The Department of Child Health is one of the most active departments of the College of Medicine and Health Sciences (COMHS) and SQU Hospital (SQUH). The Department accounts for more than a third of total SQUH admissions and provides the best of patient care from birth to adolescence, encompassing all sub-specialties.

It has well-developed undergraduate teaching and training programmes collaborating with other sister institutions locally and internationally. Department members are actively involved in almost all of the College educational activities and committees including the Curriculum and Examination Committees. Department members have contributed significantly to the development and implementation of the new curriculum, as evidenced by the representation of the Department in the various committees (Dr Reem Abdwani in Phase III, Dr Dana Al-Nabhani in Pre-Clerkship, Dr Hashim Jawad in Pre-Internship, Dr Amna Al-Futaisi in Junior Rotation and Professionalism, and Drs Roshan Koul and Siham Al-Sinani in Senior Rotation; Dr Yasser Wali is the clinical coordinator of the clinical nutrition course in Phase II). In addition, the Department trains many foreign undergraduate medical students during their elective rotations.

The Department has also a highly integrated postgraduate training programme and is equipped with excellent Clinical Teaching Units (CTU’s) run by experienced teachers. Our Department started the first CTU in Oman and has been complimented on this by in-
ternational medical educationists. The Department teaches and trains junior doctors, preparing them for various examinations affiliated to the Royal College of Paediatrics and Child Health (UK), Royal College of Physicians and Surgeons of Glasgow and the Arab Board. The Department is the only centre in Oman offering subspecialty training of pediatric residents in metabolic diseases, neurology, immunology and haemato-oncology.

Finally, the Department conducts high quality research with state-of-the-art support from the genetic laboratories producing publications in high impact peer reviewed indexed journals. Collaboration with international centers of excellence in paediatrics has benefited a large number of sick children, especially those with haematological diseases.

The Department also takes great pride in continuing to serve the community, raising funds to serve children with all kinds of special needs in various ways.

Lack of space, technological support and personnel have limited performance in both academic and clinical areas. It is a long cherished dream of the Department to establish a world class Institute of Child Health in collaboration with the Ministry of Health.

**Staff**

**Faculty**

Zakia Al-Lamki, *Professor*
Muna Al-Saadoon, *Assistant Professor*
Hussein Al-Kindy, *Senior Consultant*
Amna Al-Futaisi, *Senior Consultant*
Saif Al-Yaarubi, *Senior Consultant*
Ibtisam B. Elnour, *Senior Consultant*
Salem Al-Tamemi, *Senior Consultant*
S.N. Joshi, *Senior Consultant*
Roshan L. Koul, *Senior Consultant*
P.C. Alexander, *Senior Consultant*
Matthew Zachariah, *Consultant*
Hamed Abdoon, *Consultant*
Siham Al-Sinani, *Consultant*
Reem Abdwani, *Consultant*
Lalitha Krishnan, *Consultant*
Mohamed Abdellatif, Consultant
Abdulhakim Al-Rawas, Consultant
Dana Al-Nabhani, Consultant
Adila Al Kindy, Consultant
Anas Al-Wogud, Consultant
Hashim Javad, Consultant
Faraz Masud, Senior Registrar
Zenaida Reyes, Senior Registrar
Syed R. Haider, Senior Registrar
Mohamed Elshinawy, Senior Registrar
Wafa Bashir, Senior Registrar
Kripail Mathew, Senior Registrar
Mahmoud Fathalla, Registrar
Maria F. Bataclan, Registrar
Mohammed Fazalullah, Registrar
Masood Ahmed, Registrar
Surekha Tony, Registrar
Manjusha Hira, Registrar
Ismail Beshlawi, Registrar
Mohammed A. El Naggari, Registrar
Islam M.S. Elbaroudy, Registrar
Aamir Qais, Registrar
Azza Al-Shidhani, Senior House Officer
Ashfaq Khan, Senior House Officer
Raghad Abdwani, Senior House Officer (on study leave)
Hilal Al-Mandhari, Senior House Officer
Renjit Mani, Senior House Officer
Rana Abelrahim, Senior House Officer
Shafiq U. Rehman, Senior House Officer
Laila Al-Yazdi, Senior House Officer
Yusriya Al Rawahi, Senior House Officer
Eiman Abdalla, Senior House Officer
Mazen A.M. Abuanza, Senior House Officer
Ashraf A. Saad, Senior House Officer
Sharef W. Sharef, Senior House Officer
Support Staff
Ruth T. Mujal, Coordinator (Hospital)
Aisha Al-Maskary, Coordinator (College)
Najah Al-Maawaly, Social Worker
Fatma Al-Farsi, Play Therapist
Kawther Al-Khusaibi, Play Therapist

