



Healthcare Equipment Planning Starts with Questions, Not Products

A practical guide to the critical questions that drive smarter planning, design, procurement, and activation decisions.

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Why Medical Equipment Planning Is About More Than Equipment

Medical equipment planning is one of the most influential, and most misunderstood, disciplines in healthcare facility design. While often viewed as the process of developing equipment inventories and coordinating purchases, the decisions made during equipment planning shape virtually every aspect of a project, from room layouts and engineering systems to clinical workflows, staffing models, technology integration, and long-term capital investment. When these decisions are made too late, projects face costly redesigns, construction delays, and operational compromises. When they are made too early without a clear operational strategy, facilities risk being built around assumptions that no longer reflect how care will be delivered. Successful projects don't begin by selecting equipment, they begin by asking the right questions at the right time.

Many projects begin by asking: "What equipment belongs in this room?" Experienced planners ask: "What care is delivered here, and what equipment enables that care?"

That subtle distinction changes everything. Focus your attention on the following key questions for each phase and you will enable success for your organization.

Strategic Visioning

- What clinical, operational, financial, and patient experience objectives will define project success?
- What problems is the project intended to solve, and what outcomes are expected?
- How will success be measured after the facility becomes operational?

Why it matters

Successful healthcare projects begin with clear objectives. When medical equipment planning aligns with clinical, operational, and strategic goals rather than replacement alone, organizations can make better decisions, reduce risk, and create more adaptable healthcare environments.

Governance

- Are decision-making authority, approval responsibilities, and stakeholder roles clearly defined?
- How will equipment decisions, project assumptions, conflicts, and changes be documented, communicated, and tracked?
- What governance process will be used to evaluate and approve changes to equipment scope, budget, or specifications?

Why it matters

Every successful healthcare project begins with clear objectives. Medical equipment planning should support the organization's clinical, operational, and strategic goals, not just equipment replacement. Establishing these priorities early enables informed decisions, minimizes risk, and helps create adaptable healthcare environments.

Strategic Planning

- How are clinical services expected to evolve over the next 5, 10, and 20 years, and how should those changes influence today's planning decisions?
- What level of automation, digital integration, and emerging technologies should be incorporated to support future models of care?
- How should the organization prepare for future equipment replacement, technology upgrades, and long-term capital investment?

Why it matters

Healthcare delivery is constantly evolving as technology, AI, automation, virtual care, and patient expectations reshape care models. Strategic planning ensures today's equipment decisions support future clinical and operational needs. By looking beyond immediate project requirements, organizations can create more adaptable facilities, improve efficiency, reduce future renovation costs, and maximize long-term capital investments.

Programming

- Do room layouts support the intended clinical activities, patient care processes, and caregiver workflows?
- Have equipment placement, clearances, maintenance access, and emergency response requirements been incorporated into the room design?
- Can the space safely accommodate future equipment upgrades, changing technologies, and evolving models of care without significant renovation?

Why it matters

Programming turns clinical needs into functional space requirements that influence care delivery for years to come. Thoughtful planning improves safety and workflow efficiency while reducing staff fatigue and costly redesigns. Building flexibility into spaces helps healthcare organizations adapt to future technologies and changing care needs.

Design Process (SD through CD)

- Does the facility infrastructure, including power, HVAC, medical gases, plumbing, structural systems, and IT, support both current equipment requirements and future technology?
- Can equipment be installed, serviced, maintained, and eventually replaced throughout its lifecycle without disrupting patient care or requiring significant facility modifications?
- Have Infection Control Risk Assessment (ICRA) requirements, where applicable, been incorporated into equipment planning and design decisions?
- Has multidisciplinary design coordination, including BIM/Revit modeling, clash detection, user reviews, room mock-ups, and design validation, confirmed that equipment, utilities, and building systems are fully coordinated?

Why it matters

Every equipment decision affects the building, infrastructure, technology, and clinical operations. Thorough coordination during design helps identify and resolve issues early, reducing changes, delays, and added costs. Aligning equipment requirements with building systems creates safe, efficient, and flexible environments that support patient care for years to come.

Construction Coordination

- Have equipment-related RFIs, submittals, shop drawings, field changes, and installation activities been reviewed and coordinated to ensure the original design intent is maintained and the construction schedule is supported?
- Have field conditions, dimensional changes, equipment placement, staging, storage, delivery logistics, and installation sequencing been coordinated to protect equipment and maintain required clearances, accessibility, and future serviceability?
- Have equipment staging, storage, and delivery logistics been planned to protect equipment and support an efficient installation process?
- Have all construction and installation changes been documented and incorporated into the Medical Equipment Inventory (MEI), BIM/Revit models, and other project documentation to accurately reflect the installed conditions?



Why it matters

Construction coordination ensures equipment is installed as designed, issues are resolved before they become costly rework, and documentation and collaboration support a smooth transition to activation and long-term operations.

Procurement

- Has the optimal procurement strategy been established for each equipment category, including acquisition method, standardization opportunities, total cost of ownership, and expected lifecycle value?
- Have all facility readiness requirements, including infrastructure, utilities, system integration, regulatory compliance, training, acceptance testing, commissioning, and long-term support responsibilities, been confirmed prior to procurement?
- Have procurement risks, including manufacturer constraints, lead times, supply chain disruptions, and construction schedule coordination, been evaluated and mitigation strategies established to support installation, activation, and occupancy?

Why it matters

Procurement transforms planning decisions into long-term capital investments by selecting equipment based on lifecycle value, operational performance, standardization, technology integration, supply chain resilience, and total cost of ownership—not just purchase price.

Transition Planning and Activation

- Has all medical equipment been delivered, installed, commissioned, tested, accepted, validated by end users, and integrated with the required clinical, IT, communication, and cybersecurity systems?
- Have all equipment-related punch list items been resolved, asset information documented, and preventive maintenance, service agreements, and lifecycle management plans established to support ongoing operations?
- Has the organization confirmed operational readiness by ensuring clinicians and support teams are trained and that the people, processes, technology, and equipment are fully prepared to support patient care on day one?

Why it matters:

A successful healthcare project is defined by operational readiness on opening day. Transition planning and activation align equipment, technology, people, and processes to reduce disruptions, improve staff confidence, and enhance patient safety. More



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We use proven and practical data-driven tools and techniques to enable improved patient care and staff satisfaction. Our capabilities in hospital supply chain consulting include applied industrial engineering, lean methodologies, systems thinking, and operations research. We provide comprehensive planning and design services to develop world-class facilities and support services operations.

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