

## Misuse of Surface Microbicides

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*Also In This Issue:*

Virox Update .....2

We Can't Cleanse  
Populations of Antibiotic  
Resistant Organisms.....3

Knowing Robert Koch –  
Father of Microbiology..4

APIC – 2009 and  
Beyond .....6

The Infection Prevention  
Society - 50 Years of  
Infection Prevention .....6

Shifting Horizons,  
Looking Ahead .....7

Misuse of Surface  
Microbicides  
(Continued from Page 1) .....8

*"The secret of success is  
constancy of purpose"*

Benjamin Disraeli

Microbicides (disinfectants/biocides) play a valuable role in controlling pathogenic microorganisms on surfaces in a number of settings, for example in the healthcare, home and food environments. The number of antimicrobial containing products commercially available is increasing together with their frequency of use. This is notably due to an increase in public awareness of microbial infection and contamination, and consequently the need for control. However, the potential misuse of these products is real and the consequences for miss-usage can be serious.

The efficacy of a microbicide against a given micro-organism can be affected by a number of factors. The lack of understanding of these factors can lead to less active or inactive products while providing a false sense of security for the end users. The most important factor is the available concentration of the microbicide in the product. There are numerous examples in the literature where a decrease in concentration led to the growth of micro-organisms or the emergence of micro-organisms that show decrease in susceptibility to the microbicide and sometimes to unrelated antimicrobials including antibiotics. Resistance of micro-organisms to most microbicides have been described where the in use concentration was reduced. Several academic studies have looked at the survival of *Mycobacterium chelonae* isolates from endoscope washer disinfectors where glutaraldehyde was used. Glutaraldehyde-resistant *M. Chelonae* were isolated as the result of a small decrease in the in use concentration of the aldehyde. These micro-organisms were subsequently shown to be

resistant to the in use concentration of glutaraldehyde (i.e. 2%) and to unrelated biocides such as NaDCC (1000ppm) and virkon (1%). More recently, a number of gram-positive vegetative bacteria were isolated from an endoscope washer disinfectant following exposure to chlorine dioxide (0.1%). All the isolates were shown to be resistant to three times the in use concentration of the microbicide. In addition the vegetative isolate (as opposed to spore) of a *Bacillus subtilis* was shown to be cross-resistant to a number of other oxidising agents including stabilized hydrogen peroxide.

With less reactive microbicides such as quaternary ammonium compounds (QACs), biguanides and phenolics, reports of microbial contamination of undiluted solutions are common. In this case the reduced efficacy of such microbicides might not only be caused by an inappropriate concentration being used, but also from other factors than are inappropriately controlled; factors inherent to the products (e.g. incompatible formulation, neutralisation of the active) and inherent to their use (e.g soiling, type of surface, target micro-organisms) leading in essence to a decrease effective concentration.

The relatively recent concern of exposing a microbial population to an inappropriate concentration of a microbicide relates to the emergence or selection of microbial population exhibiting cross-resistance to unrelated compounds including antibiotics. Although this problem is to date mainly academic, its practical relevance is real. Indeed, in Europe a working group under the Scientific Committee on Emerging and Newly



**Continued on page 8**

## Virox Update

### Accelreated Hydrogen Peroxide (AHP) Receives Certification for Use Within Organic Production Facilities!

The AHP Technology has received approval through the Pacific Agricultural Certification Society for use within organic production facilities. This certification further validates the safety and environmental sustainability of the AHP Technology.

### Congratulations 2009 CHICA Scholarship Winners!

Virox and the Patron Members (JohnsonDiversey, Butchers, Deb, STERIS and Webber Training) would like to congratulate the 2009 CHICA Scholarship winners. Fourteen Infection Control Practitioners from across Canada were chosen by the CHICA-Canada Board of Directors. This year's winners are: Nancy Brown, Gail Busto, Melody Cordoviz, Brenda Dyck, Zahir Hirji, Mary E. LeBlanc, Gayle Lohr, Nila MacFarlane, Beverly Pittman, Suzanne Rhodenizer-Rose, Helen C. Shaw, Sheila N. Sheppard, Betty Taylor and Elizabeth Watson.



