Half of care home patients suffer drug errors

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(Medical Xpress) -- Errors in administration of medication are a serious problem in long-term residential care. New research completed by the University of Warwick and the University of the West of England, Bristol (UWE) shows how a new electronic medication management system developed in the UK specifically for use in residential and nursing homes, has been shown to significantly reduce drug administration errors.

In the first large scale study of its kind, all medication administrations day and night were recorded for 345 older residents in thirteen UK care homes. The researchers found that over a three month period 90% of residents were exposed to at least one medication administration error, with over half exposed to more serious errors, such as attempts to give medication to the wrong resident.

Ala Szczepura, Professor of Health Services Research at Warwick Medical School, said: “Older people in long-term residential care are clearly at increased risk of medication errors. It is known that staff in care homes are administering, on average, seven different drugs to residents, and that medication rounds occupy approximately one-third of nursing time.

“Since 37% of people with dementia now live in a care home, many residents are unable to comment on their medication. New technology (a computerised barcode system) can accurately alert staff to, and prevent, inappropriate attempts to administer drugs to residents. This tool can reliably be used by care staff as well as nurses to improve quality of care

and patient safety."

Overall, 188,249 attempts to administer medication were analysed to determine the prevalence of potential medication administration errors. Typically each resident received nine different drugs and was exposed to 206 medication administration episodes every month. On average each resident experienced 6.6 potential errors. The most common error was attempting to give medication at the wrong time.

Researcher Deidre Wild from UWE reported that: "The majority of residents are cared for in a residential home with no on-site nursing staff. In such homes the management of prescribed medication is undertaken by social care staff who may have had no formal training in safe practice. Prior to technology introduction, only 12% of staff administering drugs reported they were aware of administration errors occurring in their care home."

Commenting on the research, Tariq Muhammad, Managing Director of Pharmacy Plus who developed the system said: "This has been a really important project looking at an often neglected area, the safety of people in residential care homes. Care homes are not generally considered a priority, but they account for a large amount of NHS and social care costs and time. One in 15 hospital admissions is due to medication errors, and the resultant cost of hospital stays to the NHS is £1 billion per year."

Further facts:

• The care home sector is an increasingly important provider of long-term care for older people. In England, over 18,000 homes currently provide beds for more than 453,000 people, compared to 167,000 beds in hospitals.

The study was undertaken in:

• 13 care homes (9 residential and 4 nursing) in the South West, Midlands and North West of England

• they included small and large homes, commercial and not for profit

• all homes were rated as good or higher by national regulator inspection.

Some details of system are included in the on-line paper: Szczepura, A; Wild D; Nelson, S. Medication administration errors for older people in long-term residential care. BMC Geriatrics 2011, 11:82 doi:10.1186/1471-2318-11-82

• The evaluation was carried out by Prof. Ala Szczepura of Warwick Medical School and Deidre Wild of UWE, Bristol, and follows on from earlier research on care home staff upskilling (www.biomedcentral.com/1472-6963/8/269), whose findings featured in the 2010 Government White Paper 'Building a National Care Service'.

Provided by University of Warwick