How “cool” is it to have an ice machine?
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1. Introduction
- There were 6 patients identified with Mycobacterium avium in their respiratory secretions during March 2016 in one of the acute wards.
- The source implicated in this outbreak was an ice machine used for dispensing ice for oral consumption. This was located in the kitchen within the acute ward.

2. Methods
- To identify the link of the ice machine, an inspection was carried out using a known audit tool with a question set and recommendations.
- It was decommissioned; the tubings were removed and sliced open to reveal the state of the lumen. Swabs of the lumen were taken and acid-fast bacilli smear was performed subsequently in the in-house lab. Additional swabs and water samples from the ice machine were sent to Public Health England (PHE) reference lab.

3. Results
- The ice machine complied with the audit tool used. Ice was dispensed directly from the nozzle into a receptacle on demand. It was cleansed regularly and was maintained according to a planned maintenance programme.
- However, thick biofilm was found inside the lumen of the tubing connecting to the water supply. Acid fast bacillus was isolated from the smear. M.avium was confirmed by PHE reference lab.

4. Discussion
- Microbiological testing confirmed that the ice machine was the likely source of the M.avium outbreak.
- The existing Infection Prevention and Control audit tool was not able to reveal the quality of the ice-making machine. This incident was an opportunity to review our audit tools for ice-making machines and assurance processes to ensure ice is made from water of drinking quality as per HBN 00-09. It has opened discussions as to alternatives such as making ice with the use of commercially available ice cube bags or a centralised supply of ice cubes from catering.

References
1. PHLS Communicable Disease Surveillance Centre (1993) Ice as a source of infection acquired in hospital. CDR Weekly, 3(53)
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