



Implementation Toolkit

Droplet

Self-care and education

Intelligent hydration aid which combats dehydration by providing instant visual and verbal reminders.

What is the NHS Innovation Accelerator (NIA)?

- An award-winning national accelerator supporting committed individuals ('Fellows') to scale high-impact, evidence-based innovations across the NHS and wider healthcare system
- An NHS England initiative delivered in partnership with England's 15 Academic Health Science Networks (AHSNs) and hosted at UCLPartners
- Launched in 2015 to support the delivery of the Five Year Forward View, the NIA is highlighted in the NHS Long Term Plan, published in January 2019



Martin Withers, Group Commercial Director for Spearmark Health Ltd



martinw@spearmark.co.uk



07786 961707



www.droplet-hydration.com

What is it?

Droplet is a smart hydration reminder, designed to combat dehydration in community-based and acute environments. Droplet cups and tumblers have detachable electronic reminder bases. A series of personalised spoken messages and flashing lights in the base remind the person to drink, and the timing of the reminders can be adjusted to suit the individual's needs. Pilots in care homes and hospitals have shown increased fluid intakes by over 500 ml per day.

The Droplet mug is similar to a ceramic mug in appearance but is lightweight and constructed from unbreakable scratch-resistant BPA-free Tritan plastic. The broad open-ended handle is easy to grip even when full of hot liquid and retains heat for longer. The Droplet tumbler resembles a traditional glass tumbler and maintains the user's dignity compared to traditional child-like 'feeding-cups'. The Droplet lid is unobtrusive, easy to clean and controls flow without the need for a spout. Droplet has been developed in consultation with over one hundred healthcare professionals, Speech and Language Therapists, Care Home Managers and patient user groups to ensure a user-centric design.

What's the problem?

- The number of people aged 65+ is projected to rise by over 40% in the next 17 years to over 16 million. There are almost four million vulnerable people currently living in the community, often alone, who are at serious risk of dehydration ([Age UK, 2018](#)).
- The European Food Standards Agency (FSA) recommends a minimum of 2000ml per day for males and 1600ml for females. The actual fluid intake of hospitalised older adults is half this. Dehydration can occur due to dulling thirst sensations, changes in physiology, restrictions of fluid intake due to incontinence issues and the need for diuretic medications.
- Dehydration increases the risks associated with reoccurring Urinary Tract Infections (UTIs), constipation, dizziness (falls, head injuries, fractured hips), delirium, sepsis, acute kidney injury, malnutrition, pressure ulcers and thrombosis.
- All the above can result in emergency hospital admissions, poor clinical outcomes, extended stays in hospital, and emergency readmissions following discharge.
- 9% of avoidable admissions are due to dehydration.
- Existing strategies to promote better hydration only exist within a clinical environment. However, maintaining adequate hydration remains a challenge. The current intervention is through personal prompting; however, this is challenging in busy hospital wards and if someone lives alone at home.

What's the evidence?

- A trial in Polebrook Care Home demonstrated an average fluid intake increase of 69% to 1524ml. At the start of the trial no resident was drinking their European FSA recommended daily intake of 2000ml for men and 1600ml for women. By the end, 61% were drinking more than their EFSA targets, and a further 30% were within 10% of their targets (n=26).
- A trial in Aliwal Manor Care Home demonstrated an average fluid intake increase of 30% to 2059ml. At the start of the trial 40% of residents were drinking their EFSA recommended daily intake. By the end, 86% had achieved their targets and the remaining 14% were all within 10% of their targets.
- At Musgrove Park Hospital, Droplet users drank on average 63% more than those without, equating to 2.1 more glasses drunk per day (n=43). Droplet is now in use with every patient in every ward at Musgrove Park Hospital.
- Where Droplet is being used, the following benefits have been consistently observed:
 - Patients drink more per day
 - Illnesses relating to dehydration are reduced
 - Well-being is improved
 - Prescriptions for antibiotics to treat UTIs and similar infections are reduced.
- Droplet does not require NICE approval as it is neither a medical intervention nor a diagnostic medical device.
- Droplet is CE marked.

How can I adopt Droplet?

Droplet equipment costs:

- Smart Base - £13
- Mug - £6,
- Tumbler - £4,
- Flow control lid - £2

Droplet can be purchased in various combinations of the above. Droplet is VAT exempt for the NHS.

Droplet will work closely with multi-disciplinary teams and support services linked to CCGs, GPs and the hospitals already adopting Droplet, to help publicise the dangers of dehydration. On-site training can be provided for carers as well as training videos and posters for Droplet adopters.

For more information or to purchase Droplet please contact:

[Martin Withers](#) on +44 7786 961707

Alternatively, use the web contact form by clicking on the healthcare professionals tab on the website. <https://www.droplet-hydration.com/healthcare-professionals/>

Who else is using it?

Since Droplet's launch in April 2018, two care Homes and nine NHS hospital trials have been conducted including Ailsa, Southmead, University Hospital Southampton, Great Western, John Coupland, Royal Bournemouth, Yeovil and Shrewsbury & Telford. All of which have extended Droplet's use to further residents or wards.

User feedback sessions were carried out with the Alzheimer's Society, The Stroke Association, care homes in Peterborough and The Hospital Caterers Association. Droplet is currently working with three Academic Health Science Networks (AHSNs) to encourage spread within their regions.

The following NHS Foundation Trusts are using Droplet:

- Addenbrookes.
- East Cheshire
- Gloucester Care Services
- Lincoln Hospitals
- Royal Free
- Southern Health
- Shrewsbury and Telford
- Taunton and Somerset

Within Primary and Community Care, Droplet has been purchased by:

- Castlepoint and Rochford CCG
- Hertfordshire Council,
- Southampton Council,
- Suffolk County Council,
- Sunrise Group and Excel Care Holdings.

Endorsements

“The [standard] drinking aids being used were unfamiliar and unappealing... I think that Droplet will instead be a companion. When you’re alone and on your own, to have something that’s your friend that will say ‘come on, come on, drink some more.’” - **Elizabeth, Droplet user**

“Droplet has helped me spot residents who aren’t drinking regularly as you can see the flashing lights when you walk past. I have noticed that since using Droplet our residents are drinking more and are more alert.” - **Paige Hill Team Leader, Polebrook Nursing Home**

“Introducing Droplet has made a huge improvement in our care home. The flashing light helps us know if the resident hasn’t drunk and then we can go over and help them to drink.” - **Romeo Rotaru Senior Support, Polebrook Nursing Home**

Droplet was recognised by the Royal Society of Medicine in the April 2018 Innovation Forum and awarded the prestigious product innovation award at the National Hospital Caterers Association Conference in April 2018.

Highlighted by Professor Tony Young, National Clinical Director for Innovation:
[NHS innovations: past, present and future](#)



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