Managing and administering medication in care homes for older people

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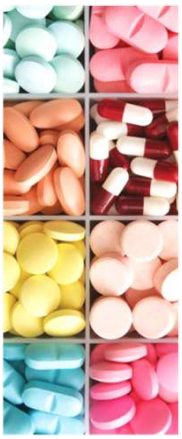
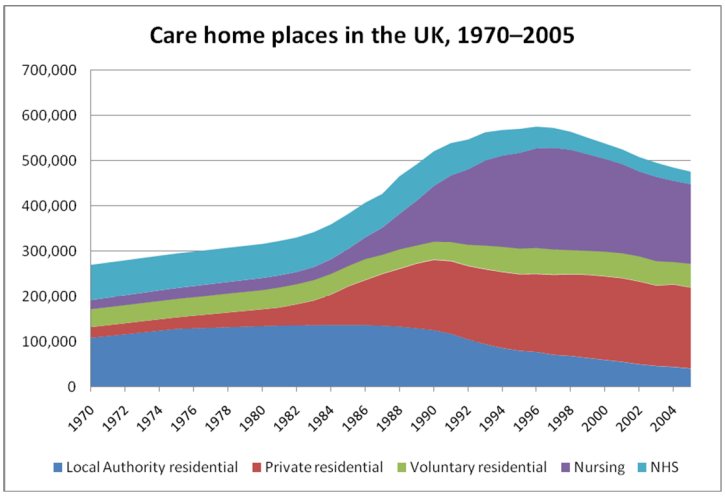
Centre for Policy on Ageing
CPA
New attitudes to old age

In late 2011 and early 2012 the Centre for Policy on Ageing produce a report on the administering of medication in care homes, for the DH funded programme *'Working together to develop practical solutions: an integrated approach to medication safety in care homes*'.



The changing role of care homes

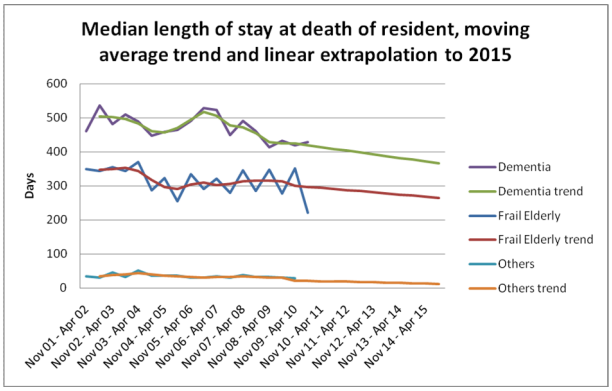
- The number of care home places is declining as more older people are cared for at home
- Care home residents are among the most vulnerable in society
- Care home residents are increasingly the frailest older people and/or those with mental health problems who stay in care for a short time near the end of life.
- Older care home residents are generally unable to leave the care home to visit a GP and, on average, are taking 7-8 medications. (*Care Homes use of Medicines [CHUMS], 2009*)



Source: Laing & Buisson Care of elderly people market survey 2005

- The number of residential care places in the United Kingdom peaked at around 321,000 places in 1990 and has been declining steadily ever since.
- From the late 1980s the number of NHS places declined significantly and from the mid 1980s to 1998 there was a very rapid rise in, mainly private, nursing care provision in care homes

Bupa Care Homes - Length of stay at death



If present trends continue, by 2015 the median length of stay for dementia care residents will be around one year (367 days) and for older frail residents will be just under nine months (265 days).

