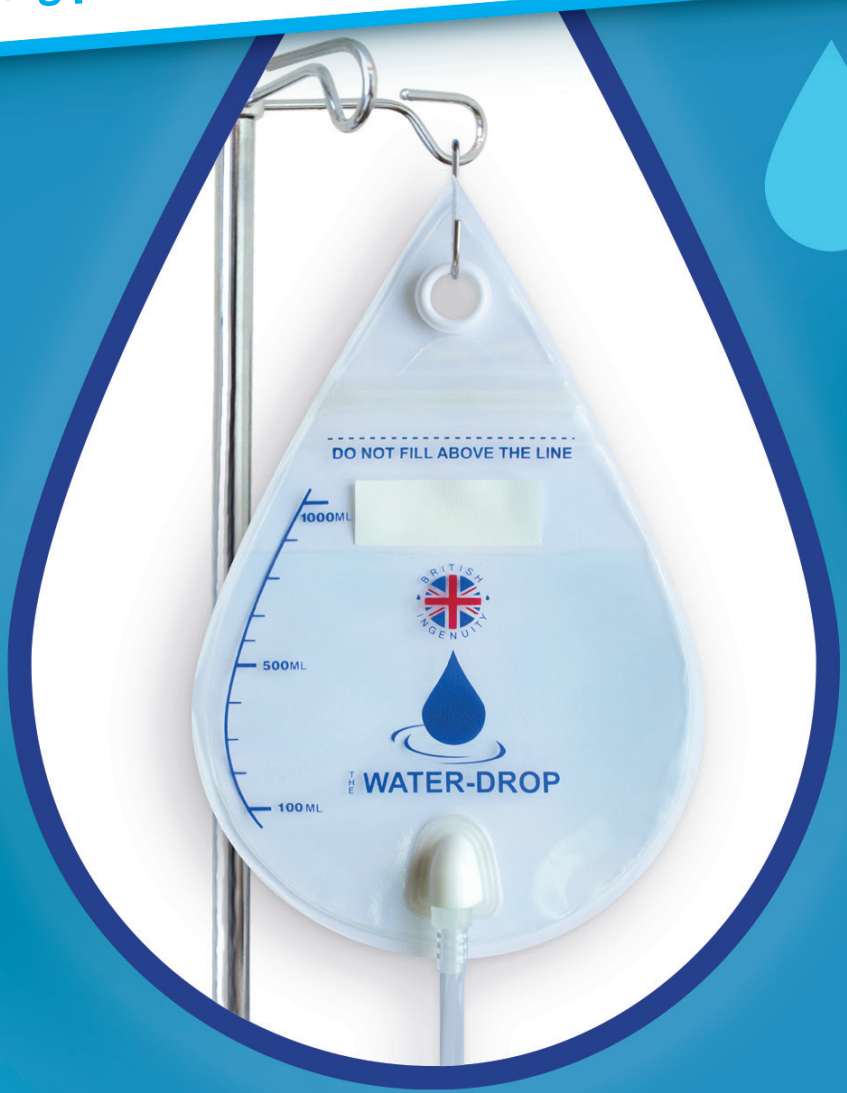
Preventable dehydration is a major issue in healthcare

NHS Supply Chain Reference **GTB1701**

THE WATER-DROP

Helping patients drink without having to call for help.



Improving patient experience
Delivering efficiencies on the ward
Clear cost reductions are possible
Potential 70% reduction in plastic use

Hydrate for Health

BRITISH INGENUITY

The problem: preventable dehydration

Often the **CAUSE** of dehydration is not lack of fluid but simply the **LACK OF EASY, INDEPENDENT ACCESS** to drinks.

If a vulnerable person cannot easily reach, lift or hold a drink they will need help to stay properly hydrated. That help is often not immediately or consistently available.

Dehydration is possibly the single biggest issue in healthcare. Huge levels of hospital admissions and increased length of stay are a direct result of dehydration[i]. Urinary infections account for over 170,000 admissions and over 1.3 million bed days each year[ii]. Falls, constipation, intravenous drips, acute kidney injury, blocked catheters and many other issues are often a direct result of dehydration. Not to mention many deaths which are regularly headline news[iii].

