

Global Radiotherapy Market (By Technology, Procedure, Application, End User, Country Analysis), Company Profiles, Market Dynamics, Trends & Recent Developments – Forecast to 2030

<https://marketpublishers.com/r/G1AB4A047F17EN.html>

Date: October 2024

Pages: 320

Price: US\$ 2,490.00 (Single User License)

ID: G1AB4A047F17EN

Abstracts

The global radiotherapy market was valued at US\$ 6.67 Billion in 2023, and is predicted to reach US\$ 10.27 Billion by 2030. Radiotherapy, also called radiation therapy, is a medical technique used to treat cancer and some non-cancerous conditions. This non-invasive therapy can be administered externally, known as external beam radiotherapy, or internally by implanting radioactive sources directly into or near the tumor, referred to as brachytherapy. The primary goal of radiotherapy is to eradicate cancer cells while minimizing damage to surrounding tissues. More than 50% of cancer patients require radiotherapy as part of cancer care and it is frequently used to treat the most common types, such as breast, cervical, colorectal, and lung cancer.

The growth of the radiotherapy market is driven by several factors such as the rising cancer incidence, technological advancements, increasing awareness about the benefits of radiotherapy, rising healthcare expenditure, and growing use of particle therapy for cancer treatment. According to GLOBOCAN 2022, 19.98 million people were diagnosed with cancer in 2022. This number is expected to rise to 24.11 million by 2030, and 30.97 million by 2045. To address the growing cancer burden, numerous cancer research organizations are actively adopting innovative strategies and patient-centered approaches for early diagnosis and treatment of cancer. Radiotherapy remains an important component of cancer treatment with over 50% of all cancer patients receiving radiation therapy during their course of illness. Therefore, the adoption of radiotherapy is rising as it helps to control cancer growth and prevents the cell from spreading.

Furthermore, radiotherapy industry is undergoing a technology-driven revolution. The incorporation of cutting-edge technology, such as precision treatment delivery systems including intensity modulated radiation therapy (IMRT), image-guided radiotherapy (IGRT), stereotactic body radiation therapy (SBRT) delivering precise dose of radiation to cancer cell, the development of MRI LINAC providing real time imaging during treatment, utilization of AI for treatment planning to analysis are playing a significant role in optimizing the radiotherapy treatment process. Such technological advancements focus on improving the functionality of radiotherapy delivery systems and expanding their application areas. The growing adoption of these advanced radiotherapy systems among cancer treatment centers are likely to drive the growth of the radiotherapy market over the forecast period.

Recent Developments

In May 2024, Elekta AB announced the launch of its latest linear accelerator (linac), Evo, a CT-Linac with new high-definition AI enhanced imaging, capable of delivering offline and online adaptive radiation therapy as well as improved standard image-guided radiation therapy treatments.

In March 2024, RefleXion Medical, Inc., a therapeutic oncology company, and Limbus AI, Inc., a provider of software solutions for cancer radiation therapy, announced a licensing agreement to incorporate Limbus' automated contouring software, Limbus Contour, into the RefleXion X1 radiotherapy treatment planning system.

In February 2024, Varian, a Siemens Healthineers company, received 510(k) clearance from the U.S. Food and Drug Administration (FDA) for TrueBeam and Edge radiotherapy systems featuring HyperSight imaging solution.

In November 2023, Toshiba Energy Systems & Solutions Corporation signed a business alliance agreement with China-based Ion Nova (Shanghai) Medical Technology Co., Ltd. for the sales of heavy ion therapy equipment in China.

By Type/Technology: Global Radiotherapy Market – Key Takeaways

Based on technology, the external beam radiotherapy (EBRT) segment dominated the global radiotherapy market, and this trend is expected to continue over the forecast period. External beam radiotherapy is a widely and well-

established cancer treatment modality. EBRT has high ability to kill tumor in the early phases as compared to conventional therapies with less side effects. The demand for compact advanced radiotherapy systems such as CyberKnife, Gamma Knife, and TomoTherapy have witnessed significant growth in recent years. The market is primarily driven by the increasing prevalence of cancer, technological advancements in radiation therapy, and growing demand for minimally invasive treatment options.

The internal beam radiotherapy also known as brachytherapy involves the implantation of radioactive sources directly into or near the tumor site. It allows for precise and targeted radiation delivery while minimizing radiation exposure to surrounding healthy tissues. The growing awareness of its benefits, advancements in imaging and treatment planning, and improved techniques have contributed to the rapid growth of internal beam radiotherapy.

The seeds dominated the global internal beam radiotherapy/brachytherapy market. Brachytherapy seeds are used in the treatment of various cancers, including prostate, breast, lung, gynecological, and head & neck cancers. The versatility of seeds in different tumor types contributes to their widespread adoption and market dominance.

