin syndrome, 34 patients were on two or more implicated medications. 59 of the 68 patients on a serotonergic medication had a least one symptom seen in serotonin toxicity, and 9 patients had at least 4 suggestive symptoms. None of the patients met existing diagnostic criteria for serotonin syndrome.

On admission 12 patients had a serotonergic drug added to their regimen and at 48 hour review, 4 patients had developed new symptoms suggestive of serotonin toxicity.

In all patients no documentation could be found that serotonin syndrome had been considered as a risk or possible diagnosis.

**Conclusions** This study highlights a need for education about serotonin syndrome given its likely prevalence in the palliative care patient population and the potential for significant morbidity and mortality. Although the audit identified a significant proportion of patients were at risk of serotonin syndrome, clinical findings did not indicate definite diagnosis in any of these patients. A screening tool will now be developed to assist health care professionals in identifying at risk patients.