> The impact of dehydration on patient wellness is extraordinary. It is extraordinary. It contributes massively to our core indicators in death, outcomes and length of stay just from whether the water is consumed or not, whether frail elderly patients are hydrated or not. Dedicated staff put the water in the cup, put the water by the bed, **but the patient cannot reach it....**
>
> - Jim Easton, NHS National Director for Improvement and Efficiency

> As a junior doctor I would set up as many as 20 intravenous drips each day to rehydrate patients. Around 60% of these would have been **totally avoidable if the patients were able to easily access fluids without calling for help.**
>
> - Dr S Derry BSc BMBS MRCGP

NHS England Guidance

Commissioning Excellent Nutrition and Hydration 2015-2018

"Health costs associated with malnutrition (including dehydration) alone are estimated to exceed £19 billion. (BAPEN, 2015) Therefore it is essential that malnutrition and dehydration problems are better recognised and treated. An additional benefit is the reduction of pharmaceutical waste, resulting in better use of scarce resources. The key outcomes for commissioners include: **Develop and implement strategies to prevent malnutrition and dehydration.**"

The Water-Drop could be a key element in these strategies.

A simple solution

The Water-Drop is a low-cost / high-impact innovative drinking system. It has been specifically designed for hospital patients, care home residents and vulnerable people in the community.

For simplicity - picture an intravenous drip system that is used orally. It is a simple, low-cost, single patient use, disposable product which fits in with the way the NHS and care homes work at an operational level.

How to use:
The Water-Drop is very easy to use. Once filled with fluids it is designed to be easily attached, (by using the hang point, metal hook or Velcro strap) to a wide range of things which make it easy to access – such as a drip stand, bed rail, back of a chair, drawer handle, wheelchair frame and so on. The user then simply bites the non-return valve at the end of the tube to release fluids in an easy to control flow.

The benefits

Patient experience

Improving dignity and independence by making it easy for vulnerable people to drink easily and not have to call for help. Staying properly hydrated is the simplest solution to the very serious health risks associated with dehydration.

Efficiencies on the ward

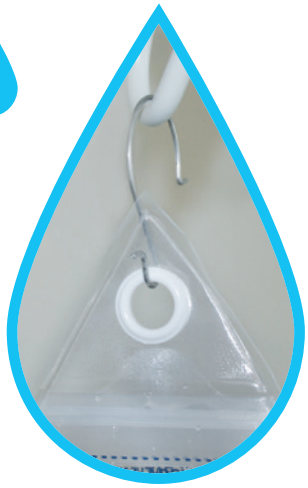
Releasing time to care through knowing patients are now able to help themselves. Reduced spillage, reduced need for drugs and huge savings of time and money by preventing unnecessary intravenous drip usage.

Bottom line cost reductions at scale

The potential savings run into the £millions (and maybe £billions) through prevented admissions, reduced lengths of stay, reduced drip use, and other reductions due to the prevention of dehydration. The prevention of one avoidable I/V drip could save the NHS around £1000 through reductions in length of stay, staff time and risk of infection.

70% potential reduction in the use of plastic

If a reduction in preventable intravenous drip use occurs there will be a subsequent and substantial reduction in the use of plastic.
See pages 6 and 7 for more detail.



What people think

There is undoubtedly a need for products like The Water-Drop to make it easier for vulnerable people to access fluids without having to wait for help from a carer. The impact of this simple idea could be enormous in terms of prevented incidents of easily avoidable dehydration.

- Naomi Campbell RGN, Independent Hydration Nurse Specialist, Chair National Hydration Network, Associate board member Malnutrition Task Force, Director Hydration Care Consultancy Ltd

As a junior doctor I would set up as many as 20 intravenous drips each day to rehydrate patients. Around 60% of these would have been totally avoidable if the patients were able to easily access fluids without calling for help.

The Water-Drop is a brilliantly simple innovation that will bring huge benefits to the NHS by reducing the need for rehydrating drips, reducing risk of infections (particularly UTI and AKI), reducing length of stay and releasing time to care.

