



Hong Kong College of Paediatricians NEWSLETTER

Jun 2021

Editors: Drs. Ho Hok Kung Marco, Leung Cheuk Wa Wilfred and Soo Man Ting David

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Message from the Editors

As you are reading this Newsletter, the COVID-adapted MRCPCH Clinical Examination is being held in Hong Kong for the first time. We wish our trainees the best of luck! In this issue, you will find announcement on the 2021 Paediatric Update No. 1, and the newly issued recommendations on procedural sedation in paediatric specialty outside the operation room.

Education Committee

2021 Paediatric Update No. 1

The Paediatric Update No. 1 of our College this year will be held **online** at 2-5 pm on **10 July 2021 (Saturday)**. The focus is on “**Novel Diagnostic Methods and Interventions in Paediatric Radiology**”. Four paediatric radiologists will deliver exciting lectures on emerging imaging modalities and radiological interventions during this Seminar. We look forward to your active participation in this CME activity, and will disseminate the relevant poster of this Seminar by email within the coming week.

Professional and General Affairs Committee

New Update of Clinical Practice Guideline

Practice Recommendations for Procedural Sedation in Paediatric Specialty Outside Operation Room (Version 3, effective date: 1 May 2021)

Author: Paediatric Procedural Sedation Guideline Working Group

Distribution list: HA Staff working in paediatric specialty

http://www.paediatrician.org.hk/index.php?option=com_docman&task=doc_view&gid=1973&Itemid=66

Membership Committee

Dr SIT Kei Kei Jacqueline was approved for conversion to Overseas Fellow w.e.f. Year 2022.

Dr LEUNG King Tung was approved for conversion to Overseas Member w.e.f. Year 2022.

Dr MAK Sze Wai, Dr FONG Tsz San Steven and Dr LEUNG Hoi Shan had resigned from College Associateship and will be removed from College Associates List.

Membership Committee holds 4 meetings a year and most of the time in February, May, August and November. Application will be processed in the meeting provided all relevant documents have reached the Committee in advance at least 14 days before the meeting.

Announcement from Committee for Subspecialty Boards

Paediatric Respiratory Medicine (PRM) Subspecialty

- Invitation for Enrollment of Training Programme (tentatively scheduled to start on 1 September 2021)

The Paediatric Respiratory Medicine (PRM) is now recognised as a Paediatric Subspecialty in the Hong Kong College of Paediatricians, it has been registered in the Specialist Register in The Medical Council of Hong Kong since May 2016.

The PRM Subspecialty Board now invites application from trainees for enrolment in the Training Programme. Please kindly find enclosed files (**Appendix**) of Training Programme information together with Training Application Form for your attention. Information is also available at the College website: www.paediatrician.org.hk

Please be reminded that the start of training programme will tentatively schedule in September 2021. The deadline for enrollment of the PRM Training Programme will be on **21 June 2021 (Monday)**. Applicants will be invited for an interview after the deadline of enrollment.

Please do not hesitate to contact the undersigned if you have any queries.

Best regards,

Dr Carrie Kwok
Honorary Secretary
PRM Subspecialty Board

CME Category A Activities

Listed below are CME Category A activities organized by the HKCPaed, various paediatric societies and institutions, and selected paediatrics-focused topics. For the complete list of Category A activities, including continuous courses, and Category B activities, please refer to the homepage of the HKCPaed. The accuracy of the information has been checked according to the details submitted by the responsible organizers. The information below is abstracted from the College Website on 24 May 2021. *Members and fellows are reminded to contact the enquiries listed below for last-minute alternations.*

June 2021		
2 June (Wed)	Topic:	Paediatric HBV Infection
	Venue:	Online Zoom details: https://zoom.us/j/97701348461 Webinar ID: 977 0134 8461 Passcode: 023166
	Time:	13:15 to 14:15
	Speaker:	Dr Mike KWAN Yat Wah
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

4 June (Fri)	Topic:	Endocrine meeting
	Venue:	2085 Clinical Discussion Room, Radiology Department, 2/F, Tower B, HKCH
	Time:	12:30 to 13:30
	Speaker:	Dr TUNG Yuet Ling
Cat. A 1 point	Organizer:	Hong Kong Children's Hospital
	Coordinator:	Ms Bonnie YIU
	Enquiry:	Email: yyy549@ha.org.hk Tel 5741 3216

4 June (Fri)	Topic:	Anaphylaxis – A Practice Parameter
	Venue:	Online Zoom details: https://zoom.us/j/96159799389 Webinar ID: 961 5979 9389 Passcode: 800774
	Time:	13:15 to 14:15
	Speaker:	Dr Agnes LEUNG
	Enquiry:	
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

9 June (Wed)	Topic:	Assent - ethical aspect
	Venue:	Online Zoom details: https://zoom.us/j/93076079686 Webinar ID: 930 7607 9686 Passcode: 494226
	Time:	13:15 to 14:15
	Speaker:	Dr Derrick AU
	Enquiry:	
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

17 June (Thu)	Topic:	Creatine Transporter Deficiency
	Venue:	Federation of Medical Societies of Hong Kong Chamber room 4/F Windsor building, Wan Chai
	Time:	19:00 to 20:00
	Speaker:	Dr CHAK Wai Kwong

Cat. A 1 point	Organizer:	The Hong Kong Society of Child Neurology and Developmental Paediatricians
	Coordinator:	Dr LEE Wing Cheong
	Enquiry:	Tel: 6771 9816

17 June (Thu)	Topic:	Children's Functional Constipation and Intestinal Microbiome
	Venue:	Online Please register through this link: https://forms.gle/ic6ZhrBqSu7JUhgWA
	Time:	14:00 to 15:00
	Speaker:	Dr SHAM Chak On, Philip
Cat. A 1 point	Organizer:	The Hong Kong Medical Association
	Coordinator:	HKMA Secretariat
	Enquiry:	Email: cme@hkma.org Tel: 3108 2507

