# Nurse-led medicines' monitoring in care homes: a process evaluation of the impact and sustainability of the West Wales Adverse Drug Reaction (WWADR) Profile and pharmacist involvement

Preventable adverse drug reactions (ADRs) account for 5-8% UK unplanned hospital admissions[1], costing the NHS £1-2.5bn pa[27]. Over-prescribing for older adults is rife, with up to 29% prescriptions inappropriate[13], and linked to distressing and costly hospitalisations[14]. This consensus around over-prescribing has encouraged WG to prioritise reduction of antipsychotic prescribing (personal communication, Dr. Dai Lloyd, WG chair of Health, Social Care and Sport committee, 20.10.16). However, there is no consensus for implementation of change to routine care (Page et al 2016, 2-7 above). It appears that the UK government's National Dementia Strategy, launched 2009, and MHRA recommendations (MHRA 2012), have not reduced antipsychotic prescribing (Szczepura et al 2016), whilst our intervention succeeded (Jordan et al 2014, 2015). Our intervention is about optimisation of nursing documentation and multidisciplinary team involvement in medicines' management.

When used by nurses without pharmacists' involvement, WWADR Profiles reduced prescribing of mental health medicines in care homes[15], and benefited all participants, e.g. by reducing pain, behaviour problems, dry mouth, constipation, poor food and/or fluid intake, ataxia, and identifying high risk cardiovascular conditions[15,20,21], drug-induced Parkinson's[18], infections[22], chest pain and valproate-induced pancreatitis[23]. We now aim to explore how this can be sustained in practice. There are 2 aspects to the study:

1. Observation in care homes
2. Stakeholder interviews

1. The participants of our previous research and 5 newly recruited care homes will be asked to either continue using the Profile in routine practice or adopt it within routine practice. We shall ask to observe this routine practice, debrief in interviews and read reflective diaries/ accounts. We are interested to see if the Profiles are used as intended, participants' experiences of their use, and any barriers and facilitators. For example, are all items completed? What happens if a problem is found? Are guidelines consulted if there are problems? How easy is it to get access to a prescriber?

**Care Homes**
**Inclusion criteria:**

- Providing residential or nursing care or both to >4 service users meeting inclusion criteria below.
- Willing to use the WWADR monitoring Profile in routine practice

**Exclusion criteria:**

- <5 residents meet the inclusion criteria
- Unwilling or unable to volunteer to undertake nurse-led medicines' monitoring

**Service users / Residents / patients**

**Inclusion criteria:**

- Resident at the care home and expected to continue to be for 1 year;
- Currently taking at least one of antipsychotics, anti-epileptics/ mood stabilisers, antidepressants, benzodiazepines, Z drugs;
- Diagnosis of dementia, or dementia related condition, recorded; permanent local authority funding for dementia care; permanent cognitive impairment, but no diagnosis in care home notes;
- Willing and able to give informed, signed consent themselves, or where capacity is lacking, a consultee*, who is willing to give advice.

**Exclusion criteria:**

- Not well enough to participate, as screened by their nurses;
- Aged <18;
- Receiving active palliative care.

* Consultees may be either a) personal consultees, such as a relative or b) a clinician not involved in the research, even if paid in their role as clinician (MRC 2007).

2. We shall interview nurses/ managers, service users (or their families), pharmacists, prescribers and strategic leads to hear their experiences of medication use, medication management, adverse effects and barriers and facilitators of medicine monitoring, and how electronic devices can enhance nurse-led monitoring.

**Professionals**

Inclusion criteria

- Involved in the provision of care for service users described above
- Willing to participate in the study

