

10 Considerations for AER Selection

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Automated endoscope reprocessors (AERs) have been receiving a great deal of increased attention lately due to the FDA regulatory issues surrounding the Steris System 1, which as of August 2, 2011, will no longer be supported by the manufacturer in the United States. If your facility happens to be in the market for replacing or adding an AER, there are several to choose from, with state-of-the art technologies in every shape, size and feature/function offering. But before you fill out that purchasing request, here a few critical things to consider:

- 1. Scope Mix:** First take a look at your scope mix. If 80% of your inventory is Brand X, then it might make sense to first look at AERs designed specifically to reprocess scopes by that particular manufacturer.
- 2. Acquisition Costs/Budget:** Consider your budget limitations before you begin looking to appropriately narrow down your options. While the \$60,000 unit may have the most robust array of features, there are AERs with advanced technology for 50% of the price. As part of the equation, look at overall costs per cycle, including expenditures for service, support, energy, training, disinfectants and other consumables, such as test strips.
- 3. Footprint and Specifications:** Next look at your environmental limitations. Does the AER fit within your available space? Does it use a standard power supply, or do you need to have a special power supply installed? Is special plumbing required? Are there any hard or soft water requirements? Consider any factors that could impact your reprocessing room layout or incur additional expense. Some of the new AERs boast footprints that are half the size of their competitors, which translates into double the reprocessing capacity in the same space.
- 4. Automated Records:** There are many variations on the automated device tracking function, but the main purpose is to eliminate human error and the labor associated with manual entry. Automation may include operator identification as well as reprocessing time, date and error codes specific to each endoscope, tracked by model and serial number. Automation saves time and is an important enhancement to your infection control efforts.
- 5. Disinfectants:** Required chemicals for the AER play a critical role in determining reprocessing time, efficacy and energy efficiency. A disinfectant that is used close to room temperature is generally more energy efficient since the chemical doesn't require extensive heating prior to use. Additionally, a disinfectant that requires a shorter contact time with the scope will speed up your turnaround time. When weighing your alternatives, look at the disinfectant's cost per cycle and evaluate its microbial efficacy to determine if it kills the full spectrum of clinically relevant microorganisms. Another important consideration is whether the unit has features (i.e., closed system or gaskets/filters to control vapors) that minimize staff exposure to the chemicals used in the AER.

- 6. Cycle Time:** Cycle time is not as clear cut as it would seem. Some AERs have shorter cycles but only process one scope at a time. Others are dual scope units capable of reprocessing two scopes at once, either in a single basin for energy and cost efficiencies, or in two separate basins for independent cycle times. The best solution depends on your scope inventory and procedure load. If you have a heavy procedure volume but only a few scopes, you may be better off with an AER with a short cycle time and independent basin(s) for faster turnarounds. If you are a high volume facility with a robust scope inventory, a dual scope AER processing two scopes at one time might be your best option.
- 7. Cleaning Claims:** A few of the newest AERs also have cleaning claims which can either augment or eliminate steps in the manual cleaning process. When you are evaluating “cycle time,” consider whether a slightly longer cycle time is offset by a reduction in time required in the overall manual cleaning process. Remember that elimination of these manual cleaning steps can result in a process that is more consistent and results in less repetitive injuries to staff since these steps are the most variable and labor intensive in the process.
- 8. Service:** Another important consideration is the servicing of your AER. Find out how easy it is to service the unit and what a typical service schedule looks like for that model. Ask what yearly maintenance and servicing fees you should expect and how quickly service can be provided for the unit. Also find out if the AER is mobile; this is a nice feature, allowing the unit to be moved to prevent disruption of workflow within the endoscopy unit.
- 9. Training:** Make sure to check what training and support is provided with purchase of the AER. Are there onsite visits to train staff or repeat visits when new staff is hired? Is remote support provided to help troubleshoot issues or to answer your questions? What training tools, such as videos or competency checklists, are available to ensure that staff members are properly trained?
- 10. Compatibility:** Consult with the AER manufacturer regarding compatibility of your endoscopes with a specific AER or chemical. Chemical compatibility is influenced by a number of factors, including the chemical itself, the required contact time with the endoscope, and the temperature at which the chemical is used.

There are many features to consider when evaluating a new AER. Although cost is the most obvious factor that may influence a purchasing decision, determining the actual cost of using an AER may be less obvious. It includes not only the cost of the actual unit, but also installation costs, energy costs, the cost of the consumables to support the AER, labor costs associated with staff in reprocessing the endoscopes, repair/service costs for the AER, and repair costs for the endoscope being reprocessed.