Information for patients from JNNP

Keeping track of time
What day is it today? If a doctor asks you that, it doesn’t mean they’ve forgotten. Losing the ability to keep track of time is an important sign that someone is experiencing confusion because of a medical condition.

What do we know already?
Keeping track of time is a key part of being able to take part in everyday life. Most people without mental health difficulties can correctly identify the year, month, and day of the week, although it’s more common to mistake the date of the month, usually by three or fewer days. Most people can also make a reasonable guess at the time (without checking a clock) to within two or three hours.
Doctors have long known that losing track of time can be a sign of confusion, which could be because of delirium from a short term illness such as an infection, or because of dementia.
What isn’t clear is exactly how much significance doctors should give these lapses. Should every wrong answer to a question about time prompt an assessment of the person’s mental health? And which questions are most important?
A new study asked 262 people aged over 65 – who were either medical inpatients or attending an outpatients clinic – a range of questions relating to time. They all had a mental health assessment. The results were compared to see how good the time questions were at picking up problems.

What does the new study say?
A mistake in identifying the year was the best single indicator of confusion. Asking people the year picked up 86 in 100 people with dementia or delirium, while only 6 in 100 people without these problems got the year wrong (except within a few days either side of a new year).
Asking people both the month and the year made the test slightly more sensitive. Identifying people who made a mistake in either the month or the year would pick up more people who had dementia or delirium, although it would also give more false positives, by wrongly picking up more people without these conditions.
The authors suggest that hospital patients who are unable to correctly state the month and year should be given a more in-depth assessment, to see if they have dementia or delirium.
How reliable are the findings?

The only real problem with this study is that the people taking part were not randomly chosen from hospital wards and clinics, but were chosen to take part if it was convenient for them to do so. That might have biased the sample towards people with fewer physical or mental health problems.

What does this mean for me?

If you (or someone you care for) are having trouble remembering the month or the year, it may be time to ask a doctor to assess your memory. This will help identify any medical problems that might need treatment.

O’Keeffe E, Mukhtar O, O’Keeffe ST. Orientation to time as a guide to the presence and severity of cognitive impairment in older hospital patients. *Journal of Neurology, Neurosurgery, and Psychiatry* 2011;82:500-504. [http://jnnp.bmj.com/content/82/5/500.full](http://jnnp.bmj.com/content/82/5/500.full)

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