18 June (Fri)	Topic:	Recurrent Wheezing in preschool child
	Venue:	Online Zoom details: https://zoom.us/j/97220012536 Webinar ID: 972 2001 2536 Passcode: 939755
	Time:	13:15 to 14:15
	Speaker:	Dr David S. Y. LAM
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

24 June (Thu)	Topic:	New Strategy to Protect Infants' Pertussis from Caregivers
	Venue:	Online Please register through this link: https://forms.gle/ic6ZhrBqSu7JUhgWA
	Time:	14:00 To 15:00
	Speaker:	Dr Helene WAN
Cat. A 1 point	Organizer:	The Hong Kong Medical Association
	Coordinator:	Ms Antonia LEE
	Enquiry:	Email: antoniale@hkma.org Tel: 3108 2514

25 June (Fri)	Topic:	Child Abuse and Acquired Immunodeficiency
	Venue:	Online Zoom details: https://zoom.us/j/96984117126 Webinar ID: 969 8411 7126 Passcode: 475855
	Time:	13:15 to 14:15
	Speaker:	Dr Mike KWAN Yat Wah
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

25 June (Fri)	Topic:	Non-fatty liver disease in children–Role of nutrition to manage & prevent it?
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	Venue:	Online Please register through this link: https://app.micepad.co/pages/#/register/FrisoWebinar
	Time:	13:45 To 15:00
	Speaker:	Prof Yannis MANIOS & Dr CHOW Chung Mo
Cat. A 1 point	Organizer:	The Hong Kong Society of Paediatric Gastroenterology, Hepatology & Nutrition
	Coordinator:	Mr Terrence LI
	Enquiry:	Email: friso_reg@zenithicom.com Tel: 2233 9347

July 2021		
7 July (Wed)	Topic:	Transitional Care of Young Adults with Congenital Heart Diseases
	Venue:	Online Zoom details: https://zoom.us/j/95560627763 Webinar ID: 955 6062 7763 Passcode: 936313
	Time:	13:15 to 14:15
	Speaker:	Dr CHOW Pak Cheong
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

16 July (Fri)	Topic:	和而不同 The experience from HKCH Project
	Venue:	Online Zoom details: https://zoom.us/j/99719413683 Webinar ID: 997 1941 3683 Passcode: 759025
	Time:	13:15 to 14:15
	Speaker:	Dr Libby LEE
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

27 July (Tue)	Topic:	Walk with Diabetes: CGM and Insulin Pump Therapy for Children
	Venue:	Online Zoom details: https://zoom.us/j/99050560256 Webinar ID: 990 5056 0256 Passcode: 130689
	Time:	13:15 to 14:30
	Speaker:	Dr Joanna TUNG & Ms Iris POON
Cat. A 1 point	Organizer:	Simulation Training Centre, Hong Kong Children's Hospital
	Coordinator:	Ms Mandy IP
	Enquiry:	Email: iym554@ha.org.hk Tel: 5741 3126

Call for Application of Training in the
Subspecialty of
Paediatric Respiratory Medicine
兒童呼吸科

from The Hong Kong College of Paediatricians

The Hong Kong College of Paediatricians

Paediatric Respiratory Medicine 兒童呼吸科

Subspecialty Description

In the field of paediatric respiratory medicine, a subspecialist is required to have a specific range of knowledge and skills. These include but not limited to (1) performance and interpretation of bronchoscopy, lung function test, polysomnography, skin prick test, bedside ultrasound thorax and interpretation of various radio-imaging; (2) employment of specific therapeutic techniques including aerosol therapy, mucus clearance technique, tracheostomy management, various respiratory support including long term home oxygen use and non-invasive ventilation; (3) skills to work in a multidisciplinary setting with other clinical, para-clinical and community based professionals to provide holistic care for children with acute or chronic respiratory conditions.

Commencement of programme

Date of commencement of the PRM training programme since its establishment:
1st April 2017

Invitations for training will normally be issued in January and July, subject to availability of trainers and clinical rotations.

Eligibility

- Candidates who have completed 3 years basic training in general paediatrics and have passed the Joint MRCPCH (UK) / Hong Kong College of Paediatricians Intermediate Examination are eligible to receive up to a maximum of 12 months of Paediatric Respiratory Medicine (PRM) subspecialty training experience during their higher training in general paediatrics (the overlapping year), subject to prior approval of the proposed training by the PRM Subspecialty Board. Or
- Specialists holding the qualification of FHKAM (Paediatrics) or its equivalent.

Training programme

- The subspecialty training in paediatric respiratory medicine is made up of a minimum of three years of supervised accredited training.
- In the training programme, a trainee is required to go through a minimum of two accredited training centres to a maximum of 4 accredited centres and to be under the training and supervision of at least two accredited trainers. The training offered in the different units should be complementary.
- During the undertaking of Paediatric Respiratory Medicine Subspecialty training, any one period of interruption should not be more than 12 weeks. Only one period of continuous or cumulative 12-week leave would be allowed during the 3-year training (statutory leave, annual leave, conference leave and casual leave that is within the trainee's entitlement are not counted). A trainee taking leave for more than 12 weeks would be required to extend his/her training period to make up for the interruption in excess during the Paediatric Respiratory Medicine training. A declaration of any interruption of training should be made by the trainee on his/ her application for review and approval by the Subspecialty Board.
- The training programme consists of 7 essential components:

1. In-Patient and Out-Patient Care

Trainee is expected to acquire the experience and skills in looking after acute and chronic respiratory and sleep problems in neonates, children and adolescents in both in-patient hospital setting and out-patient subspecialty clinics. Through the training, trainee should be able to demonstrate skills required to elicit respiratory and sleep symptoms and signs, order appropriate investigations, interpret results, implement appropriate management and the skills to work with different health care providers both in the hospital and in the community to deliver multidisciplinary care to patients.

