

**Title: Hydrant Project update – 24<sup>th</sup> October 2012**

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**Summary**

The pilot of the Hydrant on Jupiter ward has been running since October 2011 and continues to be received positively by patients. There is a strong perception from patients and staff alike that the use of the Hydrant improves patient hydration.

Further data analysis on the affect of patient conditions and pharmaceutical drug usage has been obtained to understand the benefits of the Hydrant and this indicates that there has been a positive impact for patients staying on Jupiter ward.

The Trust will be participating in the National Hydrant programme, the project is managed by Hydrate for Health in Partnership with the Department of Health and the NHS.

**Recommendations:**

1. The allocation of a dedicated Project Manager to ensure a structured approach to expanding pilot to additional areas to include the neighbourhood teams.
2. The allocation of data analysis resource to understand wider impacts of the Hydrant to other patient outcomes.

**Background**

The Hydrant Trial started on Jupiter Ward in October 2011, led by ward sister Zara Norman and supported by the Productive Ward Team. The last report in January 2012 focused on the staff and patient's feedback, this report has obtained further data to analyse further the effect of the hydrant.

Since the initial pilot on Jupiter ward, the hydrants have also been introduced into a further 5 acute wards; and from August 2012 the 'Sports' Hydrant has been trialled in addition to the Hydrant on Jupiter ward for patients who experienced Parkinson's or confused-like symptoms, and were not able to physically hold a glass but were assessed as being able to manage the Hydrant handle to support them.

In addition, there has been a significant interest to trial the hydrants in the community in patient wards, emergency department and the birthing centre, but at present this had not been implemented.

**Financial implications**

Since the last report, the cost of the Hydrant through NHS Supply Chain has decreased, from £6 to £5.92 for the Hydrant and initial tube costs £5.92. However, the cost of additional replacement drinking hoses has increased from £1 to £1.32.

Jupiter ward have also been trialling the use of the 'Sports' Hydrant, which cost £3.30 each, and the reusable tops cost £0.85 each.

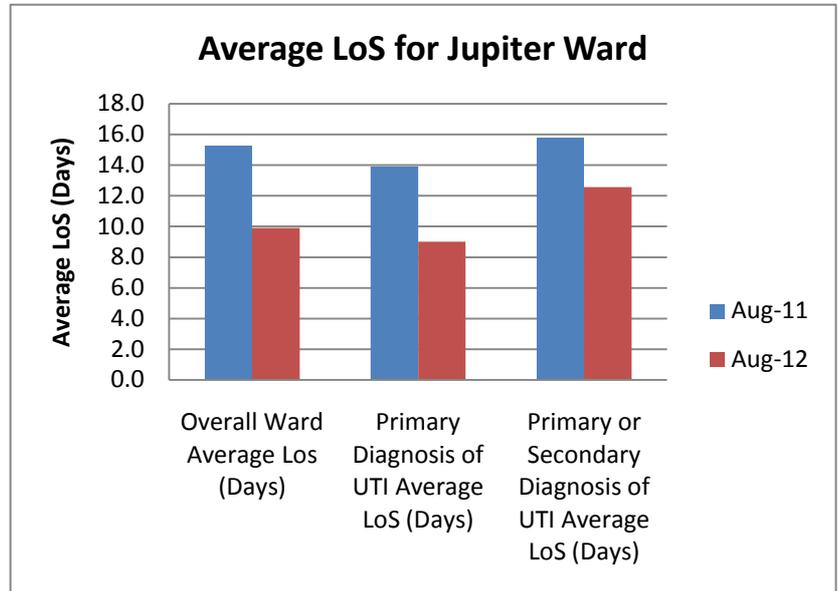
One of the concerns raised about the use of the Hydrant related to the difficulties experienced in the initial sucking up of the fluid in the tube. This has been resolved by priming the tube using a bladder syringe. Therefore the cost a syringed needs to be factored into the daily use, and this costs £0.36 each.

