Evaluating new technologies — a leader's guide

This guide serves as a tool for leadership to utilize when evaluating product and device acquisition.

When it comes to evaluating new and emerging healthcare technology, it is sensible for the leadership team to take a methodical and measured approach, cautiously assessing any device that may be used for patient care.

One can easily be tempted to move quickly to purchase and implement the device, particularly when healthcare technology so often offers lifesaving benefits, reduces pain, or may improve the patient's quality of life. Balancing urgency with due diligence - it's critical to weigh the benefits and potential risks that may arise when introducing the device.

There are many factors to consider when evaluating new technology and there are always concerns that the device may not live up to the intended use, perhaps not measure up in reliability, safety, and ease of use. With the expanded use of artificial intelligence with devices and in applications, the complexity for assessing the device is further complicated.

Additionally, it's important to solicit feedback from end users and other stakeholders to ensure that the technology will meet their needs and expectations.

Drawing on the combined expertise of colleagues and staff will add value to your assessment process.

The following serves as a technology assessment checklist for leaders:

	Response	Issue resolution/open item
Purpose		
What problem will the device or application solve?		
Is the purpose of the device or application in keeping with mission and vision principles?		
How will the organization benefit from the device or application?		
Has current technology in use been audited for updating or replacement?		
Decision-making and committee participation		
Is the leadership technologically savvy? Is education needed from product experts?		
Are the right departments and professional team members represented in the device review before final decision-making and purchase?		
Will the front-line staff members who use the device be present in the decision-making process?		

	Response	Issue resolution/open item
Will **risk management**, compliance and/or legal need to sign off?		
What one department or leader will have veto power?		
Usability		
Is the product user-friendly and easy to learn for anyone that will use the device?		
How will usability be measured?		
Cost		
Has a cost-benefit analysis been completed?		
Is the cost budgeted for the current budget year?		
Is the product a capital purchase?		

	Response	Issue resolution/open item
Will the cost be outside of the budget process due to emergent need?		
Is there a need to report the purchase of the product to insurance carriers immediately? If not, does the product need to be added to a statement of values, or list of equipment or services for future underwriting submissions?		
Is there a need to amend captive policies or other self-insurance documents to include coverage for the product?		
Has the return on investment been calculated?		
Will the cost be passed on to the end user or patient?		
Integration		
Will the device integrate with other applications?		
Does this device collaborate with any other device?		

	Response	Issue resolution/open item
Implementation plan		
How will staff training be accomplished?		
Will there be a full organizational roll out or will there be select departments identified to first beta test before full implementation?		
Patient rights		
Will a new consent or an update to the current consent processing be needed before implementation?		
Will patients be advised of any devices that are new to the organization that includes the use of artificial intelligence?		
Are there any issues or concerns with regards to implicit bias or health equity in implementing the use of the device?		
Communication and education		
Is new technology on the agenda at patient and facility safety meetings?		
How will staff be trained?		

	Response	Issue resolution/open item
Are staff competencies in place or will competencies tools and skills checklists be provided by the vendor?		
How will new technology be communicated to staff?		
Is the Board of Directors aware?		
New or replacement		
Is the device new, complimentary or replacing another device?		
Are the end users aware of the addition or change?		
Have the risks and benefits of the device been vetted?		
Has the vendor company been vetted?		

	Response	Issue resolution/open item
Reliability and support		
Is tech support from the vendor included in the purchase price?		
Is the vendor available 24/7/365?		
Will frequent software updates be needed?		
Are there added costs for updates?		
How are updates managed – vendor or owner?		
How will problematic events be captured, tracked and trended?		
Flexibility		
Does the product offer flexibilities for increased use and access?		

	Response	Issue resolution/open item
Security, threats, regulatory and privacy		
Does this technology protect information and privacy of its users?		
Who has access to what is shared and how is it shared?		
Are there any regulatory concerns with implementation of the device including HIPAA?		
Will a current policy need revision, or will a new policy be required?		
Has artificial intelligence been designed into the device?		
Contracted services		
Are the **organizational mandated requirements** for licensure, regulatory or accreditation accounted for in the language of the contract? Specifically quality metrics, reviews and requirements.		
Has the contract been reviewed by legal or claims for coverage requirements of both the owner and the vendor?		

