# SUBJECT REVIEW REPORT

## DEPARTMENT OF PAEDIATRICS

## *FACULTY OF MEDICAL SCIENCES*
## UNIVERSITY OF SRI JAYEWARDENEPURA

12th to 14th February 2008

**Review Team :**
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## 1. SUBJECT REVIEW PROCESS

The Quality Assurance and Accreditation (QAA) framework currently implemented in the University system in Sri Lanka, envisages reviewing all subjects and institutions in the national Universities of Sri Lanka. In keeping with this objective, the Quality Assurance and Accreditation Council of the University Grants Commission, Sri Lanka appointed a team of senior academics from the Universities of Colombo and Kelaniya to undertake a subject review in Paediatrics at the Faculty of Medical Sciences, University of Sri Jayewardenepura. The Review Team comprised of:

Prof. Harendra de Silva (Review Chair)
Prof. Manouri Senanayake
Prof Nilanthi de Silva

**Purpose and aims of the review**

The subject review was undertaken to evaluate the quality of the Paediatrics teaching programme at the Faculty of Medical Sciences, University of Sri Jayewardenepura. The review visit was carried out by the above team from 12 – 14 February 2008 (see Annexure 1 for programme). The process used was acquisition of additional information through discussion of issues, and gathering of and analysis of evidence. These findings were then compared with the Self Evaluation Report (SER) presented by the Department of Community Medicine. The aim was to use all evidence to make a judgment as required by the Quality Assurance Programme on the quality of the eight review aspects listed below, as given in the Quality Assurance Handbook, for Sri Lankan Universities, published by the CVCD and UGC in July 2002:

1. Curriculum Design, Content and Review
2. Teaching, Learning and Assessment Methods
3. Quality of students, including student progress and achievement
4. Extent and Use of Student Feedback (Qualitative and Quantitative)
5. Postgraduate Studies
6. Peer Observation
7. Skills Development
8. Academic Guidance and Counselling

**Peer review process**

The review processes adopted by the team were:

**meetings** with the Vice-Chancellor; Dean; Head of Department; academic and non academic staff in the Department; Senior Student Counsellors in the Faculty; and undergraduate and postgraduate students (see Annexure 2 for list of persons met during the visit).

**observation** of teaching/learning sessions – 1 lecture, 1 clinical lecture discussion, 1 tutorial, (all for Final year students), bedside teaching in the wards for final year and 3$^{rd}$ year students, and 1 training session in clinical skills lab for 4$^{th}$ year students

**inspection** of academic facilities: lecture halls, tutorial rooms, computer lab and clinical skills lab .

**inspection** of facilities for clinical training in Paediatrics: Professorial and Health Ministry Paediatric Units and Neonatal Intensive Care Unit in the Colombo South Teaching Hospital.

**perusal** of documents: curriculum, timetables, handouts, examination papers and marking schemes, student log books, student feedback forms, peer evaluation forms.

## 2. BRIEF HISTORY OF THE UNIVERSITY, FACULTY AND THE DEPARTMENT

The University of Sri Jayewardenepura was initially started as an institution of higher education for Buddhist monks in 1856 as the *Vidyodaya Pirivana*. It acquired the status of a university in 1959 and was renamed the University of Sri Jayewardenepura in 1978. The university, which is getting ready to celebrate its 50th anniversary this year, now has 5 faculties and recruits approximately 9000 students each year.

The Faculty was established in 1993 to conduct undergraduate programmes in medicine as well as the allied health sciences. The MBBS programme has been conducted since the inception of the faculty; it has an annual intake of 150 – 160 students. The faculty has now widened its scope to include BSc degree programmes in Human Biology, Pharmacy, Nursing and Medical Laboratory Sciences.

The department was established in 1995 and at present has a cadre provision for 1 chair and 5 Senior Lecturer / Lecturer posts, which is less than the academic cadre in several Paediatrics Departments in other medical faculties. The first Professor of Paediatrics who was appointed in 1996, has served as the Dean of the Faculty and since 2005, as the Vice-Chancellor of the University of Sri Jayewardenepura. Despite his administrative commitments, Prof Warnasuriya continues to find time to teach students at the bedside on a fairly regular basis.

The other posts are occupied by 4 Senior Lecturers and one Lecturer. One Senior Lecturer is currently on sabbatical leave, and the lecturer is on overseas study leave. The Department has suffered from a significant loss of academic staff: two lecturers have not returned after their period of overseas study leave, and one senior lecturer has not returned after sabbatical leave overseas.

Temporary staff includes one Senior Lecturer (on contract basis) and 3 Temporary Demonstrators. Support staff in the Department includes one technical officer, one computer applications assistant, and one labourer. The technical officer works in the Biochemistry Department on 3 days of the week.