### Partnerships in Pediatric Patient Safety Corporate Sponsor

In our continued support of facilities dedicated to patient safety, Virox will once again be the event sponsor for the Sick-Kids Foundation 5th Annual Partnerships in Pediatric Patient Safety Symposium: Spreading the Word. This event will be held on June 11th to 12th at SickKids Hospital (Main Auditorium). For more information on this event please contact the Patient Safety Symposium organizers at 416-813-7358 or by email at patient-safety@sickkids.ca.

### Virox Technologies Inc. Celebrating 10 Years!

Virox was featured as a cover story in the latest edition of Sanitation Canada! The article highlights the many accomplishments of Virox over the last ten years with its Accelerated Hydrogen Peroxide (AHP) Technology and how Virox has become a respected partner in the Infection Control Industry. "Today, we know that as a society we need to take care to protect ourselves. We want Accelerated Hydrogen Peroxide to be at the forefront of everyone's mind as the safest and most effective disinfectant product on the market. Not just for use in hospitals, schools or professional buildings, but available for the consumer to use at home." Randy Pilon, President and CEO of Virox Technologies Inc.

To read the full article, please visit the Virox website <http://virox.com/download.aspx?ItemInfoID=377>

### JohnsonDiversey Launches Daylight Cleaning™ program

JohnsonDiversey announced the launch of Daylight Cleaning™, a new component of the company's comprehensive Sustainable Facility CareSM program. JohnsonDiversey is introducing Daylight Cleaning™ through a partnership with DCS Global Enterprises LP, a leading provider of daylight cleaning consulting services.

Daylight Cleaning™ can reduce lighting, heating and cooling at night, which has been proven to provide average-sized office towers energy savings of up to 8 percent per year. Daylight Cleaning™ also improves customer satisfaction by making cleaning staff available during peak working hours, providing building occupants with the service they request when they request it.

"Our goal is to not only practice sustainability in all we do, but to help our customers become more sustainable in their operations," said JohnsonDiversey President and CEO Ed Lonergan. "Daylight Cleaning™ will help our customers achieve significant, measurable reductions in energy use and greenhouse gas emissions."

To learn more about Sustainable Facility CareSM, please visit [www.sustainablefacilitycare.com](http://www.sustainablefacilitycare.com).

## Conference & Education Spring Schedule

Virox representatives will be participating in the following functions during the upcoming months:

**May 3rd to 9th:** CIPHI National Conference in Kananaskis, Alberta.

**May 9th to 14th:** CHICA-Canada Annual Conference in St. John's, Newfoundland.

**May 24th to 27th:** AIPI Annual Conference in Montreal, Quebec.

**June 7th to 11th:** APIC Annual Conference in Ft. Lauderdale, Florida.

**June 11th:** Sick Kids Partners in Paediatric Patient Safety Symposium in Toronto (Virox has been the corporate sponsor since inception in 2005)

**June 11th to 12th:** CHICA – NWO Infection Control off the Map in Thunder Bay, Ontario.

**June 18th:** HANDIC – Keep your Boat Afloat in Hamilton, Ontario.

We are very excited about participating in each of these conferences & education days. We wish the best to all of the various organizers and would like to thank them for their dedication and effort in organizing these very important educational opportunities. We look forward to attending and talking to all of the participants.

*In order that people may be happy in their work, these three things are needed: They must be fit for it. They must not do too much of it. And they must have a sense of success in it.*

John Ruskin (1819 - 1900)

## We Can't Cleanse Populations of Antibiotic Resistant Organisms

Dr. Jim Hutchinson, MD, FRCPC, Memorial University of Newfoundland

The current infection control mantra advocating actively seeking out the humans harboring antibiotic resistant bacteria and “decolonizing” them with antibiotics is fabulously flawed and shortsighted. More antibiotics will certainly not be a fix for the complex problem of antibiotic resistance.

There will always be bacteria circulating in human populations. *Staphylococcus aureus*, *Streptococcus pyogenes* and *Streptococcus pneumoniae* have been living in and on humans since the inception of humanity. When a new or “re-circulated” type (strain) enters a population, as is happening now with so-called community-associated MRSA (USA type 300 or Canadian type CMRSA 10), some people will become ill with relatively minor illness. An unfortunate few will have serious illness. Many more will be-

come immune without illness. The strain will spread widely and over time will appear to be less virulent (able to cause disease) as the immunity of the population increases. It will be transmitted less efficiently as there will be fewer people with overt disease and fewer susceptible individuals. Another strain will emerge that has an advantage and the complex story will write its next chapter.

