



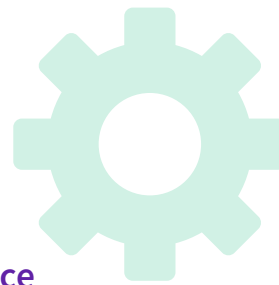
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Upgrade your lifecycle planning



When it comes to asset and equipment management in your healthcare system, the thought of having to replace critical machines can be daunting. While there are certainly benefits to bringing in brand-new equipment, there may be drawbacks that can affect the overall stability of your healthcare system.

Construction and infrastructure disruption are primary factors, as they can cause interruptions and obstacles to daily patient care delivery. Replacement projects can take months, because they can include electrical reconfiguration or even full-scale construction. Cash flow may also be a concern, as replacing equipment may not be financially feasible for a healthcare system, especially if having to consider replacing multiple machines, big ticket items like MRI scanners, or tackling full departments at once.

Finally, staffing and retraining may be considerations if you're replacing equipment, as your teams will need to be trained on new assets and become proficient to maintain daily workflows.

Fortunately, in today's world, decision makers have more options available than just equipment replacement. With technology advancing at a fast rate, hardware can now adapt to new advancements in software. In light of that, healthcare systems may want to consider the prospects of advanced upgrades to extend the life of equipment. Advanced upgrades can be an advantageous way to plan for capital investments and can also help minimize interruptions to daily operations.

Signs an upgrade is a smart choice

When assessing equipment performance and care capacity, there are key indicators that signal assets may be prime for advanced technology updates.

The first and most important consideration is patient need and the overall entitlement to care. Is the equipment doing what is required when it comes to patient care delivery and performing consistently and reliably?

Similarly, evaluate the relationship that your clinicians have with the equipment. Even if the equipment is meeting care needs, are clinicians having to spend more time working around issues with the medical devices? If so, this circumvention is only a short-term solution, and the underlying issues may ultimately need to be addressed.

Finally, is your CIO or IT team concerned about the security of the equipment? Some older equipment with outdated operating systems can be more susceptible to breaches or inability to access and share information appropriately.

Choosing upgrade over replacement

Once you and your team have determined the equipment performance needs improvement, you'll need to decide whether an advanced technology upgrade, such as an MR Lift where the magnet is kept but the software and casings are replaced, or a full replacement is the best course of action.

The following factors should be considered by your full team—ideally through some weighted rubric system—to arrive at the more appropriate approach.



1. Cost and available capital

Equipment replacement is a long-term investment and a significant capital expenditure; however, it is sometimes unavoidable. For example, there are very common cases where a newly-built facility turns 10 or 15 years old and now needs to upgrade or replace all of its equipment since it's all at the same place in the lifecycle. Even the best lifecycle planning may not account for the capital needed to replace all of the equipment.

In this case, decision makers may need to prioritize new equipment purchases, usually on the grounds of either department need, equipment usage, or the advancement of technology in a certain field versus another.

2. Construction and workflow interruption

As previously mentioned, a full replacement can often contribute to significant interruptions to care delivery or the environment in which care is delivered. In contrast, a technology upgrade—while still requiring some hardware installations in some cases—may not have to include construction or major disruption. While a replacement can take months to complete, advanced upgrades can be completed in a week or two in many cases.

Equipment replacements can also interrupt care delivery when staff training is required. Upgrades may require less training, allowing for a smooth transition, at least for the short term.

3. Forward and backward compatibility

Because of the speed of technological advancements, hardware is now often designed to be more compatible with new software updates. In many cases, software and technology upgrades can unlock new features and functionality in the same piece of hardware. A prime example of this can be seen in the area of cybersecurity. Even with



When considering whether to replace or upgrade your equipment, ask yourself if an upgrade can provide the new system capabilities you're seeking.

If so, an upgrade could be the right path to meet your needs.

an older machine, newer software can make the information and operation of the medical device more secure. This can also be the case in clinical operation, where imaging quality or other functionality can improve with new software.