The Faculty is in the process of changing its MBBS curriculum. The new curriculum was introduced with the last intake of students in 2007. However, since the Paediatrics programme commences towards the end of the 3rd year, the Paediatrics Dept will continue with the old curriculum until 2010. At present 4 batches of students are following the Paediatrics programme: final year students (Batch 12); students who have completed the 3rd MBBS (Part II) examination (Batch 13); students who are in the 4th year (Batch 14) and students in the 3rd year (Batch 15).

At present, the Department does not teach on any of the BSc programmes, but it will start doing so towards the latter part of this year, on the child health module of the Nursing degree programme.

## 3. AIMS AND LEARNING OUTCOMES

The stated learning objectives for the Paediatrics programme for MBBS students, as given in the SER, are as follows.

### 3.1 Aims

Aims and objectives of the paediatric curriculum are in keeping with the institutional objectives of the university.

The broad objective of the department is to enable the student to identify and manage common childhood diseases and health problems at a primary care level.

The goal of the Department is to provide adequate training opportunities to develop skills, knowledge and attitudes towards health care of children and to produce a medical officer self empowered to practice in any part of the country.

A list of core curricular contents and departmental objectives are given to students at the beginning of their paediatric training.

### 3.2 Learning Outcomes

**Medical graduates at the end of the Paediatric training are able to**

1) Take a complete & relevant Paediatric history including birth, developmental, feeding, immunization, social and family history.
2) Perform a complete physical examination of a neonate, infant, preschool & school child
3) Assess growth using appropriate growth charts
4) Do a basic developmental screening and assessment
5) Do the following at the end of a complete history and examination:
    a) Give probable diagnosis & differential diagnosis
    b) Give reasons for arriving at the diagnosis
    c) Compile list of problems that the child has
    d) Suggest investigations needed to confirm the diagnosis
    e) Interpret the investigation results
    f) Draw up a plan of management
    g) Write a prescription appropriate for the child
    h) Explain to the parents the problem that the child has & what needs to be done
    i) Summarise the patient's problems adequately
    j) Write clear concise & relevant progress notes for the patient
    k) Write a diagnosis card (Discharge summary) for the patient
6) Advice individuals, families & community on maintaining a child in good health
7) Have an empathetic attitude to paediatric patients and the problems faced by their relatives
8) To recognize and describe the steps in the management and follow up a victim of child abuse

**First clinical appointment**

During the first clinical appointment we aim to provide the following skills and knowledge on;

1) The different ways of approaching paediatric patients at different ages with a view to building a rapport with the child and the parents or the guardian prior to embarking on history taking and examination.
2) Handling a paediatric patient with kindness and patience.
3) Taking a complete and relevant paediatric history from the patient, parent or guardian including birth, developmental, feeding, immunization, social and family history.
4) Performing complete & relevant physical examination of a neonate, infant, preschool & school child
5) Doing the following at the end of history and examination
    a. Identify the organ system affected
    b. Relate the symptoms and signs to disordered structure and function
    c. Arrive at a reasoned conclusion as to the causes of altered structure and function (that is diagnosis / differential diagnosis)
    d. Suggest basic investigations to confirm altered structure and function.
    e. Draw up a plan of management
6) Assessment of growth parameters such as weight, height/length and head circumference, and be able to interpret growth using appropriate growth charts

**Second clinical appointment**

During the second Paediatric appointment we aim at consolidating the skills and knowledge acquired during the first appointment. During this clinical appointment we aim to provide the following skills and knowledge:

- do the following at the end of history and examination ;
    a) Give probable diagnosis & differential diagnosis
    b) Give reasons for arriving at the diagnosis
    c) Compile list of problems that the child has
    d) Suggest investigations needed to confirm the diagnosis
    e) Interpret the investigation results.
    f) Draw up a plan of management
- Perform a basic developmental screening
- Student to develop skills of explaining the principles of breast feeding, infant feeding and nutritional management of the pre-school and older child.
- Student to develop skills of explaining the principles of management of common paediatric problems in Sri Lanka. eg.
    - Upper and lower respiratory disorders in childhood
    - Bronchial asthma
    - Bronchiolitis
    - Acute gastroenteritis
    - Bacillary dysentery
    - Pneumonias
    - Febrile convulsions & epilepsy
    - Meningitis
    - Cerebral palsy
    - Rheumatic fever
    - Urinary tract infection

    - Dengue haemorrhagic fever
    - Infections such as malaria, typhoid, hepatitis, tuberculosis
    - Iron deficiency anaemia
    - Thalassaemia
    - Malnutrition
    - Child abuse
- Student to develop skills to impart health education to children and parents regarding immunisation, feeding & sanitation.