2. Lung Function Test

Trainee is expected to perform various lung function tests as stipulated by the PRM board that include but not limited to spirometry, bronchodilator response study, lung volume study, bronchial provocation test, and to teach the underlying physiology of flow-volume curves, measurement of lung volumes, the principles of airway hyperresponsiveness, ventilation, perfusion and gas exchange.

3. Airway endoscopy

Trainee is expected to know the indications for, complications of and safety issues related to the performance of airway endoscopy. Through hands-on and structured training, trainee should be able to perform flexible bronchoscopy for diagnosis, assessment and treatment of airway diseases in children.

4. Polysomnography

Trainee is expected to know the physiology of sleep at different ages, sleep stages, their effects on cardiorespiratory status and changes with age. Trainee should also know clinical conditions that disturb sleep, clinical presentations of sleep disorders, advantages and limitations of various investigation modalities including polysomnography, cardiorespiratory studies and oximetry recording.

5. Pulmonary Rehabilitation

Trainee is expected to acquire the skills to work and to lead a multidisciplinary team in pulmonary rehabilitation. Through training, trainee should be able to identify appropriate patients for the programme, order investigations to objectively document the baseline and progress, formulate a plan and prescribe a training programme with specific targets to be reached.

6. Intensive Care

Trainee is expected to have experience working in paediatric and neonatal intensive care unit. The understanding of breathing mechanics of a normal lung, diseased lung and ventilated lung is expected. Trainee should also acquire the

skills in managing difficult airway and appreciate how other systemic illnesses could have affected the respiratory system.

7. Advanced Development

Trainee is expected to be exposed to and be aware of new advances in the field including infant lung function, ECMO, aero-digestive tract assessment, organ transplant, maxillofacial management for obstructive sleep apnoea etc.

Assessment

This consists of on-going interim assessments and final exit assessment. A trainee in this programme is expected to keep log of activities by means of log book that will be reviewed at annual interim assessment. The final exit assessment normally takes place in June and/or December each year. The trainee has to submit at least 2 original dissertations; one of the dissertations should be accepted for publication by peer reviewed journal, either local or overseas. At least 1 of the dissertations should be a scholarly study or original research. At least 2 papers should be accepted for presentation in local or international meetings. One or more of them should have been an oral presentation. An oral examination, held by at least 2 examiners appointed by the Subspecialty Board, will be conducted as part of the Exit Assessment.

Application

Please send your Application and documents required to (Fill in the form below):

*Dr Kwok Ka Li, Carrie, Hon. Secretary of PRM Subspecialty Board
c/o Ms Kitty Ho, College Secretary, The Hong Kong College of Paediatricians, Room 801, Hong Kong Academy of Medicine Jockey Club Building, 99 Wong Chuk Hang Road, Hong Kong*

Enquiries

Full details about the programme are available at the Hong Kong College of Paediatricians website <http://www.paediatrician.org.hk>

Please direct enquiries to Dr Kwok Ka Li, Carrie, Hon Secretary, at kwokklc@ha.org.hk

The Hong Kong College of Paediatricians
Paediatric Respiratory Medicine 兒童呼吸科
Subspecialty Training Application Form

I Applicant's particular

Name: _____
(Block Letters) (Surname) (Given Name)

Chinese Name : _____

Gender : M/F Basic Medical Degree/ year : _____

Other medical qualification : _____

Date of Birth : _____ Place of Birth : _____

Correspondence
Address : _____

Office Address : _____

Rank/Post : _____

Tel : _____

E-mail : _____

Recent photo

Stages of general paediatrics training (please

- ☐ Candidates who have completed 3 years of basic training in general paediatrics and have passed the Joint MRCPCH (UK) / Hong Kong College of Paediatricians Intermediate Examination are eligible to receive up to a maximum of one cumulated year of PRM subspecialty training experience during their higher training in general paediatrics (the overlapping year), subject to prior approval of the proposed training by the PRM Subspecialty Board. Or
- ☐ Specialists holding the qualification of FHKAM (Paediatrics) or its equivalent.

II Curriculum Vitae

Please submit Curriculum Vitae that should include the following items whenever applicable:

- Academic Record and Professional Qualification with dates
- Present and Previous Appointments with dates
- Involvement in activities/committees at departmental, hospital, head office level as well as local college and professional bodies
- Previous training record with dates including courses/conferences, local & overseas training, professional & administrative.
- Publications & Presentations in both local and overseas conferences
- Research or projects completed or in progress
- Teaching activity
- Community service
- Previous awards/prizes/scholarships/fellowships obtained with dates

III Referees

Name and Address of two referees who are Fellows of College of Paediatricians

Name of first referee_____

Address_____

Name of second referee_____

Address_____

IV Declaration of Applicant

I, the undersigned, hereby declare that all information given or attached is true, accurate and complete and authorize the College to verify and to communicate the above information with whatever sources the College may choose.

_____	_____	_____
Name (Block letter)	Signature of Applicant	Date

V Support of the Chief of Service (COS) or Service Head (if applicable)

I support/ do not support the above candidate's application for training in Paediatric Respiratory Medicine.