Highlights of the Year 2009-2010

COMMUNITY SERVICE
Consultancies are provided to various hospitals of the Ministry of Health, the Armed Forces and Royal Oman Police hospitals, at a rate of 2-3 per consultant per week. Guest appearances in the national media (television/radio) were about 7 in this year, while 4 guest columns appeared in the national newspapers. Medical services were provided to the Orphanage in Al-Khod; the Centre for Special Education, Darsait, and the Early Intervention Centre in Al Khuwair. There was departmental participation in various charity events and charity bazaars organized by Dar Al Atta and various women’s organisations, as well as in public seminars and awareness days (bronchial asthma, childhood diabetes, haemophilia, sickle cell disease). A total of 18 parties were held for inpatients, organised by Muscat Municipality, National Bank of Oman, SQU students and the telecommunications company Nawras, in addition to two charity fairs and parties on Mother’s day, during Ramadhan, Eid Al-Fitr and Eid Al-Adha.

INTERNATIONAL VISITORS
The Department received the following twelve international visitors during this period: Dr. Michael Shevell, Head, Pediatric Neurology, Montreal Children’s Hospital, McGill University, Canada; Dr. M.C. Mathew, Professor of Developmental Neurology, Christian Medical College, Vellore, India; Dr. Cristoph Klein, Chairman, Pediatric Neurology, Hannover Medical School, Germany; Dr. Marie-Claude Gingras, Associate Professor, Human Genome Sequencing Centre, Baylor College of Medicine, USA; Dr. Alyaa Kotby, Professor of Pediatrics, Ain Shams University, Egypt; Dr. Hema Patel, Associate Professor, Ambulatory Pediatrics, McGill University, Canada; Dr. Celia Rodd, Associate Professor, Pediatric Endocrinology, McGill University, Canada; Dr. Qutayba Hamid, James McGill Professor of Medicine, McGill University, Canada; Dr. Abdulrahman O. Musaiger, Head, Arab Centre for Nutrition, Bahrain; Dr. Mabu-Zekry, Department of Gastroenterology, Cairo University Children’s Hospital, Egypt; Dr. Anil Dhawan, Professor of Pediatric Hepatology and Liver Transplantation, King’s College London School of Medicine, UK; Dr. Moeen Al-Sayed, Head Department of Pediatric Metabolic Diseases, King Faisal Specialist Hospital and Research Centre, Kingdom of Saudi Arabia.
RESEARCH
Dr Yasser Wali, Dr Muna Al-Sadoon and Dr Zakia Al-Lamki served in this period on the Editorial Board of the SQU Medical Journal. Dr Amna Al-Futaisi, Dr Saif Al-Yaarubi and Dr Reem Abdwani served in this period on the Editorial Board of the Oman Medical Journal.

Dr Roshan Koul was a member of the International Advisory Board of the Journal of Pediatric Neurology.


Dr. Yasser Wali was Chairman of the Organising Committee for “Towards Better Care”, 17th Child Health International Conferences on Chronic Childhood Illnesses held at Sultan Qaboos University, Oman from 13–15 October 2009. The conference attracted 450 delegates, and had 15 invited speakers from 8 countries.

The Department organised four workshops during this period. A workshop on child maltreatment and child rehabilitation, supported by UNICEF was held on 15 October 2009.

