



Superbugs

The cleaning work of CUPE members may prove to be even more important in the near future as hospital management scramble to find solutions to the spread of Superbugs. Superbugs are infecting people in hospitals and there is increasing evidence that improper hospital cleaning and inadequate staffing levels, due to contracting out and lay-offs, are key reasons for this problem.

This short report is an initial attempt to document the problems related to Superbugs and the increasing importance of cleaning and infection control work by CUPE members. A survey of the international literature on Superbugs leads us to conclude that proper cleaning and infection control procedures in hospitals are major factors in fighting Superbugs.

Three Strains of Superbugs

Superbugs are bacteria which are resistant to most antibiotics. There are three types of Superbugs: VRSA (Staphylococcus aureus), VRE (Vancomycin-resistant enterococcus) and MRSA (Methicillin-resistant staphylococcus aureus). (The antibiotic, Vancomycin, may be effective for some MRSA¹). Illnesses due to these bacterium are mainly found in hospitals since patients can become infected through a break in the skin. Patients on intravenous, catheters or dialysis and surgical patients are particularly vulnerable². Superbugs are also potentially life-threatening to patients already weakened by other ailments³ and to the elderly and very young⁴.

The Superbug, VRE, was first reported in 1988 in Europe. Since then, it has gradually increased each year. In the period 1989 to 1996, VRE had increased 34-fold in Canada⁵. In the first six weeks of 2000, there have been 23 patients

¹ Edmonton Journal, Feb. 18, 2000, B5.

² The London Free Press, February 19, 2000.

³ Toronto Star, Jan. 20, 2000.

⁴ The London Free Press, February 19, 2000, A3.

⁵ Canadian Press Newswire, August 22, 1996.

who have become infected with VRE in hospitals in Edmonton, Alberta. The number of Edmonton cases from the entire previous year was 17⁶.

The more dangerous MRSA Superbug is carried by up to 40% of healthy people although only a few actually become ill⁷. In the United Kingdom, MRSA has increased 12-fold during the last eight years. In 1999 it was the cause of 37% of all fatal blood poisoning cases, compared to only 3% in 1991. The greatest increase in MRSA cases were in Wales and central England⁸. In Scotland, MRSA cases have increased by almost 75% from 1998 (from 4301 cases to 7540 cases), although figures may be somewhat inflated since some patients were involved with more than one case⁹. There have been about 8,100 cases of MRSA recorded in Ontario, causing 1,000 infections and between 50 and 100 deaths. In the last four years, the Ontario MRSA caseload has increased 6-fold¹⁰. MRSA is “entrenched” in Vancouver and Toronto hospitals. Sixty-one patients in Edmonton-area hospitals were reported with MRSA in the first 6 weeks of 2000. At this rate, the total number of MRSA cases for 2000 in Edmonton will be 528, compared to 316 last year and 119 the previous year¹¹.

VRSA was first discovered as a Superbug in Japan in 1997. There has now been three other cases of VRSA in the U.S., one in France and more recently four in Hong Kong¹².

Superbugs Cause Deaths, Close Hospital Wards, Increase Costs

Superbugs are wreaking havoc in hospitals all over the world. Hospital wards have been temporarily closed, operations have been delayed, patients have been quarantined and people have died. Superbugs are also increasing hospital costs.

In Canada, nine people were quarantined at St. Paul's Hospital in Saskatoon, Saskatchewan due to VRE in 1996¹³. The Cancer Unit of the Ottawa Hospital's General site was temporarily closed due to VRE in Ontario in 1998¹⁴. During the first six weeks of 2000, 23 VRE patients in Edmonton (Alberta) hospitals were either isolated or placed on special VRE-positive wards despite their other medical conditions¹⁵. Delays moving ICU patients with VRE into isolation beds

⁶ Edmonton Journal, Feb. 18, 2000, B5.

⁷ The Herald (Glasgow) Oct. 30, 1999 and Edmonton Journal, Feb. 18, 2000, B5.

⁸ Agence France Presse English, Nov.5, 1999.

⁹ The Herald (Glasgow), Nov. 6, 1999.

¹⁰ The North Bay Nugget, Oct. 21, 1999.

¹¹ Edmonton Journal, Feb. 18, 2000, B5.

¹² Agence France Presse English, Nov.4, 1999.

¹³ Canadian Press Newswire, Aug.22, 1996.

¹⁴ The Ottawa Sun, Sept. 11, 1998.

¹⁵ Edmonton Journal, Feb. 18, 2000, B5.

meant that the Royal Alexandra hospital remained full and surgical cancellations, including one brain surgery, occurred¹⁶.

In England in 1998, a Birmingham man died from MRSA¹⁷. In October of 1998, a ward in South Wales was temporarily closed due to MRSA at Morriston Hospital¹⁸. The Edinburgh Royal Infirmary in Scotland closed three wards for a week-long cleaning, moved 60 patients to other wards and delayed operations in November 1999¹⁹.

In New Zealand, Hospital Ward 24 was closed at Palmerston North Hospital in February 1999²⁰. That same day, it was reported that three people had died in Hong Kong due to VRSA²¹.

The Deputy Director of Britain's Public Health Laboratory Service (PHLS), Professor Brian Duerdon, has proclaimed that "MRSA has now reached epidemic proportions in blood poisoning cases"²². England's Comptroller and Auditor General has reported that Hospital Acquired Infections (of which Superbugs are one) may be costing as much as 1 billion pounds a year²³.

The Crux of the Problem: Poorly Cleaned Hospitals and Inadequate Staffing Levels Due to Lay-offs, Privatization and Health Care Funding Cuts

Cleaning and infection control are extremely important factors in resisting Superbugs - "...the only sure way to prevent the transfer of the bacteria is cleanliness"²⁴. Clean hospital floors, rooms, equipment and hands are key, which means that the work of in-house hospital cleaners is especially significant. Nursing and support staff to organize and coordinate such cleaning measures, are also important. Privatization and staffing cuts have contributed to poorly cleaned hospitals making it much more difficult to contain Superbugs.

