College of Human and Health Sciences
Coleg y Gwyddorau Dynol ac Iechyd

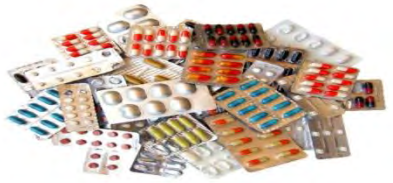
Swansea University
Prifysgol Abertawe

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

Presented by Assoc. Prof Sherrill Snelgrove, for Prof Sue Jordan, Prof David Hughes and the Medications Management group. Department of Nursing SU

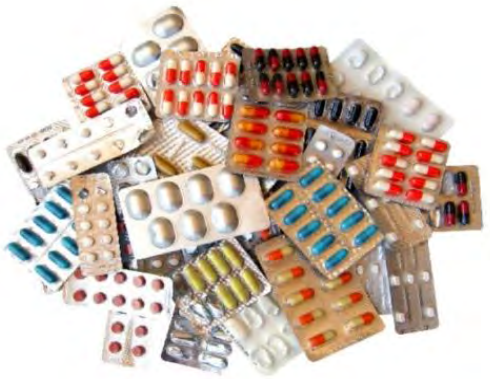
The problem - current systems have resulted in:

- 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 medic 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

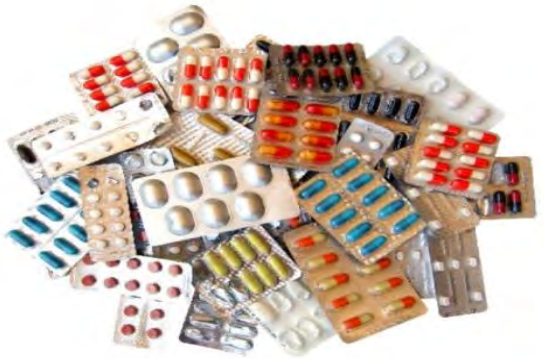
Nurses capture on 1-2 sides / screens (with guidelines):

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)



West Wales Adverse Drug Reaction Profile for Medicines in Mental Health

Swansea University
Prifysgol Abertawe

Patient ID _____ Completed _____ Profession _____

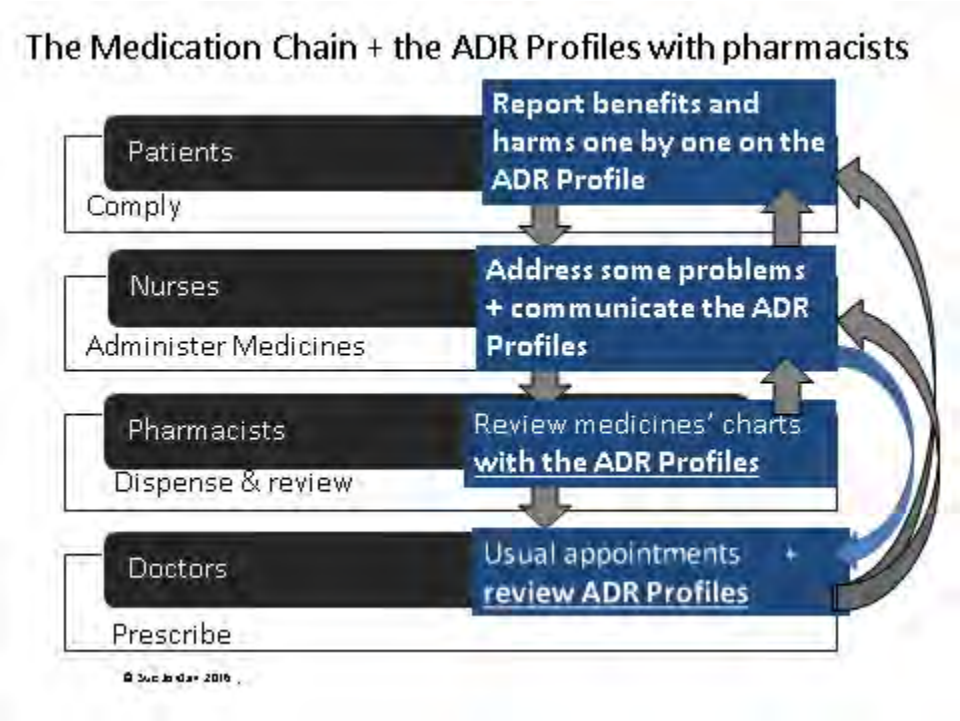
Date / / Authorised by _____ Profession _____

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.