A workshop on planning and developing services for children with neurodevelopmental disorders was chaired by Prof M.C. Mathew, India, on 15 October 2009. A workshop on child abuse and neglect was organised by Dr. Ibtisam Elnour and Dr. Muna Al-Sadoon at the Sohar Hospital on 4 July 2010. A haemophilia Awareness Day was organised by Dr. Yasser Wali at Sultan Qaboos University on 19 April 2010. Finally, staff participated in a workshop on family support in cancer care, organized by Dar Al-Atta on 15 October 2009.

Teaching Programmes
The Department is actively involved in undergraduate and postgraduate teaching.

UNDERGRADUATE PRECLINICAL PROGRAMME
The Department is committed to the process of delivering to undergraduate students the main concepts and principles of child health that will help them to undertake their internship duties safely and also decide on their future postgraduate studies.

The Department has structured teaching activities for students under the responsibility of the clinical years coordinators and the education committee of the Department. The students have different components of assessment during the rotations and at the end of the rotation, organised by the clinical coordinators and
CHILD HEALTH

monitored by the Department’s Examination Committee.

OLD CURRICULUM

5th Year Teaching
The Department usually has about 13 students. The teaching of the 5th year students is divided into theoretical, clinical and self learning with guidance. In addition to clinical teaching, there are other teaching modalities that the Department implemented in the last 3 years that require one to one interaction between the students and tutors. The first modality is case presentation with each student presenting 5 cases to tutors (3 in SQUH). At the end of the 1 hour session, students receive feedback with a grade. The second modality is case write-up each student being required to submit 5 case write ups (3 in SQUH). In total, the Department provides 2,123 contact hours of teaching and academic activities for 5th year students.

Some of the Department members are also involved in the teaching of the Integrated Lecture Series courses: Haematology, Neurology, Gastroenterology and Respiratory.

7th Year Teaching
At any time, the Department will have about 15 students. The teaching of the 7th year students is divided into theoretical, clinical elements and self-learning with guidance. The different teaching activities for this group of students accounts for about 1,400 hours per year.

In addition, there are other teaching modalities implemented in the last 3 years that require one to one interaction between the students and tutors. HOPE Evaluation in which each student present 2 cases to tutor (1 in SQU). At the end of the 1 hour session, students receive feedback with a grade. In total, the Department provides 1,540 contact hours of teaching and academic activities for 7th year students.

Preclinical Teaching
Members of the Department are involved in the following courses in the preclinical studies of the college: the clinical communication course and the clinical skill course.

NEW CURRICULUM

In this period, the Department completed all the curriculum material for all of the different phases of the child health rotations (11 case scenarios for pre internship, 22 clinical scenarios for junior rotation, 11 case scenarios for senior rotation and 1 week in the pre-clerkship). Currently, the curriculum is being revised. The teaching modalities and daily teaching activities for the new curriculum are also ready.
Postgraduate Teaching

Dr Yasser Wali is the convener of the new Clinical PhD Program, a new degree programme for College of Medicine and Health Sciences.

The Department usually has around 10-14 interns for training. The Department is involved in teaching OMSB residents as follows. At any time of the year, the Department will have around 3-4 child health residents for training. Three Department members are invited yearly to give presentations to Family Medicine & Public Health residents on common childhood diseases. One of the Department members is invited yearly to deliver a clinical presentation to A&E residents.

The Department organises and conducts Membership of the Royal College of Paediatrics & Child Health (MRCPCH) and Diploma of Child Health examinations every year, in collaboration with the concerned international bodies.

The Department run the following postgraduate courses: Neonatal Advance Resuscitation Course (3 times a year); Paediatric Advance Life Support (twice a year), and MRCPCH Course (once a year).

The Department also contributes to the Basic Life Support Course, which is conducted 12–14 times a year.

