



**Service Priorities and Programmes**  
**Electronic Presentations**

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**Improve water safety for patient and staff in hospital**

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**Keywords:**

Prevention of Legionnaires' disease in hospital

**Introduction**

Legionnaires' disease (LD) is a severe form of disease with pneumonia caused by Legionella species. The main route of transmission of LD is through inhalation of aerosols created from contaminated water source

**Objectives**

A comprehensive risk assessment for the following: 1. Presence of reservoir and sources. 2. Condition favorable for bacterial proliferation, biofilm formation. 3. Likelihood of aerosolization by the water system. 4. Identify high risk areas & high risk patient group such as Oncology ward.

**Methodology**

1. Identify infrequently used water outlet including emergency shower in clinical areas; for those in high risk area, perform full flow flushing for 1 min daily, other areas can be performed by weekly. 2. Maintenance of shower head in high risk areas including regular cleansing 3. Maintenance and disinfection should be carried out for filtered/ bottle dispenser is recommended. 4. Provide boiled water to immunocompromised patients (BMT, Oncology, Haematology etc) and patient undergo head and neck surgery for drinking and mouth wash. 5. Drinking fountain must be prohibited in hospital.

**Result**

1. The emergency shower in New Block (infrequently use water outlet) should be flushed half yearly. 2. A new system was connected to the emergency shower to facilitate the implementation of the procedure and minimise splashing. 3. Shower head and hose in high risk areas would be changed half yearly with record. 4. Hot water temperature without thermal mixing valve water outlet in high risk areas will be checked and ensure  $>50^{\circ}\text{C}$  by quarterly with record. 5. Boiled water was provided to immunocompromised and / or head & neck surgery patients. 6. No drinking fountain in hospital.