Promoting fluid intake for patients with dementia or visual impairments

Toni Kingston, Staff Nurse, Queen Alexandra Hospital, Portsmouth, explains how a trial of using coloured drinking glasses by older patients in an acute medical unit had positive effects on hydration.

Advances in medicine have led to people living longer. However, care providers are facing the challenge of coping with increasing numbers of frail older people. As health professionals, we are having to adapt and change our practice to meet our clients’ needs and to ensure they receive the best care we can provide.

On the acute medical unit (AMU) where I work, we have seen an increase in the number of older people admitted, many with dementia. Most are admitted from the accident and emergency department, and some directly by a GP. We also have a large number of patients who have diabetes-related illnesses, cataracts and sight degeneration problems, which are common in older people (World Health Organization, 2014). Patients with learning disabilities are also regularly admitted.

It has been reported that, although issues around hospital food and malnutrition have often been highlighted, preventable dehydration has not been discussed to the same extent, and remains all too common in older people (British Nutrition Foundation (BNF), 2014). Patients with learning disabilities are also regularly admitted.

Dehydration can lead to many problems, including reduced kidney function, cardiac diseases and venous thromboembolisms (Nursing Times, 2014).

For patients with dementia and/or sight impairments, the use of brightly coloured everyday objects has been shown to be helpful within care settings (Alzheimer’s Society, 2016). Elderly care departments in my hospital have introduced the use of red trays and blue plates at mealtimes. We also use red toilet seats and large, brightly coloured signage, as recommended by the Alzheimer’s Society (2016). Using colour makes objects highly visible, and helps with orientation.

As the use of brightly coloured plates and trays had helped with food intake, we hoped to improve and encourage patients’ fluid intake by introducing coloured drinking glasses. The head of nutrition and dietetics advised me where best to source and order the glasses, with the cost reduced by buying in bulk. The glasses had to be hard-wearing and dishwasher proof.

Figure 1 illustrates how the coloured glasses are easier to see on a typical table than the standard hospital clear drinking glass. The colours were chosen to have as much visual impact as possible. Red is a powerful colour that can be stimulating. Blue is reported to be the colour of communication and can be seen as serene and mentally calming. Green is associated with harmony and nature (Colour Affects, 2008).

The trial
A small trial of these coloured glasses took place on the AMU. One hundred coloured glasses were ordered for the 58-bed unit. It was decided that a control group would be used and, with the assistance of the head of nutrition and dietetics, a fluid chart was designed so that monitoring of fluid intake could be recorded over a 24-hour period. One of the ward areas used only the coloured drinking glasses and one ward area used only the standard clear drinking glasses.

The trial took place over a 9-day period, which was considered long enough for any changes in behaviour to be recorded. The patients were of various ages, of both sexes and had presented with various medical conditions. The objective was to see if patients using the coloured glasses would consume more fluid over the trial period.

The results
The trial presented some difficulties because, as a busy AMU with a high turnover, many of the patients who were included in the trial were discharged home or transferred to other ward areas before the trial period ended. The following data were gathered from the fluid charts. In the ward area using the clear drinking glasses, approximately 4700 litres of fluid were given to patients over the 9-day period. Of this, 1415 litres had been drunk, which left 3285 litres wasted. Approximately 30% of the fluid had been drunk by the patients.

In the ward area using coloured glasses, patients were given approximately 9050 litres of fluid over the 9-day period. Of this, 7370 had been drunk, which left 1680 litres (approximately 81% of fluid had actually been drunk by the patients).

This trial found that there had been a 50% increase in the fluid intake of the patients using the coloured glasses.

Feedback was gathered from several patients. A 79-year-old man who was colour blind and had cataracts, said:

‘The coloured ones are outstanding and they did indeed stand out more than the clear one.’

A 78-year-old man who had undergone several eye operations for corrections for a double squint also thought the coloured drinking glasses would be an advantage for visually impaired people.

A patient with macular degeneration commented:

‘I find it difficult to see the clear water glasses and have in the past knocked them over, making more work for nursing staff as they are having to clear up the spillage. The trial of coloured glasses is a great idea and I think these should replace the current stock on a permanent basis. Personally, I find the red glass the best, but [they are all] a great improvement over the clear one.’

Staff views were also positive. Several members of nursing staff concluded that,
Owing to their own sight impairments, they too were better able to see the coloured glasses. Kitchen staff said they found the coloured glasses more visually appealing, easy to see and a great benefit to patients.

**Conclusion**

This small trial indicated that coloured drinking glasses encourage fluid intake. This will assist in a reduction in instances of dehydration, which in turn may have an impact on reducing acute kidney injuries, urinary tract infections, falls, confusion and venous thromboembolisms. This small change has enhanced the care provided for our patients.

Information about the coloured glasses trial was put on to the hospital’s ‘Ideas Port’, which the trust uses to encourage staff members to come forward with new ideas. After discussions between the innovations team, the head of nutrition and dietetics, and the head of nursing, it was decided to introduce these coloured drinking glasses throughout the trust. **BJN**

![Figure 1. The glasses used during the trial](image)


