simple, bright ideas.

Vaginal Specula: Single-Use vs. Reusable

The Medical Device Challenge

Practices looking to save time, reduce expense and improve patient care should consider what sticking with reusable vaginal specula is costing them.

The debate between reusable and single-use equipment rages on in the medical community, but when considering which vaginal speculum to use, it's not much of an argument. Bivalved vaginal specula have been a staple tool in medicine since as far back as the ancient Greeks. Physicians still relying on this old-school reusable device might be surprised to learn that a single-use option may be the more sensible approach financially and environmentally.

Working with a Reusable Device

Using a reusable vaginal speculum slows down the turnover time between patients. After completing a pelvic exam, the staff must clean the device, put it through disinfection, and then inspect it for potential damage. If everything checks out, it is repackaged and put back in place for the next patient. In a busy office, this work-flow can steal almost two hours out of the day.

Reusable specula are not made entirely of surgical steel. The non-steel parts of the device can absorb harsh chemicals used in the cleaning processes, exposing patients to possible injury. When staff members don't follow sterilizing procedures properly, there may be cross-contamination risks, as well.

Environmental Concerns

Reprocessing a speculum requires the use of strong detergents and solvents that are detrimental to the environment. These substances include ethylene oxide or sporicidal disinfectants used during the sterilization process. Ethylene oxide, or oxirane, is an alkylating agent that is potentially mutogenic with long-term exposure. The International Agency for Research on Cancer lists ethylene oxide as a proven carcinogen.

Even chemicals that seem innocuous are impacting the environment. Facilities that reuse devices like vaginal specula often release persistent bioaccumulative toxins during the incineration of medical chemical waste. Bleach, for example, can contain mercury, which is harmful to wildlife and humans.

Reusable devices require repackaging, as well. This step produces more plastic waste than single-use products because the secondary wrapping is heavier than packaging for a single-use device. When it comes to the environment, there is little doubt that single-use is the better choice.

Cost Savings

The real benefit is seen when looking at the business side of the debate. Single-use specula offer a cost savings not seen in their reusable counterparts. Reusable devices require extensive equipment to accommodate the sterilization process.

An autoclave, for example costs on average around 950 dollars. There is the expense of training the staff to properly clean and sterilize the tools, as well. The tab for stocking reusable specula looks something like this:

Basic Operating Costs		Cost per Year
Operating Labor	$	12,093.00
Autoclave Bags	$	780.00
Cleaning Solution	$	650.00
Weekly Testing	$	911.00
Record Keeping	$	911.00
Annual Permit Fee	$	300.00
Inventory Cost	$	300.00
Annual Cost of Reusable Specula	**$**	**15,945.00**

Annual Cost of ER-SPEC	**$**	**12,220.00**
Cost Savings per Year	**$**	**3,725.00**

Data for Cost Elements

Cost Elements		Default Value
Cost of Stainless Steel Specula	$	30.00
Number of Cycles per Day		2[1]
Specula Used per Cycle		10
Labor Hours per Cycle		0.45
Autoclave Bag Cost	$	0.15[2]
Autoclave Bags per Cycle		10
Labor Cost, Nurse (average)	$	51.68[3]
Annual Permit Fee	$	300.00[4]

[1] Based on 20 specula per day average

[2] Price based on online research

[3] Bureau of Labor & Statistics 2017 (http://www.bls.gov/oes/current/oes291171.htm)

[4] County-specific fee; typically $300 to $1,000 more for an autoclave

Summary

Switching to a single-use speculum, like ER-SPEC, is a cost-saving strategy. A practice that does an average of 100 pelvic exams a week could save over **$3,700** a year by making the switch.

Reusable vs. Single-use

Placed side by side, the advantages of single-use are clear.

- **Efficiency** — Staff no longer have to worry about cleaning and disinfecting the devices, giving them more time with patients and to complete other tasks.
- **Cost** — When all associated expenses are considered, using single-use vaginal specula is a more cost-effective strategy.
- **Patient Care** — Each single-use device comes packaged clean, reducing the risks of cross-contamination. Reusable devices have parts that can absorb toxic chemicals, putting patients at risk for chemical injury and cross-contamination.
- **Patient Comfort** — Cold metal versus a smooth acrylic surface—there is no question single-use products are more comfortable for patients.
- **Environmental Impact** — Hospitals create roughly 4.67 million tons of waste every year. Single-use vaginal specula create less overall waste and pollution than their reusable counterparts.

Conclusion

The vaginal speculum is one tool where the debate is finished. The advantages of switching to single-use specula are increasingly numerous as, unlike their reusable counterparts, these products continue to evolve and improve. Practices looking to save time, reduce expenses and improve patient care should consider if the costs of reusable vaginal specula are worth it.