It is simply not possible to fundamentally change this circumstance by focusing on the individual “bad” organism and killing it with more antibiotics. While “decolonizing” has a well-defined benefit in particular circumstances (the use of antiseptics and antibiotics prior to surgery is the best example), it certainly can't be viewed as a rational public-health response to a continuously changing world-

wide ecologic problem. The extreme efforts focusing on individual organisms are stifling the debate on fundamental solutions for managing (not eliminating) antibiotic resistance and infections caused by antibiotic resistant microorganisms. Firstly, we need much more attention to antibiotics at all levels. Programmatic approaches to optimizing their distribution are essential. Secondly, we need a major renewal of healthcare infrastructure engineered to limit the spread of microorganisms. There is absolutely no reason why Canadians can't address these issues and become a world leader.

The antibiotic resistance file must be elevated on all agendas.





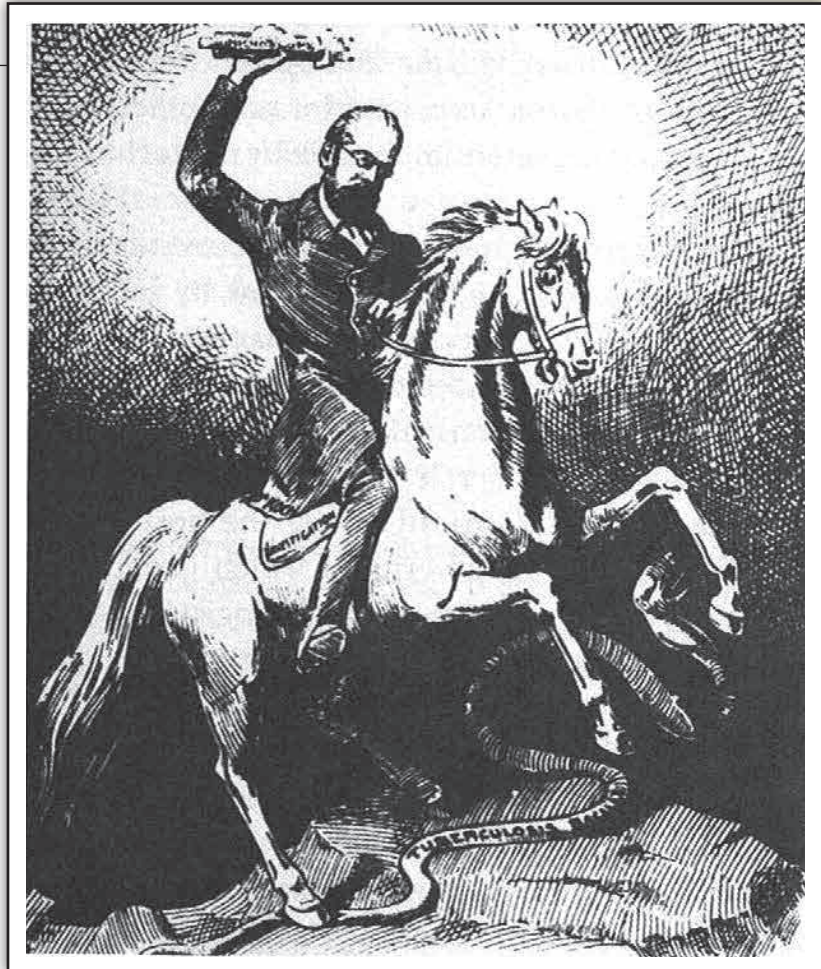
## Knowing Robert Koch - Father of Microbiology

**Dr. Bill Newsom**  
 Past President, Hospital Infection Society (HIS)

Every day bacteriologists refer to 'Gram's stain'. Gram spent three months in Berlin developing his stain which he never thought of again. By contrast Robert Koch's name is rarely used, but he is rightly regarded as the father of medical microbiology.

