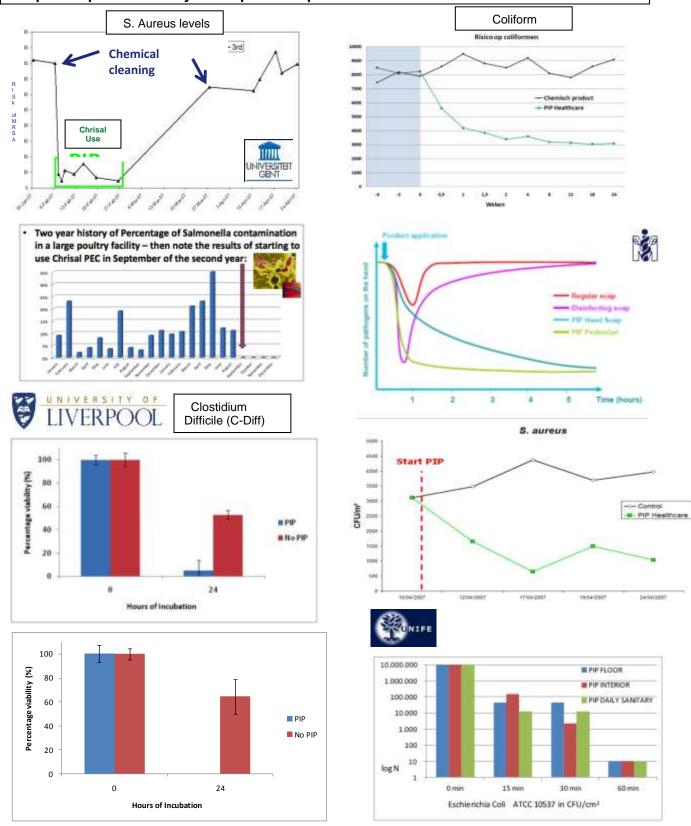


REFERENCE-II: Example graphics from universities, hospitals & other studies of the Chrisal probiotic solutions since 2005 that provided additional data for the decision by the Hospital to pursue a study of the probiotic products in-house.





## (a) Università di Ferrara

TABLE 7 - PERCENTAGE OF TOTAL REDUCTION OF PATHOGEN PROCEDURES WITH RESPECT TO THE PROCEDURES PIP VS TRADITIONAL EXPRESSED IN ABSOLUTE PERCENTAGES.

Sampling Points	Pathogen	General Medicine Phase 1 & 2	Outpatient Ward Phase 182	Mean value of General Medicine Ward Phase 3 (*)
Entry and end	Staphylococcue aureus	29,50%	36,64%	81,03%
of carridar	Colforms spp	72,38%	46,62%	79,72%
	Pseudomonas spp	93,09%	64,49%	88,44%
	Candida app.	60,00%	56,21%	60,47%
	Acinetobacter		44,74%	
Toilet floor	Stap/tylococcus aureus	58,73%	31,33%	85,88%
	Colforms spp	89, 13%	78,13%	78,31%
	Pseudomonas spp	55,28%	75,94%	78,57%
	Candida app.	82,90%	67,80%	71,78%
	Acinetobacter app.	74,25%	0.0010-0.00	11.00.000.0
Tollet sinks	Staphylococcus aureus	55,74%	52,50%	95,59%
	Cofforms app	81,36%	75.83%	85,12%
	Pseudomonas spp	67,53%	50,41%	95, 16%
	Candida spp.	50,38%	27,93%	94,86%
	Acinetobacter	16.39%	31,25%	75,99%

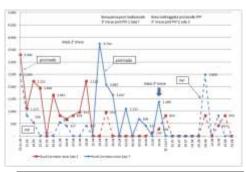


Figure 8 – Reductions of Escherichia coli in patient areas for S and T; PIP 1 month -76.67% PIP 2 months -87.5%, PIP 3 months - 79.72%

It was found that after two months of use, the prolonged action of the PIP probiotics caused a substantial decrease in the pathogenic microbial load compared to the areas that were treated with traditional products. In many cases the populations of the microorganisms of inferest were reduced by close to 90%. One example was from the sink in the toilets, which is a critical surface for patients.

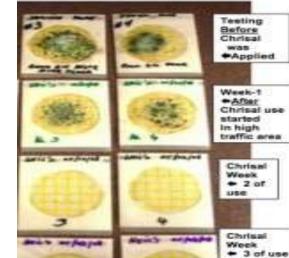
## **UNIFE & ST. ANNE HOSPITAL STUDY - CONCLUSIONS**

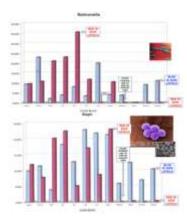
"The mean overall percentage of reduction of pathogens by using the Chrisal PIP Probiotic Products protocol compared to the use of traditional disinfectants is more than a 70 - 80% reduction in pathogens.

Therefore, these results are statistically significant because they have been obtained from the results of the testing of more than 12,000 microbiological samples.

Further, that these samples were taken in many different areas of the hospital, and were subject to everyday recontamination."

with infections controlled plus all biofilm gone













The 3 slides above represent the normal progression of the probiotic steps in controlling biofilm.

It can be seen from the fourth culture (the slide to the right  $\Rightarrow$ ) of this series that the biofilm has been deconstructed, the probiotics that cover the surfaces, applied during the original cleaning, continue to work and protect all the surfaces cleaned.

The key point and objective, is that once all the biofilm has been removed, there is nothing left on the surfaces to protect the pathogens, other bacteria and contaminants, including viruses and dirt, so that the surfaces stay clean and safe for year after year as long as the regimen is followed.

**ONGOING PROTECTION IS PROVIDED BY THE VERY NATURE OF PROBIOTICS**: Unlike chemical cleaners that stop working as soon as they are dry, probiotics are a living solution that normally keep working at full strength for up to three (3) days.



During the cleaning process using the Chrisal PIP probiotic products, it was noted that the probiotics deposited as part of the cleaning process, will continue to function for days, providing ongoing cleaning and protection for all surfaces.