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PATIENT SAFETY INITIATIVE

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Automatic Endoscope Reprocessors

The New Jersey Department of Health and Senior Services' (DHSS) Patient Safety Initiative has received a report of a potentially Serious Adverse Event, a "Near Miss" involving automatic endoscope reprocessors that had the incorrect disinfection time set and no temperature gauge.

During a medical equipment evaluation of the automatic endoscope reprocessors in an endoscopy department, it was discovered that a reprocessor's disinfection cycle was set for one minute instead of the manufacturer's recommended five minutes. The computer printout revealed that while the total disinfection process was more than five minutes, the actual time the equipment was in contact with the disinfectant was only one minute. Upon review of the log books containing the computer printouts, it was discovered that the reprocessor had been set at the one minute disinfection time for almost a year, potentially affecting almost 500 patients.

Further investigation of the automatic endoscope reprocessors also showed another potential issue; it was observed that a red light would turn on when the disinfectant liquid reached the effective temperature and would turn off when the temperature decreased. There was no temperature gauge provided with the machine to allow for a second check to determine that the disinfectant remained at the optimal temperature. The concern is that the reliance on a light only, with no visual temperature gauge, may cause facilities to assume the safe cleaning of their equipment even when the light on the processor may not be working properly.

A break down of the evaluation findings revealed several pertinent issues:

- Improper initial set-up of the equipment by the manufacturer.
- Lack of adequate staff training on interpreting and understanding the computer printouts.
- No instruction manual available for the equipment users.
- No visual temperature gauge.

DHSS Patient Safety Initiative recommendations:

- The facility's engineering and biomed should work with the manufacturer to ensure that the equipment is installed properly and all cycle times are at the right setting.*
- Staff should be adequately trained on all aspects of equipment including reading and understanding computer printouts.*
- A copy of the instruction manual must be kept with the equipment and available to the end-users.*
- Facilities should purchase equipment that has a visual temperature gauge. If a temperature gauge is not an option, facilities should purchase a thermometer that can be placed in the automatic reprocessor to confirm the temperature.

* Service Solutions: Equipment Failure is not an Option. 24x7 Technology and Service Solutions for Biomed. April 2004. Available at www.24x7mag.com/issues/articles/2004-04_01.asp