

Seminar for the Healthcare Operators and Authorities

Place: CONA di Ferrara (New Hospital of S. Anna)

Date: 20.04.2012

Theme: The innovation on the service of environmental hygiene in the sanitary structures.

Speakers:

Dr. Paola M. **Antonioli** (President ANMDO Emilia-Romagna- Direttore Struttura Dipartimentale, Igiene Ospedaliera – Qualità Servizi Ambientali- Risk Management Azienda Ospedaliero- Universitaria di Ferrara).

Dr. Gianfranco **Finzi** (National President of ANMDO, DMO Area Igiene. Prevenzione e Protezione Coordinamento Servizi Ospedalieri di Supporto, Azienda Ospedaliero Universitaria Policlinico S.Orsola- Malpighi di Bologna).

Prof. Sante **Mazzacane** (Scientific Director of CIAS- Centro Ricerche Inquinamento fisico chimico microbiologico ambienti ad alta sterilità - Università di Ferrara).

Prof. Pier Giorgio **Balboni** (Department of Experimental and Diagnostic Medicine, Section of Microbiology, University of Ferrara).

Dr. Mario **Pinca** (Administrator of Copma)

Dr. Bianca **Caruso** (Director of Service Support of the General Hospital AUSL Ravenna)

Dr. Alessia **Frabetti** (Researcher in Biology, University of Ferrara).

Highlights of the presentations:

Dr. Gianfranco Finzi: *“The culture needs to be changed. A new effective way has come. Therefore the dogma of disinfection needs to be broken and a cultural renovation of the cleaning system has to rule. We speak about a cultural revolution. The new technology has come to change”.*

Prof. Pier Giorgio Balboni: *“The use of biocides influenced the increase of bacterial resistance. Their time of contact and the high concentrations has influenced in a brutal way. The biofilm is a companionship of a mixed population consisted in different types of microorganisms. These microorganisms have defensive characteristics which reduce the access of biocides”.*

Prof. Sante Mazzacane: *“The chemical products have a limited efficacy which is about 20-30 minutes after their application. They have allergic effects and create the capacity of resistance from the microorganisms. The bio stabilizing products colonize the surfaces and compete directly with the present residing microorganisms. You can all take a look on the Law of Gauge about competitive exclusion. Thus, we generate an environmental pressure. The growth will be stagnated because the environment bears a maximum number of microorganisms. With the products of PIP (Probiotics in Progress) that contains non pathogen organisms, we can colonize the environment with an efficient way. They have no allergic influence, and are compatible with the environment. The bio stabilizing products colonize the environment and suppress the growth of the others microorganisms. We performed **in vitro** and **in campo** tests, comparing them with chemical disinfectants. For the *in vitro* tests we analyzed 3 bacteria types (*S. Aureus*, *P. Aeruginosa* and *E.Coli*). In the *in vitro* test we have expanded to 5 types and have deepen the experiments (*Candida Albicans*, *Acinetobacter*, *S. Aureus*, *P. Aeruginosa* and *E.Coli*). We have used 12.500 samples and the results we obtained were the following: *S. Aureus* -95.59 %, *E. Coli* -85.12%, *Pseudomonas spp* -95.16%, *Acinetobacter* -75.99%, *Candida spp* -94.86%.”*

Dr. Alessia Frabetti: *“To analyze correctly the environmental sanitization you have to verify the following elements: effectiveness and efficacy, product methodology, frequency, surface, control, responsibility of the activity. We compared the traditional sanitization with the PCHS sanitization (Probiotic Cleaning Hygiene System). The chemical approach increases the risk of infections and does not guarantee the contention of contaminations.”*

Dr. Bianca Caruso: *“This new method reduces notably the concentration of pathogen microorganisms, resulting that the disinfection will be superfluous. The sanitization needs to be safe for the patients and others.”*

Dr. Mario Pinca: *“This technique of bio stabilization changes drastically the way of cleaning and also the sanitary measurements”.*

Dr. Paola M. Antonioli: *“We need to manage the risk of infection for the patients, visitors and operators. There are 110.000 nosocomial infections per year in Europe. This generates a direct cost of 7 billion Euros. The most preoccupying pathogens are Clostridium Difficile and MRSA. During 1 year (November of 2011 to October 2012) we will be testing at the Department of Rehabilitation Medicine S. Giorgio the reduction of patient infections”.*

Photos from the event:





CONA di Ferrara (New Hospital of S. Anna)

Number of total beds: 860

Total expenses per year: 300.000.000,00 Euro

Total constructed area: 139.000 m²



Dipartimento di Riabilitazione S.Giorgio (Department of Rehabilitation Medicine S. Giorgio):

The trial of 1 year to verify the reduction of infections on the patients has been conducted here by the University of Ferrara.

