

MRSA Study of Healthcare Worker Infection & Domestic Environment Contamination

**Report by Prof. D. McDowell, University of Ulster
Test Period from January 2009 – May 2009**

Report:

Prof. D McDowell, Ulster University, Jordanstown Campus, Northern Ireland Pilot Study carried out in response to a particular pressing problem of a MRSA (Methicillin Resistant Staphylococcus Aureus) infected healthcare worker spreading contamination.

Background:

A preliminary study carried out in collaboration with microbiologists at the University of Ulster examined efficacy of a totally new type solution, PIP, a probiotic product* for the elimination/suppression of MRSA in a domestic environment, as well as other settings.

Investigations established that many sites within the home were heavily contaminated with MRSA, which were epidemiologically identical to MRSA isolates recovered from colonised individuals and domestic animals, living within the home.

Results:

Preliminary results have clearly demonstrated that, when the PIP Product was correctly and consistently applied, (i.e. initial specialist treatment, followed by ongoing regular “non-specialist/consumer maintenance” treatments) the product[s] were able to:

- Initially eliminate (or reduce to undetectably low numbers) all of the MRSA from these complex contaminated domestic environments (when the colonised humans and animals were temporarily excluded).
- Significantly limit the numbers and incidence/dissemination of MRSA in this domestic environment, during the course of the study (more than 100 days) despite very significant pressures towards heavy and widespread re-contamination, associated with the re-entry of persistently MRSA positive (colonised) individuals into the tested environment.

Conclusions:

The above observations suggest that the tested product[s] (PIP) can have valuable effects in reducing the risks, incidence and scale of MRSA persistence and its dissemination within complex domestic environments for both humans and animals. It would be expected that the same would hold true of many other types of facilities, as has been indicated by a large number of other studies in a number of countries.

Following these positive findings, more extensive intervention based studies are required to establish the wider efficacy and efficiency of these treatments in eliminating/reducing MRSA cross-contamination within a range of high risk health care/residential facilities.

*This study was done using the Chrisal PIP Spray and Cleaners for these tests.