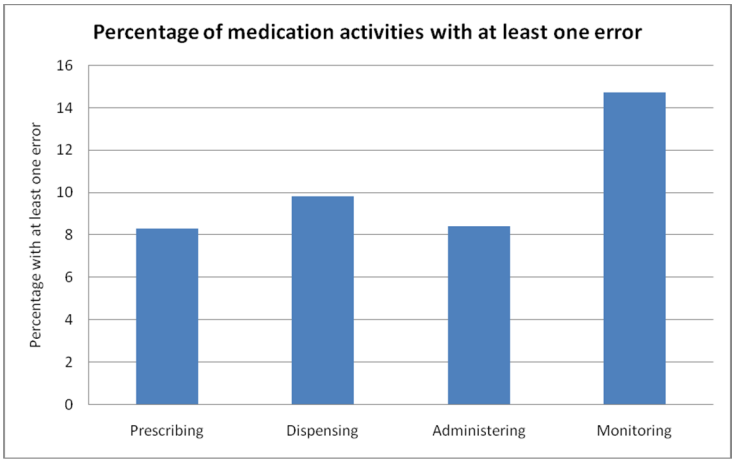
Source: Centre for Policy on Ageing, *Changing role of care homes*, 2011

The extent of the problem

- The 2009 Care Homes use of Medicines (CHUMS) study found care home staff spend as much as 40-50% of their time on medication related activities.
- Errors occur on 8.4% of medication administration events
- If the errors occur independently then a resident receiving medication three times per day has an 84% chance of experiencing at least one error every week and is 99.9% certain to experience at least one medication error every month

The extent of the problem

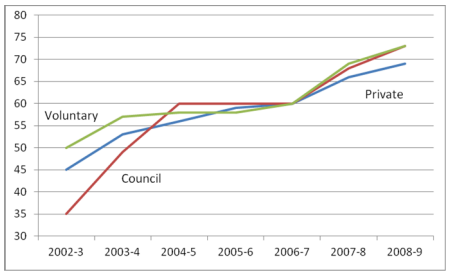
- 2010 and 2011 UK evaluations of a barcode medication management system identified 6-7 medication administration events per resident per day with 2 errors per resident per month prevented by the system. (*Szczepura, Wild and Nelson)*
- most common error – medication at the wrong time
- Over 3 months over half (52%) of residents exposed to an attempt to give medication to the wrong resident.

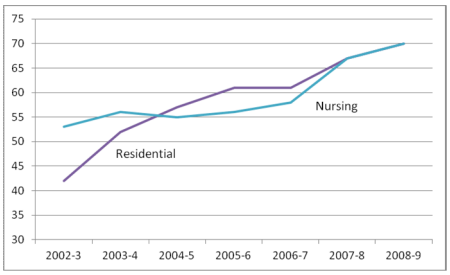


Source: CHUMS study, 2009

Administering is not the only source of error.

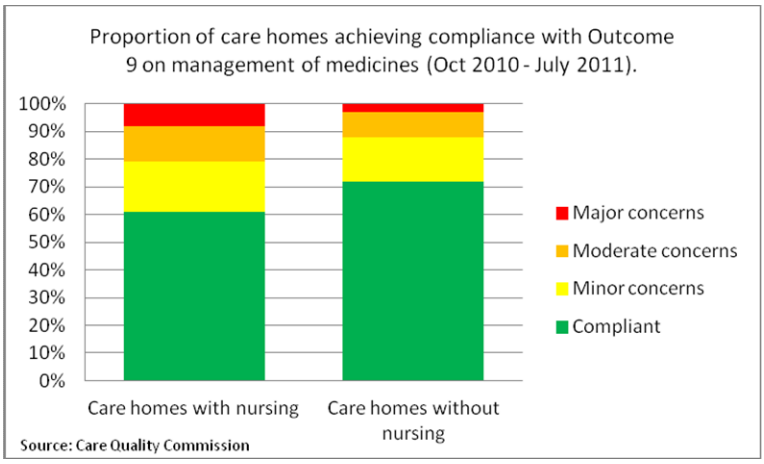
Percentage of care homes for older people meeting National Minimum Standards on medication





Source: Care Quality Commission

The situation is improving...



...but 30-40% of care homes are still not fully compliant.

