



Season's greetings from DRIE study!

Dehydration Recognition in our Elders

Thank you for your help with DRIE! We have met many delightful residents, staff & relatives along the way – **thank you!!** We are visiting our participants 12 months and 24 months after the initial interview, for a short follow-up chat, and we look forward to seeing you again soon. We are also asking people living in care homes if they would like to take part in DRIE-2, our second study. In DRIE-2 we are finding out whether a set of 3 tests (that we identified in the first DRIE study) really does identify people who are not drinking enough (dehydrated).

Diane & Lee have been talking to other researchers, and health & social care staff about what we have learnt in our dehydration study (DRIE) during 2014



Diane talking about dehydration to a rapt audience in Rotterdam

Lee and Diane discussing dehydration and acute kidney injury in Birmingham in April



Lee with other dehydration researchers in Washington

Here's wishing you, your friends, relatives, carers and colleagues, a very cheery Christmas!





How can we tell whether older people are drinking enough fluid?

Lee Hooper & Diane Bunn (l.hooper@uea.ac.uk)

for the Dehydration Recognition In our Elders (DRIE) study (see <http://driestudy.appspot.com/>)
Norwich Medical School, University of East Anglia, Norwich Research Park, Norwich, Norfolk, UK

Purpose

Our research is finding out whether simple tests can tell us when older people are dehydrated.

What is dehydration?

As older people rarely feel thirsty they may not know they are drinking too little.

When people drink too little there is not enough fluid for cells in their brain, muscles and skin to work well. They are dehydrated.

One in every five people living in care homes are dehydrated. Dehydration increases risks of urinary tract infections, falls, constipation, confusion, chest infections and emergency hospital admissions. If we could easily tell when older people are dehydrated we could help them drink more and stay well.



People living and working in care homes advise us on our research.

We carried out simple tests & took a blood sample. We measured serum osmolality (which rises in dehydration) in the blood to check for dehydration.

We involved 200 men and women living in care homes, aged 65 to 105 years (average age 87 years).

We compared the simple test results with hydration status for each person. We looked for tests that consistently predicted dehydration.

We found that no single test reliably identified dehydration. But, combining 3 tests together was useful. We are double-checking that this set of 3 tests works well in a new group of people (DRIE-2).

If the set of 3 tests does work well we will teach it to care staff.



Skin with decreased turgor remains elevated after being pulled up and released



Simple tests

The simple tests included squeezing the skin, urine colour, and dry tongues. These simple tests are often used to identify dehydration. Before this study we didn't know whether they worked – now DRIE has shown us that **they don't work on their own.**

Acknowledgements: Thank you to our participants, our advisors, the care homes and our funders. This is a summary of independent research funded by the National Institute for Health Research (NIHR)'s Research Fellowship Programme (NIHR-CDF-2011-04-025). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.



National Institute for Health Research