Koch's life began in 1843, and lasted until 1910. He began as a country doctor, and ended a Nobel prize-winner. His first priority after qualifying was to marry Emmy, his childhood sweetheart and set up home, practising as a country doctor. However by the age of 29 he obtained a 'District Community Physician' post in Wollstein (Wolzstyn) a small town in East Germany (now Poland). Like Lister, Koch's interest in research started during his student days, and could now be expressed. Instead of a carriage the best possible microscope was purchased. A south-facing back room was curtained off to provide a laboratory where Koch developed photomicrography using sunlight. Emmy stood outside to adjust the lighting. Later he developed a good relationship with Ernst Abbe, the owner of Zeiss microscopes which ensured that Koch always had the latest technology, and in return the world learnt the value of Zeiss microscopes.

An outbreak of Anthrax stimulated Koch to examine sheep blood with his microscope, and make the first records of bacterial spores. Eighteen months later, on December 23rd 1875, he injected a rabbit with blood from an animal dead of anthrax, the rabbit died, and on Christmas day he was able to demonstrate the anthrax bacilli microscopically. Later he made successful subcultures by inserting infected tissue into the eyes of another rabbit. Being alone meant Koch was very worried about the significance of his work. Eventually he plucked up courage and went to the nearby university at Breslau (Wroclaw) to demonstrate it. He used slide cultures with rabbit aqueous humour as the culture medium, into which he inoculated blood from the spleen of an infected mouse. The Professor was all admiration for this lone researcher - 'He has done everything himself and with



absolute completeness'. He was asked to write it up. His paper was finished in three weeks and published in *Beitrag zur Biologie der Pflanzen*.

Koch remained in Wollstein, where his reputation grew. He continued his researches, this time on wound infection. He used animals (often caught in his barn) and a Zeiss microscope fitted with the Abbe condenser and an oil-immersion lens. His microscopy was enhanced by the use of stains, which he had learned from Breslau. The result was a small book 'Investigations into the etiology of traumatic infective diseases' which came out in 1878. Koch had shown that

his traumatic infections had been caused by bacteria. 'I am well aware', he wrote, 'that the investigations described above are very imperfect.' By now Koch had an international reputation. Lister was so impressed that he had the book translated into English. Ogston used Koch's techniques to extend his work to humans and show that pus from abscesses contained cocci either in chains (already called streptococci by Billroth), or in clumps which he called staphylococci.

On July 7th 1880 Koch received a telegram offering him a job in Berlin - 'when

**Continued on page 5**

can you start?’ On July 10th he replied. The Koch’s held a ‘garage sale’ and moved. In the next few years the foundations of medical microbiology were laid down. Pure cultures of bacteria on solid media providing identifiable colonies were developed using the ‘Petri dish’, and artificial growth media solidified with agar (suggested by Fanny Hesse, the wife of one of Koch’s assistants, who used it in ice cream). Methods of sterilisation using hot water, steam and chemicals were developed. Once the technology was available bacteria could be associated with specific infections, and Koch laid down his ‘postulates’ criteria for proving this. Isolate the germ from all cases, obtain it in pure culture, and reproduce the disease in animals (not always possible!). The pace of progress was frenetic; Lister invited both Koch and Pasteur to the International Medical Congress in London in 1881. Koch demonstrated his plate technique and Pasteur shook hands and said ‘C’est un grand progres, Monsieur’.

In 1820 the poet John Keats (also a doctor) wrote ‘This drop of blood is my death warrant. I must die.’ He was only 25. For bacteriology 1882 has the same significance as 1066 for English history – a watershed – the year Koch discovered the tubercle bacillus. (Fig 1). He began to study tuberculosis (TB) on August 18th 1881 and delivered his historic address to the Berlin Physiological Society on 24th March 1882. By then he had stained the bacteria in sputum, set up 43 cultures and infected 76 guinea pigs, 35 rabbits and 4 cats with human material (Fig 2). When he presented his results there was a stunned silence. Koch had discovered the cause of TB, and put its diagnosis on a scientific basis. The news travelled fast – Tyndall saw it in London on April 10th and summarised it for The Times of April 22nd, his article was reprinted in the New York Times two days later. Not bad for the pre-internet era!