Additional comments:

<hr/>	<hr/>	<hr/>
Name (Block letter)	Signature of COS or service head	Date

Note

- 1) The personal data provided by means of this form will be used by the College solely for the purpose of processing application for the training programme in PRM.
- 2) Application has to be supported by Chief of Service or Service Head (if applicable) of applicant's department.
- 3) Please return the duly completed application form, with curriculum vitae to:

**Dr Kwok Ka Li, Carrie, Hon Secretary,
PRM Subspecialty Board
c/o Kitty Ho, College Secretary,
Hong Kong College of Paediatricians
Room 801, Hong Kong Academy of Medicine Jockey Club Building
99 Wong Chuk Hang Road, HONG KONG**

**Tel: 2871 8769
Fax: 2785 1850
Email: kitty.ho@paediatrician.org.hk**

- 4) Confidential statement of the referee may be sent either with the completed application or separately to the Hon Secretary by the referee under confidential cover and should reach the Hon Secretary's Office as soon as possible.

Training program of Paediatric respiratory medicine in Hong Kong

Competencies to be achieved

1) In-patients (throughout training programme)

- a) To be able to lead the management of patients with complex and highly complex respiratory disorders in isolation or in connection with other organ/system failure. (appendix I & II)
- b) To order appropriately and to interpret diagnostic tests like imaging, lung function test, etc
- c) To be capable to prescribe assisted ventilation including noninvasive ventilation and continuous positive airway pressure, aerosol therapy
- d) To map out a pulmonary rehabilitation program for individual
- e) To be able to perform pleural procedures (e.g. chest drain insertion), flexible bronchoscopy and ultrasound thorax for acute cases.
- f) To be proficient in working with other health professionals and within a team where appropriate

2) Lung function training

- a) Competence in performing and interpreting:
- b) Mandatory:
Full Lung Function Testing including spirometry, lung volumes, body plethysmography, and DLCO for children of different ages (minimum of 5 hands on tests and 30 interpretation)
- c) Desirable:
Exercise challenge test, bronchial challenge tests, exercise challenge test, FeNO, Fitness to flight test, Infant and pre-school lung function test, Cardiopulmonary exercise test, Nasal NO, respiratory muscle and airway resistance assessment

3) Sleep service

Know and understand:

1. Sleep Stages (Maturation from Preterm to infant to children)
2. Circadian Rhythm
3. Hypersomnia
4. Insomnia
5. Parasomnia
6. Sleep-disordered breathing
 - i. AASM scoring criteria for Paediatrics
 - ii. Infant Sleep scoring
7. Sleep-related movement
8. Central Hypoventilation problem
9. Special patient Group like Neuromuscular patients and Syndromal patients

Competencies:

1. Sleep laboratory service:
Be able to read and report the following studies
 - i. Overnight polysomnography
 - ii. MSLT (Multiple Sleep Latency Test) (optional)
 - iii. MWT (Maintenance of Wakefulness Test) (optional)

- iv. Actigraphy (optional)
2. Sleep clinics
- Able to take a sleep history and manage clinical problems like
- i. OSAS
 - ii. Central Apnoea Syndrome
 - iii. Alveolar Hypoventilation
 - iv. Circadian Rhythm problem, parasomnias, narcolepsy (optional)
3. Be able to order a NIV titration plan and interpret the results
4. Have experience of a multidisciplinary clinic with other specialist such as
- i. Dentist
 - ii. Orthodontist
 - iii. ENT surgeon
 - iv. Maxillofacial surgeon

4) Paediatric Respiratory Medicine Training: PICU Module (minimum 3 months, total PICU and NICU exposure not exceed 9 months)

Upper airway management

- Diagnosis, assessment and management of acute epiglottitis, severe croup, tracheitis
- Assess and manage upper airway obstruction in ICU, diseases categories include: congenital malformations, infection related conditions, trauma and accident related conditions
- Use of nasopharyngeal tube, oropharyngeal tube, laryngeal mask

Respiratory diseases management in PICU

- Congenital malformations affecting pulmonary functions
- Infection/inflammation related parenchymal lung conditions: severe pneumonia, pneumonitis, lung abscesses, interstitial lung diseases, bronchiectasis and empyema
- Acute Respiratory Distress Syndrome
- Acute and chronic respiratory failure
- Chronic lung diseases (Bronchopulmonary dysplasia)
- Status asthmaticus and severe bronchiolitis; and other severe obstructive lung disease
- Care and management of children with acute and chronic tracheostomy
- Management of primary and secondary pulmonary hypertension
- Respiratory and ventilatory care of those children with critical cardiac conditions
- Peri-operative respiratory care and assessment of cardiothoracic surgical children
- Respiratory and ventilatory care of children with neuromuscular disorder: acute respiratory exacerbations, peri-operative respiratory care, longer term respiratory management
- Peri-operative care of those children with skeletal condition that cause restrictive lung condition and initiation of longer term respiratory intervention

- Management of those critical pulmonary complications of those children with haematological or oncological conditions
- Management of those critical pulmonary complications of those children with immunodeficiency

Practise and knowledge on different modes of assisted ventilation

- Use of different modes of invasive mechanical ventilation
- Use of different non-invasive ventilatory support and different choices of interface
- Assess the need to initiate ventilator support
- Assess the criteria of extubation and post-extubation support
- Understanding and application of the assessment of lung mechanics in mechanical ventilation

Respiratory medicine related procedures in PICU

- Endotracheal intubation
- Flexible bronchoscopy: diagnostic and therapeutic
- Ultrasound assessment of pneumothorax, pleural effusion
- Chest tapping and chest drain insertion
- Care and assessment of tracheostomy, change of tracheostomy tube

Optional modules in PICU exposure

- Management of children on Extracorporeal Membrane Oxygenation (Veno-venous and Vento-arterial)
- Post-operative care of child with lung transplantation

Paediatric Respiratory Medicine Training: NICU Module (maximum 3 months, total PICU and NICU exposure not exceed 9 months)