Superbugs are spread through unclean equipment²⁵ and hospital 'furniture' such as "bed rails, hospital carts, stretchers, (and) wheelchairs"²⁶. "(C)ontact with contaminated environmental surfaces (is the) way MRSA is spread from patient to patient"²⁷. In Edmonton, Alberta, the VRE bacterium contaminated the Royal

¹⁶ Ibid.

¹⁷ Birmingham Evening Mail, April 10, 1998.

¹⁸ South Wales Evening Post, October 19, 1998.

¹⁹ The Herald, Glasgow, Nov.6, 1999 and Evening News, Edinburgh, Nov. 9, 1999.

²⁰ The Evening Standard, Palmerson North, Feb. 2, 1999.

²¹ Agence France Presse English, Nov.4, 1999.

²² Agence France Presse English, Nov.4, 1999.

²³ The Comptroller and Auditor General of England "The Management and Control of Hospital Acquired Infection in Acute NHS Trusts in England" February 17, 2000.

²⁴ Canadian Press Newswire, Aug.22, 1996.

²⁵ Evening News, Edinburgh, Nov. 9, 1999.

²⁶ CNN Perspectives, August 9, 1998.

²⁷ Occupational Health & Safety, October 1999.

Alexandra Hospital for longer than one month. The first case of VRE was reported January 1, 2000, while new cases emerged well into February. Steve Buik, of the Edmonton (Capital) Health Authority explained that a “deep cleaning” needed to occur once no other cases were found²⁸. Cleaning, therefore, by qualified staff, becomes especially important in hospitals.

Nursing support and clerical staff to coordinate and administer such cleaning measures are also needed. “Monitoring hospitals’ routine procedures such as ward cleaning is important to ensure that proper hygiene practices are being followed and that they are working as intended”²⁹.

Throughout the world, however, cleaning and other staff lay-offs, and subsequent private for-profit cleaning contractors, have contributed to poorly cleaned hospitals. In England, the Standing Medical Advisory Committee’s Sub-Group on Anti-Microbial Resistance reports that “there is considerable evidence that alterations in cleaning contracts and reduced resources have led to a detrimental effect on the cleanliness of hospitals compared with 10 or 20 years ago”³⁰. It may be no coincidence that North American MRSA and VRE started in the mainly for-profit U.S. health care system before it spread into Canada, where health care is mainly non-profit³¹.

In Australia, according to the state opposition, 40 per cent of the cleaners have been laid off due to hospital funding cuts. These layoffs are blamed for the outbreak³². “Domestic services have faced increasing cut backs” says Regional head of health Linda Hoffman, in Newcastle (Australia)³³.

In February of 1999 in New Zealand, a “hospital source” at North Shore hospital was quoted as saying that “the standard of cleaning is a dangerous disgrace in the hospital. The spread of MRSA is a direct result of this”³⁴. The cleaning contract for North Shore hospital had been contracted out to a private, for-profit company³⁵.

Hospital overcrowding due to funding cuts, hospital mergers and closures, has also been outlined as a reason for the spread of Superbugs³⁶. Hoffman in Newcastle (Australia) comments that overcrowding means “more and more patients, meaning more germs passing through” which contributes to

²⁸ Edmonton Sun, February 11, 2000, p.24.

²⁹ The Comptroller and Auditor General of England “The Management and Control of Hospital Acquired Infection in Acute NHS Trusts in England” February 17, 2000.

³⁰ South Wales Evening Post, October 19, 1998.

³¹ Edmonton Journal, Feb. 18, 2000, B5.

³² AAP Newsfeed, October 21, 1998.

³³ The Northern Echo, Nov. 5, 1996.

³⁴ Truth, Auckland, Feb. 26, 1999.

³⁵ Ibid.

³⁶ Agence France Presse English, Nov.4, 1999.

Superbugs³⁷. Lack of isolation beds makes it difficult to discharge patients from ICU with VRE³⁸.

Possible `Solutions`

Appropriate health care funding and staffing levels, and non-dangerous cleaning products are fundamental to solving the problem of Superbugs.

All governments must return to adequate health care funding in order to provide for appropriate staffing levels. The Comptroller and Auditor General of England calls for more clerical workers and infection control nurses³⁹. Hospitals need to be properly cleaned by adequate numbers of, and appropriately paid and trained, cleaning staff. Governments need to recall previously laid off public cleaning staff and end low quality private, for-profit cleaning contracts.

Combined with the return of adequate health care funding and staffing levels, the use of alternative cleaning solutions will also be helpful to resisting Superbugs. Dr. David Rice, of Sheffield University, argues that triclosan, an anti-bacterial cleaning agent used in many hospitals, is actually helping to spread Superbugs. In his study, Dr. Rice shows that this chemical enables some bacteria strains to become resistant to antibacterial agents, thus helping to actually *create* Superbugs. Household cleaners and personal hygiene products used for more than 30 years such as Crest and Colgate contain triclosan⁴⁰.

Clean and safe hospitals and health centres are essential. When infections are deadly there is a greater need for cleanliness. As the population ages, Superbugs become an even greater threat. The work of CUPE members who perform appropriate cleaning duties and work in infection control is crucial in this fight to control Superbugs.

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³⁷ The Northern Echo, Nov. 5, 1996.

³⁸ Edmonton Journal, February 11, 2000, B2.

³⁹ "The Management and Control of Hospital Acquired Infection in Acute NHS Trusts in England" February 17, 2000.

⁴⁰ Daily Mail, April 1, 1999.