His next major discovery was of the cholera vibrio. Since 1830 cholera had caused epidemics in Europe, and when in 1883, an outbreak occurred in Egypt, a German team headed by Koch was assembled, equipped and departed within a week (shades of the move to Berlin). Although the Egyptian epidemic had waned, they continued investigations in India, finally growing the cholera vibrios and demonstrating them in post mortem gut. Koch remained in India until February

1884, and his visit must have motivated him for his later involvement in Tropical medicine. Cholera re-appeared in Europe in 1893, and Koch studied the epidemiology in Hamburg. He attributed it to waterborne spread from faeces, but apparently had never heard of John Snow’s earlier work. I have a copy of ‘Professor Koch on Cholera’, an 1894 translation of his book into English, which was given to the University of Innsbruck in 1894 by a Scottish visitor. Unsurprisingly the pages are UNCUT! (see box)

So far a life of triumph. However Koch over-reached himself in criticisms of Pasteur who was stimulated to write of a meeting in Geneva: ‘Koch acted ridiculous and made a fool of himself’. Then came the tuberculin affair. Late in 1889 he disappeared into his laboratory and by 1890 the word came out ... a cure for tuberculosis. Trains from the French Riviera to Berlin were booked for 3 months in advance. Lister sent his niece for treatment, and Conan Doyle went to investigate. The latter got it right – more like a diagnostic tool than a cure – he said. Koch’s idea was that his magic medicine would open up tubercles and allow the normal bodily defences to kill the bacilli. Actually this often led to spread of infection. Later, in 1901, at an International Congress of tuberculosis in London, Koch amazed the delegates and set back provision of safe milk by 50 years, when

he announced that bovine tuberculosis did not affect humans.

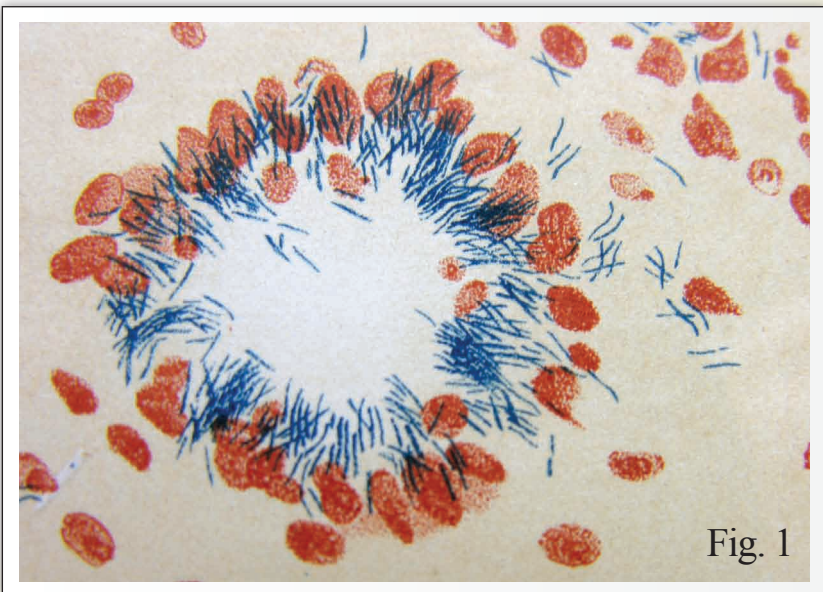
Perhaps these perturbations explain why Koch did not get the Nobel Prize until 1905, although Emil von Behring, who had worked with him was awarded it in 1901 for work on diphtheria antitoxin therapy, and Ronald Ross in 1902 for work on malaria. Looking back from today one sees how much more valuable Koch’s work was. Later on he spent a lot of time in Africa studying tropical diseases. He was clearly highly motivated, and able to both work alone and be an effective team leader. Our debt to him is immense.

Further Reading: Robert Koch.  
By Thomas D Brock. Science Tech, Madison. 1988.

