

## **Inappropriate prescribing in patients accessing specialist palliative day services**

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**Presented by:** Serena Rix (Pharm D). 23 April, 2014

### **Abstract**

**Background:** For patients accessing specialist palliative care day services, medication is prescribed routinely to manage acute symptoms, treat long-term conditions or prevent adverse events associated with these conditions. As such, the pharmacotherapeutic burden for these patients is high and polypharmacy is common. Consequently, the risk of these patients developing drug-related toxicities through drug–drug interactions is exacerbated. Medication use in this group should, therefore, be evaluated regularly to align with achievable therapeutic outcomes considering remaining life expectancy.

**Objective:** To (1) assess the prevalence of inappropriate medication use; (2) identify potential drug–drug interactions; and, (3) determine how many potential drug–drug interactions could be prevented by discontinuing inappropriate medication. Setting A specialist tertiary care palliative care centre in Northern England serving a population of 330,000. Main outcome measure Prescribing of inappropriate medication.

**Method:** Medication histories for patients accessing a specialist palliative day care centre were established and a modified Delphi method was used to reach consensus of medication appropriateness. The Delphi method utilized a framework considering the following factors: remaining life expectancy of the patient, time until benefit of the treatment, goals of care and treatment targets. Potential drug interactions were established using drug interaction recognition software and categorised by their ability to cause harm.

**Results** A total number of 132 patients were assessed during the study period who were prescribed 1,532 (mean = 12/patient) medications; 238 (16 %) were considered inappropriate in the context of limited life expectancy. The most common class of medications considered inappropriate were the statins, observed in 35 (27 %) patients. A total of 267 potential drug–drug interactions were identified; 112 were clinically significant and 155 were not considered clinically significant. Discontinuation of inappropriate medication would reduce the total number of medications taken to 1,294 (mean = 10/patient) and prevent 31 clinically significant potential drug–drug interactions.

**Conclusion** Patients accessing specialist palliative day care services take many inappropriate medications. These medications not only increase the pharmacotherapeutic burden for the patient but they also contribute to potential drug–drug interactions. These patients should have their medication reviewed in the context of life limiting illness aligned with achievable therapeutic outcomes.

### **Strengths of study**

This was a descriptive study which used basic statistics to analyze their data. Pharmaceutical software was used to identify the drug interactions.

### **Weaknesses of study**

The sample was derived from a single palliative daycare unit in the United Kingdom, and this group may not be representative of our population. The authors did not supply adequate demographic information particularly in terms of prognosis or survival data to determine if the discontinuation of medications deemed inappropriate was justified. Drug interactions were identified but were not assessed on an individual basis. As not all medications were considered, larger studies may be necessary to include this information.

### **Relevance to palliative care**

It is not uncommon for palliative patients to be admitted to the unit, taking inappropriate medications as described by the study. It takes time to explain to the patient and/or their caregivers why these medications are no longer appropriate, As more research in this area is completed and guidelines are developed, the concept of “deprescribing” at the end of life may become more universally recognized, thus making patients and their families more comfortable terminating these agents. Although guidelines cannot be “all encompassing” they may provide a framework of areas to consider when “de-prescribing” for palliative patients.