**Final year Paediatric Professorial appointment**

Here the student consolidates the skills and knowledge acquired during the first two appointments. Our training aims to achieve our ultimate goal of producing a medical officer self-empowered to practice in any part of the country and provide health care of children with correct attitude, adequate knowledge and skills.

At the end of the Final year Professorial Paediatrics appointment the students should be able to

- consolidate his ability take a complete & relevant Paediatric history including birth, developmental, feeding, immunization, social and family history.
- consolidate his ability to do a complete physical examination of a neonate, infant, preschool & school child
- assess growth using appropriate growth charts
- do a basic developmental screening and assessment
- do the following at the end of a complete history and examination
    - Give probable diagnosis & differential diagnosis
    - Give reasons for arriving at the diagnosis
    - Compile list of problems that the child has
    - Suggest investigations needed to confirm the diagnosis
    - Interpret the investigation results
    - Draw up a plan of management
    - Write a prescription appropriate for the child
    - Explain to the parents the problem that the child has & what needs to be done
    - Summarize the patient's problems adequately
    - Write clear concise & relevant progress notes for the patient
    - Write a diagnosis card (Discharge summary) for the patient
- advice individuals, families & community on maintaining a child in good health
- have an empathetic attitude to paediatric patients and the problems faced by their relatives
- describe the steps in the management of following paediatric emergencies.
    - An acute convulsion
    - stridor
    - status asthmaticus
    - Respiratory failure due to any other cause
    - Cardiopulmonary resuscitation
    - heart failure
    - septicaemia,
    - dengue shock
    - bag and mask ventilation of a asphyxiated newborn
    - coma
    - poisoning

- to recognize and describe the steps in the management and follow up a victim of child abuse.
- should be able to perform the following
    - ENT examination (minimum of 3)
    - BP measurement in infant and older child (minimum of 3 in different age groups)
    - Taking axillary temperature (minimum of 2)
    - Venepuncture (minimum of 3)
    - Inserting naso-gastric tube (desirable)
    - Collect clean mid stream urine (minimum of 2)
    - Insert a suppository (desirable)
    - Nebulization for asthma (minimum 2)
    - Setting up a drip (minimum 2)
- should have observed and be familiar with the steps of the following
    - Gastric lavage in poisoning Inserting IV cannula in newborn and infants
    - Lumber puncture
    - Preparation of infant formula
    - Induction of emesis and gastric lavage in poisoning
    - Inserting an IV cannula
    - Starting a blood or blood product transfusion
    - Exchange transfusion
    - Bone marrow aspiration
    - Starting phototherapy
    - Neonatal resuscitation using bag and mask
    - Taking oral and rectal temperature
    - IM/IV/SC injection

**Family attachment programme**

Through the family attachment programme during the final year appointment we aim to provide the following knowledge and skills to the students

- How the family function as a unit and the roles of individual members.
- The interactions within the family
- How the family copes with their socio economic situation making use of family resources.
- To identify health and social problems that confronts the family and be able to advocate solutions for these.
- How the family copes with illnesses and or psychosocial problems.
- How the family interacts with the community and in health and illnesses
- How the family utilizes available resources in the community
- To promote health and disease at a grass root community level

## 4. FINDINGS OF THE REVIEW TEAM

### 4.1 Curriculum Design, Content and Review

The paediatric curriculum has been developed after much deliberation by a committee consisting of Prof Narada Warnasuriya, Dr. Deepthi Samarage and others. Workshops, consultation with extended faculty, medical educationists and students have been utilized in designing the curriculum which is structured and contains objectives stipulated separately for each level of training.

A major change from a traditional curriculum to a system based integrated one has been made in keeping with the faculty decision to fall in line with changes in medical education taking place in other faculties and elsewhere in the world. This process has been facilitated by the IRQUE project funding a series of workshops during 2005 – 2007. Significant student participation in the development of the curriculum is commendable.

The department remains committed to the process of revision. Minor changes continue to be made following consensus reached at departmental meetings and taking student feedback into consideration.

The students are made aware of the learning objectives in paediatrics prior to starting the course. The objectives are conveyed to the students during a short introductory course to clinical training and at the beginning of the final year appointment. A well designed log book has been made available to each student from 2006. Knowledge and skills that should be learnt at the different appointments are clearly stipulated in this. The students are expected to maintain the log book by listing individual clinical experience with a supervisor's signature at each activity.

The course content of the paediatric curriculum covers the broad areas of acute and emergency care, chronic childhood disorders and rehabilitation, ambulatory, community and social paediatrics. A strong emphasis on social and community aspects is a positive feature of the curriculum from its inception. Inputs from the Department of Family Medicine with whom the Department of Paediatrics has had close collaboration in organising the curriculum has provided students with opportunity to strengthen their learning of communication skills and the impact of a child's illness on the family and vice versa.