The systemic radiotherapy is the fastest growing segment of the global radiotherapy market. Systemic therapies are normally used when the cancer has spread beyond a confined area or when someone has high-risk localized disease. Systemic radiotherapy is an effective treatment for cancers of the bone, prostate, and thyroid, among others.

By Procedure: Global Radiotherapy Market – Key Takeaways

Based on procedure, the external beam radiotherapy (EBRT) segment dominated the overall market with largest share of 61% in 2023 due to increased adoption in treatment of various types of cancers. With the global incidence of cancer on the rise, the demand for effective treatments like EBRT is escalating. Heightened awareness and improved cancer detection methods have further fueled this demand, especially given EBRT's common use in early-stage treatments.

Image-guided radiotherapy (IGRT) is a highly advanced form of radiation

therapy that utilizes real-time imaging techniques to precisely target and deliver therapeutic radiation to tumors while minimizing exposure to surrounding healthy tissues. IGRT also plays a crucial role in adaptive radiotherapy (ART), where treatment plans are adjusted based on changes in tumor size, shape, or position over the course of treatment.

Particle therapy is the fastest growing segment in the external beam radiotherapy market. It offers a multitude of advantages that serve as powerful growth drivers for its widespread adoption. One of the foremost drivers is its precision in targeting cancerous tissues. This precise targeting minimizes damage to surrounding healthy tissues, thereby reducing adverse effects, and enhancing patient quality of life.

The high-dose rate (HDR) brachytherapy segment dominated the market and accounted for the largest revenue share in 2023. Eckert & Ziegler BEBIG, Varian Medical Systems, and ELEKTA AB are some of the prominent companies in the HDR brachytherapy industry. In May 2023, Varian Medical Systems announced the launch of its new brachytherapy system, the TrueBeam STx. The TrueBeam STx is a high-dose-rate (HDR) brachytherapy system that uses a linear accelerator to deliver high doses of radiation to tumors.

The low-dose rate (LDR) brachytherapy provides continuous low-dose radiation over an extended period. This gradual delivery of radiation helps in effectively treating certain types of cancer, such as prostate cancer, while minimizing damage to surrounding healthy tissues.

By Application: Global Radiotherapy Market – Key Takeaways

Based on application, the breast cancer dominated the global radiotherapy market, driven by the global surge in breast cancer cases underscoring the pressing need for effective treatments like radiotherapy.

The prostate cancer application segment captured second highest share of the global radiotherapy market in 2023. Radiotherapy is a highly effective treatment for prostate cancer, with success rates ranging from 80%-90%.

The rapid rise in lung cancer prevalence, coupled with a rising count of patients opting for radiotherapy, is expected to drive growth in this segment.

By End User: Global Radiotherapy Market – Key Takeaways

Based on end-user, the global radiotherapy market is dominated by hospitals segment. The availability of advanced medical technologies and skilled radiation oncologists is what prompts cancer patients to choose hospitals for their radiotherapy procedures.

The oncology clinics segment is likely to capture 29% share of the global radiotherapy market by 2030. The oncology clinics segment is rapidly opting advanced radiotherapy devices to provide advanced and effective patient care. This allows them to offer streamlined and efficient services, often with shorter wait times for patients. Additionally, oncology clinics may be more flexible in terms of scheduling appointments and providing personalized care.

The demand for ambulatory radiotherapy centers is driven by an increasing preference for outpatient care settings, which offer cost-efficiency, convenience, and reduced patient burden compared to in-hospital treatments.

By Region: Global Radiotherapy Market – Key Takeaways

North America dominated the global radiotherapy market in 2023, and is anticipated to lead the market over the forecast period. This dominance can be attributed to various factors such as a high number of cancer patients in the region undergoing radiotherapy procedures, presence of well-established healthcare facilities, favorable reimbursement policies, and strong foothold of market players in the region.

The United States dominates the radiotherapy market due to its strong medical devices industry and stringent regulatory environment. The United States has a high incidence of cancer, with millions of new cancer cases diagnosed each year across various cancer types. The increasing prevalence of cancer drives the need for advanced radiotherapy modalities which offer precise and targeted treatment delivery while minimizing damage to surrounding healthy tissues, hence fueling the market growth.

Europe held second highest share of the global radiotherapy market in 2023,

driven by factors such as the accessibility to more accurate and efficient cancer treatments, increasing research and development activities, and partnerships among manufacturers. Countries like Germany, France, and the UK have well-established radiotherapy infrastructure and high adoption rates of advanced technologies. Furthermore, various European countries are investing in healthcare infrastructure, including radiotherapy facilities, to improve cancer treatment outcomes.

Asia Pacific is likely to witness fastest growth over the forecast period, owing to factors such as the increasing investments in healthcare infrastructure, a rising patient population, and growing awareness about the benefits of radiotherapy. Countries like China and India, in particular, are witnessing substantial market growth due to their large population base and efforts to improve cancer treatment facilities.