### Uncut

**In the old days books were made from folded pages, a large sheet would be printed then folded to make several pages. This means you could only open some pages in the new book, and had to take a kitchen knife to cut the folds and reveal the rest. The fact that the pages were “uncut” meant that no one has ever read the book. Quite a few old books in our university library are in the same pristine state!**

Robert Newsom







## APIC™ 2009 and Beyond

Christine J. Nutty, RN, MSN, CIC, APIC 2009 President

This is a time of immense change, not only for APIC, but the healthcare profession overall. The changing economy, concern over job losses, shrinking budgets, a new U.S. President, an increasing number of states enacting healthcare-associated infection (HAI) reporting laws and reimbursement changes from the Centers for Medicaid and Medicare Services impact us all. Even within the infection prevention and control profession, there is change: The new term “infection preventionist” exemplifies the expanding role of our profession and the emphasis on prevention, rather than control, of infection.

In the U.S., HAIs claim 99,000 lives annually and incur \$20 billion in excess healthcare costs. The U.S. government’s commitment to solving the problem of healthcare-associated infections has never been greater, as evidenced by the recent stimulus legislation that allocates \$50 million toward the implementation of HAI reduction strategies. The U.S. Department of Health and Human Services (HHS) has developed an HAI Action Plan to address the problem as well. APIC is working hand-in-hand with HHS and the Centers for Disease Control and Prevention (CDC) to further the education around safe practices for all types of workers in healthcare facilities.

APIC’s 2009 Targeting Zero effort centers on a series of new elimination guides designed to provide practical solutions to the most difficult infections. New APIC

guides on VAP, catheter-associated UTIs, catheter-associated blood stream infections, MRSA in long-term care settings and *Acinetobacter baumannii* will be published in 2009. APIC elimination guides pick up where CDC recommendations leave off – providing tools and strategies that preventionists need to advance patient care. In addition to information on the morbidity and mortality of each infection, APIC elimination guides provide specific recommendations on prevention, surveillance methods, process improvement opportunities, making the business case, patient and family education and frequently asked questions. Sample worksheets, checklists, diagrams, case studies and step-by-step instructions are interspersed throughout to make the information as clear and simple as possible. Elimination guides are provided free to all APIC members.

2009 will be an important year for APIC from a research standpoint as well. Later this year we plan to launch our second MRSA prevalence study. As you no doubt recall, MRSA 1 was an enormous success in terms of creating awareness of MRSA prevalence. Members used the outcomes of this survey as a mechanism for obtaining additional resources within their facilities.

With the rising tide of infection outbreaks in ambulatory care settings, APIC is being called upon to provide education and training around basic infection control measures outside the traditional four walls of the hospital. We are working

with HONORreform, a coalition formed to bring a halt to unsafe injection practices in outpatient clinics. APIC is releasing an updated ambulatory care tool-kit and online ambulatory care newsletters. Likewise, APIC has developed a Long-term Care Solutions Program to address the needs of this growing segment of our membership.

Another important area of focus for APIC is education of consumers, patients and visitors. An ongoing web program for consumers, media and non-clinical healthcare professionals, [www.preventinfection.org](http://www.preventinfection.org) provides basic, accurate information and e-newsletters on topics including outpatient care, hand hygiene, common germs and food safety.

This is a time of challenge, but also a time of great promise. The possibilities for our profession have never been greater. We will continue to provide direction and guidance to help prevent infections and preserve healthcare resources. As we have since 1973, APIC will help institutions bring the science of HAI reduction to the bedside.

In closing, I’d like to say that I am both honored and privileged to be APIC’s president for 2009. I encourage all infection preventionists to feel free to communicate with me on matters of importance or concern impacting IP, or with questions that will further enhance the proud profession that we serve.



### The Infection Prevention Society 50 Years of Infection Prevention

**Martin Kiernan**  
Infection Prevention Society President

The 1950s was a period when staphylococcal infections were widespread in hospitals both in the UK and abroad, despite the introduction of antibiotics. At a hospital in Exeter, England, it was felt that appointing a suitable nurse to an experimental position might control cross infections in patients. Thus the first Infection Control Nurse was appointed in April 1959.