**Exclusion criteria**

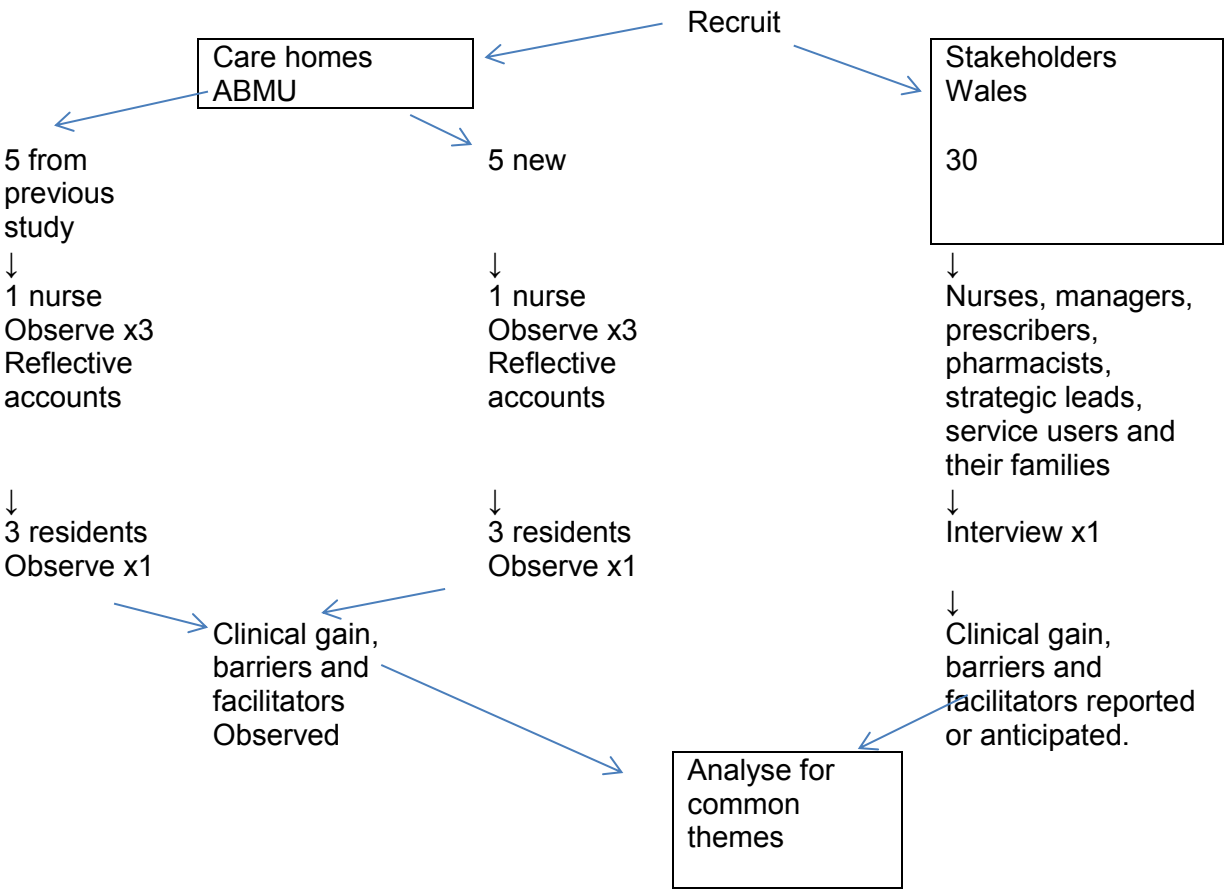
- Not involved with service users in care homes
- Unwilling to consent to participation

**The 2 data sets will be analysed using the common themes of:**

- Clinical gain
- Barriers
- Facilitators
- Implementation strategies

**Summary Diagram V1 1.11.16**
**Medicines' monitoring**

**Title of study**:
Nurse-led medicines' monitoring in care homes: a process evaluation of the impact and sustainability of the West Wales Adverse Drug Reaction (WWADR) Profile and pharmacist involvement
**Short title: medicines' monitoring**




**Study Duration** 1.10.16 to 31.12.17
Fieldwork duration 1.1.17-31.7.17
Duration of participation:
Care homes and their nurses: 3 contacts 1.1.17 to 31.7.17
Care home residents / service users: 1 contact
Interviewees: 1 contact 1.1.17-31.7.17

**Number of Participants**
Care homes: 10
Nurses: 10
Care home residents / service users: 30 (3 per home)
Interviewees: 30 stakeholders
**Location**
Care homes in ABM UHB
Stakeholder interviews across Wales

Sj 1.11.16

**Summary**

**Preventable adverse drug reactions (ADRs, known as side effects) have caused 5-8% of unplanned hospital admissions for the last decade (Pirmohamed et al 2004, NICE 2015). They cost the NHS up to £2.5 billion each year (Frontier Economics 2014).**

**The West Wales Adverse Drug Reaction (WWADR) Profiles are designed to identify and ameliorate problems that may be attributable to or exacerbated by prescribed medicines. The WWADR Profile for mental health medicines lists problems that might be associated with these medicines, and asks nurses to monitor these and inform prescribers or pharmacists. It contains a structured template of ~80 items to be completed over 1-4 clinical contacts, as needed. We have shown in randomised controlled trials and observation studies that structured nurse-led medicines' monitoring using the WWADR Profile benefits patients, for example, by reducing pain and sedation and identifying high risk cardiovascular conditions. We now aim to understand what is needed to sustain implementation of the WWADR Profile in routine practice and explore future directions.**

11.11.16 from Jonathan Bidmead

My father had Alzheimer at the end of his life and lived for periods in care homes. Homes are often overcrowded with sometimes uncaring staff. It is at this time that our loved ones are most vulnerable even though they are sometimes short staffed, the staff that are present do there best. It is important that there is some check that medication proscribed and administered under such difficult conditions and the best for the patient and that staff give the patients the best possible attention circumstances permit.