	Response	Issue resolution/open item
Does the vendor use performance measurements to improve its performance over time?		
Product evaluation process		
Is there a process for evaluating the effectiveness of the product use at six months? One year?		
Has there been any situations requiring the device to be reported to the Federal Drug Administration (FDA) agency?		
Has the evaluation committee reviewed the MAUDE database for any historical problems with the device?		
Safety history		
Is the acquisition of the product/ device/application driven by a significant patient safety event?		
If there is a current device in place, have there been any issues with the current product driving the change to a new product or device?		
Has a procedure been established for handling and securing the device should a patient injury occur?		

Additional questions		

In summary, by taking a thoughtful and thorough approach to evaluating new technology, organizations can maximize their investments and stay ahead of the curve in today's rapidly evolving technological landscape.

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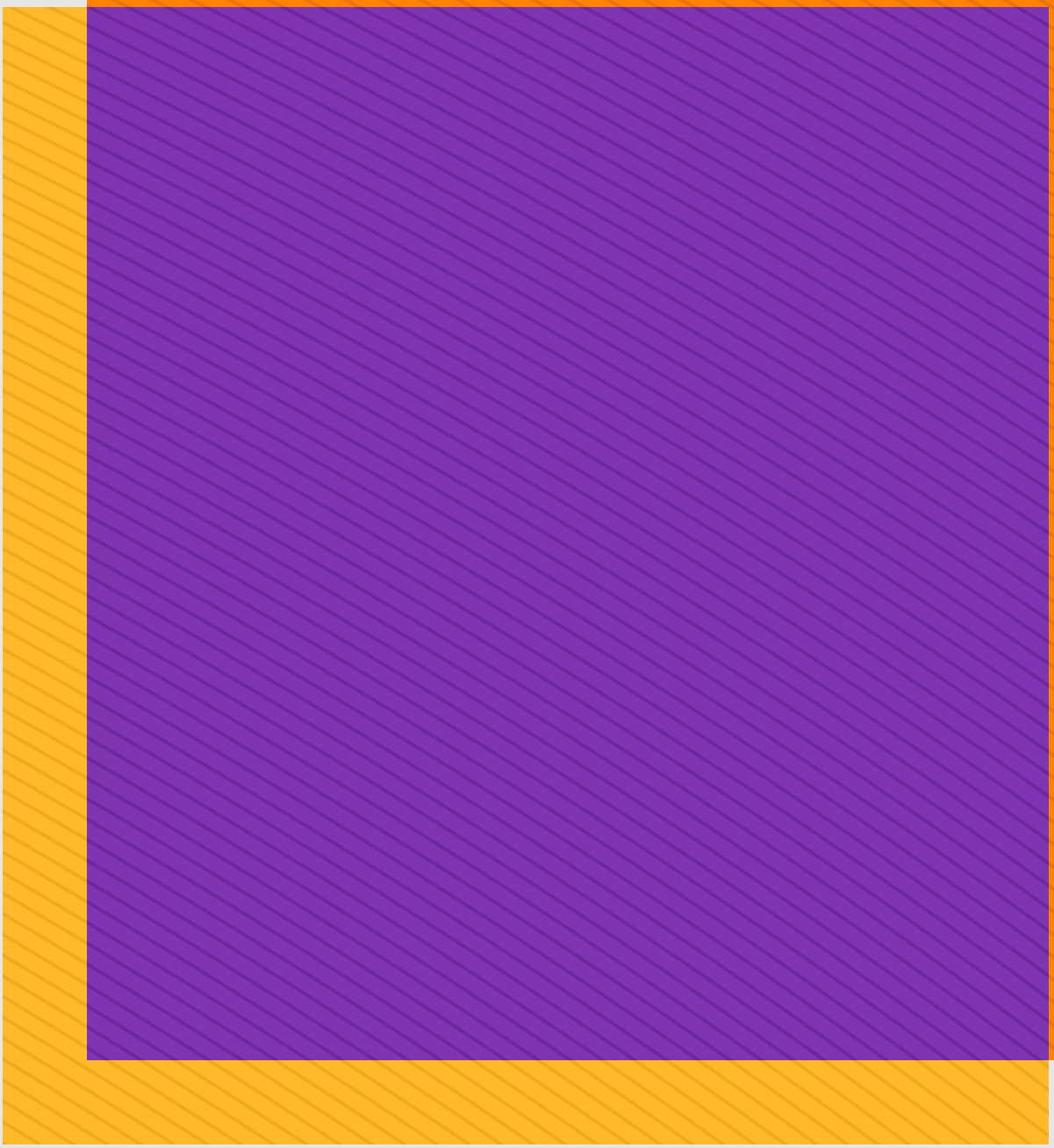

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