## Results

Recent activity data has shown that there has been a significant improvement in the average length of stay for patients on Jupiter ward, including those patients with a primary or secondary diagnosis of Urinary Tract Infection (UTI)<sup>1</sup>.

For patients with a primary diagnosis of UTI, there was a 35% decrease in the average length of stay between August 2011 and August 2012. This equated to a reduction of 4.9 Bed Days.

In comparison, for patients with either a Primary or a Secondary Diagnosis of UTI, the average LoS for patients decreased by 20% between August 2011 and August 2012. This equated to a reduction of 3.2 bed days.



Jupiter Ward		August 2011	August 2012
All Patients	Total Patients Discharged	102	130
	Average LoS (Days)	15.8	9.9
Primary Diagnosis of UTI	Total Patients Discharged	15	13
	Average LoS (Days)	13.9	9.0
Primary or Secondary Diagnosis of UTI	Total Patients Discharged	20	18
	Average LoS (Days)	15.8	12.6

Indicative pharmaceutical data also suggests that the use of the Hydrant on Jupiter ward may have contributed to less use drug usage by the ward.

The table below shows the quantity of drugs usually used to treat patients with a UTI before and during the use of the hydrant, including the percentage reduction between the two comparable years.<sup>2</sup>

Jupiter Ward	September 2010 to August 2011	September 2011 to August 2012	Percentage reduction between 2010-11 and 2011-12
Sodium Chloride 0.9% 1 litre bags	2560	2206	14%
Trimethropim 200mg tablet packs	95	74	22%

However, there has also been a significant amount of education to raise awareness of hydration to staff and patients, including regular weekly matron's audits and other initiations such as Intentional rounding over the last year; therefore the improvements in Average LoS for patients with UTI's is unlikely to be down to the use Hydrant alone.

<sup>1</sup> The ICD10 code of N390 (Urinary tract infection, site not specified) was used to identify patients applicable to this study

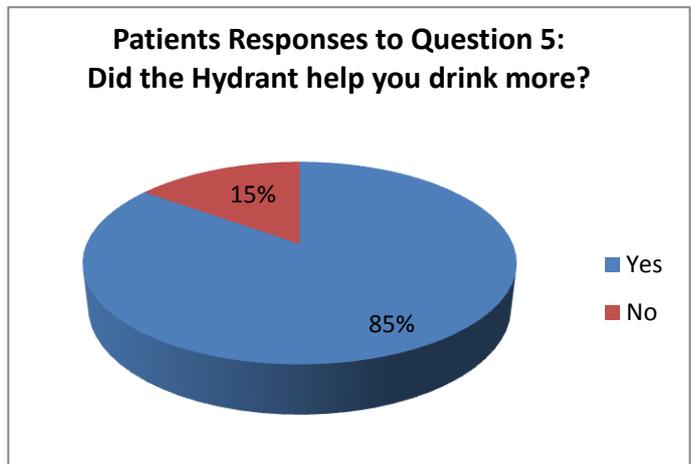
<sup>2</sup> The Deputy Chief Pharmacist confirmed that there was no known change in the prescribing practice of Trimethropim during the trial of the Hydrant on Jupiter ward.

## Patient Feedback

The latest Jupiter patient feedback shows that an overwhelming majority of patients (85%) thought that the Hydrant helped them drink more.

In addition:

- 81% of Patients thought the Hydrant system was easy to use
- 83% of Patients thought that the Hydrant System helped them to maintain their independence
- 88% of the Patients thought the nozzle was easy to control
- 78% of Patients thought that the Hydrant kept their water cool
- 75% of Patients considered using the Hydrant at home.