Middle East and Africa and South America are competing closely with each other to grab maximum share of the global radiotherapy market.

Contents

1. INTRODUCTION

- 1.1 Industry Definition and Research Scope
- 1.2 Research Methodology

2. EXECUTIVE SUMMARY

3. GLOBAL RADIOTHERAPY MARKET AND FORECAST (2018 – 2030)

4. GLOBAL RADIOTHERAPY MARKET SHARE AND FORECAST (2018 – 2030)

- 4.1 By Type/Technology - Global Radiotherapy Market Share and Forecast
- 4.2 By Segment - Global External Beam Radiotherapy Market Share and Forecast
 - 4.2.1 By Segment - Global Compact Advanced Radiotherapy Systems Market Share and Forecast
 - 4.2.2 By Segment - Global Particle Therapy Systems Market Share and Forecast
- 4.3 By Segment - Global Internal Beam Radiotherapy/Brachytherapy Market Share and Forecast
- 4.4 By Procedure - Global Radiotherapy Market Share and Forecast
- 4.5 By Procedure - Global External Beam Radiotherapy Market Share and Forecast
- 4.6 By Procedure - Global Internal Beam Radiotherapy/Brachytherapy Market Share and Forecast
- 4.7 By Application - Global Radiotherapy Market Share and Forecast
- 4.8 By End User - Global Radiotherapy Market Share and Forecast
- 4.9 By Region - Global Radiotherapy Market Share and Forecast

5. BY TYPE/TECHNOLOGY - GLOBAL RADIOTHERAPY MARKET AND FORECAST (2018 – 2030)

- 5.1 Global - External Beam Radiotherapy Market and Forecast
 - 5.1.1 Global - Compact Advanced Radiotherapy Systems Market and Forecast
 - 5.1.2 Global - Particle Therapy Systems Market and Forecast
 - 5.1.3 Global - High Energy Linear Accelerators (LINAC) Market and Forecast
- 5.2 Global - Internal Beam Radiotherapy/Brachytherapy Market and Forecast
 - 5.2.1 Global – Seeds Market and Forecast
 - 5.2.2 Global – Applicators Market and Forecast
 - 5.2.3 Global – Afterloaders Market and Forecast

- 5.2.4 Global – Electronic Brachytherapy Market and Forecast
- 5.3 Global - Systemic Radiotherapy Market and Forecast

6. BY PROCEDURE - GLOBAL RADIOTHERAPY MARKET AND FORECAST (2018 – 2030)

- 6.1 Global - External Beam Radiotherapy Market and Forecast
 - 6.1.1 Global – Intensity Modulated Radiotherapy (IMRT) Market and Forecast
 - 6.1.2 Global – Image-GUIDED Radiotherapy (IGRT) Market and Forecast
 - 6.1.3 Global – Particle Therapy Market and Forecast
 - 6.1.4 Global – Stereotactic Technology Market and Forecast
 - 6.1.5 Global – 3D Conformal Radiotherapy (3D-CRT) Market and Forecast
 - 6.1.6 Global – Volumetric Modulated ARC Therapy (VMAT) Market and Forecast
- 6.2 Global - Internal Beam Radiotherapy/Brachytherapy Market and Forecast
 - 6.2.1 Global – High-Dose Rate (HDR) Brachytherapy Market and Forecast
 - 6.2.2 Global – Low-Dose Rate (LDR) Brachytherapy Market and Forecast
 - 6.2.3 Global – Pulsed-Dose Rate Brachytherapy Market and Forecast
- 6.3 Global - Systemic Radiotherapy Market and Forecast

7. BY APPLICATION - GLOBAL RADIOTHERAPY MARKET AND FORECAST (2018 – 2030)

- 7.1 Global Radiotherapy - Breast Cancer Market and Forecast
- 7.2 Global Radiotherapy - Prostate Cancer Market and Forecast
- 7.3 Global Radiotherapy - Lung Cancer Market and Forecast
- 7.4 Global Radiotherapy - Colorectal Cancer Market and Forecast
- 7.5 Global Radiotherapy - Cervical Cancer Market and Forecast
- 7.6 Global Radiotherapy - Others Market and Forecast

8. BY END USER - GLOBAL RADIOTHERAPY MARKET AND FORECAST (2018 – 2030)

- 8.1 Global Radiotherapy – Hospitals Market and Forecast
- 8.2 Global Radiotherapy - Oncology Clinics Market and Forecast
- 8.3 Global Radiotherapy - Ambulatory Radiotherapy Centers Market and Forecast
- 8.4 Global Radiotherapy - Other End-Users Market and Forecast