1 Vital Signs

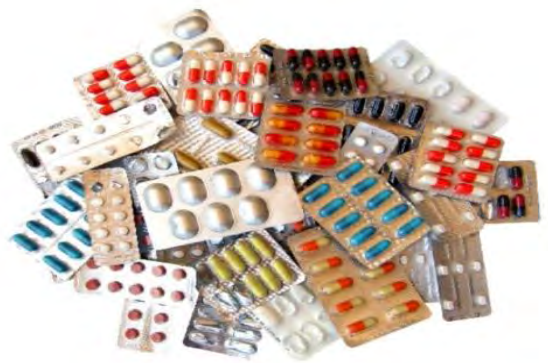
			Problem Circle answer to identify presence	Actions / Notes For problems present or worsening, provide further information or say how the problem is being addressed. Guidelines are available.
Heart rate		bpm	No / Yes	
Irregular rhythm			No / Yes	
BP lying/sitting		mmHg	No / Yes / Worse	
BP standing		mHg	No / Yes / Worse	
Weight/BMI	Kg	kg/m²	No / Yes / Worse	
- Change since last recording			Loss / Gain	Diet diary date last recorded / /
Girth (waist circumference)		cm	No / Yes	
- Change since last recording		cm	Decrease / Increase / No change	
Temperature (tympanic/oral/axilla/rectal)		°C	No / Yes	
Oxygen saturation		%	No / Yes / Worse	
ECG			No / Yes	Date last recorded / /

How our intervention works



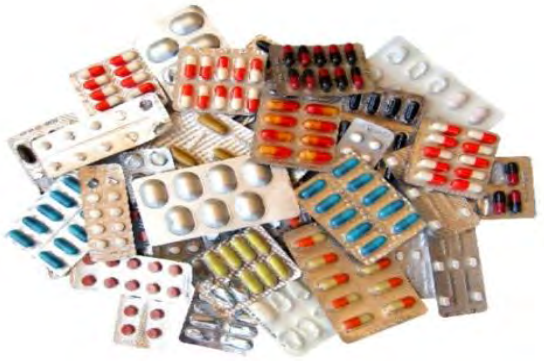
Current Study Objectives:

- 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-it 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).

Care Gap

"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)

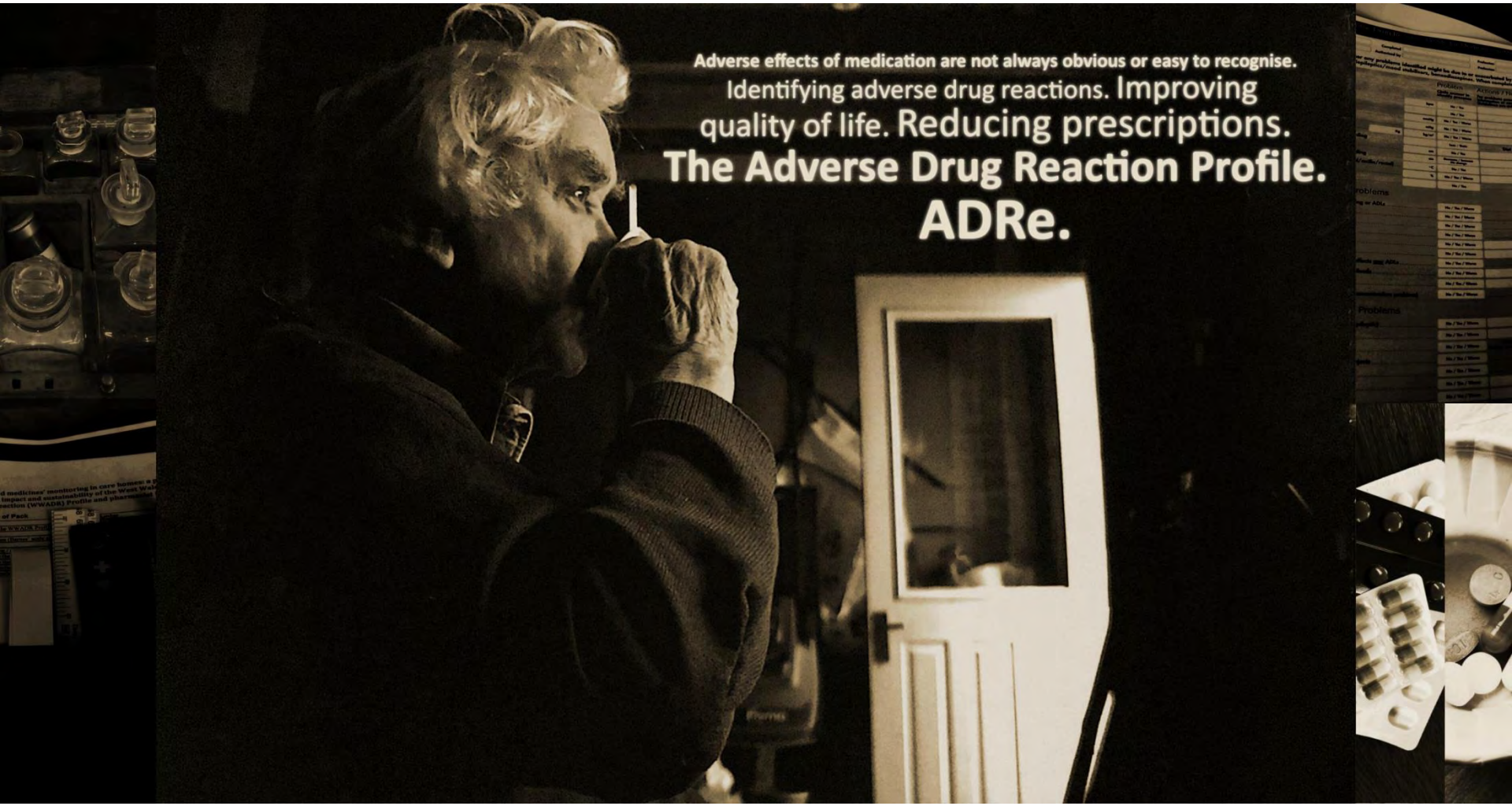
Yeah, one of the first residents, we spoke to, she said she has pain sometime, in the right knee. She never told anybody, like, when we do medication; she never mentioned that before (Senior Carer).