Since the introduction of the Hydrant, and subsequent Sports Hydrant onto the ward, the team have continued to capture all the patients' verbal feedback on the hydrant. The table below captures some of these comments:

	Positive	Negative
Hydrant	<ul style="list-style-type: none"> <li>• It took a while to get used to the hydrant but now find it very useful and I can drink whenever I want. I am grateful that I have opportunity to use it.</li> </ul>	<ul style="list-style-type: none"> <li>• I felt like a rabbit in a hutch, didn't want to use it anymore</li> </ul>
Sports Hydrant	<ul style="list-style-type: none"> <li>• Be good to take it home, very happy with it.</li> <li>• It was good to use and kept the water fresher</li> </ul>	<ul style="list-style-type: none"> <li>• When patient had pills to swallow she was unable to get enough drink to swallow them</li> </ul>

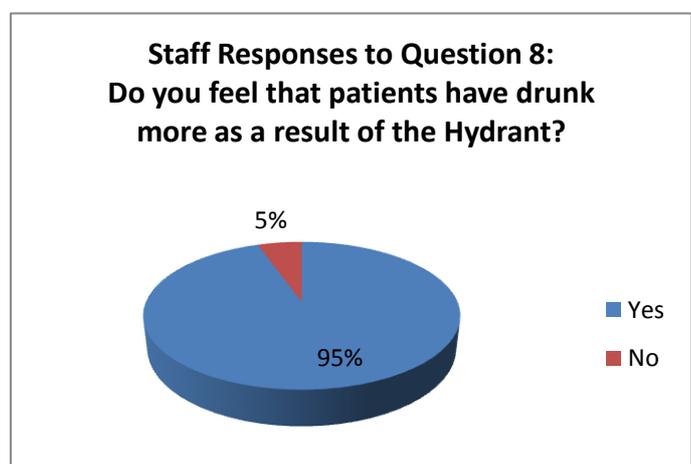
However, initial analysis of the patient feedback from the other acute wards trialling the Hydrant has been slightly less positive, as only 67% of patients thought that the Hydrant helped them drink more. Further work is required to investigate why the perception of the Hydrant has not been received as well as Jupiter ward.

## Staff Feedback

Staff perceptions on the use of the Hydrant on Jupiter ward still remains positive, with 95% of the staff felt that patients had drunk more as a result of the Hydrant.

In addition:

- 95% of Staff felt that there were patients who benefited from using the Hydrant
- 72% of Staff felt that the Hydrant saved time helping patients to drink or replenish their water jugs.
- 95% of staff felt confident in using the product and thought it was easy to



clean.

- 92% of staff reported that there was no evidence of spillages.

The table below captures some of the verbal and written staff feedback on the use of the Hydrant and Sports Hydrant:

	Positive	Negative
Hydrant	<ul style="list-style-type: none"> <li>• Patients feel more independent. They are able to drink when they want to rather than at convenience of staff. Relatives are re-assured that we are meeting hydration needs of family member”</li> </ul>	<ul style="list-style-type: none"> <li>• Some patients aren’t able to use the Hydrant properly because they aren’t able to suck up the fluid through the hose</li> </ul>
Sports Hydrant	<ul style="list-style-type: none"> <li>• The sports hydrant is very useful as it provides an accurate measurement of fluid intake, for patients who are on Restricted Fluids</li> </ul>	<ul style="list-style-type: none"> <li>• A number of instances of spillage as a result of the spout on the sports hydrant</li> </ul>

Initial analysis of the staff feedback from the other acute wards trialling the Hydrant has been slightly less positive, as only 41% of staff thought that the Hydrant helped patients to drink more. In contrast, 89% of staff thought that patients benefitted from using the hydrant. Therefore further work is required to investigate this difference and understand why the Hydrant may not be perceived as well as the staff on Jupiter ward.

#### Areas for further consideration/action

1. The Trust has been accepted to be a part of the national hydrant project, which will be commencing within the next 6 months. To support this work, a dedicated part time project manager will be required to embed it within the trust.
2. Further analysis is required to understand the impact of the Hydrant on the other acute ward areas within the trust, as early analysis indicates that the Hydrant has been less well received than on Jupiter ward.