# **CS Market Research**

# **Cancer Diagnostic/Therapy Equipment**

#### **Market Overview**

Cancer has been reported as the fourth leading cause of death in Malaysia. The incidence of cancer in Malaysia is estimated to be around 150 per 100,000 population. This means there are about 35,000 new cancer cases each year. In the year 2000, there were 40,244 admissions for cancer in government hospitals. Consequently, the cumulative lifetime risk of getting cancer was 1 in 4, in Malaysia. The largest group of admissions was for cancer of the blood (leukemia) accounting for 13.6%, followed by: breast cancer (10%), lung cancer (9.3%), cervical cancer (6.6%) and cancer of the mouth and throat (6.5%).

Cancer is indeed a serious national health crisis. Findings from studies on lifestyles, presentation of disease, diagnostic tests, interventions in cancer prevention, treatment, palliation and rehabilitation are necessary to define and refine the strategy against cancer in Malaysia.

Scientific studies and successful control activities have indicated that one third of all cancer cases are preventable, and a further one third are potentially curable if diagnosed sufficiently early. If these diseases are prevented or detected and treated early, less government resources will be spent on expensive treatment and rehabilitation, and more resources can be channeled to preventive healthcare. Practicing a healthy lifestyle, early detection and seeking the right treatment can prevent cancer.

#### **Market Trends**

The National Cancer Registry reported that 21,464 cancer cases were diagnosed among Malaysians of all ages in Peninsular Malaysia in 2003, comprising 9,400 males and 12,064 females. The median age for cancer diagnosis in Malaysian males was 59 years and 53 years for Malaysian females.

The five most frequent cancers in children (0-14 years old) were leukemia, brain cancer, lymphoma, and cancers of the connective tissue and kidney. In young adults (15-49 years old), the common cancers were nasopharynx, leukemia, lymphoma, lung, colon and rectum in men, and cancers of the breast, cervix, ovary, uterus, thyroid gland and leukemia in women. In older adults (50 years old and above), cancers of the lung, colon, rectum, nasopharynx, prostate and stomach were predominant among men, while cancers of the breast, cervix, colon, uterus, lung and rectum occurred commonly in women.

There are significant differences to be found in the incidence of cancer between the various major ethnic groups of Malaysia. This provides grounds for further investigation into the lifestyle and dietary causes of diseases. The Malay population suffers the least from cancer, while the Chinese population suffers from more than twice the incidence.

Cancer Incidence per 100,000 population (CR) by age and sex
Peninsular Malaysia

	M	4LE	FEMALE			
Age	No.	%	CR	No.	%	CR
0-9	447	4.8	19.9	294	2.4	14
10- 19	320	3.4	15.9	270	2.2	14
20- 29	355	3.8	22.6	371	3.1	23.8
30- 39	601	6.4	45.4	1217	10.1	90.8
40- 49	1282	13.6	113.2	2795	23.2	249.1
50- 59	1884	20.0	252.8	3047	25.3	426.7
60- 69	2406	25.6	604.2	2380	19.7	573.9
70+	2105	22.4	964.7	1690	14.0	617.2

CR: Crude Incidence Rate Source: National Cancer Registry

Early detection improves the chances of curing cancer. Unfortunately, delays in

detection of tumors are common among Malaysian cancer patients. A pilot study on cancer registration demonstrated that patients with stage 1 and 2 of the disease comprised 16.3% of all patients. Thus, early detection of cancer is crucial in improving the chances of survival.

The National Cancer Control Program aims to reduce the incidence and mortality of cancer and to improve the quality of life of cancer patients. Policies include: prevention, early diagnosis, treatment, palliative care and rehabilitation. Early detection of cancer is being attempted through public education and awareness programs.

#### **Import Market**

All cancer diagnostic and therapy equipment within Malaysia has been imported. There is no local production. In 2004, imports of cancer diagnostic and therapy equipment were estimated at \$65.87 million. The U.S. was the highest exporter with 21.8%, followed by Australia with 19.5%, Germany with 17.6 percent, Japan with 9.1% and China with 5.2%.

Listed below are the top three exporting countries to Malaysia, in 2004.

#### Ultrasound Scanning Machines:



Japan: 28,9% U.S.: 27.8% Germany: 15.70

#### X-ray Apparatus:



U.S.: 45.6% Germany: 13.1% Belgium: 8.3%

#### Composite Diagnostic or Laboratory Reagents



U.S.: 33.6% Germany: 19.9% U.K.: 10.2%

## **Commercial Opportunities**

Early detection and diagnosis followed by prompt treatment improves the chances of survival for cancer patients. The Penang Cancer Registry reported that stage 1 disease in breast cancer and cervical cancer was 8% and 31% respectively. There should be concerted efforts towards the down staging of cancer in Malaysia in order to achieve better results in tumor control and survival. The Malaysian public must be better educated in order to increase awareness that cancer is not something to be feared as untreatable. In fact, cancer can be cured if treated early.

