Guidelines
for the
Location, Use & Servicing
of
Bottled Water & Plumbed-in (POU)
Water Coolers

in
Hospitals, Hospices & Nursing Homes

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Foreword

The mission of the British Water Cooler Association is:

"To ensure the attainment of the highest standards of quality, safety, hygiene and ethics in the water cooler industry through an unimpeachable product and services supplied by its Members to their customers, in full recognition of the Industry’s environmental responsibilities."

These guidelines have been prepared to formulate the requirements for the location, hygienic operation, servicing, sanitisation and safety of water coolers in hospitals and related institutions which are considered as special cases that require much higher standards of service, hygiene and equipment than normal. The guidelines are designed to ensure that water, equipment and services supplied to these institutions are of the highest quality and are a positive benefit to the consumer. As such, they should be read in conjunction with the relevant BWCA Code of Practice and Technical Manual.

Bottled water is defined by legislation as a food product and must therefore be treated as such when bottled, stored, delivered and dispensed from a water cooler.

Water coolers which are plumbed-in (POU) to the drinking mains water supply dispense a product that is not legally defined as a foodstuff. The BWCA nevertheless mandates that POU water coolers should be maintained and sanitised to the same food hygiene standards as apply to bottled water coolers within these guidelines and BWCA Code of Practice - POU.

Hospitals

The need for good wholesome drinking water is paramount - patients need good hydration to promote recovery.

The provision of safe drinking water in these facilities, at the specific locations where it is needed, can be problematic. For a number of reasons, these facilities offer challenging environments for water coolers:

- Patients who may be susceptible to infection because of immuno-compromisation, age, (old or young), antibiotic therapy, unhealed wounds and burns and the insertion of catheters and drips. Such patients may become infected by micro-organisms that have no effect on the healthy. Of particular concern to the immuno-compromised is the waterborne parasite Cryptosporidium
- Hospital environments carry unpleasant, dangerous organisms such as Staphylococcus aureus (especially MRSA), Pseudomonas aeruginosa and Clostridium difficile (an organism that can cause severe problems in those on heavy antibiotic therapy). These organisms may potentially, under certain conditions, enter the water cooler.
- Cooler use and maintenance is often unsupervised and uncontrolled.
- Empty bottles may be replaced by untrained staff or even patients.
- Bottles may be stored inappropriately, or even refilled with tap water.
- Access by cooler company personnel for service and maintenance may be difficult.
- Coolers may be ‘cleaned’ by untrained staff, janitors, or cleaning contractors, which could result in contamination.
- Drinking water supply plumbing may be complex and have indifferent maintenance. This may result in many potential connection points for plumbed-in water coolers not being usable for a wholesome drinking water supply.

Hospices and Nursing Homes

All points detailed under Hospitals are applicable, plus:

- Patients may be confused and have poor personal hygiene.

Section 1 – Bottled Water Quality

1.1 All bottled water should be supplied from a BWCA inspected and approved source and bottling plant. In particular this will ensure that all water, even that from deep underground sources, will have passed
through a 1-micron absolute filter to remove Crypto sporidium. The bottling plant and source must have passed the annual bottling plant audit carried out on behalf of the BWCA by NSF International.

1.2 Bottled water should comply with the standards demanded by the Natural Mineral Water, Spring Water and Bottled Drinking Water Regulations.

1.3 The current BWCA Code of Practice – Bottled Water (B/W) applies in full force for all cooler installations.

Section 2 – Water Coolers

2.1 Water coolers supplied to these institutions should have the following minimum features intended to protect against water contamination from the environment:

- Sealed reservoir – Bottled water coolers only.
- Non-spill loading (bayonet fitting) – Bottled water coolers only.
- Air filter of at least 5-micron nominal performance if cooler is non-pressurised and vented.
- Hot water dispensing coolers are NOT recommended for these institutions. If these are used they must have:
  - an appropriate warning label affixed e.g. "Caution Very Hot Water", in a prominent location (preferably adjacent to the hot tap) and easily visible to users.
  - the hot water tap (where fitted) to be equipped with a ‘safety tap’ mechanism.
  - Cups (if provided) suitable for hot water use.