Now, as a GP, it is clear that the Water-Drop can also prevent many admissions to hospital from the community by preventing dehydration related problems. There are many avoidable admissions through falls, urinary infections, acute kidney injuries and other dehydration related issue – The Water-Drop will help prevent these at minimal cost.

- Dr S Derry BSc BMBS MRCGP, GP Partner at Petroc Group Practice, and Acute GP within the Royal Cornwall Hospitals Trust

I was an intensive care patient at The Bristol Royal Infirmary and I cannot praise the Water-Drop highly enough. In no way could I have stayed properly hydrated without it. I simply could not reach the drinks on the bedside table, and was too weak to lift them even if I could. The Water-Drop was a life saver.

- Charles Halden, Hospital Patient, Bristol

The potential impact from preventing avoidable intravenous drip use

A substantial proportion of intravenous drips set up for rehydration are preventable.

The **true total cost** to the NHS of one preventable intravenous drip is likely to be around £1000, please see below and opposite for more detail.

1. If a patient's condition has deteriorated to the point of needing a drip to rehydrate then there is likely to be an increase in length of stay associated with this deterioration. At least one day and more likely considerably longer. Anything from £400 - £1500 per day.

2. The number of people and processes involved in setting up just one drip is considerable: It has to be prescribed by a doctor/prescribing professional; the supply chain has to be activated to get all of the various bits and pieces to the bed; a drip stand and drip pump have to be found; a qualified member of staff has to be found to set the system up; the fluid bag has to be changed at regular intervals. Cost of these processes per drip could be £50-100.

3. There is now a substantial increase in the risk of infection for this patient due to a new intervention. Cost of an infection if this happens? - High.

4. There is also a dramatic deterioration in patient experience as a result of this **PREVENTABLE** occurrence.

The potential reductions in material cost and plastic use

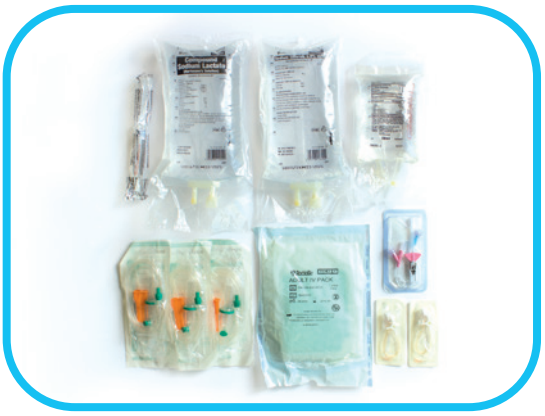
The pictures below set out the stark differences in material cost and plastic use when just one I/V drip is prevented by using The Water-Drop as an early intervention in preventing dehydration:

1x Water-Drop for 24 hours

The Water-Drop

- Cost = £3.50 - £4.00
- Plastic used: 90 grammes
- Recyclable

COMPARED WITH



Material for 1x I/V drip for 24 hours

24 hour I/V drip

- Cost for all of the various components = £18.00 - £20.00
- Plastic used: 300 grammes
- Non-recyclable as contaminated

Potential reductions for each 24 hour period

Material costs reduced by up to 80%

Plastic use reduced by up to 70%

Contact Details

Telephone: 0800 292 2382

Email: waterdrop@hydrateforhealth.co.uk

Website: www.hydrateforhealth.co.uk

How to Purchase

The Water-Drop can be bought directly from Hydrate for Health Ltd or via NHS Supply Chain Reference **GTB1701**

Hydrate for Health

BRITISH INGENUITY

REFERENCES

[i] Preventable Hospitalizations of Dehydration, S Kim, Sept 2007
https://www.annalsofepidemiology.org/article/S1047-2797%2807%2900308-0/abstract

[ii] HES online statistics

[iii] The Independent 9th January 2017 *"At least two patients die of hunger or thirst every day in UK hospitals and care homes, according to data from the Office for National Statistics (ONS)."* Daily Telegraph, 22 April 2014 *"At least 1,000 hospital patients are dying needlessly each month from dehydration according to an NHS study".*