

## Pill organizers could cause adverse effects among elderly

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Older people who switch to using pill organisers could experience adverse effects and even hospitalisation - according to research from the University of East Anglia.

New research published today reveals that people who switch from usual medication packaging to a pill organiser are more likely to become unwell than those not using them.

The research team say that patients should consult their GP or pharmacist before switching to a pill organiser.

Lead researcher Dr Debi Bhattacharya, from UEA's School of Pharmacy, said: "A lot of people use pill organisers to help them take the right medication at the right time of the day."

"We found that on average, when patients who had previously taken their medication sporadically were switched to a pill organiser, they took all of their medication and became unwell, whilst those who remained on usual medication packaging did not have any adverse effects.

"The fact that using a pill organiser could cause patients to experience adverse effects from their medication sounds rather counterintuitive."

"It is likely that because the patients had been taking their medication sporadically, they weren't getting the expected health improvements. The doctor may therefore have increased the dose of the medication to try to



get the desired effect."

"When these patients were switched to a pill organiser and suddenly started taking more of their prescribed medication than previously, they experienced normal side effects of the medication."

The research team studied people aged over 75 from six medical practices who were prescribed three or more types of medical tablets.

Over a third of the 288 people surveyed were found to be already using a pill organiser of some kind and nearly a quarter showed signs of not taking their medication as prescribed on purpose.

Of the remaining patients, nearly half were not taking their medication as prescribed by mistake.

These 80 patients, who did not already use a pill organiser and who were unintentionally not taking their medication as prescribed, were chosen to take part in the trial. Some patients were excluded - for example those with a life expectancy of less than 12 months or with severe mental health problems.

A total of 29 participants were eligible to take part in the trial. They were monitored for eight weeks - with half continuing to take their medication direct from the packet, and half switching to a pill organiser.

Of those using a pill organiser, five adverse events were recorded, compared with none in the usual packaging group. The <u>adverse effects</u> comprised three falls, one hypoglycaemic episode (low blood glucose) and one temporary incapacitation (patient felt unwell; was unable to get out of the bath for 12 hours until rescued).

Dr Bhattacharya said: "The results of this trial are encouraging as they



suggest that pill organisers do help patients to take their medication as prescribed. However, when switching from usual packaging to a pill organiser, we recommend that patients speak to their GP or pharmacist to check that the doses of their medication are appropriate.

"People who are already using a <u>pill</u> organiser without any ill effects should not stop using it as they do seem to help some <u>patients</u> take their medication as prescribed. It's the switching stage which appears to be the danger."

'The feasibility of determining the effectiveness and cost-effectiveness of medication organisation devices compared with usual care for older people in a community setting: systematic review, stakeholder focus groups and feasibility randomised controlled trial' is published by the *Health Technology Assessment* (HTA) on July 6, 2016.

## Provided by University of East Anglia

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