Management of acute respiratory condition in newborn and prematurity

- Respiratory distress syndrome
- Transient tachypnoea of newborn
- Pneumothorax and pleural effusions
- Congenital malformations causing airway obstruction: glossoptosis, cystic hygroma, vallecular cyst, vascular ring
- Upper airway obstruction in newborn: laryngomalacia, vocal cord palsy, haemangioma, subglottic stenosis and tracheal stenosis
- Congenital malformations affecting pulmonary function: congenital diaphragmatic hernia, trachea-oesophageal fistula, congenital cystic adenomatoid malformation (congenital pulmonary airway malformation) and congenital lobar emphysema
- Meconium aspiration pneumonia and pulmonary hypertension
- Persistent pulmonary hypertension of newborn
- Congenital cardiac disease that affect pulmonary condition
- Acute respiratory failure related to infection, acute abdomen, neurological or metabolic conditions
- Peri-operative respiratory care of babies with surgical conditions
- Apnoea and hypoventilation syndromes

Knowledge and management of chronic lung disease

- Prevention of chronic lung disease
- Treatment of chronic lung disease
- Discharge planning: nutrition support, assessment and use of home oxygen therapy

Practise and knowledge on various ventilatory care in NICU

- Use of humidified heated high flow oxygen
- Use of non-invasive ventilation: CPAP, BiPAP
- Invasive mechanical ventilation
- High frequency ventilation
- Inhalational nitric oxide
- Different mode of synchronized assisted ventilation

Respiratory medicine related procedures in NICU

- Endotracheal intubation
- Direct laryngoscopy examination
- Chest tapping and chest drain insertion

5) Airway endoscopy (to be done throughout training)

This endoscopy training programme encompasses important skills and knowledge on various modalities of endoscopic assessment commonly used in PRM, namely, drug induced sleep endoscopy (DISE) and flexible bronchoscopy and flexible endoscopic examination of swallowing (FEES)

Training objectives:

- To understand the indications, contraindications and potential complications of the above procedures and be able to obtain informed consent properly.
- To understand normal and abnormal anatomy of paediatric upper airway.
- To understand and operate relevant equipments.
- To be familiar with pre-procedural patient assessment including, but not limited to, an assessment of clinical lab values, procedural risk factors, medication allergies, sedation and anaesthetic risks, and all other clinical factors relevant to the procedure.
- To be able to administer sedation and local anaesthesia as necessary for the clinical situation in order to perform the procedure safely and to obtain useful information for diagnosis, assessment and treatment, and to organize a clinical team to perform the procedure safely and at a level appropriate for the clinical situation.
- To be able to perform intra-procedural patient management, including assessment of vital signs, airway, mental status, intravenous access, and any other relevant observations or investigation to assure patient safety and well-being.
- To be able to perform the procedures and interpret the visualized images and abnormalities independently.
- To understand and perform post-procedural patient management, including assessment for complications, diagnosis and treatment of

complications, confirming and reporting results of the procedure and further discussion with the relevant specialists on management plans.

- i) To be able to collaborate with speech therapists, occupational therapists, dietitians, and other related medical professionals in performing and interpreting FEES.

Training structure:

- a) Trainees will be supervised by various PRM trainers throughout the whole training programme to meet the above training objectives.
- b) Trainees are expected to undergo simulator training before performing the procedure on patients. After an assessment on basic knowledge and skills, trainees will be allowed to perform procedures on patients under supervision. The trainee would be expected to have assisted in 30 endoscopies and performed at least 15 procedures under supervision, including Flexible endoscopic evaluation of swallowing (FEES) and drug-induced sleep endoscopy (DISE).
- c) Desirable but not essential procedures include the following: BAL, brush biopsy, endo-bronchial biopsy, and bronchoscopic intubation.
- d) Adequate documentation of cases done is expected.
- e) Regular video review should be held as education sessions for experience sharing.

i) Ambulatory service (throughout training)

Competencies

- a) Able to conduct a patient-centred clinic history and examination
- b) Able to select appropriate investigations, interpret and apply results to reach diagnosis and monitor progress
- c) Able to select appropriate inhalation device for drug delivery
- d) Able to support children with chronic respiratory failure.
- e) Practical experience of long-term ventilator support in children, including the choice and set up of equipment, and follow-up and troubleshooting.
- f) Practical experience in the prescription, initiation, and supervision of children who require home oxygen therapy.
- g) Able to communicate effectively to referring sources and patients
- h) Able to write clear, concise medical notes and prescription
- i) Able to lead an inter-disciplinary team to manage complex cases with multiple needs
- j) Demonstrate knowledge of resource constraints and appropriate utilization of resources
- k) Be able to carry out health education and promotion
- l) For example: Asthma education, smoking cessation

Clinical Exposure

- a) The trainee should be undertaking regular paediatric respiratory clinics during training, seeing both new and follow-up patients and discussing them with the trainer. During training they should be exposed to and gain competence in the out-patient management of

various diseases. (appendix I)

- b) Expose to and desirably lead a transition clinic and multidisciplinary clinic during the training.

7) Out-Reached service (desirable)

Able to conduct visit to home of children with highly complex respiratory diseases

- a) Able to conduct an inter-disciplinary home visit in a structured and organized manner with specific target achieved
- b) For example: Assessment of home environment, equipment installation, transportation availability and carer's ability to attend medical need before discharging a SMA patient or patient requiring home ventilation etc.
- c) Able to help with the patients' self-help groups

8) Research and audit

Training structure:

- Trainees will be mentored by a designated PRM trainer at the beginning of his/her training in PRM to work on a research project.
- The research project chosen by the trainee must be relevant to PRM.
- Throughout the training, the trainees are expected to present progress update at regular intervals.
- Trainees are encouraged to present their research findings at local and or international conferences.
- Trainees are also expected to learn and gain knowledge in different research methodologies.

Audit

- Trainees are expected to demonstrate active involvement in clinical audit cycles.