Clinical & Diagnostic Services

Table 1: Paediatric Inpatients 2008-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Admissions</th>
<th>Av. Bed Occupancy (%)</th>
<th>Av. Length of Stay (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>4,753</td>
<td>70.1</td>
<td>3.3</td>
</tr>
<tr>
<td>2009</td>
<td>5,168</td>
<td>71.4</td>
<td>3.5</td>
</tr>
<tr>
<td>2008</td>
<td>4,481</td>
<td>65.8</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Table 2: Paediatric Day care Unit

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Admissions</th>
<th>No. of Discharges</th>
<th>Av. duration of stay (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2,576</td>
<td>2,486</td>
<td>4–6</td>
</tr>
<tr>
<td>2009</td>
<td>1,048</td>
<td>954</td>
<td>5–8</td>
</tr>
<tr>
<td>2008</td>
<td>725</td>
<td>712</td>
<td>8–9</td>
</tr>
</tbody>
</table>
Table 3: Paediatric Outpatients

<table>
<thead>
<tr>
<th>Year</th>
<th>Booked</th>
<th>Total Seen</th>
<th>Admitted</th>
<th>Discharged</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>13,534</td>
<td>10,970</td>
<td>301</td>
<td>924</td>
</tr>
<tr>
<td>2009</td>
<td>12,029</td>
<td>9,342</td>
<td>419</td>
<td>775</td>
</tr>
<tr>
<td>2008</td>
<td>11,223</td>
<td>8,637</td>
<td>296</td>
<td>972</td>
</tr>
</tbody>
</table>

Table 4: Neonatal Intensive Care Unit

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Admissions</th>
<th>Av. Bed Occupancy (%)</th>
<th>Av. Length of Stay (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>444</td>
<td>85</td>
<td>14</td>
</tr>
<tr>
<td>2009</td>
<td>417</td>
<td>85.6</td>
<td>11.3</td>
</tr>
<tr>
<td>2008</td>
<td>407</td>
<td>79.1</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Table 5: Postnatal Ward

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Admissions</th>
<th>Av. Bed Occupancy (%)</th>
<th>Av. Length of Stay (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2,490</td>
<td>80</td>
<td>2.3</td>
</tr>
<tr>
<td>2009</td>
<td>2,215</td>
<td>81</td>
<td>2.2</td>
</tr>
<tr>
<td>2008</td>
<td>2,636</td>
<td>75</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Table 6: Paediatric Intensive Care Unit

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Admissions</th>
<th>Av. Bed Occupancy (%)</th>
<th>Av. Length of Stay (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>158</td>
<td>80</td>
<td>8</td>
</tr>
<tr>
<td>2009</td>
<td>130</td>
<td>64</td>
<td>6.4</td>
</tr>
<tr>
<td>2008</td>
<td>76</td>
<td>114</td>
<td>11.9</td>
</tr>
</tbody>
</table>
Table 7: Paediatric services provided to the Department of Clinical Physiology: electroencephalogram (EEG), brainstem auditory evoked response (BAER), visual evoked potential (VEP), Somatosensory Evoked Potential (SSEP), Video EEG, electromyography (EMG), nerve conduction velocity (NCV), Echocardiography, 24 hours Oesophageal Ph Monitoring, Newborn audiometry

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1,081</td>
</tr>
<tr>
<td>2009</td>
<td>1,988</td>
</tr>
<tr>
<td>2008</td>
<td>1,856</td>
</tr>
</tbody>
</table>

Research

RESEARCH PROJECTS

Integrative investigation and applied molecular epidemiology of cystic fibrosis in Oman

Project Code: IG/MED/CHILD/09/01; Dates: 2009–2010
Value: OR 19,900; Project Funder: Sultan Qaboos University
Investigators: Dr. Hussein Al-Kindi, Dept. Child Health, SQU; Dr. Said Al-Yahyaee, Dept. Genetics, SQU; Dr Uwe Fass, Dept. Biochemistry, Oman Medical College; Qaseem Al-Salmi, Dept. Child Health, Royal Hospital, Oman.

