



Improving Infection Control Monitoring with Speedy Breedy

The Ipswich Hospital **NHS**
NHS Trust

 Public Health England

*A Case Study from Grant Crawshaw, Head of Infection Control,
Ipswich Hospital NHS Trust*

In recent decades, the subject of healthcare-associated infections (HCAI) has been a hot topic, globally, as a significant cause of morbidity and mortality. Without appropriate control measures in place, what may be routine hospital processes can lead to patient infections. Phenomenal steps have been made in reducing the risk and incidence of HCAs and to great effect. Nonetheless, infection control personnel constantly strive to further reduce the risk of infections.

Having previously shown itself to be a very powerful and rapid tool for the detection of bacteraemia through independent studies with two separate NHS centres, we saw a potential for Speedy Breedy to provide a rapid monitoring solution for our infection control activities and with this in mind we agreed to trial Speedy Breedy here at the hospital.

We have decades of experience in healthcare and infection control and a great pride in our level of patient care so we could assure Bactest that Speedy Breedy would be appropriately put through its paces to assess if it could perform.



OUR CHALLENGE TO SPEEDY BREEDY

We would challenge Speedy Breedy with providing comparative data to our existing methods for sampling, utilising samples taken from two key areas that the our Infection Control team monitor.

Firstly, Speedy Breedy would be used to screen water samples taken from the neonatal unit at the hospital for the presence of *Pseudomonas aeruginosa*. Infection control in neo-natal units is of the upmost importance given that these very young infants have an immune system that is not at full capacity. Water treatment processes are in place, however it is essential to monitor water quality at all times to be able to respond to failures in water treatment and prevent patient infection.

Secondly, Speedy Breedy would be used to screen wash samples from endoscope equipment from the hospital's endoscopy unit. All equipment that may be re-used (such as an endoscope) will undergo sterilisation procedures to prevent transfer of bacteria to the patient during an operation. Here the washes were to be screened for the presence of coliforms as an indicator of the success of sterilisation.

Operating procedures for the Infection Control Team require the routine taking of samples such as these and their microbiological assessment at the central Public Health England (PHE) laboratories in Colindale, near London. For the duration of the trial of Speedy Breedy, duplicate samples would be taken – one for processing at the PHE laboratories and one for testing, on-site at the hospital, using Speedy Breedy.

HOW SPEEDY BREEDY COMPARES

All samples tested gave matching results for both the laboratory analysis of samples and the Speedy Breedy analysis of samples.

The single, key difference between the sets of results was the time between sampling and obtaining a result. Samples tested using Speedy Breedy provided results within a 24 hour time frame. Samples referred to the central PHE laboratories would typically be expected to take between 5 and 7 days before receiving a result.

It should be noted that of all samples used for comparative testing, all were negative. This is of course a fantastic finding for not only our patients but also as a measure of the excellent standards in infection control seen at the Ipswich Hospital NHS Trust and the efforts made by all of our staff.

In order to be happy that Speedy Breedy would successfully detect a potential positive result, a large number of tests were carried out with the assistance of our senior microbiology technician to challenge Speedy Breedy with samples artificially contaminated with *Pseudomonas aeruginosa* or coliforms. In every case, detection was confirmed.

THE VERDICT

The opinion of Speedy Breedy is nothing but positive.

Speedy Breedy has been very easy to use and the portable nature of the instrument means that tests can be performed wherever and whenever I want.

From the very early days of first being introduced to Speedy Breedy I could see the potential benefits. For example, for an intensive care unit to know that their water quality results are as fresh as 12 – 24 hours old is a great benefit. It gives trust that the water is safe to use and the knowledge that in the event that it wasn't safe, staff would know significantly sooner than they may currently.

Courtesy of the logistical benefits for the operation of the Infection Control team and the benefits in terms of patient care, I am a big advocate of Speedy Breedy and continue to recommend Speedy Breedy's use to colleagues and infection control committees.

The support that was provided was fantastic, the cost represents great value and using Speedy Breedy has given me a different way of looking at microbiology which offers significant benefits.

Grant Crawshaw

Head of Infection Control

Ipswich Hospital NHS Trust