

HISTORY OF GUIDELINE DEVELOPMENT

Silver

The 1958, 1963 and 1971 WHO *International Standards for Drinking-water* did not refer to silver. In the first edition of the *Guidelines for Drinking-water Quality*, published in 1984, it was not considered necessary to establish a guideline value for silver in drinking-water. No health-based guideline value for silver was established in the 1993 Guidelines. The third edition of the Guidelines, published in 2004, noted that there were no adequate data with which to derive a health-based guideline value for silver in drinking-water, and this assessment was brought forward to the fourth edition of the Guidelines, published in 2011. Since the 1993 Guidelines, it was noted that where silver salts are used to maintain the bacteriological quality of drinking-water, levels of silver up to 0.1 mg/L can be tolerated without risk to health. The fourth edition of the Guidelines incorporating the first and second addenda, published in March 2022 (based on the 2021 assessment as a background document to the Guidelines), re-confirmed that the data were insufficient to derive a health-based guideline value, and further noted that silver usually occurs in drinking-water at concentrations well below those of health concern. A bounding value (provisional reference value) of 0.1 mg/L was proposed, based on a case report of argyria in a woman who ingested silver for 16 months. It was noted that in spite of the uncertainty around this report, this value may provide a useful benchmark where elevated concentrations of silver in drinking-water may be expected, particularly where silver is used in point-of-use water treatment devices, although it was emphasized that silver is not recommended for use as a drinking-water disinfectant.