Teaching

- Demonstrate a good aptitude in teaching at various levels and settings

Appendix I

Clinical conditions in PRM, including but not confined to

- Allergy
- Asthma and pre-school wheeze
- Environmental factors from air pollution to smoking on the developing lungs and the family.
- Respiratory infection with or without complications, e.g. Acute bronchiolitis, Mycoplasma infection etc.

- Mycobacterial and non-Mycobacterial infections with focus on pulmonary tuberculosis, TB pleural effusion, TB lymph node and latent TB infection
- Acute and chronic respiratory failure
- Sudden infant death syndrome and apparent life-threatening events
- Pulmonary complications on the intensive care unit, e.g. Acute respiratory distress syndrome, ventilator acquired pneumonia (VAP) etc.
- Near-Drowning
- Congenital lung malformation
- Chronic lung disease of prematurity
- Foreign body aspiration and chronic aspiration syndrome
- Gastro-oesophageal Reflux related Lung Disease
- Children with complex disability
- Chronic suppurative lung disease, e.g. Cystic fibrosis, bronchiectasis, lung abscess etc.
- Respiratory manifestation of systemic lung disease
- Immunocompromised chest problems
- Eosinophilic lung diseases and hypersensitivity pneumonitis
- Pulmonary vascular disease
- Cor pulmonale and pulmonary complication of cardiac diseases
- Restrictive lung diseases, e.g. Neuromuscular diseases, chest wall deformity etc.
- Sleep disordered breathing
- Other sleep disorders, e.g. Behavioral sleep problem, parasomnias etc.
- Behavioral aspects of respiratory lung disease, e.g. hyperventilation syndrome etc.
- Environmental lung disease, e.g. Hypersensitivity pneumonitis, effect of active and passive smoking, toxin inhalation etc.
- Rare diseases: Cystic fibrosis, obliterative bronchiolitis, interstitial lung disease, primary ciliary dyskinesia, bronchiolitis obliterans, bronchiolitis obliterans organizing pneumonia, pulmonary haemorrhage syndrome, respiratory malignancy, congenital central hypoventilation syndrome, narcolepsy etc.

Appendix II

Case Profile Definition: when case satisfies any one or more columns of the 2 sets of factors (Disease or Treatment)

Categorization of case complexity*	Disease factors		Treatment factors	
	Disease Severity (A)	Disease Complications (B)	Level of Care / Isolation (C)	Procedures (D)
Simple	mild	nil	clinic / ambulatory / general ward care, isolation: nil / contact / droplets	nil
Intermediate	moderate	mild (e.g. self-limiting, complete recovery)	general ward care, isolation: nil / contact / droplets / airborne / reverse	simple / non-invasive procedures (e.g. oxygen therapy, intravenous fluid)
Complex	severe	moderate (e.g. intervention required, short term morbidity but complete recovery anticipated)	HDU / SCBU / ICU / PICU / NICU care requiring intensive monitoring, with or without isolation	specialized / invasive procedures (e.g. chest drain, thoracentesis, pleural biopsy, bronchoscopy)
Highly complex	life-threatening	severe (e.g. intervention required, only partial recovery or presence of long-term morbidity)	ICU / PICU / NICU requiring ventilatory support, multi-specialty care, or surgical management, with or without isolation	highly specialized procedures (e.g. intubation, ventilation, surgery, plasmapheresis, interventional radiology, ECMO, lung transplant)

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

In-patient management

Trainee Name:

Trainee should record a total of at least 50 cases in to reflect competencies outlined in this section of the curriculum

Condition (e.g.)	Number of cases	Assessments			
		CBD	Reflective notes (n)	Case Presentations (n)	Case Summary Review
Bronchiolitis requiring respiratory support					
Acute severe asthma					
Community acquired pneumonia (CAP)					
Empyema					
Stridor					
Upper airway obstruction-adenotonsillar hypertrophy					
Upper airway obstruction- other					
Pneumothorax					

2. Most recent evidenced-based guidelines/reviews which the trainee is using for chronic disease management. The trainee should store and index these electronically.

Condition	Guideline source/title	Guideline date

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

In-patient management

Trainee Name:

Trainer's assessment:

Please comment on whether the trainee's current level is appropriate for independent consultant practice- 1. Ready for independent practice; 2. Almost ready for independent practice; 3. Not yet ready.

Competency	Date	Independent practice (1/2/3)?	Comments (Must be inserted if assessment is not 1)	Trainer Name	Initials
Assess need for admission					
Planning of investigation and management					
Recognition of deterioration					
Communication with family					
Liaison with MDT					
Discharge management					
Breadth of experience					
Overall					

Competencies- Ability to:

1. Determine the need for admission when assessing those referred, including psychosocial impact on need as well as medical need. **Discussion on rounds**
2. Determine, plan and explain to families the appropriate investigations and treatment. **Observed by trainer**
3. Recognise and manage severe and/or deteriorating respiratory problems including the need for and implementation of invasive and non-invasive ventilatory support **Discussion on rounds.**
4. Liaise with the multidisciplinary team caring for the patients **360**
5. Give discharge advice to families with acute or chronic respiratory problems and arrange follow up as necessary. **Observed by trainer.**
6. Able to summarise care and plan appropriate future management. **Case summary review, ward round presentation**

Evidence (over 3 years)

1. Portfolio of at least 50 cases should be available, with at least 5 be reflective notes. These should demonstrate evidence based practice in the management of the conditions described.
2. At least 5 observed episodes of interaction with families – e.g. on explaining tests, explaining diagnosis / differential or giving discharge advice.