2.2 Water coolers should be CE certified for electrical safety.

2.3 All water contact materials should be certified as suitable for water contact use.

2.4 All ROHS and WEEE legislation (and any other relevant European Directives or requirements for electrical equipment) should be met and documented.

2.5 The current BWCA Codes of Practice – B/W and POU apply in full force to all water cooler models.

Section 3 – Plumbed-in Water Coolers – Quality of Water Dispensed

3.1 The quality of water dispensed by a POU cooler is wholly dependent on the quality of the water supplied to it and as such they must be connected to an officially designated wholesome drinking water supply.

Section 4 – Plumbed-in Water Coolers – Survey and Installation

4.1 To ensure the quality of water supplied to Plumbed-in POU coolers they must be connected to a designated wholesome drinking water supply. In many large buildings potential appliance water connection points are not designated as being suitable for use as a wholesome drinking water supply as they may have passed through a storage tank.

4.2 Prior to installation, a site visit should be made to discuss the siting of the coolers with the appropriate hospital authorities including the infection control department.

4.3 A survey should be conducted to determine the location and availability of the designated wholesome drinking water supplies with the involvement of the facility's maintenance/engineering department to ensure that coolers are only connected to a suitable designated wholesome drinking water supply.

4.4 Connection must only be made to a wholesome drinking water supply which is to be confirmed in writing by the hospital authorities.

4.5 Installation must only be done by a person who has attended and passed a BWCA POU Installation course and BWCA Hygiene Training course, or approved equivalent.

4.6 Microbore pipe work must be less than 5 metres in length.
4.7 Installed pipe work should be labelled clearly to reduce potential damaged by hospital staff or other contractors.

4.8 The current BWCA Code of Practice – POU applies in full force.

Section 5 - Liaison with Institutional Management Authorities

5.1 A survey visit should be made prior to installation of the water coolers to discuss location, installation, source of water for plumbed-in water coolers and subsequent service and maintenance of the water coolers with the facilities managing authority. Section 4 to be particularly relevant for plumbed-in coolers. Where necessary, the hospital authorities may be required to install a ‘hard-plumbed’ drinking water supply nearer to the desired location of a cooler to comply with Section 4.6 herein.

5.2 A written recommendation should be supplied to the managing authority to the effect that water from either bottled water or plumbed-in coolers should not be given to the moderately or severely immuno-compromised. These would include, but are not limited to, patients suffering from:
   • Acute or chronic leukaemia and lymphomas.
   • Cancer and undergoing intensive chemotherapy.
   • Diseases requiring long-term treatment with high doses of corticosteroids.
   • Organ transplants.
   • HIV/AIDS.

5.3 The hospital authorities should be advised that:
   • BWCA trained personnel should sanitise bottled water and POU coolers at least every 3 months.
   • Water bottles should be stored in a cool, dark and secure location away from any tainting or contaminating substances.
   • The bottle cap label should be removed before loading the bottle onto the cooler.
   • Bottled water cooler head systems (bayonet well) should be dried (if necessary) at each bottle change with a clean paper towel. For maximum hygiene, they should be sprayed with appropriate food-grade disinfectant spray, or food grade disinfectant wipe at each bottle change.
   • Bottles should be changed only by hospital, or cooler company personnel trained to lift heavy objects. A copy of the BWCA leaflet, Manual Handling Guidelines should be provided for each cooler location.
   • Coolers should never to be unplugged from the electrical supply or switched-off, unless there is no water in the bottle.
   • Bottled water coolers should never to be left without a bottle on top.
   • Bottles should be not be left on a cooler for longer than 3 weeks.
   • Smaller 11-13 Litre bottles may be appropriate for low usage areas.
   • Disposable drinking cups (if supplied) should be wrapped to protect against contamination and be stored in a clean dry place until placed in the cup dispenser which must be fitted with a closure.
   • Water bottles should never be refilled with tap water.
   • With POU coolers BWCA trained personnel should sanitise the water cooler and replace the filters at least every 6 months.

