Summary:

The demand for Cancer Diagnostic and Treatment Equipment (CD&TE) continues to expand to meet the raising domestic healthcare needs. Both the government and private sector hospitals are in the process of upgrading the facilities supporting the growth of CD&TE. An unofficial estimate indicate that the CD&TE market was $203 million during 2003-04 which is likely to reach $236 million during the current year (2004-05) and further to $267 million next year. An estimated 70 per cent of the CD&TE in India is imported. International companies are present in India, either directly or through their joint venture partners. The Government of India (GOI) continues to liberalize trade regulations and currently allows the importation of all medical equipment and instruments, including CD&TE. U.S. companies are encouraged to appoint technically strong agents and distributors to sell their products and technologies in India, and participate in leading trade exhibitions to create market and product exposure. The U.S. Commercial Service (CS) offers programs to introduce U.S. products and technologies in the global market. Please visit CS India’s web site http://www.buyusa.gov/india to know more about our programs for U.S. firms.

Market Overview

This report focuses on the market trends for CD&TE including linear accelerators, simulators for Treatment Planning Systems, fluoroscopes, telecobolt therapy and branchy therapy equipment, X-knives and cell separators, CT scanners, mobile X-rays, mammography and ultrasound scanners. This report does not cover instruments used in medical laboratories for cancer detection.

The market for CD&TE in India generated an estimated $203 million in revenues in 2003-04, which grew to an estimated $236 million during the current year (2004-05). Industry representatives anticipate that the revenue from CD&TE will reach $267 million during 2005-06.

Market data relating to the small but growing CD&TE product sector is grouped under medical "electronics of all types." Accurate data related to the CD&TE market size, imports and domestic production are not available. Therefore, the market data used in this report are unofficial estimates based on discussions with leading industry specialists in the region.
Incidence of cancer of all types is on the increase in India. According to published information, a very high usage of tobacco, an estimated 40 per cent of Indian men and 15 per cent of women, contributes to tobacco-related cancer in the country. National Cancer Registry Program reported that 52.9 to 81.5 per 100,000 Indian men and 56.8 to 95.6 per 100,000 Indian women in the urban areas have been affected by cancer. Comparable data for the rural Indians is lower than the urban incidence. 32.6 per 100,000 men and 42.9 per 100,000 women have reported cancer. India has a high incidence rate of cancer of oral, pharynx, and cervix.

Government of India (GOI) and the state governments are upgrading hospital facilities to provide the much needed health care support for the rural population. As a first step, some government hospitals at district headquarters and large towns will be upgraded with multi-specialty facilities. These plans include, in many cases, the acquisition of CD&TE.

Governments continue to add hospital facilities in the country. Between 1981 and 2000, dispensaries and hospitals increased from 23,555 to 43,322; the number of hospital beds from 569,495 to 870,161; the number of doctors from 268,700 to 503,900; and the nursing personnel from 143,887 to 737,000. Despite the increase, the demand for hospitals and beds, particularly specialty hospitals, far surpasses the availability.

The domestic demand for healthcare services has grown from an estimated $4.8 billion in 1991 to $22.8 billion in 2002, and contributed an impressive 5.2 per cent to India’s GDP in 2002. The healthcare service is expected to generate revenue of $47 billion by 2012 (estimated 6.2 to 7.5 per cent of the GDP by 2012).

The Indian population of one billion is growing at a rate of 2.5 percent per year. Of that total, about 100-150 million have the demand for, and the discretionary income to purchase, private health care services. Many in the growing “middle income” segment look for international quality medical services in private super-specialty hospitals and this trend is likely to continue for the next five years and beyond.

Based on published information, less than 1 per cent of the Indian population has individual health insurance coverage during 2004. But with the aggressive marketing of the health insurance by the private sector, the subscription level is expected to reach 10 per cent of the population by 2010.

**Market Trends**

In the private sector, Chennai-based Apollo Hospitals (AH) is a major hospital group with 35 hospitals and 6400 hospital beds in several parts of India and neighboring countries, is a major corporate hospital chain in India. AH has established separate cancer diagnostic and treatment facilities in Chennai and Hyderabad and maintains special cancer treatment facilities in other multi specialty hospitals. Apollo plans to expand its presence by leasing new properties, by the acquisition of management control of existing private hospitals, and by outright buy-outs in the coming years.
In another private sector example, the Satya Sai Foundation, a not-for-profit organization, has established a major multi-specialty hospital project near Bangalore. Satya Sai keeps upgrading the medical equipment to offer the latest health care to its patients.

The Chennai-based Cancer Research Institute (CRI) maintains an excellent cancer diagnostic and treatment facility. Over 70,000 patients from India, South and South East Asia visit the CRI every year for treatment. The hospital has state-of-the-art facilities for the diagnosis, evaluation and treatment of cancer as well as cancer rehabilitation. The CRI has been a pioneer in the "multimodal" approach in the management of cancer in the country.

Established in 1941, the Mumbai-based Tata Memorial Hospital, an oldest cancer treatment center, is one of the largest cancer treatment facilities in India. Tata Memorial performs 8,500 major surgeries, about 500 laser surgeries and treats over 5,000 patients with radiotherapy and chemotherapy annually. Tata Memorial has installed state-of-the-art equipment including the latest spiral CT scanners, gamma cameras, ultrasound, microscopes, linear accelerators, simulators, and bone marrow transplantation facilities and keep upgrading the diagnostic and treatment equipment on a regular basis.

