The microbiological quality of ice used to cool drinks and ready-to-eat food from retail and catering premises in the United Kingdom.

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Abstract

A survey of 4,346 samples of ice from retail and catering premises examined 3,528 samples (81%) used to cool drinks and 144 samples (3%) from food displays. For 674 samples (15%), the origin was not recorded. Most samples of ice used to cool drinks or ready-to-eat food on displays did not contain coliforms, Escherichia coli, or enterococci. Of the ice used to cool drinks, 9% contained coliforms, 1% E. coli, and 1% enterococci in excess of 10² CFU/100 ml, and 11% had an aerobic plate count at 37 degrees C in excess of 10³ CFU/ml. The microbiological quality of ice used to cool drinks was poorer when melt water was present in the ice buckets. Ice used in food displays was more contaminated than ice used to cool drinks, with 23% containing coliforms, 5% E. coli, and 8% enterococci at 10² CFU/100 ml or more. Twenty-nine percent of samples had an aerobic plate count greater than 10³ CFU/ml. Ice that had been used to cool shellfish was of a lower microbiological quality than samples used to cool ready-to-eat fish, salads, or dairy produce. Samples of ice produced in commercial production facilities were of higher microbiological quality than samples of ice that were not. The microbiological quality of ice was dependent on the type of use, the type of premises, and the type and place of production. Although most ice samples were of acceptable microbiological quality, evidence from this study suggests that the microbiological quality of ice prepared and used at certain premises in the UK is a cause for concern.

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