## **Cancer Diagnosis**

A variety of tests are used to diagnose, classify and monitor cancer in individuals. These tests may be used to diagnose the disease with or without the occurrence of symptoms.

In order to diagnose cancer a physician typically performs a biopsy. A biopsy is a procedure in which a small sample of tissue is collected and examined under a microscope.

Additional tests used to diagnose and classify cancer include laboratory tests, i.e. blood tests and urine tests and imaging tests, i.e. x-rays, ultrasound, computerized axial tomography (CT) scan, magnetic resonance imaging (MRI) scan, and laproscopes.

CT scanners are already available in all the Ministry of Health state hospitals and larger district hospitals.

The Ministry of Health is upgrading cancerdetecting scanners such as positron emission tomography/computer tomography (PET/CT) in the public hospitals. PET can spot cancers even in early stages when they tend to be invisible to other diagnostic imaging. A diagnostic instrument that doctors use is the CT image, which is a detailed map of the body. Scanners then superimpose the PET image on the CT image. The changes shown at the cellular level allow doctors to pinpoint the size and location of the growth. Currently, the PET/CT scanner is available at Putrajaya Hospital and will be available at Penang Hospitals starting in August 2005.

## **Cancer Treatment/Therapy**

Treatment of cancer is a multidisciplinary effort. The modalities of treatment include surgery, radiotherapy, chemotherapy, hormonal therapy, immune therapy and symptomatic and supportive therapy. There are 14 radiotherapy centers in Malaysia: two in the Ministry of Health, three in universities and nine in the private sector. Currently, the proportion of cancer patients seeking treatment at government centers is in excess of 60%.

A shortage of adequate cancer care continues to be a problem. In Malaysia, the ration of mega voltage machines to the population is 1.2 per million. The existing centers require upgrading from time to time with the replacement of old machines and the installation of new, more technologically advanced machines.

Along with early detection and treatment, there must be adequate facilities and skilled manpower. The priorities for Malaysia include: (1) training of more oncologists and allied health staff, (2) upgrading and replacing aging machines in various government cancer centers, (3) strengthening programs for palliation and consolidation of existing cancer treatment programs.

A crucial component in winning the fight against cancer is increased research. The Ministry of Health together with universities, professional bodies, private sector and nongovernmental organizations are looking into various issues and redefining priorities in cancer research.

#### **End Users**

Treatment of cancer is a multi-disciplinary effort. Close networking between oncologists, surgeons, radiologists, pathologists and other relevant disciplines are necessary. This optimizes cancer treatment as well as facilitates the development of management policies that will improve the outcome of patients.

## **Market Access**

Medical equipment, devices and products are free from duties. Currently, medical devices are not yet regulated. However, medical devices that use lasers, such as x-rays, are subject to stringent pre-purchase evaluation by the Health Technology Assessment Unit within the Ministry of Health. The Ministry of Health is currently working with several agencies in preparing for medical device regulations. The government is hoping to implement medical device registration on a voluntary basis by 2006 and then change to mandatory registration by 2007.

The best way to enter the Malaysian market is to establish a local presence, which is a crucial component of doing business in Malaysia for contacts or after-sales service.

American firms wishing to supply government agencies or government-owned entities need to work with a local Malaysian company in order to bid on projects/tenders. Many American firms choose to have partnerships or joint venture agreements with local firms, and equipment suppliers generally appoint a local agent or distributors.

# Other Resources and Key Contacts

- ③ U.S. Country Commercial Guide for Malaysia: <a href="https://www.export.gov">www.export.gov</a>
- 3 U.S. Commercial Service Market Research Worldwide: <u>www.export.gov</u>
- National Cancer Society of Malaysia: <u>www.cancer.org.my</u>

- ③ Malaysian Liver Foundation: www.liver.org.mv
- 3 Nilai Cancer Institute: <a href="https://www.nci.com.my">www.nci.com.my</a>
- ③ Malaysian Breast Cancer Education Project: www.breastcancermalaysia.org
- ③ College of Radiology, Academy of Medicine, Malaysia: www.radiologymalaysia.org
- ③ Malaysian Oncological Society: www.malavsiaoncologv.org
- ③ National Cancer Council: www.makna.org.my
- 3 Hospis Malaysia: www.hospismalaysia.org

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