WEST MIDLANDS AUTOMATED PILL DISPENSER PILOT CUTS HOSPITAL ADMISSIONS

The West Midlands Automated Pill Dispenser Pilot is proving cost effective for both health and social care, cutting hospital admissions, freeing up beds and saving thousands of pounds for the NHS and councils in the West Midlands.

In the first region-wide trial of its kind, patients who have failed to take medication properly are using Pivotell Automatic Pill Dispensers – and the results are impressive.

The multi-agency pilot includes 53 people who had been in hospital after failing to properly take their medicine in the six months before the scheme. After the pilot, not a single patient was readmitted since starting to use the pill dispenser.

In the case of those 53 people alone, 371 bed days (1) were freed up and the NHS saved a total £94,605 against an investment of £10,865. The cost per patient was £205, but the saving per patient in terms of social care and NHS costs was £1,810 (2).

The project involves a GP prescribing the device or a Social Worker assessing suitability, a pharmacist dispensing it and social care staff advising and embedding the scheme into care plans. The trial is funded by the NHS Innovation Fund and Improvement and Efficiency West Midlands.

People who fail to correctly take prescribed drugs risk their health and independence. Research shows the costs of admissions resulting from patients not taking prescribed medicines was estimated to be between £36m and £197m in 2006-07 (3).

"Poor medication adherence puts enormous strain on the NHS and local authority budgets, not to mention ruining people's quality of life and ability to live independently," said Matt Bowsher, Head of Adult Social Care at Improvement and Efficiency West Midlands.

The pilot has so far involved 283 people including those with dementia, visual impairments, mental health issues, Parkinsons and people with learning disabilities.

John Barber, an 84-year-old from Dudley with dementia, described the dispenser as "dead easy" in a short film about the Project produced in September 2010. John, whose daily medication included tablets for his diabetes and his heart, explains: "The bell rings, the red light shines, you lift it up and turn it forwards and it is already pre-set. Tablets in the mouth – gone!"

Dr Dawn Moody, a GP with a special interest in geriatric medicine who works at Leek Moorlands Hospital and Waterhouses medical practice, both in Staffordshire Moorlands, is involved in the trial. Dr Moody says: "The automatic pill dispensers can have a very dramatic impact upon medication compliance and safety for frail older people, leading to increased safety, reduced hospital admissions and thus improving quality of life. Our involvement has also provided excellent new opportunities to improve communication and sharing of ideas with colleagues in adult social care and is acting as a catalyst for the wider development of joint working initiatives."

Patients at Dr Moody's practice who participated included someone with a memory impairment who was hospitalised after an accidental overdose of a paracetamol-based painkiller and another person with a memory condition who suffered falls, being unable to regulate blood pressure or blood sugar levels.

The pre-programmed dispenser, around 19cm in diameter, dispenses pills at pre-programmable times during the day and consists of a movable carousel divided into 29 sections containing tablets. The dispenser sounds when it is time to take medicine and can connect to Telecare systems, alerting monitoring centres carers if someone fails to take medicines on time.

The scheme is becoming regarded as good practice; North Essex PCT is replicating the pilot with its own 200-strong trial due to run until next summer.

Notes :

- (1) Bed-day: a hospital patient is confined to bed for a day, staying overnight.
- (2) Savings calculated based on the unit costs of health and social care with savings from interventions no longer required (e.g. domiciliary care calls or admission to an acute ward). The £10,865 spent on the 53 people includes a monthly £20 dispensing fee plus £85 per device. The £1,810 average saving breaks down into £753 saved from social care and £1,057 saved from NHS spend. The £205 total per patient includes £120 a month dispensing fees for six months and £85 for the device.
- (3) Source: "Automatic Medication Dispensers: A review of evidence & current practice." Author Margaret McArthur- University of Birmingham 9th September 2008.
- The pilot began in July 2009 and ends on 31st March 2012, but it is hoped the service will be mainstreamed. Pilot areas are: Coventry, Dudley, Sandwell, Staffordshire, Telford and Wrekin, Wolverhampton and Worcestershire.

Weblinks:

Improvement and Efficiency West Midlands: http://www.westmidlandsiep.gov.uk/

NHS Choices video featuring patient John Barber: http://nhslocal.nhs.uk/story/features/pill-machine-medicine-reminder