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.

Swansea University
Prifysgol Abertawe

www.swansea.ac.uk
www.abertawe.ac.uk

Contact Details

- Professor Sue Jordan - s.e.jordan@swansea.ac.uk
- Dr Sherrill Snelgrove - s.r.snelgrove@swansea.ac.uk
- Professor David Hughes -D.Hughes@Swansea.ac.uk

Related Publications

- Jordan S, Gabe-Walters ME, Watkins A, Humphreys I, Newson L, Snelgrove S, Dennis M. (2015) Nurse-Led Medicines' Monitoring for Patients with Dementia in Care Homes: A Pragmatic Cohort Stepped Wedge Cluster Randomised Trial. PLoS ONE 10(10): e0140203. doi:10.1371/journal.pone.0140203 http://dx.plos.org/10.1371/journal.pone.0140203
- Jones R., Moyle C. Jordan S. 2016 Nurse-led Medicines Monitoring: a before and after study to examine the clinical impact of the West Wales Adverse Drug Reaction Profile in a Crisis Resolution Home Treatment service. *Nursing Standard*. 31, 14, 42-53. doi: 10.7748/ns.2016.e1044
- Jordan S. (2015) Medication Monitoring for People with Dementia in Care Homes: Clinical Impact of Nurse-led monitoring. NICE shared learning database. http://www.nice.org.uk/sharedlearning/medication-monitoring-for-people-with-dementia-in-care-homes-clinical-impact-of-nurse-led-monitoring
- Gabe ME, Davies GA, Murphy F, Davies M, Johnstone L, Jordan S. (2011), Adverse drug reactions: treatment burdens and nurse-led medication monitoring. *Journal of Nursing Management.* 19(3):377–392.
- Gabe ME, Jordan SJ. (2014) Development and clinical gains of nurse-led medication monitoring profiles. *Journal of Nursing Management.* **22(3), 331-349**
- Jordan S. (2002) Managing Adverse Drug Reactions: An Orphan Task. Developing Nurse-Administered Evaluation Checklists. *Journal of Advanced Nursing.* 38:437-448.
- Jordan S. (2008) *The Prescription Drug Guide for Nurses.* Open University Press, McGraw-Hill, Maidenhead.
- Jordan S, Tunnicliffe C, Sykes A. (2002) Minimising Side Effects: The clinical impact of nurse-administered 'side effect' checklists. *Journal of Advanced Nursing.* 37:155-165.
- Jordan S, Hardy B, Coleman M. (1999) Medication management: an exploratory study into the role of Community Mental Health Nurses. *Journal of Advanced Nursing.* 29(5):1068-81.
- Jordan S, Jones R, Sargeant M. (2009) Adverse drug reactions: managing the risk. *Journal of Nursing Management.* 17:175-84.
- Jordan S, Knight J, Pointon D. (2004) Monitoring Adverse Drug Reactions: Scales, Profiles and Checklists. *International Nursing Review.* 51:208-221.
- 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
- Jordan S, Gabe M, Newson L, Snelgrove S, Panes G, Picek A, Russell IT, Dennis M. (2014) "Medication Monitoring for People with Dementia in Care Homes: the Feasibility and Clinical Impact of Nurse-led monitoring," The Scientific World Journal, vol. 2014, Article ID 843621, 11 pages, 2014. doi:10.1155/2014/843621.