



Department of Human Services

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CIRCULAR TO DHS/SAHC INCORPORATED HEALTH AND AGED CARE FACILITIES AND PRIVATE HOSPITALS

**TO: CHIEF EXECUTIVE OFFICERS, INFECTION CONTROL OFFICERS, AND
ENGINEERING AND BUILDING SERVICES MANAGERS**

**RE: USE AND MAINTENANCE OF ICE MACHINES FOR *LEGIONELLA*
CONTROL**

As widely reported, in February 2003 there was a case of Legionnaires' disease at the Royal Adelaide Hospital. *Legionella* was isolated from the ice machine used by the patient.

It is likely that a high proportion of ice machines have the potential to grow *Legionella* due to warmth generated from compressors promoting growth of organisms in water lines within the machines. Despite this, ice machines and use of ice are not considered as representing a high risk to most people because in addition to the organisms being present infection normally requires the production of aerosols leading to inhalation of micro-droplets.

However, there have been a limited number of reports in the published literature involving 4 cases of legionellosis possibly associated with ice machines. The reports indicate that the infections were in immunocompromised patients with 3 being from transplant wards while the other was ventilator dependent. The mode of infection is assumed to be micro-aspiration from consumed ice.

A protocol for dealing with potential risks associated with use of ice machines has been developed. The protocol requires that ice given to patients will be subject to similar controls applied to other environmental conditions (eg air) and food quality. Where high risk patients are provided with increased protection from infection (HEPA filtered air, low bacteria food etc), ice should not be provided from ice machines but should be manufactured by freezing chlorinated cold water in freezers/fridges of the type found in homes.

Water supplies provided to rooms used by these high risk patients should also be subject to more frequent monitoring (eg water temperature, free chlorine residuals) to ensure safety.

Ice machines can be used for other patients providing these machines are maintained appropriately and kept clean. As a minimum, machines should be completely cleaned on an annual basis. This should include flushing and cleaning of water lines using a disinfectant solution (eg chlorine) and/or hot water (above 65°C). Carbon filters should not be used on the inlets to such machines.

If you require further information please contact Peter Bond (telephone 8226 7157, peter.bond@dhs.sa.gov.au) or Peter Jarrett (ph 8226 7155, peter.jarrett@dhs.sa.gov.au) of the Environmental Health Service.



JIM BIRCH
Chief Executive

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