An investigation into the potential barriers associated with warfarin prescribing in an elderly population residing in Illawarra based aged care facilities

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Abstract
Warfarin Prescribing: • Systems varied - faxed warfarin-specific chart - faxed warfarin orders - phone calls from GPs - phone call from RN to GP’s secretary dose recorded on chart with a ‘post-it’ note • Common problems - faxes (misplaced or not received) - ? current orders • “If there was a standard package for dealing with nursing homes then we would go along with that and just get used to it” (GP)

Keywords
warfarin, associated, facilities, potential, care, aged, residing, population, elderly, prescribing, into, investigation, illawarra, barriers

Disciplines
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An investigation into the potential barriers associated with warfarin prescribing in an elderly population residing in Illawarra based Aged Care Facilities

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Aim
To gain an understanding about GP & RN perceptions & experiences of warfarin prescribing and management within the Illawarra based Residential Aged Care Facilities (RACFs)

Methods
- Following ethics approval HE07/042  
- Participant recruitment: (Letters of invitation/participant information sheets and consent forms)  
  - Directors of Nursing/nominated RNs  
  - GPs.  
- Data collection:  
  One on one interview conducted for the completion of a survey questionnaire (coded anonymously)

Examples of RN Survey Questions
a. For the Aged Care Facility you represent, estimate how many residents would have an indication (e.g. Atrial fibrillation) for warfarin and note how many residents are actually currently receiving warfarin therapy

No. of residents with a warfarin indication .... residents  
No. of residents receiving warfarin .... residents

b. Please provide possible reasons why residents are not receiving warfarin.

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Example of GP Survey Questions

For which of the following indications would you prescribe warfarin for an elderly patient residing in an Aged Care Facility? (Please tick as many options as needed)

☑ Prevention and treatment of DVT
☑ Prevention and treatment of PE
☑ Prevention of thrombo-embolism in patients with prosthetic heart valves
☑ Primary prevention of stroke in patients with AF associated with other risk factors
☑ Secondary prevention of stroke in patients with AF
☑ Other (please specify) ………………………………

Example of GP Survey Questions

Generally, what influences you to prescribe warfarin for your residents in Residential Aged Care facilities?

………………………………………………………………………………………………………………

Generally, what influences you to NOT prescribe warfarin for your residents in Residential Aged Care facilities?

………………………………………………………………………………………………………………

…………………………………………………………………………………………………………

………………………………………………………………………………

Results

• 13 GPs interviewed – visited patients in both high and low level care
• 54 patients receiving warfarin
  - ~ 42% of 129 potential patients with an indication for warfarin therapy
  - 36 (~38%) of 94 potential patients in high level care and 18 (~51%) of 35 in low level care

Results

• 13 RNs – working in both high and low level care facilities (853 residents)
• 54 residents on warfarin
  - ~ 67% of 81 potential patients with an indication for warfarin (according to only 4 RNs)

Emerging themes about barriers to warfarin prescribing and management in RACFs

Warfarin Prescribing

• Systems varied - faxed warfarin-specific chart
  - faxed warfarin orders
  - phone calls from GPs
  - phone call from RN to GP's secretary
  - dose recorded on chart with a 'post-it' note
• Common problems - faxes (misplaced or not received)
  - ? current orders
• "If there was a standard package for dealing with nursing homes then we would go along with that and just get used to it" (GP)
Monitoring of INR
- Each RACF had a different approach
- Differences in opinion about who should be responsible
- Confusion about how often INR testing should be conducted
- Often INR testing not attended and previous dose/results not available
- "Every time a medication is changed it should trigger an INR" (GP)

Pharmacodynamics/pharmacokinetics in elderly
- Little control over dietary changes
- Problems often arose following outbreaks (e.g., diarrhoea) or changes in medication prescribing (e.g., antibiotics)
- "People change dramatically in here!" (RN)

Professionalism
- Concern by staff that they appear "neglectful" when things go wrong
- RNs found some outcomes "embarrassing"
- "...they are all 'professional' people in the nursing home" (GP)

Packaging & administration
- Timing of INR/ change of dose often too late for re-dispensing
- "Care Staff don't understand how to organise warfarin" (GP)
- Need to involve both facility staff & the Pharmacy provider

Communication
- Poor communication was one of the most commonly suggested barriers
- Some Participant Suggestions
  - RN does weekly round with GPs
  - One shift responsible for warfarin
  - GP/practice staff ring to see if fax received
  - "There needs to be a 'warfarin monitor'" (GP)

Legislative framework concerning Warfarin prescribing and management
Interpretations vary!
- Facility insisting on hand-written changed orders
- "...facility staff are hidebound" (GP)
- "...lack of understanding by GPs on how low-care facilities can operate with medications" (RN)
- "I sometimes think that there is no 'legal' way that warfarin can be administered in low-level care" (RN)
Recommendations based on the results

- Each facility should have a central dedicated warfarin "diary"
- Potential dedicated warfarin-chart, or Warfarin order fax sheet
- Dosage change be faxed, with follow-up phone call
- "Use-by" date for orders
- INRs readily available for prescribing decisions
- Immediate alerts to GPs of changes in resident that may affect warfarin therapy

Recommendations presented to Illawarra GPs, RNs and Pharmacists

More recommendations based on the workshop

- Facilities accept faxes of changed orders from GPs
- RACFs consider changing the timing of warfarin dose
- Separate packaging for warfarin for low-level care
- Warfarin be a trigger for medication review
- Warfarin be included in "end-of-life" decision discussions
- To develop guidelines for "best-practice" warfarin use in Aged Care?

Thank you