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Microbiological agents in drinking water

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At the Final Task Group Meeting (Geneva, Switzerland, 21–25 September 1992), when the second edition of the *Guidelines* was approved, it was agreed to establish a continuing process of updating, with a number of chemical substances and microbiological agents subject to periodic evaluation. Addenda containing these evaluations will be issued as necessary until the third edition of the *Guidelines* is published, approximately 10 years after the second edition.

In 1995, a Coordinating Committee for the Updating of the WHO Guidelines for drinking-water quality agreed on the framework for the updating process and established three working groups to support the development of addenda and monographs on chemical aspects, microbiological aspects, and protection and control of water quality. The Committee selected microbiological agents for review, and identified lead individuals and institutions for the preparation of microbiological review documents and support individuals and institutions to assist in their review and finalization. Institutions and individuals from Australia, Austria, Canada, France, Germany, India, Indonesia, Italy, Japan, Netherlands, South Africa, Thailand, United Kingdom, and USA were involved in the preparation of the documents.

The draft microbiology review documents were submitted to a number of scientific institutions and selected experts for peer review. Comments were taken into consideration before the documents were submitted for final evaluation by the 1998 meeting of the Working Group on Aspects of Protection and Control and of Microbiological Quality.

The microbiological review documents contained in this addendum supersede those previously published in Volumes 1 and 2 of the second edition of the *Guidelines for drinking-water quality*. Their more extensive coverage of individual pathogens reflects the need for more substantial review information to assist
and support the further development of the Guidelines, particularly with respect to microbiological aspects.

The reviews do not conclude with the definition of “safe” or “tolerable” exposures as is the case with the analogous chemical reviews in the Guidelines. Microbiological quality may vary rapidly and widely and the health consequences of short-term exposures are typically significant. These features, combined with the incompleteness of current knowledge regarding the identity of waterborne pathogens and the poor availability and speed of analytical techniques for recognized pathogens, mean that defining safe exposures and monitoring their achievement are not generally the preferred means of control. Emphasis is therefore placed upon understanding conditions likely to ensure the safety of drinking-water supplies and monitoring their fulfilment more directly. The microbiology reviews published here therefore summarize current knowledge regarding quantitative aspects of transmission, attenuation, and removal of individual pathogens, and regarding the effectiveness of measures for the interruption of transmission.
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