Following the establishment of Infection Control as a specialty in the 1960s the first recorded 3 day conference in this field was held in 1969. Seventeen Infection Control Nurses met to discuss their problems, report progress and plan future collaborative studies. It was such a success they met again the following year ... and every year hence. The Infection Control Nurses Association (ICNA) was formed in 1970



## Shifting Horizons, Looking Ahead

Cathy Munford, 2009 President, CHICA-Canada

CHICA-Canada has grown from a few dedicated members to a membership of over 1500 since it's founding in 1976. As we have grown so have the issues that our membership has faced including bioterrorism, multi-resistant organism, epidemics, and resurgence or organisms once thought defeated. CHICA-Canada has kept pace with the evolution of Infection Prevention and Control with the interest groups and committees dedicated to the ever-changing issues and focuses. Communication with members has evolved from a newsletter, written mail outs and paper journal copies, to on-line communication, webinars, on-line journals, e-mail, and video conferencing. Distance education for infection control courses, and Certification Board of Infection Control (CBIC) certification through instant computerizes testing is now possible.

As I look at where CHICA-Canada has come from, I find that I am excited in thinking about where CHICA-Canada is going in the future.

### STRATEGIC PLAN – 2010-2014

This year will be an exciting one as we prepare ourselves for the future direction of Infection Prevention and Control in Canada. In May, the Board along with the Chapter Presidents will meet for a strategic planning retreat. This will focus the direction for CHICA-Canada for the next 5 years.

A major review of CHICA-Canada's Strategic Plan will occur in the weeks

preceding the St. John's conference. The facilitator will be Dr. David Sheridan who will be working with a Board and Chapter Presidents Task Group to survey or interview CHICA-Canada members, Industry Members, and other internal and external stakeholders. The results will be circulated to the Board and Chapter Presidents prior to a Strategic Planning Retreat, which takes place in St. John's immediately preceding the annual conference. This is the first major review of the Strategic Plan since 1994 and we are excited to determine the objectives that will shape our association in the next few years. St. John's is promised to be an inspiring place to help our creative minds in imagining what the future could potentially hold for our organization.

### EDUCATION

St. John's, Newfoundland-Labrador will be the site for the 2009 National Education Conference. St. John's offers wonderful scenic views, down home hospitality and delicious east coast seafood. The conference promises to be just as enjoyable. The theme this year is Solid Foundations...Shifting Horizons. This will look at Infection Prevention and Control based on solid foundation of knowledge with a focus of adaptation to the shifting changes that we constantly facing. Sessions at the conference will include something for everyone. There will be novice and advanced practitioner day, pre-conference will look at mental health issues long-term care and preparing for the CIC exam, and sessions to cover items such as

following this first conference.

By the middle of this decade, the ICNA board decided that it was time for change. At the 2006 annual meeting, ICNA members voted to expand the entry criteria to include any health professional employed in the field of infection prevention and control. The membership also voted in favour of a name change to reflect the both

the move towards a focus on prevention and the expanded membership, opting to henceforth be known as the Infection Prevention Society (IPS).

In light of increasing public concern and the results of mandatory surveillance for MRSA bloodstream infections and Clostridium difficile, the British government has been very supportive of the



the generation gap, pandemic planning, community, occupational health, antibiotic stewardship and outbreaks. Dr. Dick Zoutman will be back with the Strut Your Stuff! breakfast session that is always enjoyable and entertaining. The Conference Committee has planned an exciting week, with social events, and exciting educational opportunity as well as plenty of time to network with both new and old colleagues and friends.

### Ongoing Programs and Support

CHICA-Canada continues to support our members with programs and projects such as the updated Audit Tool Kit, "Just Wash Them" Video, toolkits, the Canadian Journal of Infection Control, the monthly e-newsletter and of course our vibrant website ([www.chica.org](http://www.chica.org))

The board works hard ensuring that the needs of our members are met. We could not achieve this without the support of our valuable industry partners and the numerous dedicated volunteers that make up our board and membership. Also a big thank you needs to go out to our staff, Gerry Hansen (executive director/conference planner) and Kelli Wagner (administrative assistant) who keep CHICA-Canada a functioning valuable part of our community.

development of infection prevention and control guidelines and toolkits. The IPS and our peer-reviewed journal, The Journal of Infection Prevention (previously the British Journal of Infection Control), have been front and centre in the creation of globally referenced publications, all of

**Continued on page 8**

## Misuse of Surface Biocides

Continued from page 1

Identified Health Risks (European Commission) produced a draft document in November 2008 entitled “Effects of the Active Substances in Biocidal Products on Antibiotic Resistance” which aimed to review evidence (or the lack of) between microbicide usage and emerging resistance to antibiotics in bacteria. The effect of this document is difficult to predict but it is clear that more information on the use of biocidal product is urgently required.

