**Putting It All Together**

**Checklist for Dental Unit Water Quality Improvement**

Understanding the regulatory framework for devices and products intended to improve water quality is part of the product selection process. A comprehensive approach to improved water quality also includes proper selection, use, maintenance, and monitoring of all equipment, devices, and products. Use this checklist to help ensure the quality of dental water.

**The basics**
- Contact the dental unit manufacturer to request recommendations for treatment and maintenance
- Select products that are intended for dental waterline treatment rather than household products or disinfectants
- Use clean (tap or distilled) source water
- Routinely clean independent water bottle according to manufacturer's instructions
- Provide training to all personnel in how to properly replenish, treat, test or otherwise manage the bottled water systems

**Treat waterlines**
Always follow the manufacturer's instructions for the use of chemical products or devices to treat waterlines. Several best practices will help you ensure good results:
- Always wash hands before handling water bottle to prevent inadvertent contamination from hands
- Change microfilter cartridges according to the manufacturer's stated time interval
- Do not use products for continuous use as coolant water to hand-pieces or other dental patient care devices unless specifically indicated on the product label or insert
- Use shock treatment initially and as indicated by the waterline treatment product manufacturer
- If the manufacturer does not indicate a time interval for shock treatment, periodically monitor water quality to determine if additional treatment is necessary

**Testing waterlines**
There is no universal rule for testing waterlines. The frequency depends on the type of treatment and the history of the office regarding levels of contamination despite the use of treatment methods. Best practices for testing include:
- Test water immediately before scheduled treatment
- Wash hands before collecting sample
- Take care to not contaminate inside of water collection bottle
- Do not place water collection bottle top face-down on counter
- Test water immediately or refrigerate and prepare for transport to testing facility
- When performing tests in-house ensure the use of proper sampling media, incubation times, and temperatures. The scientific literature suggests that in-office testing results are less reliable than those performed in a qualified water testing laboratory.
- Neutralize chemicals in tap water that will interfere with sample growth (sodium thiosulfate is one type, check with test kit instructions)
- Maintain a record of sampling results for the same period of time that you keep spore test results
- Use sampling results to establish reasonable schedule for future sampling (i.e., if monthly testing for a year results in no waterlines exceeding 500 CFU/mL, consider testing every other month or quarterly)

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**Ask OSAP**

*Q*: We are using a dental waterline treatment that goes in the bottle attached to our units. How do I know that it actually makes the water meet the 500 CFU/mL goal in the CDC guidelines?

*A*: The only way to ensure that the product is producing the desired effect is to monitor the water quality. There are a number of reasons that water quality may remain poor in spite of the use of a product intended to treat dental waterlines. These can include failure of the product, failure to provide initial “shock” treatment if required, improper use of the product, or contamination of the water bottle. There are several companies that offer water-testing kits, including some university dental schools. It is important to follow the instructions carefully for water quality testing. For suggested frequency of water quality testing, consult the manufacturer of either your dental equipment or the water treatment product.

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Do you have an inquiry about infection control, occupational health, or practice safety? Ask OSAP. Send your questions to office@OSAP.org