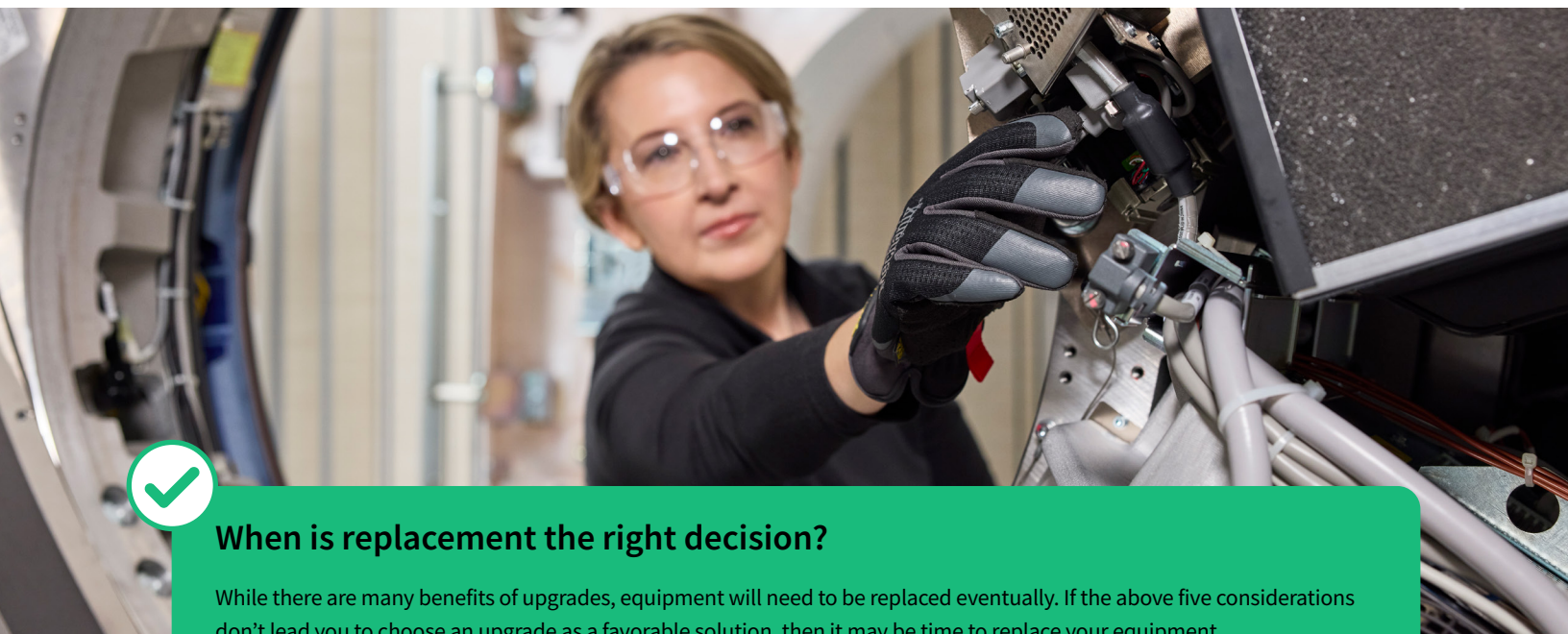
4. Standards and compliance

Measures are built into new equipment installation, but are they built into technology upgrades? Decision makers can rest assured that advanced upgrades to equipment are subject to the same standards as new equipment, so compliance is addressed even when you don't opt for new equipment.

5. Serviceability and continuity

One of the considerations of upgrading versus replacing is the short-term and long-term trade-off. Upgrades can be financially responsible, but it's important to know the timeline of the upgrade and how long it will be until you will need another upgrade or a full replacement.

In this review process, it's critical to ask if the upgrade will extend the life of the equipment. After the upgrade, it's important to continue to ask where you are in the equipment lifecycle so you can help ensure preparedness for the next decision you'll have to make regarding your medical devices.



When is replacement the right decision?

While there are many benefits of upgrades, equipment will need to be replaced eventually. If the above five considerations don't lead you to choose an upgrade as a favorable solution, then it may be time to replace your equipment.



Bring the team together

This article can be used by decision makers and their teams as a framework for helping to determine your approach to lifecycle planning. The key, however, is to bring in each of the important stakeholders to give their unique perspective. This includes IT, clinical care, regulatory, service and anyone who is affected by the equipment.

Taking into account these vital considerations and using repeatable, rubric-style decision-making can help teams arrive at the appropriate, data-driven solutions for lifecycle planning, whether it be upgrading or replacing the machines.

