

# Striking success: 365 days C. diff. free

## UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE



Celebrating 365 days free from C. diff.

Like many in the NHS, University Hospitals Coventry and Warwickshire (UHCW) NHS Trust has faced significant infection control challenges in recent years, with apparently high occurrences of *Clostridium difficile* and Norovirus infection. However, by interrogating their internal data closely, working with infection control company Tristel and devising truly creative campaigns, the infection control team at Coventry has achieved striking success.

In January 2013, University Hospitals Coventry and Warwickshire (UHCW) NHS Trust was nearing its allowed limit for cases of *C. diff.*. The issue was highlighted in the Trust's annual report for 2012-2013 as a 'red' area for underperformance. However, when Matron for Infection Prevention and Control Kate Prevc interrogated her hospital's data more closely, she made a startling discovery.

"We had already seen from data associated with Norovirus infection that nurses were often not familiar with the basics of bowel management," explained Kate. "Patients were said to be symptomatic of Norovirus when in fact they were probably constipated or experiencing diarrhoea that was normal for them. When we looked at our evidence for cases of *C. diff.* including data on symptoms and feedback from wards, we quickly saw that the same thing was happening. Twenty-six out of the 76 patients reported to have *C. diff.*

were actually asymptomatic and these were probably instances of colonisation, where numbers of *C. diff.* bacteria exist naturally in the gut. So these figures were adversely affecting our targets, quite unfairly, and were actually making people worried about an apparent *C. diff.* problem here, when in fact there wasn't a problem. We knew that there needed to be a change."

### A New Approach

Kate and her team instigated a whole new approach for infection prevention. "Historically the infection control team has been seen as enforcers, walking into busy wards, pointing out issues and demanding action within a short time frame. People were concerned about getting into trouble and weren't always telling us about problems until they were quite a long way down the line. That was never how any of us wanted to work. We decided to create an on-going programme, addressing our challenges

bit by bit. This would involve making intelligent use of data to address issues, and changing perceptions of the infection control team and our relationship with the wards. Nursing is a specialised profession, where you constantly learn and gain experience. Nurses had to feel empowered enough to use their skills and knowledge, confident that they have the backing of the infection control team."

Subsequently, the team began a number of initiatives, as Infection Prevention and Control Nurse Fiona Wells explained. "Our first campaign was called 'Get Stool Smart', where we developed an algorithm for nurses to follow when encountering loose bowel movements in patients. We launched this campaign on Valentine's Day, by sending a card containing the algorithm and a red heart balloon to every ward in the Trust." 'WIPE Wednesday' was a second initiative, centring on the WIPE acronym: Wash your hands, Isolate promptly, Prudent antibiotic prescribing and Environmental cleaning. Every Wednesday, nurses around the trust wear WIPE badges as a reminder.

### The 100 Day Challenge

Both 'Get Stool Smart' and 'WIPE Wednesday' are linked to the infection control team's campaign against *C.*

diff., called 100 days. "The 100 days campaign was simple; as wards counted the number of days they went without a case of C. diff., with the aim of every ward in the Trust reaching 100. Our team made regular visits to the wards and followed up on all samples sent for testing. Whenever a ward reached 100 days, they received a voucher to spend as they liked and we visited with sweets and chocolate. After 100 days the next target was 200 days, and then the full 365. We're delighted that every ward has achieved 100 days in the past year, 95% have reached 200 days and 14 wards have achieved a year clear."

### Working With Tristel

The infection prevention and control team at Coventry has worked closely with Tristel, who provide infection control solutions based on their proprietary Chlorine dioxide formulation. For surface disinfection, nurses at Coventry use Tristel Jet, a trigger spray gel, and Tristel Fuse, a sporicidal disinfectant for larger surface areas. Both products are rapidly effective against bacteria, fungi, viruses, mycobacteria and most crucially, spores. Kate explained, "Tristel is key to the 'E' in WIPE, Environmental cleaning. When I first started in this role, I decided that it was important for us to move away from the historical use of chlorine for a number of reasons. Chlorine dioxide seemed like the best solution. It is incredibly effective, and without doubt has had a huge impact on our infection figures. Chlorine dioxide is a cell destroyer, which means that there is no chance of any micro-organism adapting, and in the case of any outbreak we simply use it more often. It is also non-corrosive, so doesn't degrade equipment over time. Since changing to Chlorine dioxide we've had no cases of occupational asthma, which is often associated with chlorine."

Kate continued, "We have a very close relationship with Tristel and our sales representative Alan Cooney. In a trust of this size with 7,000 employees, support is very important, and Tristel played a central role in training our staff." Tristel worked closely with the infection control team at Coventry to agree processes for using their products. Staff were encouraged to take ownership of the Tristel Fuse solution that they prepared from the concentrate, which can be kept for up to 24 hours; Tristel provided pens to enable nurses to write expiry times on containers for maximum compliance, and changed the containers supplied following feedback from the team at Coventry. Kate said, "Tristel have been so responsive, and worked with us to meet our needs throughout this process." Fiona added, "What's crucial

is that nurses like using Tristel products. Nurses are particularly fond of Fuse, which comes in a burstable sachet that is simply diluted to a single concentration. Nurses can make up a large container of solution and get stuck in to cleaning."

### Massive Impact

The impact of the programme undertaken by the infection control team has been huge. Fiona said, "We've managed to bring about a complete culture change. Nurses are coming to us with their problems and asking for our insight. Teams feel empowered and are taking ownership of their cleaning. Members of our infection control team are even being invited out to ward Christmas parties, which was completely unheard of before. Overall, the enthusiasm and positive feedback that we've had has been enormous." And the infection control statistics have also benefited. Kate explained, "Our C. diff. results were not the focus of this campaign, but the improvement has been a welcome by-product. Thanks to 'Get Stool Smart', and our work with Tristel, our current number of cases is 19 (Oct) since March 2013, which is far better than our end of October trajectory of 33. By contrast, at this time last year we had already breached our monthly targets and had 44 recorded cases in the trust."

The team's work at Coventry has also attracted attention from outside the Trust. "Ever since we launched our Twitter account, other Trusts have shown interest in our initiatives and the results we've achieved. Tristel have also helped to form a link between hospitals, who have been asking about our campaigns and how they can implement them. Other Trusts have mirrored our 100 days campaign, which has had a great impact

on motivation in their hospitals which has been lovely to see, and twelve Trusts have been in touch about our 'Get Stool Smart' algorithm." The team's work has also attracted several award wins, including team of the year 2013 from the Infection Control Society (IPS).

### Onwards and Upwards

Looking forward, the team has lots of ideas for how to continue to improve infection control practice and keep morale high. Fiona said, "Our next focus will be Houdini, an algorithm for checking the length of time that catheters are left in situ. We've also launched our 'weakest link' campaign, to increase awareness of Norovirus amongst visitors to the hospital. Our team meetings are so full of ideas now, and everyone is really exploring their creativity." Kate said, "Infection control has a terrible history of doing what it's always done. We've challenged existing practice at this hospital by using evidence to implement reasonable change and altering perceptions around infection control. We're looking forward to continuing to work with Tristel and our wards over the coming months."

### Contributors

*Kate Prevc*, Matron for Infection Prevention and Control: Kate has worked in this role for two and a half years, following six years in infection control. She has a strong project management background and has previously worked in orthopaedics and cardiology.

*Fiona Wells*, Infection Prevention and Control Nurse: Fiona has worked in infection control for 18 months, having previously worked in renal services, including surgery, medicine and haemodialysis.



The launch of Get Stool Smart on 14 February 2013.