



**China Medical Robotics Industry Report,  
2016-2020**

**Oct. 2016**

## **STUDY GOAL AND OBJECTIVES**

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## **REPORT OBJECTIVES**

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## **METHODOLOGY**

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## **INFORMATION SOURCES**

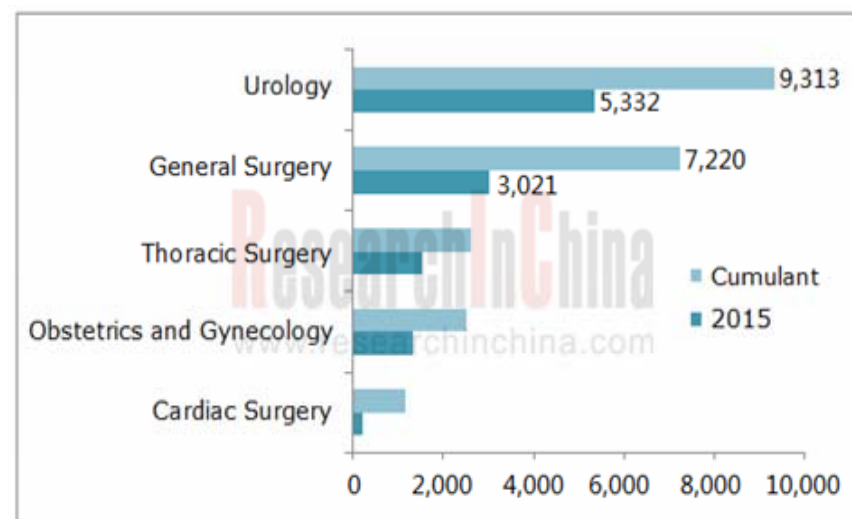
The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

Medical robotics can be used in surgery, rescue, transport, care, rehabilitation, dispensing and so on for the sick and wounded. Especially, surgical, rehabilitation and dispensing robots are the R & D priorities for China.

The overall development of Chinese medical robotics, in particular surgical robots, is relatively backward. In recent years, China has been dependent on Da Vinci products imported from the United States-based Intuitive Surgical. As of the end of December 2015, more than 40 Chinese hospitals had installed over 50 surgical robots for fulfilling 11,445 cases of surgery in 2015 and 22,917 cases over the years cumulatively. According to diseases, Da Vinci surgical system finds main application in urology and general surgical disciplines (hepatobiliary, pancreatic, gastrointestinal, colorectal and thyroid surgery, etc.) in China, and have implemented 9,313 and 7,220 cases so far respectively, occupying 40.6% and 31.5% of the total separately.

**Surgery Cases Operated by Surgical Robots (Da Vinci) in China by end of 2015 (by Disease)**



Source: ResearchInChina

However, Chinese surgical robots have also made some progress with the support of the national policies and subsidies. In July 2016, CFDA received Beijing TINAVI's registration application for its third-generation "Tianji" orthopedic surgery robot, which is expected to be formally commercialized at the end of 2016 or in early 2017. At present, TINAVI's orthopedic surgery robots have been applied to more than 10 hospitals such as Beijing Jishuitan Hospital, and have completed beyond 2,000 cases cumulatively.

In addition, Tianjin University has put its minimally invasive surgical robot system "Smart S" into clinical application and prototyped three models of "Smart S2" which are expected to be mass-produced at the end of 2016 or in 2017. Neurosurgical robot Remebot, the 6th-generation product co-developed by Navy General Hospital and Beihang University (Remebot responsible for industrialization) came out and was specially accepted for approval by CFDA in 2015 and is expected to be granted approval certificate at the end of 2016. Moreover, Remebot has started CE certification. The Laboratory of Robotics and System of Harbin Institute of Technology (affiliated companies: Boshi Automation and Harbin Sizherui Intelligent Medical Equipment Co., Ltd.) is expected to apply for product registration for its minimally invasive celiac surgical robot system at the end of 2017. Jinshan Science & Technology announced in Sept 2016 that the "minimally invasive thoracic & celiac surgical robot" co-developed with Tianjin University, Suzhou University, Harbin Institute of Technology, Chongqing University, and Southwest Hospital will go into clinical stage soon.

Due to low technical barriers and good market prospects, many Chinese enterprises have gotten involved in rehabilitation robot and dispensing robot fields and aggressive industrialization of these products. The enterprises focusing on rehabilitation robot include Jimho Robot (Shanghai), SIASUN Robot & Automation, Jinming Machinery, Truking Technology, and Midea Group and the ones on dispensing robot are Weibond Technology, Shenzhen Sanggu Medical Robot, and Wuxi Angel Medical Robot. However, it should be noted that these companies generally lack core technologies with less intelligent robots and need to spend large sums of money on R&D in the future.

China Medical Robotics Industry Report 2016-2020 highlights the following:

- ⇒ Operating environment for medical robotics in China (international markets, domestic policies, etc.);
- ⇒ Medical robot industry in China (status quo, competitive landscape, market segments (rehabilitation robot, surgical robot, dispensing robot), etc.);
- ⇒ 6 overseas and 18 Chinese medical robot enterprises (operation, medical robot business, development prospects, etc.)

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