



MALAYSIA

Short introduction on country and its healthcare system

Malaysia is a federation of thirteen states and three federal territories in Southeast Asia with a total landmass of 329,847 km². The capital city is Kuala Lumpur, while Putrajaya is the seat of the federal government. The country is separated into two regions by the South China Sea — the Malay Peninsula; and Sabah and Sarawak on the island of Borneo. The population of Malaysia is approximately 27 million.

Malaysia achieved independence from the United Kingdom on August 3, 1957. Since independence, Malaysia's standard of living has increased progressively. With a relatively high GDP per capita, it from time to time has been considered as a newly industrialized country. Consisting of Peninsula Malaysia with Sabah and Sarawak separated by the South China Sea, it has a land area of 329,847km². The population stands at 27.5 million in the December 2007 estimation. The government places importance on the expansion and development of health care, putting 5% of the government social sector development budget into public health care.

Per Capita Income: USD\$ 12,800 (2006 est.).

System of healthcare: Publicly funded healthcare system with co-payment and subsidy.

Ethnicity: Mixed races with the majority Malays (62%), Chinese (24%) and Indian (8%).

Religion: Islam (official religion) (60.4%), Buddhism (19.2%), Christianity (9.1%), and Hinduism (6.3%). The remaining 5% is accounted for by other faiths, including Sikhism and Taoism.

Language: Bahasa Malaysia (official language), English, Chinese and its various dialects, various Indian dialects and local indigenous dialects.

Percentage of Pediatric Population (Age ≤ 15 years) compared to whole country: an estimated population of 27 million, 32% of whom are aged 0-14 years.

Registry:

- Malaysian National Cancer and Transplant Registries.
- Thalassemia Registry.

Hospital Profile

Name of centre : **Institute of Pediatric, General Hospital of Kuala Lumpur**
Address : Pediatric Institute, Hospital Kuala Lumpur,
Jalan Pahang, 50586 Kuala Lumpur, Malaysia.
Head of Department : Dr. Hussain Imam bin Haji Mohammad Ismail
Email : drhussain@hkl.gov.my

Type of hospital: Government

Infrastructure available for childhood cancer patients:

- Specific cancer wards: Yes
- Trained nurses in pediatric oncology: Yes
- Hematology-Oncology Unit consists of:
 - Pediatric Oncology (KK3)
 - Pediatric Bone Marrow Transplant (BMT)
 - Pediatric Outpatient Clinic
 - Day Care Unit (URH)
 - Multidisciplinary ward
 - 43% workload is from the Hematology-Oncology unit

The Oncology ward has 32 beds, while the Bone Marrow Transplant ward has 4 beds. There were a total of 1708 admissions into the ward in 2006.

How many practicing Pediatric Oncologists: 6

Blood Bank availability: Yes

Laboratory support services: Hematology, chemistry, microbiology, cytogenetics, stem cell laboratories, immunophenotyping services and various services are available.

Nursing and other paramedical personnel for Pediatric Oncology: General hematology and oncology nurses, and Bone Marrow Transplant nurses.

Psychosocial support available: PEKA, MAKNA, Social Welfare Department.

Medical Support from other departments: Pediatric Surgery, Orthopedic Surgery, Neurosurgery, Otolaryngology, Ophthalmology, Radiation Oncology and Dental Surgery. Child psychiatry and psychology services are also available.

Cancer drug availability: Most of the drugs are available.

Mode of Healthcare payment: Payment with subsidy.

Patient Profile

Age group: The center treats patients aged 0-18 years old.

Compliance to treatment: Evidence-based western medicine will be the main priority in treatment options. Here we advise against the usage of traditional or alternative medicine by the patients. We will explain the rationality of evidence-based medicine versus the non evidence-based practise.

Therapy

Protocol-based in research study group: Ongoing Malaysian Childhood Cancer Study Group (MCCSG) Study on Management of Retinoblastoma.

Radiation Therapy: Conformal Radiotherapy, Brachytherapy, Stereotactic Radiotherapy and Stereotactic Radiosurgery

Surgery: Pediatric surgery, Neurosurgery, Orthopedic Surgery.

Consultants and Specialists

Head of Unit and Senior Consultant:

Dr. Hishamshah Mohd Ibrahim

Senior Consultants:

Dr. Eni Juraida Abdul Rahman

A/Prof Dr. Bina Sharine Menon (UPM)

Consultants:

Dr. Mahfuzah Mohamed

Dr. Zulaiha Muda

Dr. Ida Shanaz Othman

Pediatric Oncology Trainees:

Dr. Ong Eng-Joe

Dr. Che Hadibiah Che Mohd Razali

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Name of centre : **Sarawak General Hospital**
Address : Jalan Tun Ahmad Zaidi Aduce, 93350 Kuching, Sarawak
Doctor-in-charge : Dr Ong Gek Bee
Email : onggb@hotmail.com

Sarawak is one of the two Malaysian states on the island of Borneo. The total population of the state was 2,312,600 in 2005. The pediatric oncology service is provided mainly by the government sector in public hospitals as well as the University hospitals. Sarawak General Hospital is the only hospital providing a pediatric oncology service in the state of Sarawak.

Hospital Profile

Type of hospital (private/government): Government hospital

Infrastructure available for childhood cancer patients

1 Specific cancer ward - 28 bedded with 4 side rooms

All nurses trained locally in pediatric oncology with on-the-job hands-on training

How many practicing Pediatric Oncologists: 1, assisted by 1 General Pediatrician

Blood Bank availability: Yes

Laboratory support services: Basic hematology / chemistry / microbiology and molecular laboratory services, immunophenotyping services available in collaboration with UNIMAS (University Malaysia, Sarawak). Cytogenetic samples are sent to the Institute for Medical Research (IMR), Kuala Lumpur. Cord blood bank available at the National Blood Bank in Hospital Kuala Lumpur.