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

Ambulatory care

Trainee Name:

Record of a total of ≥ 50 cases seen in clinic over 3 years, to reflect competencies outlined in this section of the curriculum

Condition	Number of cases (total)	Assessments		
		CBD(n)	Reflective notes (n)	Case summary review (n)
Allergy				
Asthma				
Pre-school wheezing				
Pulmonary tuberculosis				
Chronic respiratory failure				
Long term ventilator support				
Home oxygen therapy				
Congenital lung malformation				
Chronic lung disease of prematurity				
Gastro-oesophageal Reflux related Lung Disease				
Congenital lung disease:				
Bronchiectasis,.				
Bronchiolitis obliterans syndromes				
OSA				
Rare diseases: CF, ILD, PCD, Pulmonary haemorrhage etc.				
Respiratory manifestation of systemic lung disease				
Other and rare chronic lung diseases (Specify below)				

2. Most recent evidenced-based guidelines/reviews which the trainee is using for chronic disease management. The trainee should store and index these electronically.

Condition	Guideline source/title	Guideline date

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

Ambulatory care

Trainee Name:

Trainer's assessment:

Please comment on whether the trainee's current level is appropriate for independent consultant practice- 1. Ready for independent practice; 2. Almost ready for independent practice; 3. Not yet ready.

Competency	Date	Independent practice (1/2/3)?	Comments (Must be inserted if assessment is not 1)	Trainer Name	Initials
Consultation skills					
Clinical assessment					
Appropriate investigations					
Appropriate treatment					
Clinic letter quality					
Appropriate discharge					
Breadth of experience					
Overall					

Competencies and how they might be assessed

1. The trainee should demonstrate an up-to-date understanding of respiratory symptoms and noises.- **CBD/CSR**
2. Organise investigations to aid diagnosis or to measure disease severity, understanding the diagnostic accuracy of investigations. **CBD/CSR**
3. Recommend and institute appropriate age-related treatments. **CBD/CSR**
4. Follow-up patients, monitoring disease progress and being alert to adherence to and side-effects of treatment. **CBD/CSR**
5. Take a holistic approach to patient, identifying adjunctive problems which may impact on health and disease management. **CSR**

Assessment:

1. Portfolio of 50 cases managed, representing all conditions in curriculum, together with some CBD / CSR
2. Signed off when supervisor considers that the trainee is able (on his/her own) to:
 - a). safely see new respiratory referrals (make diagnosis, order investigations, institute treatments and communicate findings and plans to children/parents),
 - b). provide appropriate follow up and know when to discharge or refer back to referring doctor.

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK
Flexible bronchoscopy
Trainee Name:

Observed			
	Supervisor	Scope/method	Details (note of BAL, brush biopsy, mucosal biopsy etc)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK
Flexible bronchoscopy
Trainee Name:

Record at least 15 cases performed by trainee

Performed			
	Supervisor	Scope/method	Details (note of case ID, underlying problem, and key findings)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

2. Evidence of knowledge:

	Evidence of knowledge
Infection control measures	
Processing techniques	

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK Flexible bronchoscopy

Trainee Name:

Trainer's assessment:

Please comment on whether the trainee's current level is appropriate for independent consultant practice- 1. Ready for independent practice; 2. Almost ready for independent practice; 3. Not yet ready.

Competency	Date	Independent practice (1/2/3)?	Comments (Must be inserted if assessment is not 1)	Name	Initials
Appropriate use of investigation					
Manipulation of bronchoscope, and orientation					
Correct recognition of normal /abnormal appearances					
BAL					
Mucosal biopsy					
FEES					
DISE					
Overall-Competent at consultant level					

Competencies

Knowledge

1. Knowledge of the indications, contraindications, risks and complications of bronchoscopy in children and be able to explain these to parents. **Discussion and observed by trainer**
2. Knowledge of the indications for rigid bronchoscopy and non-bronchoscopic lavage and have observed these procedures on at least one occasion. **Discussion with trainer**
3. Knowledge of different procedures performed during bronchoscopy such as BAL, brush and mucosal biopsies. **Written evidence/logbook**
4. Knowledge of the maintenance and cleansing of equipment, and aware of risks of cross infection and how to minimise these. **Discussion with trainer**
5. Basic knowledge of processing techniques used in the laboratories and ideally witness these being performed on at least one occasion. **Portfolio**

Clinical skills/experience

1. Witnessed/performed 45 bronchoscopies in children and visualised all of the common abnormalities encountered in routine clinical practice. **Logbook**
2. Performed at least 15 bronchoscopies under supervision and be competent to perform procedures without further supervision. **trainer sign-off**

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

Respiratory Function Measurements

Trainee Name:

Knowledge	Assessed by	Date
Methodology and underlying physiology of:		
Spirometry		
Lung volumes		
Body Plethysmography		
DLCO		
Generic issues		
Use of reference values		
Repeatability and diagnostic accuracy of tests		
Quality control in the lab		
Risk management		

Technique	Tests (n)		Calibration (n)
	Performed	Reported	
Spirometry			
Lung volumes			
Body plethysmography			
DLCO			

Full Lung Function Testing including spirometry, lung volumes, body plethysmography, and DLCO for children of different ages (minimum of 5 hands on tests and 30 interpretation)

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK
Respiratory Function Measurements
Trainee Name:

Trainer's assessment:

Please comment on whether the trainee's current level is appropriate for independent consultant practice- 1. Ready for independent practice; 2. Almost ready for independent practice; 3. Not yet ready.

