PRN medication management
Drugs and Therapeutics Information Service (DATIS)

Time for evidence based action around PRN medicines in aged care
(TEAM Aged Care)

Project overview
The purpose of the project was to implement evidence-based improvements in the use of PRN medicines using the evidence-based strategy known as academic detailing (or educational visiting) in ten residential aged care facilities across South Australia and Victoria.

What was done?
The main intervention was ‘educational visiting’ on the use of PRN medication in three specific areas: 1) sleep 2) behaviours of concern and 3) pain assessment and management.

Education module development
Education models were developed for each of these areas.

The framework for each module was built on the acronym PRN. The goal was to change how PRN was used in practice from an ‘as required’ to ALWAYS thinking

P – perceive the need
R – report and relieve
N – note the effects

Module development involved:
- Consultation with the aged care homes regarding current practice
- An extensive literature review to gather the evidence
- Preparation of a background materials folder and resources for module delivery including the ‘detailing’ aid
- A structured two day workshop was conducted for each module to prepare the educational visitors

Module implementation
Aged care staff were visited by a knowledgeable health professional to discuss evidence-based information arranged in each of the three modules. It involved structured educational encounters aimed to increase the skills and knowledge of each aged care staff member by providing flexible information at a level that was appropriate for the individual. Through discussion, the educational visitor aimed to identify health and clinical literacy issues, barriers and enablers for each individual to adopt best practice.

Education sessions were held on site and in normal working hours (including night shift) so that the messages were delivered as close to real time resident management as possible. All staff were eligible to participate. Sessions were scheduled via a link staff person in each aged care home.

At least two resident meetings were held in each facility; one to inform the residents of the project and discuss the topic of pain (and constipation) and the second to discuss the topic of sleep. Resident brochures were produced and used in a variety of ways by the aged care homes to engage the residents including:
- display on public notice boards and in resident lounges
- distribution at education meetings
- distribution with resident and family newsletters
- inclusion in admission packs

Staff evaluations were conducted for each module. Overall assessment of staff self rated skills and competence was evaluated through pre and post project questionnaires and also via evaluation forms after each individual educational visit.

Quality use of medicines was also evaluated using National Prescribing Service Drug Use Evaluation audits of PRN use of benzodiazepines and antipsychotics.
What was achieved?

What was the impact for residents?
Residents benefited from increased staff awareness leading to more evidence-based PRN medicines use. Specific examples included:
- high percentages of staff became more aware of the adverse effects of antipsychotics – as a result PRN doses administered reduced by 37.5%
- staff were more likely to assess for factors contributing to sleep difficulty
- a larger number of staff recognised the signs and symptoms of pain – as a result the prescribed use of paracetamol increased by 30%

Resident knowledge of PRN medicine issues was also increased. For instance, of 209 residents and/or family members who attended ‘Module 3, Sleep’ meetings, 136 attendees said that they learnt something new.

Residents asked questions and gave feedback such as:
- How much sleep do I need as an older person?
- Is alcohol appropriate to use to help me relax prior to going to sleep?
- The effects of caffeine can last for a long time
- Sleeping tablets don’t help quality of sleep
- The opportunity to talk about sleep together was appreciated

What was the impact for staff?
Changes as a result of the educational visiting included:
- 96% of care staff indicated that they were more aware of the adverse effects of antipsychotics
- 97% of care staff indicated they were more likely to assess factors contributing to sleep difficulty after the Sleep module
- Significantly increased staff recognition of the signs and symptoms of pain
- Significant increase in awareness of the evidence regarding potential harm from medicines particularly for personal care staff. This resulted in greater use of non-pharmacological treatment options.

What could be adopted in other services?
As a consequence of the educational visiting, staff learnt many strategies to assist residents in the three targeted areas. Examples of small changes that facilities could make to improve the use of PRN medicines include:

Sleep
- offer milo at night or warm milk and honey instead of tea/coffee
- let residents stay up for as long as carers can allow for
- consider delaying the use of night time sedation until the night shift, when the medication is only given if needed
- consider the effects of diet, visitors and outings on sleep patterns
- monitor sleep by using 3-4 day sleep charts before notifying GPs of sleep problems
- consider the use of paracetamol in some cases rather than a hypnotic
- monitor adverse effects of sedative use and consider alternatives or ceasing the medication
- increased focus on using non-drug measures and tender-loving-care

Behaviours of concern
- use more body language when communicating
- encourage staff to share ideas on managing residents with difficult behaviours
- try to learn more about difficult residents, to enable staff to better divert residents’ attention at critical times
- encourage staff to be more patient and confident in trying different approaches
- review the need for continuing antipsychotic medication in some residents
- actively monitor the possible side effects of antipsychotics
- consider documenting more behaviours and verbally reporting more about behaviour and suggesting changes to care plans
- check what other measures have been put in place before resorting to medicine

Pain assessment and management
- understand and recognise body language signs of pain and follow up with residents exhibiting these signs
- encourage staff to be more confident in documenting pain and reporting pain to nurses
- consider using the Abbey pain scale for cognitively impaired residents
- adjust analgesia doses where required and Webster pack analgesics
- give medicines earlier to aid with mobility prior to getting up
- encourage staff to be more observant regarding pain associated with movement

What resources are available?
Pain, Behaviours of Concern and Sleep ‘educational visiting’ modules were developed and include a 4 page card which provides brief evidence based information and pictures, to guide discussion in the educational visiting sessions.

In addition to the cards, a manual of resources was developed which includes:
- resident brochures for each module, including an Italian translation
- background information and references
- checklists for educational visitors
- charts of drug information, caffeine and signs of pain in older people
- a behaviours of concern flowchart
- evaluation forms for staff and residents

Where can I get more information?
For further information regarding this and other Round 1 EBPAC projects see the Department of Health and Ageing website at http://www.health.gov.au/ebpac

1. Pro re nata (PRN) from the Latin for ‘an occasion that has arisen’ is commonly used in medicine as a short hand for ‘when required’ or ‘as needed’. These medicines include both those prescribed by the GP for the resident, e.g. haloperidol for aggressive behaviour, and nurse initiated medicines, e.g. coloxyl and senna for constipation.