The workload and turnover of patients in the ward settings of the training centers are somewhat limited and the spectrum of illnesses is at times lacking in choice. This deficiency is largely related to referral pathways and the geography of this hospital. The academic staff are aware of this and have made efforts to rectify this by sending students to the cardiology and rheumatology units of the Lady Ridgeway Children's Hospital since recently. The use of virtual patients discussed at tutorials is another means by which the shortage of clinical material that may occur at times is circumvented.

In 2007 the course included a component of training in a rural setting. This has taken place for 'Batch 12' but the sustainability of this program remains to be seen.

The content of the curriculum attempts to cover the subject area of paediatrics comprehensively but further attention to paediatric surgery and child mental health, with inter-departmental links in these areas, would achieve the stated objectives of the program better. At present the Department of Psychiatry exposes the students to child mental health problems but conditions that present to paediatricians are not adequately reflected in the curriculum content in paediatrics.

## 4.2 Teaching, Learning and Assessment Methods

### *Teaching and learning methods*

A variety of teaching and learning methods are used including lectures, tutorials, clinical lecture demonstrations, bedside and clinic setting teaching, field visits and integrated seminars.
The department staff provide a student-friendly environment for learning and are helpful at all times despite lack of continuity in staffing arrangements and staff shortages that have been experienced from time to time.

Lectures in paediatrics begin towards the end of the third year and are one of the main methods of imparting theory knowledge in core content areas. Handouts are given before the lectures and student feedback suggests they are useful. Although handouts may be an impediment to active student centered learning some students informed the reviewers that they do extra reading around the handout.

The students who had commenced the third year appointments without lectures in paediatrics had found difficulties but this situation has been rectified in the new curriculum.

Tutorials are held in the final year on identified topics with prior notice of 4-5 days given to students. Tutorials are conducted in groups of approximately 50 students. The quality of teaching during the observed session was extremely high, but it did not seem to encourage in depth preparation by students, who were seen writing down notes, delivered in a somewhat didactic fashion.

The clinical lecture demonstration allowed for student centered learning and opportunity for learning presentation skills etc. It was well prepared, well attended and a well appreciated learning activity by the students.

Research is not a learning objective for undergraduates in the paediatric curriculum. It is embarked on minimally when the community medicine program includes research on children or child health.

The well equipped IT laboratory is envisaged to help access learning material. However learning material in paediatrics are still in the process of development and paediatric links are yet to be established.

### *Assessment methods*

Continuous assessment accounts for 20% of the final mark in paediatrics. Only 5% is based on the final year clinical appointment in Paediatrics and it is desirable that greater weight to this. The remaining 15% is from the social paediatric viva (5%), family medicine viva conducted by the dept. of family medicine (5%) and the OSCE held at the end of the 4$^{th}$ year paediatric appointment. While the 4$^{th}$ year OSCE motivates learning, some of the set questions assessed theoretical knowledge rather than clinical or practical skills. More clinically oriented questions of the OSCE type, rather than MCQ style, short SEQ style or data interpretation style questions would help achieve the department's learning objectives better. The review team noted that one of the members of the extended faculty too had commented that the OSCE exam "needs more clinically oriented material".
Assessment of student performance by perusing the log book mid way into the appointment is a good practice. Demonstrators are utilized to assess the log books with regard to number of histories taken, procedures undertaken etc and one to one appraisal by a academic staff member that takes place at the middle of the appointment is commendable. This gives the

students an opportunity to voice their difficulties and helps the staff identify students who have not yet presented patients in ward classes etc.

The written component of the final MBBS examination consists of six SEQs and 40 MCQs set by a common panel of examiners from all six faculties. A detailed analysis by the UGC of the performance at the 'common MCQ' set in February 2006 showed the paediatric mean mark to be 110.5 while the overall mean for all six faculties was 117.9. The department has carried out an item analysis of the MCQ paper of the February 2006 examination and the subject areas where the students have performed badly have been identified.

SEQ questions are set and discussed by a panel of examiners and the marking schemes presented at the scrutiny board. Strict confidentiality is maintained. Answer scripts of SEQs are marked independently by two examiners and discrepancies of over 15% discussed. The overall standard of questions appears to be largely comparable with other faculties.

### 4.3 Quality of Students, including Student Progress and Achievement

***Students' entry qualifications***

All students who enter the Paediatrics programme have passed the first main examination conducted by the Faculty, the 2nd MBBS examination.

