Medication Review in the Elderly using the STOPP criteria

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Improving Prescribing for the Elderly
The ImPE Project(s)

- April 2010 - Initial project a partnership between NWL CLAHRC, ICHNT (Hammersmith Hospital) and Partnership for Health

- 18 months

- Multidisciplinary project group chaired by Dr. Edward Dickinson

- April 2011 - Rollout funding granted for remaining sites within ICHNT + care home and community setting
• To develop and use a medication review system based on the evidence based tool ("STOPP" – Screening Tool of Older Persons potentially inappropriate Prescriptions) for use with elderly patients across all sectors of care

• To increase knowledge and confidence amongst staff in carrying out medication review through awareness and education

• To provide patients with better information about their medicines
STOPP (Screening Tool of Older Persons’ potentially inappropriate Prescriptions): application to acutely ill elderly patients and comparison with Beers’ criteria

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• STOPP (Screening Tool of Older Persons’ potentially inappropriate Prescriptions) is a systems-defined medicine review tool*
• STOPP criteria identified a significantly higher proportion of patients requiring hospitalisation as a result of inappropriate medication-related adverse events than Beers’ criteria
• Very high inter-rate reliability**/***
• Translational work to convert into easy to use medication review (MR) form
• ? Handheld application – ‘iSTOPP’

Potentially Inappropriate Medications Defined by STOPP Criteria and the Risk of Adverse Drug Events in Older Hospitalized Patients

Hilary Hamilton, MB, MRCPI; Paul Gallagher, PhD, MRCPI; Cristin Ryan, PhD, MPSI; Stephen Byrne, PhD, MPSI; Denis O’Mahony, MD, FRCPI

Prevention of Potentially Inappropriate Prescribing for Elderly Patients: A Randomized Controlled Trial Using STOPP/START Criteria

PF Gallagher¹, MN O’Connor¹ and D O’Mahony¹,²
Prioritising STOPP

Top 5 ADRs
- Falls (postural hypotension etc.)
- Bleeding
- Confusion/sedation
- Metabolic disturbance
- Constipation

Top culprit drugs
- Diuretics
- Anti hypertensives
- Benzos
- Opiates
- Warfarin, NSAIDs

Delphi Exercise
# Medication Review for the Elderly

## Drug List

<table>
<thead>
<tr>
<th>Side Effect / Condition</th>
<th>Medication</th>
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| Falls including, postural hypotension, impaired balance, dizziness                      | **SEDATION**  
For example: Benzodiazepines, Opioids (e.g. codeine, morphine, tramadol), Sedating antihistamines (e.g. chlorpheniramine), antipsychotics, neuroleptics e.g. quetiapine  
**CONFUSION**  
For example: Opioids (e.g. codeine, morphine, tramadol), anticholinergics (e.g. procyclidine), tricyclic antidepressants  
**OTHERS**  
Antihypertensives  
Diuretics  
Bladder antimuscarinic drugs e.g. oxybutynin  
H₂ receptor antagonists e.g. cimetidine  
β-blocker eye drops e.g. timolol |
| Bleeding                                                                               | Warfarin  
NSAIDs  
Steroids |
| Confusion/sedation                                                                     | **SEDATION**  
Benzodiazepines  
Opioids e.g. codeine, morphine, tramadol  
Sedating antihistamines e.g. chlorpheniramine  
Antipsychotics  
Centrally acting antihypertensives e.g. clonidine, Methyldopa  
Neuroleptics as hypnotics e.g. quetiapine  
**CONFUSION**  
Opioids e.g. codeine, morphine, tramadol  
Antacids  
Anticholinergics e.g. procyclidine  
Tricyclic antidepressants |
| Metabolic disturbance such as dehydration, renal impairment, electrolyte disturbance  | Diuretics  
ACE inhibitors  
ARB's e.g. lisartan  
NSAID's  
Acetazolamide  
SSRI's e.g. citalopram  
Other antidepressants e.g. mirtazapine, venlafaxine  
Antiepileptics e.g. carbamazepine  
Donepezil  
Proton Pump Inhibitors |
| Constipation                                                                           | Opioids e.g. codeine, morphine, tramadol  
Ferrous sulphate and related compounds  
Calcium resonium  
Tricyclic antidepressants  
Anticholinergics e.g. procyclidine  
Antispasmodics e.g. hyoscine  
Verapamil  
Bladder antimuscarinic drugs e.g. oxybutynin  
Neuroleptics e.g. quetiapine |
STOFP within acute medicine...

• Staff Survey
  – <1/3 thought patients currently had adequate medication review
  – >90% agreed that patients would benefit from medication review
  – >80% agreed that medication review would reduce admissions due to falls and bleeding

• Admissions Pharmacists
  – Initiate medication review

• OPAL team Consultant/Registrars
  – Complete medication review
Interim Results

Outcomes being explored:

• Cost savings due to drugs being reduced

• Reduced hospital attendances e.g. falls

• Opportunities within ICO
NIHR CLAHRC for Northwest London

Partnership for Health
The partnership comprises Imperial College Healthcare, London Central and West Unscheduled Care Collaborative and Central West London Community Services

Central London Community Healthcare NHS Trust
Barnet || Hammersmith and Fulham || Kensington and Chelsea || Westminster

CPSSQ
Centre for Patient Safety & Service Quality

Imperial College London

care uk

age uk
for later life

The Hillingdon Hospitals NHS Foundation Trust

Hestia Housing & Support

NIHR CLAHRC for Northwest London

Imperial College Healthcare NHS Trust
Any questions?

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