Section 6 – Water Cooler Location

6.1 Some locations may be problematic, either due to an unacceptably high risk that they may pick up contamination, environmental factors, or because patients may use them who should not be drinking bottled water. These locations may be classified as follows:
**High-risk areas:**

Under no circumstances should coolers be located in:

- Intensive care units and Neonatal units
- Oncology units and transplant units
- Surgical wards and operating theatres
- Laboratories & Toilets

**Medium-risk areas:**

Subject to consultation with the hospital’s infection control unit, coolers may be placed in:

- General wards & day rooms
- Hospices and geriatric units
- Kitchens

**Low risk areas:**

Coolers may be installed in these areas without special precautions:

- Office/administration and staff rooms
- Outpatients areas, public areas and waiting rooms

**General:**

Coolers should be located:

- Away from heat sources and direct sunlight.
- Any area where they may cause obstruction.
- Away from children or geriatric patients if dispensing hot water.

**Section 7 - Sanitisation and Filter Changes**

7.1 The following guidelines are highly recommended:

- The absolute minimum sanitisation frequency for all coolers should be every 3 months.
- The absolute minimum filter change frequency for POU coolers should be every 6 months.
- In medium-risk areas more frequent sanitisation is advised.
- Weekly disinfection of taps with an appropriate food-grade disinfectant spray by hospital staff is advised.
- Hazardous chemicals (e.g. descaling acids) should not be taken onto hospital premises.
- The managing authority should be given COSHH documentation for all chemicals taken onto hospital premises.
- Coolers undergoing sanitisation or filter changes should display warning notices to prevent inadvertent use whilst the work is in progress.
- Cooler sanitisation procedures should be documented and made available to the hospital authorities.
Section 8 – Water Delivery, Sanitisation, Installation and Service Personnel

8.1 Only personnel with relevant BWCA approved training should:

- Deliver bottled water.
- Install POU water coolers.
- Carry-out sanitisation, or filter changes.

8.2 The current BWCA Code of Practice – B/W and BWCA Code of Practice - POU apply in full force.

Section 9 – Instruction to be Supplied in Writing to Hospital Staff:

a) Bottle Storage and Handling

- Water bottles to be stored in a cool, dark and secure area away from any tainting or contaminating substances.
- Water bottles to be used in date order to ensure good stock rotation.
- Shelf life of a bottle is 6 months if unopened; 3 weeks once open and on a cooler.
- Care is needed in lifting of full bottles – refer to the BWCA Manual Handling Guidelines.
- Remove the label on the water bottle cap prior to the bottle being loaded on to the cooler.
- The bottle cap should not be removed.
- Water bottles should never be refilled with tap water.
- Empty water bottles should never be used for the storage of other liquids as this will preclude them from being washed and re-filled by the supplier. These bottles are intended to be multi-trip and re-usable.

b) Water Cooler Use – All types unless specified as Bottled Water or POU

- Water cooler waterways and electric components should not be tampered with by hospital staff.
- Water coolers should not be ‘switched-off’ for more than a few minutes.
- Water coolers that have been ‘switched off’ for more than 36 hours should not be used before the cooler company supplying them has sanitised them before being returned to use.
- Water coolers not used for 3+ days (holidays), but left ‘switched on’ should be flushed through (4 litres recommended) before use recommences.
- Bottled water coolers should not be left ‘switched-on’, or connected to the electrical supply with an empty, or no bottle on top.
- Plumbed-in (POU) coolers should not to be un-plumbed without the cooler company being given prior warning.
- Drip tray emptying and exterior cleaning of the cooler between contracted cooler care visits by the cooler supplier should be considered as part of the hospital’s maintenance policy. Staff undertaking such work should be advised that only clean, unused cloths or wipes and food-grade disinfectants should be used.
- Disposable drinking cups should be kept in their protective sleeves or a cup dispenser before use. Cups should be stored in a clean dry place.

End.