***Student progress and achievements***

In order to enter the final year, students should have completed all clinical appointments scheduled for the 3rd and 4th years, including those in Paediatrics. Successful completion of the 3rd and 4th year examinations are not necessary pre-requisites for entry into the final year. However, it appears that students who have been repeated in the 3rd MBBS (Part II) main examination at the end of the 4th year, have time to also sit for the repeat examination before commencement of the Professorial appointments. The current batch of final year students has now been registered in the Faculty for well over 5 years.

***Students pass/fail rates***

According to data presented by the Head of Department during her presentation, the Department has conducted 5 main examinations over the period 2004 - 2007, as indicated in Table 1. The pass rate at these examinations has fluctuated between a low of 73% in Nov 2004 and a high of 92% in Nov 2007. The pass rate in Paediatrics has always been on par or better than the overall MBBS examination pass rates, indicating that the students generally do not have a problem with passing the subject. The number of distinctions awarded shows much less fluctuation, varying between 0 and 2. No further analysis has been carried out to examine the possible reasons for fluctuation in pass rates, e.g. whether they are due to marks obtained for the clinicals or the theory component, and if due to the latter, whether it is due to the MCQ paper or the SEQ paper. It should be noted that students have sat for the common MCQ paper (set by examiners from all medical faculties) from Jan 2006 onwards.

**Table 1**. Pass rate in Paediatrics at the Final MBBS examination 2004 – '07

| Date of exam | Total taking Paediatrics | No passing Paediatrics | Pass rate in Paediatrics (%) | MBBS exam pass rate (%) | No of Distinctions awarded |
|---|---|---|---|---|---|
| 2004 Feb / Mar | 157 | 128 | 82 | 69 | 0 |
| 2004 Nov / Dec | 156 | 114 | 73 | 73 | 0 |
| 2006 Jan / Feb | 155 | 132 | 85 | 85 | 2 |
| 2006 Dec | 148 | 123 | 82 | 73 | 2 |
| 2007 Nov | 148 | 137 | 92 | 85 | 1 |

*Progress to postgraduate training*
According to data presented in the Self-Evaluation Report, approximately 30 students in each batch go on to postgraduate training in the PGIM. The SER also notes that 7 of its graduates are currently at various stages in the Paediatrics training programme. Considering that the PGIM Paediatrics training programme has about 72 trainees at any given moment in time, the review team is of the opinion that this could be indicative of a relatively low uptake of Paediatrics by USJP graduates, or that the data presented was incomplete.

### 4.4 Extent and Use of Student Feedback

Student feedback has been obtained by the Department of Paediatrics from students at all levels, since about 2005. This includes feedback on lectures, tutorials, professorial unit ward classes, final year professorial appointment as a whole, clinical lecture demonstrations, skills lab activities and on the Social Paediatrics attachment. Focus group discussions are conducted at the end of the Professorial appointment. Such discussions have also included the 3rd and 4th year clinical appointments in Paediatrics. Feedback forms completed by students with regard to lectures and tutorials conducted by almost all the academic staff currently serving in the Department were made available to the Review Team, together with the summary data on each set of feedback forms.

Some examples of action taken by the Paediatrics Department as a result of feedback from students include development of the paediatric skills training programme, the introduction of visits to speciality units such as paediatric cardiology and paediatric rheumatology, the appointment of shadow house officers, a revision course for students who have been referred in Paediatrics, and discussions on how to answer MCQs and deal with short cases at the examination.

### 4.5 Postgraduate Studies

During the past 10 years, the Department has had 26 MD trainees (registrars) and 6 post-MD trainees (senior registrars) from the PGIM. It has also had 5 – 6 Diploma in Child Health trainees during this period, and one group of ten Diploma in Family Medicine trainees for 2 weeks each year. At the time of the review visit, the Department had just one PGIM trainee, a Paediatrics Registrar; the other Registrar and the Senior Registrar were both on leave from the unit. The Registrar had started the appointment 6 weeks prior to the review visit. Since then, he has participated in 2 journal club meetings conducted by the Senior Lecturers, in weekly ward classes conducted by a consultant paediatrician in the extended faculty and one ward class in the Professorial Unit. The review team is of the view that the Registrar could

perhaps benefit from a more organized training programme, but also notes that the trainee's current experience may not reflect the experience for the rest of the year.

In the period since 1998, the Professor of Paediatrics has supervised one PhD thesis (Nutrition), two MSc in Community Medicine, and one MD in Community Medicine. However, during the period 2005 – 2007, the total research output of the department was limited to five presentations at conferences; no papers have been published during this period. Three of the presentations are expected to be submitted by the registrars for the MD Board Certification. In general, the Review Team is of the view that published articles in learned journals and ongoing research activity were limited for an academic department. This may also account for the relatively small number (approx. 1 out of 15) of undergraduate research projects (co-ordinated by the Dept of Community Medicine) in paediatrics.

