

## **Summary of the Symposium of the Rudolf Schülke Foundation, 26-27 November 2009 in Hamburg**

### **“The need of hygiene in everyday life – challenges and perspectives”**

It is already a tradition that combined with the awarding of the Hygiene Award and the Hygieia Medal every other year the Rudolf Schülke Foundation invites international acknowledged experts to a symposium discussing problems mainly concerning hygiene matters.

This year symposium was concerned with challenges and perspectives of hygiene in everyday life.

In a first part with 4 presentations (Sattar, Aiello, Gebel, Kramer) it was demonstrated that according to demographic changes worldwide, food and water safety and especially personal services there is a need of hygiene measures in daily life. With extensive epidemiological studies over more than two years it could be shown that wearing a mask combined with regular hand disinfection (washing) significantly reduces the transmission of influenza virus on the one hand and the amount of days people of the administration in a community stay ill on the other hand. Looking for reasons where in daily life contaminations take place household hotspots like sponges and towels in bathrooms, furniture in living rooms, laundry washed below 40 °C may play a greater role for intra familiar cross contamination than toilettes. It also could be found that disinfection measures are more efficient than just cleaning.

In a second part two presentations (Simon, Bloomfield) focused the topic of the targeted hygiene what means hygienic measures depending on different situations in everyday life. There are great numbers of patients discharged as outpatients into a normal environment after or still while treatment with immunosuppressive drugs takes place. There have to be hygienic advices for personal behaviour (hand disinfection, changing cloth, towels, bed linen, wearing masks when contact to persons) but also those ones for food and beverages (peel it, cook it, or leave it) for the contact to pets (cave infections with toxoplasma, campylobacter, cryptosporidia, EHEC). An already very well organized institution for home hygiene is the International Scientific Forum on Home Hygiene (IFH) which was founded in UK and has found partners over the European countries but not reached yet Germany. This forum has defined critical control points like people, food, pets, insects, sinks and has described chains of infections in homes. This forum also is concerned with targeted hygiene and focuses on a communication strategy to provide hygiene in the home.

The realization of hygienic measures depends in a high amount on the risk perception which can show such different behaviour like overwhelming fear, reasonably acting or denying the risk. In two presentations (Heudorf, Hartemann) it could be shown out of the perspective of a health institute of a big German town that even in public schools the risk for children resulting from air pollution, dust or infectious germs are denied by the official representatives of the town. With the argument of money shortcut school buildings and rooms are left in an disastrous condition. The demand to save energy (and money) on the one hand and the need for establishing relevant hygienic conditions seems to develop to an unsolvable problem. With the establishment of the Health Risk Commission it seems that on the European level experts have founded a forum where at least the actual problems like microbial responses, antibiotic resistance, danger through biocides and many other

reasons for illness of mankind are discussed and questions are raised to find solutions for important health risks.

Psychological aspects are certainly an important reason and barrier for the realization of personal and home hygiene measures. In this presentation (Bergler) the high influence of the risk assessment of mothers (mothers are central communicators), the control of cleanliness of children by their parents, the hygiene sensibility, the influence of early infectious diseases while growing up, the actual personal health risk factors and the dependence of the behaviour by the level of education were pointed out. There is still a gap of scientific results concerning the reason for certain (psychological) behavioural measures especially not accepting and realizing simple but effective hygienic measures.

In a last part the need of competency, communication and expertise in hygiene as a requirement for the establishment of necessary changes were discussed. In a first presentation (Hartemann) it was shown how the hospital hygiene in France mainly based on the occurrence of health risks (AIDS, CJD, v.CJD) since the beginning of the 1990ies had developed and according to which regulations (blood transfusion, patient rights and health care quality, Public Health Programs) things could be changed in a positive way. Taking into account the example of antibiotic (mis)use and resistance and the first successful measures started to change this situation the ambitious strategic program from 2009 – 2013 with the aim of a reduction of catheter infections up to 50%, post operative infections up to 30% and MRSA contamination/infections up to 50% was explained. In a second presentation (Weist) the role of the European Center of Disease Control (ECDC) in Stockholm as a center to identify, assess and communicate current and emerging health threats to human health was demonstrated and the different branches of the work of the center like surveillance of antibiotic resistance, recommendation on patient safety and HCAI, network of long term care facilities, the development of molecular surveillance and the daily epidemic intelligence for pandemic infection control was explained. As a perspective of the role of hygiene in Europe 7 targets were formulated to be worked on till 2013: significance of basic scientific knowledge, surveillance, leadership, reference support, key reference support training, communication output in main European sources of risk communication and structured infectious disease cooperation.

Besides the excellent presentation of many important data about the need of hygienic measures in everyday life this symposium also focused on necessary challenges and perspectives to improve measures for preventing those diseases which are reasoned on living in the community.