

J&J tries to strike the right note with Ottawa



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But launch is unlikely before 2024.

Johnson & Johnson is going to start competing with Intuitive Surgical... in a few years' time. Yesterday the group unveiled its much-anticipated robotic surgery system for soft tissue procedures, but the Ottawa platform will not enter human trials until the back half of 2022.

With up to six robotic arms integrated into the operating table, compared with current systems' three or four mounted separately, Ottawa is intended to allow greater flexibility while taking up less space in the operating theatre. But Intuitive has ruled the market here for decades, and Medtronic is gearing up to launch its Hugo system next year, so J&J is banking on moving into new areas to secure itself a piece of the action.

The Ottawa system is the result of J&J's efforts to combine technology developed by Verb Surgical, its collaboration with Google's healthcare-focused sibling Verily, with the machines made by Auris Heath. J&J acquired both Verb and [Auris last year](#).

Ottawa will be able to perform a range of procedures. The surgeon "can now use any combination of up to six arms across a variety of surgical specialities", said Frederic Moll, chief development officer of J&J's medical devices unit, on a webcast yesterday. Mr Moll co-founded both Intuitive and Auris.

Like Intuitive's da Vinci system, Ottawa is intended to do abdominal and chest surgeries. But J&J is also looking at other types of procedures for which robots are not typically used, potentially including endoscopy, orthopaedics and catheter-based procedures for vascular interventions.

Full integration with the table allows the arms to move together with more coordination, Mr Moll added, though it may occur to industry watchers that more arms could mean a risk of clashes or entanglement.

Being part of the surgical bed, Ottawa has "zero footprint", J&J says. The da Vinci robot is undeniably large, somewhat squat apparatus, whereas Medtronic's Hugo is made up of several separate modular components - each is smaller than the da Vinci but if four are present in the operating theatre they could, in combination, take up a similar amount of room. J&J says Ottawa's design frees up space, enabling better patient access and improving workflow, and allowing the entire platform to be moved from one operating room to another.

The next few years

Ottawa sounds like a different beast to its potential future competitors. But this is all still theoretical for now. J&J is "well on our way to starting system verification and validation in 2021," Mr Moll said, suggesting that the product is not a lot further than the prototyping stage.

This has not stopped J&J outlining its regulatory plans. After clinical trials in 2022 the company intends to seek a de novo clearance from the FDA, which makes sense – if the robot really is as innovative as the group claims J&J could hardly use an established machine as a predicate.

Though the timing of approval and launch, at around 2024, means that Ottava will probably be third to market it should at least mean that the Covid-19 pandemic ought not to be a major drag on uptake. The timeline of Hugo's debut is dicier: if major vaccination programmes are not in place by the time the Medtronic system appears in 2021 its launch could meet with a distinctly muted response.

Exactly how fierce the competition could end up being is contested. Stifel analysts contend that the robotic surgery market is highly underpenetrated and as a result there is room for all players to benefit, with an increasing number of competitors ultimately driving overall adoption higher.

But these machines are hugely expensive, often in excess of a million dollars for a single system, and hospital budgets ever more depleted. Results of Ottava's clinical trials will have to give buyers a compelling reason to opt for the newer technology over long-established systems.