For a number of applications, the effect of microbicide on emerging microbial resistance is currently difficult to predict. These are applications where the active is directly incorporated into a hard surface or a fabric. The challenge for the manufacturers is that there is currently a lack of appropriate standard efficacy tests which mimic in-use conditions for this sort of applications. For antimicrobial surfaces, test methodology relies on the use of wet microbial inocula (i.e. using liquid on the surface), increasing the release and contact of the microbicide with the target cell. In reality, these surfaces would not necessarily be wetted and as such available test protocols might lead to an overestimation of the antimicrobial property of the surface. In addition, current standard tests do not predict the ability of antimicrobial surface to reduce or stop cross-contamination or cross-infection. The same problem arises with antimicrobial fabrics. Recently, there have been some interests in a new test protocol for measuring the efficacy antimicrobial wipes. In the healthcare environment these new products, together with surface disinfection can be an integral part of a disinfection regimen aimed to reduce healthcare associated infections. The main problem remains to assess the benefit and actual activity of these wipes and their role in infection control when combined or not

with surface disinfection. To resolve the lack of practical test protocols for evaluating their efficacy, a 3-steps methodology, which provides a quantitative measurement of the efficacy of the wipes to remove micro-organisms from surfaces, the efficacy of the wipes to stop the transfer of microbial contaminant between surfaces, and the ability of the wipes to kill microorganisms, was recently published. This test was designed as part of a surveillance programme initiated in Wales to look at the efficacy of disinfection regimen in intensive treatment units. In the absence of a standard test, manufacturers relied on efficacy tests that did not represent the usage of wipes in practice. The results of testing antimicrobial wipes with that newly developed protocol highlighted some concerns in the usage of wipes in healthcare facilities where a single wipe is used on multiple surfaces. The antimicrobial wipes tested were found to remove microbial contaminants (in this case methicillin-resistant and -sensitive *Staphylococcus aureus*) from surfaces, but had a limited bactericidal activity, which resulted in the potential transfer of micro-organisms on different surfaces. The conclusion of this work was that although the use of antimicrobial wipes might be beneficial as part of a disinfection regimen, their inappropriate use might lead to the spread of pathogenic micro-organisms. These results combined with observation of the ways wipes were used in practice resulted in producing the recommendation that a single wipe should be use on one surface only and in one direction.

Such a study addressed another issue, which is the use of microbicide in practice. To be effective, the end user should be educated to use a biocidal product to ensure efficacy. Education should start with manufacturers providing clear information on how the product should be used. Although clear instructions are generally provided this is not always the case. In the healthcare environment education of staff and increase compliance has been shown to be effective in reducing health care associated infection notably with the use of alcoholic hand rubs.

At the bottom line, when used appropriately microbicides have an important role to play in the prevention of microbial contamination and infection. To be effective, the risks associated with their use need to be appropriately addressed. Manufacturers need to have access to relevant efficacy test protocols mimicking appropriately usage in practice, and to provide clear instructions for their use. The end users need to be educated to use such products and researchers need to provide clear answers as to the practical risks associated with microbicides – a concerted approach.

## The Infection Prevention Society 50 Years of Infection Prevention

Continued from page 7

which are available through the Society's web site [www.ips.uk.net](http://www.ips.uk.net).

On September 21st through the 23rd of this year we will celebrate 50 years of infection prevention and look to the future of our profession at “Infection Prevention 09”. Our conference this year will feature a dynamic blend of the best of British and worldwide speakers on infection prevention. As with recent years a keynote lecture will be broadcast live to IPS members and others again this year by way of a Webber Training Teleclass.

The future is bright for infection prevention and control in the British Isles. Although challenges persist and even become more complex with the ever-increasing complexity of modern healthcare, there is a dynamic, intelligent, and deeply committed group of professionals who are up to the challenge. These are the members of the IPS and it is the greatest honour of my career for me to lead this Society.

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