A process evaluation of nurse-led medicines’ monitoring in care homes: using the Adverse Drug Reaction (ADRe) Profile

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The problem - current systems have resulted in:

• Preventable adverse drug reactions (ADRs) underlying 5-8% of hospital admissions over the last decade, costing the NHS £1-2.5bn each year (NICE 2015)

• Medicines’ mismanagement, particularly around information sharing, and NICE’s quality standard 85 for people who live in care homes

• The high prevalence of adverse drug reactions in primary care (7.8% [95% confidence interval 7.2-8.4%] patients).

• Over-use of antipsychotics in care homes

• Social class gradient in use of antipsychotics in primary care

• WHO global patient safety challenge on medication safety March 2017
The solution: Nurse-Led Medicines’ Monitoring using our ADRe Profile

• reduces prescribing of mental health medicines, including antipsychotics and sedatives, in care homes and other settings
• improves quality of care by addressing physical health issues for all patients monitored
• identified and addressed serious (life-threatening) adverse events in ~10% of patients
• reduces the prevalence of pain and nausea, sedation
• increases non-urgent NHS contacts with prescribers, dentists and opticians
• structures multidisciplinary team working
What are ADRe Profiles?

Feedback from patients to prescribers
Nurses capture on 1-2 sides / screens (with guidelines):
1. Vital signs
2. Observations related to ADRs
3. Direct questions / reports of possible ADRs
4. Health promotion (likely to be worsened by medicines)
Nurses change care plans address some problems
Pass 1-2 sides with problems highlighted to pharmacists and prescribers to guide medication review
https://youtu.be/E_CPdgsmA4s (video)
Please consider whether any problems identified might be due to or exacerbated by prescribed medicines: antipsychotics, antidepressants, antiepileptics/mood stabilisers, benzodiazepines. When completed, pass to pharmacist or prescriber.

### Vital Signs

<table>
<thead>
<tr>
<th>Problem</th>
<th>Actions / Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Circle answer to identify presence</strong></td>
<td>For problems present or worsening, provide further information or say how the problem is being addressed. Guidelines are available.</td>
</tr>
<tr>
<td>Heart rate</td>
<td>bpm  No / Yes</td>
</tr>
<tr>
<td>Irregular rhythm</td>
<td>No / Yes</td>
</tr>
<tr>
<td>BP lying/sitting</td>
<td>mmHg  No / Yes / Worse</td>
</tr>
<tr>
<td>BP standing</td>
<td>mmHg  No / Yes / Worse</td>
</tr>
<tr>
<td>Weight/BMI</td>
<td>Kg  No / Yes / Worse</td>
</tr>
<tr>
<td>- Change since last recording</td>
<td>Loss / Gain</td>
</tr>
<tr>
<td>Girth (waist circumference)</td>
<td>cm  No / Yes</td>
</tr>
<tr>
<td>- Change since last recording</td>
<td>cm  Decrease / Increase / No change</td>
</tr>
<tr>
<td>Temperature (tympanic/oral/axilla/rectal)</td>
<td>°C  No / Yes</td>
</tr>
<tr>
<td>Oxygen saturation</td>
<td>%  No / Yes / Worse</td>
</tr>
<tr>
<td>ECG</td>
<td>No / Yes</td>
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How our intervention works
Current Study Objectives:

• 1) what is needed to sustain implementation of ADRe in routine practice
• 2) how it might be enhanced by a) pharmacist involvement and b) digitisation and new monitoring technology
Methods

• All 5 care homes from our previous trial (Jordan et al 2015) + 5 newly recruited care homes
• Our target population are care home residents receiving at least one of: antipsychotics, anti-epileptics/ mood stabilisers, antidepressants, benzodiazepines.
• We interviewed 30 stakeholder (nurses, senior managers, service users).
Findings

Professional Turf: Who uses the ADRe

• A nurse –led assessment tool.
• “I am not a nurse and some things (tests) would have to be done by a nurse” (Care worker).

• I’d like that responsibility myself as I’m not sure untrained staff will have the same way in interpreting what they see, that I do. I’m not sure, I may be wrong; they may need some training, to manage this” (Matron).

• Homes with no qualified nurse on duty brought in a nurse to administer ADRe (GP).
Communication gap

The staff-senior staff tend to feel...the information that they are gathering then is of some value. I think that is important—improves morale. The care staff – the staff feel that what they are doing is worthwhile and they are not just ticking forms, ticking boxes and just getting filed away
ADRe filling a communication gap

• You can check and can pick up on something you’ve got a tool, to actually go to the GP and say “this is what’s happening, is it because of this, is it this medication and if so, what can we do?” Evidence to go to GP with (Senior care worker).

• I assumed that when this was filled out it would be shared with the GP and hopefully the Pharmacy team that is dealing with the CH, so that everyone is aware of what issues are coming up with the patient, and the decision could be made between all of the Health Care Professionals (Pharmacist).

• Yeah. I think it’s great. It’s really good. It’s very easy to understand. It’s quite clear and quite...you know. You can just look at it and just tick, yes, no, worse. Self-explanatory (Service User).
“That by using the profile we identified quite a number of issues - she had anaemia actually, which hadn’t been diagnosed and she was quite sort of... she had a rash that was itching and things and contributed to her mood” (Matron).

“enhanced my awareness, read more, look more, look at the residents in a deeper way with all of it. WWADR has enhanced my awareness look at residents in a deeper way” (Matron)

Yeah, one of the first residents, we spoke to, she said she has pain sometime, in the right knee. She never told anybody, like, when we do medication; she never mentioned that before (Senior Carer).

*This is a bit more personal, otherwise it’s just a check list  More personal than a checklist*

“puts little things together that may be missed” (Matron)
Barriers to use: time, work demands, understaffing (Nurses and Care Staff).

- the biggest one is going to be time, isn’t it, but having said that, once you’ve used the tool & you’ve used it regularly, it becomes second nature, so it’s not that time consuming. It’s like everything else really. ...slow at first & use it regularly & get quicker (repeats), so may be time“ (Care Staff)
- Time is the biggest barrier, because you’ve got so many things you’re trying to do, you’ve got the service users and you’re trying to take care of their needs” (Matron)
- They [Agency staff] just come in and do their shift. They haven’t got time to look at Profiles and look at documentation and it is quite sad-but that is the reality really, that there is not enough staff (Matron)
Adverse effects of medication are not always obvious or easy to recognise. Identifying adverse drug reactions. Improving quality of life. Reducing prescriptions. The Adverse Drug Reaction Profile. ADRe.
Thank you for your time
Diolch i chi am eich amser

Questions
Cwestiynau
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Related Publications

- Gabe ME, Murphy F, Davies GA, Russell IT, Jordan S 2014 Medication monitoring in a nurse-led respiratory outpatient clinic: pragmatic randomised trial of the West Wales Adverse Drug Reaction Profile. PLOS One DOI: 10.1371/journal.pone.0096682