Competency	Date	Independent practice (1/2/3)?	Comments (Must be inserted if assessment is not 1)	Name (Trainer)	Initials	Name (Physiologist)	Initials
Can explain physiological basis of tests							
Appropriate choice of test							
Perform range of tests							
Interpret and report range of tests							
Understands quality control in the laboratory							
Overall: Could run a respiratory laboratory							

Competencies

1. Able to explain or teach the underlying physiology - flow-volume curves, measurement of lung volumes, DLCO and body plethysmography- *observed teaching/discussion*
2. Perform spirometric testing, measurement of bronchodilator responsiveness, measurement of lung volumes, DLCO.- *Observed by physiologist or trainer*
3. Able to interpret tests and identify technically unacceptable ones.- *observed by physiologist or trainer*
4. Can explain repeatability, diagnostic accuracy and limitations of tests and use this in interpretation. *Discussion with trainer*
5. Able to calibrate equipment, maintain quality control and minimise risk in the laboratory. *Demonstrates competence/discussion with trainer/physiologist*
6. Understands and correctly uses reference data.-*Observed/discussion*

N.B. This module should be countersigned by a physiologist or technician as well as a trainer.

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

Sleep Medicine

Trainee Name:

Knowledge	Teaching/discussion with trainer	Date
Be able to teach or otherwise demonstrate knowledge of		
Development and physiology of sleep and breathing		
Different conditions which cause sleep-disordered breathing		
Central apnoea syndrome		
Hypersomnia /insomnia/ parasomnias (optional)		

Practical skills	Cases	
	N	Date
Take a sleep history		
Set up polysomnography sleep study		
Score and report PSG using AASM criteria		
Score/report MSLT/MWT/Infant PSG and actigraphy (optional)		

Experience					
Condition	Number of cases		Assessments		
	N	Date	CBD	Reflective notes	Clinic letter review
Obstructive Sleep Apnoea					
Central breathing disorder					
ALTE/infant apnoea					
Titration of NIV					

	Clinic type	Specialties involved	Date
Multidisciplinary clinic			

Evidence based materials and guidelines

Guideline source/title	Guideline date

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK

Sleep Medicine

Trainee Name:

Trainer's assessment:

Please comment on whether the trainee's current level is appropriate for independent consultant practice- 1. Ready for independent practice; 2. Almost ready for independent practice; 3. Not yet ready.

Competency	Date	Independent practice (1/2/3)?	Comments (Must be inserted if assessment is not 1)	Name (Trainer)	Initials	Name (Technician)	Initials
Appropriate knowledge base							
Clinical assessment of sleep problems							
Able to set up sleep studies							
Able to interpret, report and take action on sleep studies and titration studies							
Able to manage clinical sleep problems							
Overall: Can function safely in independent practice							

Competencies

Background Teaching discussion with trainer

The trainee should

1. Know the physiology of sleep at different ages, sleep stages, their effects on cardiorespiratory status and changes with age, circadian rhythm physiology.
2. Know what clinical conditions disturb sleep and in particular those which result in airway obstruction and central apnoea
3. Know the different clinical pictures caused by different conditions
4. be familiar with the advantages and limitations of different sleep studies.

Written evidence in portfolio/ Observed teaching

Clinical skills

The trainee should be able to

1. take a sleep history **Observed by trainer**
2. set up a sleep study- **Observed by trainer/technician**
3. score and report PSG (at least 30 PSGs; 5 under close supervision) **Observed by trainer/technician**
4. Appropriately prescribe and interpret NIV titration **Observed by trainer/CBD**
5. Manage a range of clinical sleep problems **CBD/logbook**

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK
PICU

Trainee Name:

Trainee should record a total of at least 20 cases in to reflect competencies outlined in this section of the curriculum (M)

Respiratory condition requiring care	Number of cases	Assessments			
		CBD	Reflective notes (n)	Case Presentations (n)	Case Summary Review
Obstructive lung disease					
Restrictive lung diseases					
Parenchymal lung diseases					
Upper airway diseases					
Management of chronic lung diseases					
Others					

Procedures	Number of cases
Endotracheal intubation (M, minimum 10)	
Change of tracheostomy tube (M, minimum 3)	
Chest drain insertion (M)	
Use of non-invasive ventilation (M)	
Use of invasive ventilation (M)	
Use of inhalational Nitric oxide (D)	

PAEDIATRIC RESPIRATORY MEDICINE- LOGBOOK PICU

Trainee Name:

Trainer's assessment:

Please comment on whether the trainee's current level is appropriate for independent consultant practice- 1. Ready for independent practice; 2. Almost ready for independent practice; 3. Not yet ready.

Competency	Date	Independent practice (1/2/3)?	Comments (Must be inserted if assessment is not 1)	Trainer Name	Initials
Can manage complex or highly complex PRM disease with respiratory failure					
Competent at the range of necessary procedures					
Competent ventilator usage					
Breadth of experience					
Overall					

Competencies- Ability to:

- Can manage patients with complex respiratory problems. **Discussion with trainer/CBD**
- Has demonstrated ability to perform the procedures listed in the PICU curriculum. **Observed by supervisors and logbook.**
- Can manage invasive and non-invasive ventilation appropriately. **Observed by trainer. Discussion on rounds**

Evidence (over 3 years)

- Portfolio of cases should be available, demonstrating experience and competence at the range of conditions listed in the curriculum..

Trainee Name:

[illegible]

Trainee Name:

[illegible]

Record of rotation for PRM

Name of trainee		
Dates	Block	Training institute
	1	
	2	
	3	
	4	
	5	
	6	

Hong Kong College of Paediatricians
Paediatric Respiratory Medicine Subspecialty Training

LOG OF CLINICAL CASES

(Ambulatory Care/Inpatient/Lung function/Bronchoscopy/Sleep/ICU)#

#please delete as appropriate

Trainee : _____ Training Center : _____

Start date (dd/mm/yy) : _____ End date(dd/mm/yy) : _____

No	Date	Initial of patient	Diagnosis
01			
02			
03			
04			
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20			

**Continue to log/attach log sheets as needed*

Endorsement (by Trainer/Supervisor at end of rotation or at least every six months)

***Trainer or
Supervisor:***

(Name in block letters)

(Signature)

(Date)