Nursing and other paramedical personnel for Pediatric Oncology: General and Hematology / Oncology nursing

Psychosocial support available: Sarawak Children Cancer Society (SCCS)

Medical Support from other departments: Pediatric Surgery, Orthopedic Surgery, Neurosurgery, Cardiothoracic Surgery, Otorhinolaryngologic Surgery, Ophthalmic Surgery, Radiation Oncology, Dental surgery, and limited Child Psychiatry and Psychology services are also available.

Cancer drug availability: Most drugs are available on the Ministry of Health list

Mode of Healthcare payment: Subsidized by Ministry of Health, children attending school and the children of government employees are provided with free treatment.

Patient Profile

Workload - Sarawak General Hospital receives 60-70 new patients a year, not including relapses, of which around 40% are leukemias and the rest are solid tumors.

Age group – The center treats patients ages 0 to 12 years as a rule, with exceptions made for some patients up to 15 years in certain cases.

Compliance to treatment – We work closely with the family to stress chemotherapy as the standard of therapy for most childhood tumors, with support from the Sarawak Children Cancer Society and financial support from various non-governmental organizations to ensure patients return for follow up and maintenance therapy. Defaulters are minimal. Parents are advised to avoid complementary therapy during treatment and most parents comply during therapy.

Therapy

Protocol-based:

BFM 95-type ALL chemotherapy

UK AML 12 based AML chemotherapy

Solid-tumors – mostly UK or European-based closed protocols

Radiation Therapy availability – LINAC external beam radiotherapy

Surgery – Pediatric Surgery, Neurosurgery, Orthopedic Reconstructive Surgery, Cardiothoracic Surgery, Ophthalmic Surgery, Otorhinolaryngologic Surgery

Consultants and Specialists

Hematology Oncology

: Dr Ong Gek Bee

onggb@hotmail.com

General Paediatrician

: Dr Teh Siao Hean

tehsh@srwk.moh.gov.my

Pediatric Surgery

: Ms Anne Rachel John

Orthopedic Oncology

: Prof Pan Kok Loong

Radiotherapy

: Dr Beena Devi, Dr Prem S Shanmugam

Neurosurgery

: Mr Albert Wong Sii Hieng, Mr Donald Liew Ngian San

Ophthalmology

: Dr Intan Gudom

Otorhinolaryngology

: Mr Selva Kumar Subramaniam

Cardiothoracic Surgery

: Mr Prashant Joshi

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Name of centre : **University Malaya Medical Centre (UMMC)**
Address : University Malaya Medical Centre, 50603, Kuala Lumpur, Malaysia
Doctor-in-charge : Professor Prof Chan Lee Lee

Type of hospital (private/government): Semi-government hospital

Infrastructure available for childhood cancer patients

Specific cancer wards – 1 pediatric oncology ward and 1 pediatric day care unit (for out-patient administration of chemotherapy)
Trained nurses in pediatric oncology – 25
Pediatric Hematology-Oncology Clinics – 2 running every Mondays and Wednesdays

How many practicing Pediatric Oncologists: 4

Blood Bank availability: Yes

Laboratory support services: Extensive hematology / chemistry / microbiology and molecular / cytogenetics / stem cell laboratories, immunophenotyping services available as well as pediatric research lab capable of doing molecular and MRD studies. Cell and tissue banking also available.

Nursing and other paramedical personnel for Pediatric Oncology: General and Hematology / Oncology and BMT nursing

Psychosocial support available: Children's Cancer Fund, MAKNA, and Yayasan Kebajikan Negara

Medical Support from other departments: Pediatrics Surgery, Orthopedics Surgery, Neurosurgery, Cardiothoracic Surgery, Otolaryngology Surgery, Ophthalmology Surgery, Radiation Oncology, Dental surgery. Child Psychiatry and Psychology services are also available.

Cancer drug availability: Full range of drugs can be obtained without much difficulty.

Mode of Healthcare payment: Subsidized, medical savings through various types of basic insurance.

Patient Profile

Age group – The center treats patients aged 0 - 15 years

Compliance to treatment – We work closely with the family to stress chemotherapy as the standard of therapy for most childhood tumors. If family chooses to have alternative therapy, we accommodate and guide whatever will be the least and most reasonable form without disrupting patient's neither treatment schedule nor patient defaulting the treatments.

Therapy

Protocol-based in research study group:

MASPORE ALL 2003 and MASPORE AML 2006 protocols (Associate Professor Hany Ariffin in collaboration with NUH)

Radiation Therapy availability – Intensity Modulated Radiotherapy (IMRT), Conformal Radiotherapy, Brachytherapy, Stereotactic Radiotherapy and Stereotactic Radiosurgery.

Surgery – Pediatric Surgery, Neurosurgery, Orthopedic Reconstructive Surgery, Cardiothoracic Surgery

Consultants

Dean of Faculty of Medicine Professor Ikram Shah
Head of Department Professor Chan Lee Lee
Consultant Oncologist: Professor Wan Ariffin
Consultant Oncologist: Associate Professor Hany Ariffin
Pediatric Oncologist: Dr Chong Lee Ai
Pediatric Oncology Trainee Dr Shanti A/P RamaChandran

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