Sources of medication administration error

- Common causes *(Van den Bemt, 2009)*
  - incorrect crushing
  - not supervising intake (particularly for residents with dementia)
  - Incorrect timing (over 1hr early or late)

Sources of medication administration error

- Common causes *(CHUMS, 2009)*
  - *Omissions (49.1%)*
  - *Wrong dose (21.6%)*
- *Areas for priority attention*
  - *Medication Administration Record (MAR) chart [discontinued drugs]*
  - *Medication round [interruptions]*
  - *Communication between the pharmacy and the care home*

Sources of medication administration error

- Type of care home
  - *There is conflicting evidence on whether residents of nursing or residential care, public, private or voluntary care are most at risk of medication error*
- Staff training
  - There is evidence that carers with more experience and better training make fewer errors but conflicting evidence on whether level of qualification makes a difference

Sources of medication administration error

- Time of day
  - *Medication administered in the first half of the day (7am to 2pm) is twice as likely to give rise to errors than medication administered in the evening. (Van den Bemt, 2009)*

Sources of medication administration error

- *Formulation and delivery process*
  - *Crushed medication 8 times more likely than tablets to give rise to administration errors*
  - *Inhalers and liquid medicines significantly increased odds (inhalers 20 times riskier than MDS tablets)*
  - *Topical (eg eye drops), transdermal (creams, ointments etc) and injectable medicines – 14 times more likely to give rise to errors*

Sources of medication administration error

- *Antibiotics*
  - *A fixed number of doses administered at regular intervals*
  - *Nearly one fifth (18%) had an over-run of least one day (Hinchliffe, 2010)*
  - *Ten times more likely to generate an administration error than standard gastro-intestinal medicine (Van den Bemt, 2009)*

Sources of medication administration error

- *Interruptions*
  - *Interruptions take up 11% of medication administration time (CHUMS, 2009; Thomson, 2009)*
  - *At least one interruption on 79% of medication rounds (Thomson, 2009) ; an interruption every 15 mins (CHUMS, 2009)*
  - *60% of interruptions by other staff of which 90% on 'operational' issues*
  - *Fewer than 9% of interruptions were verbal requests from residents*

Sources of medication administration error

- *Transitions and communication*
  - *Higher risk of medication error during period of transition – resident entering care home for first time or returning to care home from hospital (patient notes may be returned to GP and not communicated to care home)*
  - *29% of communication errors between care home and GP but 50% between care home and pharmacy (CHUMS, 2009)*

Regulations, standards, guidance and codes of practice

- *Currently covered by regulation 13 of the Health and Social Care Act 2008 (Regulated Activities) regulations 2010*
  "*The registered person must protect service users against the risks associated with the unsafe use and management of medicines, by means of the making of appropriate arrangements for the obtaining, recording, handling, using, safe keeping, dispensing, safe administration and disposal of medicines used for the purposes of the regulated activity.*"
- The specified outcome is that people who use the services:
  - Will have medicines at the times they need them and in a safe way
  - Wherever possible will have information about the medicine being prescribed made available to them or others acting on their behalf
- Providers who comply with the regulations will:
  - Handle medicines safely securely and appropriately
  - Ensure that medicines are prescribed and given by people safely
  - Follow published guidance on how to use medicines safely
- Compliance is monitored by the Care Quality Commission

Regulations, standards, guidance and codes of practice

- Guidance on good practice includes:
  - Royal Pharmaceutical Society, *The handling of medicines in social care*, 2007
  - Nursing and Midwifery Council, *Standards for medicines management*, 2008
  - Royal Pharmaceutical Society, *Keeping patients safe when they transfer between care providers*, 2011
  - Social Care Association*, Medication administration in social care*, 2008
  - In addition – a number of NHS Primary Care Trusts have produced guides for care homes and others on the handling of medication that are available on the internet eg Gloucestershire **(http://www.glospct.nhs.uk/chst/chst_medicines.html)**

Safety of medicines in Care Homes project - My Medicines, My Choices – Resident's Charter – prototype testing, late 2012