### 4.6 Peer Observation

Peer observation is mostly conducted on an informal basis in the Department of Paediatrics, but some evidence of formal feedback from peer observation was made available to the Review Team. This included feedback from external examiners at a recently concluded clinical examination, and the extended faculty involved in the last OSCE examination for 4$^{th}$ year students.

Observation and feedback from peers regarding teaching activities such as lectures, tutorials and ward classes does not appear to be carried out, except occasionally when the Professor of Paediatrics observes teaching activities of new recruits to the Department, and gives them his feedback.

In order to ensure that new recruits develop the required skills in setting and marking exam questions (MCQs, SEQs, OSCEs), questions and marking schemes are often discussed by all the academic staff together.

### 4.7 Skills Development

The clinical training in paediatrics consists of 4 weeks in the third year, 4 weeks in the fourth year and is rounded off with an 8 week appointment in the final year. It also includes field visits in the social paediatric program, a rural attachment in the community based medical learning program and sessions in the skills laboratory.

Clinical material and spectrum available in the 3$^{rd}$ and 4$^{th}$ year appointments appear to be somewhat limited. According to the medical students met by the review team the low patient admission rate to the Sri Jayawardenepura Hospital and the Health Ministry ward(s) allows the allocation of a new patient per student to happen only once in two or three days. The admission rate to the university ward was somewhat more with an average 10 admissions per day. A bigger caseload would provide opportunity for improvement of clinical skills.

Student exposure to casualty admissions is compulsory in the final year appointment. Learning of skills in emergency and first contact care is satisfactory and the shadow house officer program of three days duration, which all students undertake, is a good practice that complements student learning. However, the space for ward classes is limited to a 9 x 15 ft room which is totally inadequate for the number of students who have to be accommodated, and students have only low, uncomfortable-looking stools to sit on.

The skills laboratory is effectively utilized by the paediatric department for teaching of techniques in life support and neonatal resuscitation. Students gain hands on experience with

one to one supervision by an academic staff member in the 4th and 5th years. The reviewers were of the opinion that the use of pre-intern demonstrators as trainers for development of this skill was not appropriate.

The course provided opportunity for computer skills, public speaking skills, and writing skills. Opportunity for learning practical and ward procedural skills were somewhat hampered by the negative attitude of nursing staff towards the students. The department staff were aware of this and reparative steps had been taken. Inadequate exposure to the critically ill was also an impediment to acquiring skills in monitoring and other ICU procedural skills. A small laboratory attached to the ward would have helped the students acquire simple laboratory skills.

### 4.8 Academic Guidance and Counselling

At the beginning of their clinical training, during the introductory course, the Paediatrics curriculum is outlined, the learning objectives for each stage are made known to the students, and the assessments are explained. Students are now provided with a Paediatrics log book, which includes all the learning objectives, and details the skills they are expected to acquire at each stage.

During the final year Professorial Appointment in Paediatrics, each student is assigned to an academic staff member from the Paediatrics Department. This personal tutor meets with the student at least once mid-way during the appointment, and again at the end of the appointment. This provides an opportunity to identify any problems (academic or personal) experienced by the students.

Students who have been referred in the Paediatrics examination are counselled by the Head of Department, and given assistance in the form of revision tutorials.

When the Review Team met with one of the Faculty's Student Counsellors, she stated that final year students hardly ever come to them with personal problems, except in the event of financial difficulties.

## 5. CONCLUSIONS

**1. Curriculum Design, Content and Review**

***Strengths / Good Practices***

1. Well-designed, with participation of a wide range of stakeholders including students, and taking into consideration the cultural and social dimensions of paediatrics in Sri Lanka
2. Learning objectives have been clearly identified for each component of the Paediatrics study programme, at different levels of study.
3. Curricular content is subject to frequent review, and revised if necessary.

***Weaknesses***

1. A few common / important areas, such as child mental health, paediatric surgery and developmental assessment and disorders, are not included in the curriculum.

**2. Teaching, Learning and Assessment Methods**

***Strengths / Good practices***

1. Teaching programme is well-organized and conducted according to schedule
2. Students are exposed to a wide variety of different teaching-learning activities in a range of different settings
3. The level of teaching at tutorials was extremely good. The question to be discussed is given 4-5 days before the tutorial.
4. Learning material is provided to the students through hand-outs at each lecture, and through a well-stocked book cupboard and computer in the ward.
5. Students are assessed in a variety of ways, including continuous assessments.
6. Marking schemes for structured essay questions at the Final MBBS examination is prepared in advance, and presented at the scrutiny board.
7. Item analysis of MCQ papers set by common panel of examiners from all medical faculties has been used to identify the areas of weakness among students.