9. BY REGION - GLOBAL RADIOTHERAPY MARKET AND FORECAST (2018 – 2030)

9.1 North America – Radiotherapy Market and Forecast

9.1.1 United States – Radiotherapy Market and Forecast

9.1.2 Canada – Radiotherapy Market and Forecast

9.1.3 Mexico – Radiotherapy Market and Forecast

9.2 Europe – Radiotherapy Market and Forecast

9.2.1 Germany – Radiotherapy Market and Forecast

9.2.2 United Kingdom – Radiotherapy Market and Forecast

9.2.3 France – Radiotherapy Market and Forecast

9.2.4 Italy – Radiotherapy Market and Forecast

9.2.5 Spain – Radiotherapy Market and Forecast

9.2.6 Rest of Europe – Radiotherapy Market and Forecast

9.3 Asia Pacific – Radiotherapy Market and Forecast

9.3.1 China – Radiotherapy Market and Forecast

9.3.2 Japan – Radiotherapy Market and Forecast

9.3.3 India – Radiotherapy Market and Forecast

9.3.4 South Korea – Radiotherapy Market and Forecast

9.3.5 Australia – Radiotherapy Market and Forecast

9.3.6 Rest of Asia Pacific – Radiotherapy Market and Forecast

9.4 South America – Radiotherapy Market and Forecast

9.4.1 Brazil – Radiotherapy Market and Forecast

9.4.2 Argentina – Radiotherapy Market and Forecast

9.4.3 Rest of South America – Radiotherapy Market and Forecast

9.5 Middle East and Africa – Radiotherapy Market and Forecast

9.5.1 Saudi Arabia – Radiotherapy Market and Forecast

9.5.2 United Arab Emirates – Radiotherapy Market and Forecast

9.5.3 South Africa – Radiotherapy Market and Forecast

9.5.4 Rest of Middle East and Africa – Radiotherapy Market and Forecast

10. GLOBAL RADIOTHERAPY MARKET – KEY COMPANY PROFILES

10.1 Accuray Incorporated

10.1.1 Recent Developments

10.2 Brainlab AG

10.2.1 Recent Developments

10.3 Canon Medical Systems Corporation

10.3.1 Recent Developments

10.4 CQ MEDICAL (Formerly CIVCO Radiotherapy and Qfix)

10.4.1 Recent Developments

- 10.5 Elekta AB
 - 10.5.1 Recent Developments
- 10.6 Eckert & Ziegler
 - 10.6.1 Recent Developments
- 10.7 GE HealthCare
 - 10.7.1 Recent Developments
- 10.8 Hitachi High-Tech Corporation
 - 10.8.1 Recent Developments
- 10.9 Ion Beam Applications (IBA) SA
 - 10.9.1 Recent Developments
- 10.10 IntraOp Medical Corporation
 - 10.10.1 Recent Developments
- 10.11 Koninklijke Philips N.V.
 - 10.11.1 Recent Developments
- 10.12 Mevion Medical Systems
 - 10.12.1 Recent Developments
- 10.13 Nordion Inc.
 - 10.13.1 Recent Developments
- 10.14 NTP Radioisotopes SOC Ltd.
 - 10.14.1 Recent Developments
- 10.15 Optivus Proton Therapy Inc.
- 10.16 Panacea Medical Technologies Pvt. Ltd.
 - 10.16.1 Recent Developments
- 10.17 P-Cure Ltd.
 - 10.17.1 Recent Developments
- 10.18 Perspective Therapeutics (Formerly Isoray, Inc.)
 - 10.18.1 Recent Developments
- 10.19 Provision Healthcare
- 10.20 ProTom International
 - 10.20.1 Recent Developments
- 10.21 RaySearch Laboratories
 - 10.21.1 Recent Developments
- 10.22 RefleXion Medical
 - 10.22.1 Recent Developments
- 10.23 Sumitomo Heavy Industries Ltd.
 - 10.23.1 Recent Developments
- 10.24 Theragenics
 - 10.24.1 Recent Developments
- 10.25 Toshiba Energy Systems & Solutions Corporation

10.25.1 Recent Developments

10.26 Varian Medical Systems, Inc. (a Siemens Healthineers Company)

10.26.1 Recent Developments

10.27 ViewRay, Inc.

10.27.1 Recent Developments

11. GLOBAL RADIOTHERAPY MARKET – MARKET DYNAMICS

11.1 Global Radiotherapy Market – SWOT Analysis

11.2 Global Radiotherapy Market - Porter's Five Forces Framework

11.3 Global Radiotherapy Market – Key Trends

11.4 Global Radiotherapy Market – Growth Drivers

11.5 Global Radiotherapy Market – Challenges

I would like to order

Product name: Global Radiotherapy Market (By Technology, Procedure, Application, End User, Country Analysis), Company Profiles, Market Dynamics, Trends & Recent Developments – Forecast to 2030

Product link: <https://marketpublishers.com/r/G1AB4A047F17EN.html>

Price: US\$ 2,490.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G1AB4A047F17EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970