- This is a charter that helps you understand your rights about the medicines you take and says what help you should get from your doctor, pharmacist and care staff.
- I am informed about all my medicines and fully involved in decisions concerning them and how I take them.
- My family or representative is, with my permission, also informed of decisions involving my medicines.
- My doctor, pharmacist and care home staff work together to make sure I receive my medicines safely. These people will always act in my best interests.
- It is assumed that I can look after and take my own medicines and I can ask for help from the care staff.
- I can agree that the home can manage my medicines.
- My medicines are kept in my room or where I want to keep them.
- My care home keeps records of my medicines and makes sure that the staff caring for me are aware of any changes.
- All staff helping me with my medicines are trained and competent. If my health changes my medicines will be reviewed.
- My doctor will check I am on the right medicines at least twice a year. They will also be checked when I am admitted to my care home or on my return following a stay in hospital.
- I know that I can ask my doctor to review my medicines at any time

Making a difference

- Getting it right / correct – the 5Rs / 5Cs
  - Right resident, right medication, right dose, right route, right time (sometimes coupled with a 6th R – the right of the resident, when they have mental capacity, to refuse medication)
- Easy to achieve improvements
  - **Make sure residents have water** - A fresh water round before the medication round to ensure residents have the necessary water to take medication
  - **Avoid interruptions** – staff to wear a warning vest so as not to be disturbed when preparing and administering medication
  - **Reduce the risk of mis-identification** - Many Medication Administration Records (MAR) charts allow the possibility of adding a photograph of the resident to aid identification

Making a difference

- Easy to achieve improvements
  - **Pro Re Nata (as required) medication** – usage of PRN medication should be recorded on MAR chart and information transferred to next MAR chart so that the amount used in any given period and amount left are known, recommended limits are not exceeded and reordering is timely
  - **Correct timing of medication** – raise awareness of importance of timing for some medications (eg for Parkinson's disease) even if it does not match timings of the medication round
  - **Morning medication round** – with the agreement of the prescriber, administer medication that does not need to be administered in the morning, later in the day

Making a difference

- Easy to achieve improvements
  - **Printed MAR charts** – as an aid to legibility care home should expect printed MAR charts from the community pharmacist
  - **Improved awareness** – training to help counter basic errors such as...
    - Dispersible medications must be administered in water, not whole
    - Controlled release medication should be administered whole and not split or crushed
    - Incorrect use of inhalers
    - The important of strict observance of timing for certain medications

Making a difference

- Further improvements
  - **Storing medication securely in the resident's own room** – medication trolley more appropriate for hospital - all medication, including PRN, kept together – medication taken in privacy – medication round takes less time – evidence errors reduced
  - **Monitored Dosage Systems** – simplifies administration process but separates medication from original packaging – may be beneficial to request a copy of original medication information leaflet (indications, contra-indications, method of administration) from pharmacy when a medication is first supplied
  - **Communication with the GP practice** – provide a secure link to GP practice to allow consultation and update of resident's notes on practice computer system and generation of computer based prescriptions on site

Making a difference

- Further improvements
  - **Leader with key responsibility**– an appointed person within the care home with overall responsibility for medication administration processes
  - **Review by a pharmacist**– CHUMS study recommended care homes commission an independent review of medication processes by an outside person – possibly a pharmacist
  - **Training of care home staff**– a policy of medication training for new staff and refresher sessions for existing staff needs to be established – may be offered by local pharmacist or certified training may be available through local authority or PCT

The use of technology

- In the future technology may lend a hand, with barcode based scanning systems already in use in some care homes to correctly identify the resident, medication, dose and time. Early adopters of the technology will iron out any initial problems and ease of use and cost will be the determining factors for uptake
- Technology based solutions have been shown to reduce medication administration errors, but they will only be embraced by care home staff if they are reliable, easy to use and do not add significantly to staff workload for a particular task.

The role of the resident

- Residents and their relatives should be encouraged to be involved and aware of the medication process with self-medication by residents whenever possible. A mentally alert resident, or relatives and friends who know the resident well, can act as a final check against medication errors.
- Whatever solutions are adopted to reduce medication administration errors in care homes, the resident and their dignity, rights and needs should remain paramount with medication administration being *on behalf of* the resident rather than *to* the resident.

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The full CPA report will be available as part of the package of prototype tools for testing, in the second phase of the *Safety of Medicines in Care Homes* project, in the second half of 2012.

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