

Robotic-Assisted Surgery Systems Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The robotic-assisted surgery systems market is estimated to be valued at USD 5,340.93 million in 2020, and it is expected to grow with a CAGR of 16.69% during the forecast period.

Globally, the rising number of COVID-19 cases has a profound impact on the robotic-assisted surgery market, as surgical procedures initially had to be postponed or delayed. Furthermore, according to the article, "Impact of the COVID-19 pandemic on oncological and functional robotic-assisted surgical procedures," published in January 2021, the COVID-19 pandemic led to a 60% decrease in robotic surgical a 49% decrease in oncological procedures. Furthermore, robotic-assisted surgery safety was uncertain since the gas environment could facilitate viral dissemination. Hence, considering all the COVID-19 and post COVID-19 impacts, the studied market is expected to have a steady growth rate during the forecast period. ?Due to the high transmission rate and lack of treatment for the same, many countries, such as China, Italy, the United States, Brazil, India, Spain, Germany, and Iran, have suffered and are continuing to suffer the significant burden on both their economies and their healthcare systems.?

However, as these cases are rising, the preference for robotic-assisted surgical systems is also increasing due to the several advantages associated with them, such as facilitation of precise, tremor-free surgery and benefits of minimally invasive methods.

The major factors driving the market's growth are the rising technological advancements, the entry of new market players, the surging burden of chronic disorders, and the rising preference for minimally invasive methods. Cardiovascular diseases are the most prevalent across the world, and they are the leading causes of death. As per the 2020 updates of the World Health Organization, ischemic heart disease is responsible for nearly 16% of the world's total number of deaths. The rising prevalence of cardiovascular diseases is also increasing the number of cardiopulmonary surgeries and coronary artery bypass grafting (CABG) surgeries being performed. Thus, such factors may increase the demand for robotic-assisted surgery systems. As per the National

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Center for Chronic Disease Prevention and Health Promotion (April 2021), 6 in 10 adults in the United States have a chronic disease, and 4 in 10 adults have two or more chronic diseases. These conditions pose around USD 3.8 trillion of healthcare costs on the country's healthcare system every year. Robotic-assisted surgery systems are used in chronic disorders such as minimally invasive cardio procedures with less blood loss and fewer post-surgery complications, thus driving the growth of the studied market during the forecast period.

However, the annual maintenance costs of these systems, along with their disposable supply costs, are quite high, which puts them beyond the reach of many institutions and healthcare systems, especially in the middle- and low-income countries.

Robotic Assisted Surgery Systems Market Trends

The Surgical Robot Segment is Expected to Hold the Largest Share in the Robotic-assisted Surgery Systems Market

The surgical robot segment is expected to hold the largest share in the robotic-assisted surgery systems market during the forecast period.

With the emergence of COVID-19, surgeries had to be postponed, which impacted the market for surgical robot systems negatively. According to the study based on 12 weeks of peak disruption to hospital services, published in the British Journal of Surgery in May 2020, due to COVID-19, around 28.4 million elective surgeries had to be canceled or postponed in 2020, globally. According to a study conducted by an international consortium, in May 2020, more than 580,000 planned surgeries in India had to be canceled or delayed due to the COVID-19 pandemic.

However, surgeries are being resumed now. Thus, the rising preference for surgical robots due to the minimum level of intervention required and the declining risk of cross-contamination may upsurge the demand for surgical robots.

Many hospitals and other institutions are actively adopting these surgical robots to enhance their surgical procedures in terms of patient outcomes. For instance, in 2020, Apollo Hospital Networks installed about 80 robotic-assisted surgery setups across India to perform general, oncology, urology, and bariatric surgeries. Furthermore, in November 2020, it introduced the "Robotic Joint Replacement Program", wherein healthcare professionals use next-generation robotic systems for smaller incisions and other activities in partial and total knee replacement procedures.

North America is Expected to Hold a Significant Share in the Market during the Forecast Period

During this pandemic, the United States was one of the most affected countries worldwide, which further significantly impacted the robotic-assisted surgery systems market. The adoption of robotic-assisted surgery systems may have declined during this period, as countries aimed at conserving and managing resources for curbing the spread of the disease.

North America is expected to dominate the overall robotic-assisted surgery systems market throughout the forecast period. The major factors attributing to the growth are the rise in the burden of chronic diseases and technological advancements in robotic-assisted surgery systems. According to the Canadian Institute for Health Information's 2020 report, more than 62,000 hip replacements and over 75,000 knee replacements were performed in Canada during 2018-2019, which represented an increase of 20.1% and 22.5%, respectively, over the last five years. Additionally, joint replacements have increased, with more than 137,000 surgeries being performed annually and an estimated amount of USD 1.4 billion for inpatient hospital and physician costs (excluding rehabilitation). Hence, the rising number of surgical procedures may further support market growth. Furthermore, in March 2021, Asensus Surgical received clearance from the Food and Drug Administration of the United States for its Senhance Surgical System, which is a digital laparoscopic platform that uses augmented intelligence to provide unmatched performance and patient outcomes through machine learning and provides surgical assurance through haptic feedback, eye-tracking camera

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control, and 3D visualization.? Thus, the launch of new products in the region is anticipated to drive the market significantly.

Robotic Assisted Surgery Systems Market Competitor Analysis

The robotic-assisted surgery systems market is inclusive of international companies and local players. New market players with more funds for research and development are now entering the market. Moreover, big players in medical devices are also focusing on paving their way in the robotic-assisted surgical systems market through mergers, acquisitions, etc. For instance, in December 2019, Ethicon, a division of Johnson & Johnson, announced acquiring stakes (of Verily) in Verb Surgical Inc. to strengthen Ethicon's surgery and advanced instrumentation capabilities. The deal was closed in February 2020. This move also helped the market grow. Some of the companies that are currently dominating the market are Intuitive Surgical Inc., Stryker Corporation, Johnson & Johnson Inc. (Verb Surgical Inc. and Auris Health Inc.), SRI International Inc., Accuray Incorporated, Think Surgical Inc., Renishaw PLC, Medtronic PLC, Smith & Nephew PLC, Brainlab, and NuVasive Inc.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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