The Application of 2012 American Geriatrics Society Beers Criteria in a Hong Kong Hospital

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Introduction
Medication-related problems are common in the elderly, and are often caused by potentially inappropriate medications (PIM). PIM can cause harm to the health of the elderly, and can increase burden to the health care system. Reducing the use of PIM is a simple and effective way to reduce medication-related problems in the elderly. Beers Criteria is a commonly used screening tool to help identify PIM's in the elderly. In 2012, American Geriatrics Society (AGS) has joined liaison with Beers Criteria for a number of updates. The criteria were constructed in an evidence based manner, and classified according to different physiological systems.

Objectives
To improve the physicians’ acceptance rate on pharmacists’ interventions on clinical services for geriatric patients. To reduce the 28-day readmission rate of geriatric patients through the application of 2012 American Geriatrics Society (AGS) Beers Criteria to reduce PIM.

Methodology
This is a prospective randomized controlled trial with on-ward interventions. Inclusion criteria include the followings: 1. Aged 65 or above. 2. Taking 5 or more chronic medications. 3. Admitted to the designated wards under the care of Medical Team C. Exclusion criteria include: 1. Terminal illness such as active malignancy. 2. Critical illness such as transferred from or to Intensive Care Unit (ICU) or Coronary Care Unit (CCU). 3. Admitted for surgical or examination procedures only. When a PIM is identified in Intervention Group, it will be recommended to be signed off under pharmacist’s clinical judgment. An alternative medication will be suggested when necessary.

Result
Up to December 2015, 236 patients were recruited. 106 and 130 patients were randomized to Control Group and Intervention Group respectively. In Control Group, 49 PIM’s were identified. In Intervention Group, 51 PIM’s were identified, and 34
interventions were made. 28 out of the 34 interventions were accepted by physicians. The followings are the top 5 most common PIM’s and their corresponding prevalence rates. 1. First generation antihistamine (36%). 2. Alpha blocker as antihypertensive (13%). 3. Use of famotidine in patients with dementia (12%). 4. Use of metoclopramide as antiemetic (8%). 5. Methyldopa (6%).