***Weaknesses***

1. Limited range of clinical paediatric cases in the Colombo South Teaching Hospital and Jayewardenepura Hospital limits range of clinical learning material for students
2. Tutorials appear to be somewhat didactic and teacher-centred. Since the process only enables the teacher to ask questions from students, they may or may not answer. Students who do not study the topic can hide behind the others and they keep on taking notes like in a lecture.
3. The marks allocated for continuous assessment of clinical work in the final year is very little. The amount of marks allocated for the final year clinical appointment is only 5% of the continuous assessment, which is inadequate (should be at least 10%) there appears to be no system to assess student's attitudes, such as good conduct, contribution to patient management etc.
4. Some of the questions included in the last OSCE conducted for 4$^{th}$ year students, are theoretical, and not clinically oriented.

**3. Quality of Students, including Student Progress and Achievements**

***Strengths / Good Practices***

1. Pass rates appear to have improved over the last few years
2. Pass rate in Paediatrics is generally higher than the overall pass rate at the Final MBBS examination

***Weaknesses***

1. Undergraduate student research projects in Paediatrics are very few.
2. Very few graduates appear to take to Paediatrics as a postgraduate speciality

**4. Extent and Use of Student Feedback**

***Strengths / Good practices***

1. Students routinely asked to give feedback on performance of individual teachers as well as on components of the teaching programme.
2. Student feedback has been used to improve specific aspects of the teaching programme

***Weaknesses***

None of note

**5. Postgraduate Studies**

***Strengths / Good practices***

1. PGIM trainees who were attached to the Department have done well at their exams.
2. Regular journal club sessions are conducted for postgraduate students

***Weaknesses***

1. Very few postgraduate research students and projects
2. The teaching programme for postgraduate trainees is not sufficiently organized.

**6. Peer Observation**

***Strengths / Good practices***

1. Formal feedback has been obtained from clinical examiners on examination practices and facilities
2. Junior staff receive informal guidance from senior colleagues regarding teaching and assessment

***Weaknesses***

1. There is no procedure whereby all departmental members can give each other regular feedback on individual teaching practices

**7. Skills Development**

***Strengths / Good practices***

1. Well-equipped clinical skills laboratory, and well-organized training sessions in neonatal and paediatric life support

***Weaknesses***

1. Inadequate opportunities for students to acquire procedural skills in the wards
2. Limited facilities for students in the Paediatric Professorial unit, including space for conducting simple laboratory investigations, and accommodation for students (9x15 feet/ room) who are working overnight.
3. Use of pre-intern demonstrators for teaching life support skills to students in clinical skills laboratory.

**8. Academic Guidance and Counselling**

***Strengths / Good practices***

Formal procedures have been established to ensure that each student has a personal tutor within the department, to help with any difficulties encountered by students

***Weaknesses***

None of note

Based on the observations made during the visit by the review team and discussed above, the eight aspects were judged as follows:

| Aspect Reviewed | Judgment Given |
|---|---|
| Curriculum Design, Content and Review | Good |
| Teaching, Learning and Assessment | Satisfactory |
| Quality of Students, including Student Progress and Achievement | Satisfactory |
| Extent and Use of Student Feedback | Good |
| Postgraduate Studies | Satisfactory |
| Peer Observation | Satisfactory |
| Skills Development | Satisfactory |
| Academic Guidance and Counselling | Good |

***The overall judgment is suspended***

## 6. RECOMMENDATIONS

**At Departmental level**

1. The Department should consider modifying the contents of the curriculum to
    a. include common child mental health conditions, and common paediatric surgical conditions, and to specify these as learning objectives for students.
    b. ensure that lectures on common and important conditions in Paediatrics precede the 3rd year clinical appointments.
2. The Department may wish to consider how the tutorials could be conducted in a more interactive manner that ensures prior preparation by the students on the specified topic.
3. Training sessions in the clinical skills lab should be conducted by senior or middle-level staff wherever possible, and the use of pre-intern demonstrators for this purpose should be avoided, unless certified by a course.
4. The clinical laboratory in the CSTH Professorial Unit should be improved so that students are able to carry out a wider range of simple in-ward investigations.
5. The Department may wish to consider awarding a higher component of the continuous assessment mark for clinical work in the final year. This could perhaps be achieved by introducing an OSCE in the final year. Some attempt should also be made to include assessment of student attitudes during the clinical training.
6. The format of the present 4th year OSCE should be made more clinically oriented.
7. The Department should take steps to increase research output. This may attract more of the brighter graduates to Paediatrics as a speciality, and increase undergraduate student research in Paediatrics.
8. The Department should draw up a planned programme for postgraduate trainees.
9. The academic staff may wish to consider introduction of a formal programme for regular peer observation on a structured basis.