Started in 1973 with 50 hospital beds, Bangalore based Kidwai Memorial Institute of Oncology today maintains 429 beds and is one of the eleven Regional Cancer Centers in India. Kidwai Memorial has latest diagnostic and treatment facilities including Clinac 1800 linear accelerator, whole body spiral CT scanner, gamma camera, blood cell separators, and video endoscopes. Kidwai keeps upgrading its diagnostic and treatment facilities on a regular basis.

The Mumbai-based Wockhardt Medical & Research Center and the Bangalore-based Mallya Apollo Hospital Ltd., are other notable corporate sector hospitals in India. Large industrial houses, including the Tatas, Birlas, and Hindujas, have also established major hospitals in the country. Several other private sector hospital projects are in various stages of development and most of them plan to have a cancer treatment center. These developments are expected to support the demand for CD&TE products.

In their efforts to stay competitive and to attract patients for treatment, many Indian private sector hospitals are going through International Standards Organization (ISO) programs to maintain and to document the service. These ISO programs generally require the use of top-of-the-line instruments and equipment at all levels.

Import Market

An estimated 70 per cent of the CD&TE in India is imported. Indian hospitals import CD&TE including: linear accelerators, CT scanners, cobalt and branchy therapy systems, X-knifes, simulators for Treatment Planning Systems, and mammography and fluoroscopy systems. Some of the low-end CD&TE is manufactured in India.
An estimated $140 million worth of CD&TE was imported during 2003-04 which grew to an estimated $165 million during 2004-05. Projection for 2005-06 is $189 million.

International companies such as G.E., Siemens, Philips, Baxter, Bayer, Hewlett Packard, Water, Miles, Bohrienger Mannheim, Pickers and Coulter are present in India, either directly or through their joint venture partners. U.S. firms, including GE Medical Systems, lead the CD&TE market in India. However, Siemens and Philips are aggressively promoting all medical technologies, including CD&TE. Japanese firms are also competing in expanding Indian market.

Price, product features and payment terms are key factors, which influence purchase decisions of hospital administrators. Some third country companies offer deferred payment facilities and lines of credit for sale of their medical equipment to Indian companies.

**Competition**

BPL, Blue Star, SISCO, Remi and Nicholas Piramal are leading Indian manufacturers of medical equipment. These firms are seeking new business opportunities via joint ventures.

We estimate domestic production of CD&TE totaled $63 million during 2003-04. Local production for 2004-05 is estimated at $71 million, which is estimated to reach $78 million during next year.

**End Users**

The Government of India places a high priority on the development of India's healthcare sector. The Union government, state government and private sector hospitals are the largest end-users of medical equipment and systems, including CD&TE. Private sector hospitals are also major end users of CD&TE.

A network of regional cancer diagnostic and treatment facilities, with financial assistance from the GOI for developing radiotherapy facilities and cobalt therapy units, is being established in major cities throughout the country.

The Tata Memorial Hospital & Cancer Research Institute ([http://www.tatamemorialcentre.com/misc/aboutus.htm](http://www.tatamemorialcentre.com/misc/aboutus.htm)), a public-trust organization established and largely financed by the Tata Group of Companies, is the leader in cancer research and treatment in India. The GOI often consults with the Tata Memorial on cancer-related policies and programs.

**Market Entry**
Government purchases follow a tendering process. Most of the government tenders follow two parts: technical bids and commercial bids. All government tenders are time consuming and generally the government decides on the lowest bidder.

Maintaining one or more technically trained Indian agent is the best way to enter the large Indian market. Agents must offer service support for all medical equipment, including CD&TE. Indian end users consider service support as an important factor in the capital equipment purchase decisions. Agents maintain close contact with government officials and decision makers, obtain advance information regarding potential business, handle trade promotion activities, and keep the foreign supplier abreast of local market opportunities, conditions and competition.

Indian importers establish an irrevocable letter of credit covering the value of imports, payable in favor of the supplier, against presentation of shipping documents. The Government of India’s Reserve Bank does not normally allow advance payments for imports.

**Opportunities for Profile Building**

Indian Council of Medical Research (ICMR) is the apex body for the formulation, coordination and promotion of biomedical research in India. Please visit the official web site [http://icmr.nic.in/home.htm](http://icmr.nic.in/home.htm) for further information on ICMR. Working with ICMR will give excellent opportunities for U.S. medical equipment suppliers, including CD&TE. Please visit ICMR’s [http://icmr.nic.in/cancer.pdf](http://icmr.nic.in/cancer.pdf) to know more about its Cancer research program.

**Key Contacts**

Indian Radiology and Imaging Association  
IRIA House  
C-5 Qutab Institutional Area  
New Delhi 110 016  
Tel: (91-11) 2696 5598  
Fax: (91-11) 2656 5391  
Contact: President

Indian Society of Vascular & Interventional Radiology  
Department of Radiology, SCTIMST  
Trivandrum 695 001  
Tel: (91-471) 2524636  
Fax: (91-471) 2446 433

**Upcoming Trade Shows/events**
All major CD&TE exhibitions and product demonstrations are organized at the "Annual Radiology Conference." Please contact Indian Radiological and Imaging Association (contact address above) for participation information and registration details.