

SITES Medical

Make-to-Order Joint Replacement: A New Paradigm in Orthopedics

Traditionally, original equipment manufacturers (OEMs) in the orthopedic industry produce implants and stock those in hospital storerooms or on warehouse shelves until they are needed for surgery ('make-to-shelf' manufacturing). This is done to ensure that the appropriate size implant is always available at the time of surgery and requires that 12 or more months of inventory is kept on hand. This is very costly to the OEMs and ultimately to the customers they serve and has plagued an industry more focused now on cost-containment than ever before.

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This increasing focus on cost-containment is due to a recent and rapid shift toward outpatient surgery settings for joint replacement procedures where reimbursement is lower than at inpatient hospitals. The outpatient centers are responding by choosing implant providers offering reduced costs in the form of a reduction in the cost of the implant itself as well as through enhanced operating room (OR) efficiency.

SITES Medical's answer to these acute needs for cost reduction lies in

a proprietary make-to-order (MTO) manufacturing process that can produce a high performance, low cost, fully cementless implant system that is size specific to the patient within three weeks of order. Since the implants are manufactured only after an order is initiated and delivered just in time for surgery, the MTO process greatly reduces the need for OEMs to stockpile inventory. The cementless nature of the implants enables OR efficiency by avoiding the need to mix, apply and let cure bone cement which can take 10-15 minutes of valuable OR time.

SITES Medical's make-to-order also enables OEMs to introduce new technology quickly. "When a company does not have to build twelve months of inventory to support the launch of a new product, they are able to shorten time-to-market. In addition, when the inventory cost burden is meaningfully lower, a company can make better use of its capital and grow faster," states Greg Stalcup, president and CEO of SITES Medical. This gives smaller players in the orthopedic industry an equal footing with the current market leaders. Additionally, SITES Medical intends to leverage its make-to-order methodology to lower the cost of total joint implants in countries outside of the U.S.

Apart from the make-to-order process, SITES Medical offers a suite of proprietary technologies including OsteoSyncTi, a porous titanium scaffold for bone and tissue ingrowth. It can be used as a standalone implant or combined with metal or polymer components for a wide range of applications. The version developed for



implant-bone attachment promotes extensive bone ingrowth and has been in clinical use since 2010, with over 15,000 implantations to date. It is also a key enabling technology of the MTO process.

OsteoSyncTi and MTO are testaments to the creativity and determination of the team at SITES Medical to solve challenging problems. Each member of the team possesses a depth of industry and functional experience that drives a greater level of innovation to create substantive value for customers. Above all, "We choose to conduct business with honesty and integrity and are keen on building partnerships that are based on trust," says Dave Anderson, Commercial Affairs, SITES Medical.

While SITES Medical has several other technologies in its pipeline, including a PEEK knee and therapeutic delivery, its current focus is on further developing and integrating MTO into the manufacturing and logistics processes of its customer-partners. Moving forward, SITES Medical aims to continue leveraging innovative technology and processes to offer high-quality, high-value products to medical device OEMs. 