**At Faculty level**

10. In order to improve the clinical material available for learning by undergraduate and postgraduate students, the Faculty should work with the Ministry of Health to ensure that transfers in of critically ill patients from adjacent districts and provinces are received to a greater extent and the Colombo South Hospital is not by-passed when facilities are available.
11. The students are not given the opportunity to acquire necessary skills in procedural skills in the ward setting, apparently because of a Health Ministry circular. Steps should be taken by the Faculty to overcome this obstacle to skills development.
12. Although a conscious effort has been made to provide facilities for students, the space is inadequate for the number of students. Chairs in the ward with a backrest would make it more comfortable (instead of low stools) especially when the students are breaking rest during casualty nights – since there would not be admissions continuously and the students may want to read at times.

**At University level**

13. With the introduction of the new curriculum and increased vertical integration, the Department will probably need more academic staff. The university should consider increasing the permanent academic staff cadre by one more position.

## 7. ANNEXES

### Annex 1. AGENDA FOR THE REVIEW VISIT

**Tuesday 12 February 2008**

| | |
|---|---|
| 8.00 am | Private meeting of Review Panel with QAAC representative |
| 8.30 am | Meeting with Vice-Chancellor, Dean & Head of Dept |
| 8.45 am | Departmental presentation of SER followed by discussion |
| 10.45 am | Meeting with academic staff |
| 11.45 am | Meeting with non-academic staff |
| 12.30 pm | Lunch |
| 1.00 pm | Observation of Teaching – Learning Activities: Clinical Lecture Discussion – student presentations (Batch 12) |
| 1.45 pm | Observation of Teaching – Learning Activities: Lecture by Dr R Seneviratne on Juvenile Arthritis |
| 2.30 pm | Observation of Teaching – Learning Activities: Tutorial (Batch 12) |
| 3.30 pm | Meeting with undergraduate students (Batch 12) |
| 4.30 pm | Brief meeting of reviewers |

**Wednesday 13 February 2008**

| | |
|---|---|
| 8.30 am | Observation of Teaching – Learning Activities: Ward classes (Batch 12) |
| 9.30 am | Observation of teaching facilities – Colombo South Teaching Hospital |
| 10.00 am | Meeting with postgraduate trainee |
| 10.30 am | Meeting with extended faculty and undergraduate students (Batch 15) |
| 11.00 am | Observation of Teaching – Learning Activities in Clinical Skills Lab |
| 11.30 am | Meeting with undergraduate students (Batch 13) |
| 12.15 pm | Observation of teaching facilities – IT lab, language lab |
| 1.00 pm | Lunch |
| 2.00 pm | Meeting with student counsellor |
| 2.00 – 4.30 pm | Review of documents |

**Thursday 14 February 2008**

| | |
|---|---|
| 1.30 pm | Meeting of reviewers and report writing |
| 3.00 pm | Wrap-up meeting with Head of Dept and other academic staff |
| 4.00 – 4.30 pm | Brief meeting of reviewers and report writing |

## Annex 2: LIST OF PERSONS MET BY THE REVIEW TEAM DURING THE VISIT

1. Prof Narada Warnasuriya, Vice-Chancellor, University of Sri Jayewardenepura

2. Prof Jayantha Jayawardana, Dean, Faculty of Medical Sciences, University of Sri Jayewardenepura

3. Members of the academic staff in Department of Paediatrics:

   Professor Narada Warnasuriya, Professor
   Dr Deepthi Samarage, Senior Lecturer and Head of Department
   Dr Rohitha Seneviratne, Senior Lecturer
   Dr Guwani Liyanage, Senior Lecturer
   Dr Nawamalika de Silva, Senior Lecturer (on contract)
   Dr D N de Silva (Temporary Demonstrator)
   Dr A T Ellawala (Temporary Demonstrator)
   Dr P G I U Rupasinghe (Temporary Demonstrator)

4. Non-academic staff members in Dept of Community Medicine
   Ms Chamila Siriwardena, Technical Officer
   Ms Navodhi Pavithrani, Computer Applications Assistant
   Mr Saman Kumara, Labourer

5. Groups of undergraduate students from Batches 12 (Final year), 13 ($4^{th}$ year), and 15 ($3^{rd}$ year) and 1 postgraduate student (PGIM trainee Registrar)

6. Student Counsellor in the Faculty of Medical Sciences: Dr Sharaine Fernando

7. Extended Faculty: Dr Gamini Ranchagoda and Dr Samantha Waidyanatha, Consultant Paediatricians, Colombo South Teaching Hospital

8. Nursing sisters in charge of Paediatric Wards and the Neonatal Intensive Care Unit of the Colombo South Teaching Hospital