

Why facility managers could become healthcare's early adopters of the robotics revolution

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by Lisa Farrell, the National Robotarium at Heriot-Watt University

Healthcare innovation narratives follow a predictable script. When robotics features in hospital discourse, the conversation orbits around clinical applications. Surgical precision, diagnostic capability, patient-facing intervention. The clinicians get the spotlight. The estates team gets overlooked.

That narrative is about to shift - but only if facility managers recognise the opportunity in front of them.

The case for facilities-first adoption

The pressure on healthcare facilities operations is mounting. NHS trusts face acute labour shortages, particularly in soft facilities management like cleaning, portering, and materials handling. Recruitment is struggling post-Brexit. Retention too. Staff report repetitive strain injuries, burnout, and fatigue from physically demanding work. Meanwhile, budgets are tighter than ever, and the infrastructure that moves supplies, medications, and equipment through hospital corridors remains fundamentally unchanged from decades past.

Yet this operational crisis coincides with a moment of genuine technological readiness. Robotics has matured. Floor cleaning robots now feature AI-powered navigation systems. Autonomous mobile robots handle materials transport safely around vulnerable patients and congested hallways. The regulatory barriers that slow clinical robotics adoption don't apply here in the same way. And crucially, facilities-based automation solves immediate, measurable problems without requiring the complex approval chains



that stall patient-facing innovations.

How other systems are moving

The data makes the case compelling. Global facilities management saw a 34% increase in robotics adoption in the past year alone, with cleaning services leading the growth. Leading healthcare systems internationally are already moving. In America, Cleveland Clinic operates more than eighty autonomous guided vehicles handling approximately 4,800 cart movements daily across its main campus. Los Angeles hospital Cedars-Sinai deploys a fleet of nearly 30 robots moving 20 tonnes of materials through hospital corridors each day. These aren't pilot projects. They're operational infrastructure.

What's striking about these deployments is not just their scale, but their impact on the workforce. At Cleveland Clinic, automation freed staff to focus on patient care while improving workflow consistency. Cedars-Sinai went further, creating dedicated roles for robot supervision and logistics coordination – effectively converting traditionally low-skill, physically demanding roles into higher-value positions requiring technical capability and problem-solving. That's workforce development, not replacement.

This distinction matters for the UK. Conversations with NHS leadership across England and Scotland consistently reveal the same pattern – facility managers are desperate for solutions, but unsure where to begin. Some trusts are piloting autonomous cleaning robots. Others are evaluating materials handling systems. But most are operating in isolation, without access to the evidence, expertise, or peer networks that would accelerate confident adoption.

That hesitation is understandable. Robotics remains novel to many facilities leaders. Procurement processes favour established suppliers. Capital budgets are constrained. And there's genuine uncertainty about whether systems designed for warehouses and factories will perform reliably in complex hospital environments with legacy infrastructure.

But the window for early action is open. Facility managers who move now – who pilot solutions, document outcomes, and build internal capability – will become the knowledge leaders their peers look to for guidance. They'll influence procurement standards across their trusts and boards. They'll drive the confidence that's required to scale adoption sector-wide.

More fundamentally, they'll reshape how estates teams are valued. Facilities management is essential work. Every hospital depends entirely on it. Yet recruitment struggles not because the work is undervalued by those who understand it, but because career pathways are often limited and development opportunities constrained. Robotics changes that equation by creating genuine advancement. A portering role becomes a "robotics-enabled logistics position." A cleaning operative becomes a "robotic systems operator." These roles gain access to technical skills development, progression into supervisory and coordination roles, and alignment with the broader digital transformation happening across healthcare. That's meaningful career expansion for people already doing critical work.

Why facility managers must lead

The global healthcare robotics market is projected to grow from £1.3 billion in 2023 to £2.6 billion by 2028. That growth will be driven by adoption. And adoption will be driven first by facilities leaders who understand their operational challenges, recognise that proven solutions exist, and have the confidence to implement them.



For facility managers in healthcare settings, the question is not whether robotics will transform their sector. It's whether your trust will lead that transformation, or follow others who moved first.

The evidence is clear. The technology is ready. The workforce pressure is real. What's needed now is leadership from facilities professionals who recognise this moment for what it is – an opportunity to solve entrenched operational challenges, create genuine career pathways for your teams, and demonstrate to the wider healthcare system that innovation doesn't only happen in operating theatres.

The robotics revolution in healthcare is coming. Facility managers have the chance to lead it.

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