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# Surgical sutures and related products market in India

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The market context

India is an economy in the midst of a strong thrust on insuring the underserved segment. The Ayushman Bharat Yojana, called Pradhan Mantri Jan Arogya Yojana (PMJAY), endeavors to be amongst the world's largest health insurance schemes. This scheme aims to provide affordable healthcare to 50 crore people with a cover of Rs. 5 lakh/per family. This also includes secondary and tertiary care treatment and cover for pre-existing diseases. This translates into a large segment of the Indian population that now has an opportunity to avail quality healthcare.

The opportunity space

For the year 2012, the estimated total global volume of surgical procedures was 312.9 million – a 38.2% increase from an estimated 226.4 million in 2004. India constitutes to approximately 18% of world's population. Thus, a large number of surgical procedures will be performed in India, despite under penetrated healthcare services in the country. Almost all surgeries require sutures for repairing and closing of tissue following trauma or surgery.

The skill, complexities and challenges in suture making

The quality of suture material and its appropriate application has an important role to play in surgical wound healing and outcome.

Sutures are made from both man-made and natural materials. Natural suture materials include silk, linen, and catgut (the dried and treated intestine of a cow or sheep). Synthetic sutures are made from polymers, formulated specifically for surgical use. These sutures can be both absorbable and non-absorbable & on thread characteristics, may be monofilament or multi-filament. The size and shape of the needle, cutting profiles, individual metal's strength, flexibility and uniformity

determine the use of a particular surgical needle in a surgical procedure.

The needle varieties need to meet exacting quality standards on functional characteristics like strength, ductility, sharpness retention, needle displacement strength to aid surgeons. The suture material's characteristics like memory, tensile strength & knot tie down along with the swaging point (suture attachment to needle), determine the superiority of a particular suture- needle combination. The failure of suture-needle combination can be catastrophic in surgical practice.

The challenges in developing a high quality suture needle combination are multi-farious. The technological challenges of creating fine needles, which retain the characteristics expected without manufacturing variation in a cost-effective manner, may be daunting. It requires heavy investment in R & D, technology, manufacturing, quality assurance and training. Additionally, the raw material, which is required to produce these specialized medical devices, may not be available readily in the country. This leads to scenario where producing these devices makes it an arduous task which may only be perfected by a few manufacturers who have the wherewithal and will to compete and succeed in this highly challenging segment.

Also, there is a strong need to manufacture in India as part of 'Make in India Initiative' to de-risk the vital sector of healthcare from external exigencies and to promote Indian medtech industry.

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