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 (e.g. 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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