Genetic causes of congenital neutropenia

Project Code: IG/MED/CHILD/10/01; Dates: 2010–2012
Value: OR 9,600; Project Funder: Sultan Qaboos University
Investigators: Dr. Yasser Wali, Dept. Child Health, SQU; Dr. Christoph Klein, Dept. Pediatric Hematology-Oncology, Hannover Medical School, Germany; M. Al-Zalabany, Dept. Pediatric Immunology, Alexandria University, Egypt; Dr. Said Al-Yahyaee, Dept. Genetics, SQU; Dr. Ismail El-Beshlawi, Dept. Child Health, SQU; Dr. Naglaa Fawaz, Dept. Haematology, SQU; Dr. Aisha Alkhayat, Dept. Biology, College of Science, SQU; Dr. Salem Al-Tamemi, Dept. Child Health, SQU; Ms Khalsa Al-Kharousi, Department of Genetics, SQU; Dr. Shahina Daar, Dept. Haematology, SQU; Dr. Martin Zimmermann, Dept. Statistics, Hannover Medical School, Germany.
Pulmonary function test in children with sickle cell disease in correlation with hemoglobin SB chain haplotypes

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Value:</td>
<td>OR 5,000; Project Funder: Sultan Qaboos University</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Dr. Hussein Al Kindi, Dept. Child Health, SQU.</td>
</tr>
</tbody>
</table>

Assessment of some novel biomarkers in the diagnosis of acute kidney injury (AKI) in Oman.

<table>
<thead>
<tr>
<th>Project Code:</th>
<th>MREC# 293; Dates: 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value:</td>
<td>OR 2,500 Project Funder: Sultan Qaboos University</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Dr. Ibtisam Elnour, Dept. Child Health, SQU.</td>
</tr>
</tbody>
</table>

The Department is also involved in international research collaborations as follows: with Dr. Yasser Wali as the principal investigator: 1) Genetic Predictors of Stroke in Patients with Sickle Cell Disease. This research is in collaboration with “Oakland Children’s Hospital (California). This is a multi centre trial with 5 centres in USA and ours is the one of the 2 participating Centre outside the USA. This project is funded by American collaborators; The Principal Investigator is Dr. Yasser Wali; 2) Hemophagocytic Lymphohistiocytosis, Molecular correlates and clinical outcome, in collaboration with Karolinska Hospital, Stockholm; The Principal Investigator is Dr. Yasser Wali; 3) Social, Cultural, Legal and Ethical Issues Related to Gene Databases in Developing Countries. This is a WHO funded Project.

RESEARCH PUBLICATIONS & BOOKS

Journal Publications


**CONFERENCE AND SEMINAR PRESENTATIONS**

**Conference Presentations**

**International**


2. **Wali Y**. Stem cell therapy for avascular necrosis of the hip in children with sickle cell disease. 25th International Faculty of Medicine, Alexandria University Conference, Nano Technology in Medicine. Alexandria, Egypt, June 2009.


Conference Abstracts

International
3. **Wali Y.** Comprehensive management of thalassaemia in Oman. 8th Paediatric Hematology/Oncology Academic Day. King Faisal Specialist Hospital, Riyadh, Saudi Arabia, 26 May 2010.

National

Poster Presentations

International
1. **Al Futaisi A.** Prevalence of HIE at SQUH. ICNA. Cairo, Egypt, May 2010.
5. **Elnour IB, Sadoon M.** Can we help when we do not have child protection services in Oman? Experience in Oman. 28th ISPCAN International Congress on Child Abuse and Neglect. Honolulu, Hawaii, USA, August 2010.

National
1. **Abdwani R, Duffy SK, Scuccumarri R.** Methotrexate induced nodulosis. 17th International Child Health Conference. Sultan Qaboos University, Oman, October 2009.


7. **Al Barudy I, Al Futaisi A.** Fulminant GBS with central and peripheral demyelination. 17th International Child Health Conference. Sultan Qaboos University, Oman, October 2009.


**THESIS SUPERVISION**

**Yahia Al-Mukhaini**

**Qualification:** M.Sc.

**Title:** Impact of Breast feeding on Childhood Acute Lymphoblastic Leukemia in Oman

**Supervisors:** Dr. Yasser Wali

**Date of Completion:** May 2009