

# HONG KONG COLLEGE OF RADIOLOGISTS

## Higher Subspecialty Training in Paediatric Radiology

[This document should be read in conjunction with the *Guidelines on Higher Specialist Training (Radiology)*]

### 1. INTRODUCTION

1.1 Paediatric Radiology was one of the earliest subspecialties of radiology, and is recognized as a distinct subspecialty in advanced societies. It is dedicated to the imaging diagnosis and intervention in neonates, infants, children and adolescents.

1.2 Paediatric Radiology is characterised by:

- (a) The differences in physiology and anatomy of children and patients of different ages;
- (b) Different spectrum of diseases and pathologies, many being congenital, developmental or related to growth;
- (c) The great emphasis on ionising radiation protection and safety because of the greater sensitivity of growing tissues to radiation damage and induction of malignancy;
- (d) The need to develop skills that enable the radiologists to obtain diagnostic examinations from paediatric patients;
- (e) The need to understand the involvement of the parents and family in management of children's disease.

1.3 Paediatric radiology is a category A subspecialty.

### 2. OBJECTIVES

2.1 To gain a practical understanding of how a child's physiology and anatomy affects image quality, and dictates differences in requirements for intravenous contrast and sedation

2.2 To gain understanding of the effects of growth and development on image interpretation and making diagnosis

2.3 To learn about paediatric pathologies

2.4 To be able to select and plan the best imaging strategies for every diagnostic problem

2.5 To be able to explain to, and involve the parents in, the diagnostic process and to answer their questions and address their anxieties

- 2.6 To be able to interpret clinicians' request and communicate meaningfully results to the clinicians
- 2.7 To be able to communicate to larger groups of clinical and radiological colleagues
- 2.8 To appreciate the problems involved in research in paediatric radiology in order to be able to apply the published literature to everyday practice

### **3. TRAINING REQUIREMENTS**

#### **3.1 TRAINING CENTRE REQUIREMENTS**

- 3.1.1 All training centres are part of the HKCR Paediatric Radiology Training Network under coordination by Hong Kong College of Radiologists. Trainees will rotate between Training Centres within the network, in order to gain exposure to spectrum of cases from various paediatric subspecialties and to fulfil training requirements.
- 3.1.2 Hong Kong Children's Hospital (HKCH) is a centre of designated training under HKCR which provides specialized and advanced paediatric services. HKCH provides a unique opportunity for the development of paediatric radiology through concentration of expertise, strengthening of research and enhancement of training with multipartite involvement. Complex and rare cases requiring multidisciplinary team management are centralised in HKCH, including paediatric oncology and haematology, paediatric cardiology, paediatric nephrology, paediatric surgery and inborn error of metabolism. HKCH serves as a leader in the territory for Genetics and Genomics in radiology in Training, Services and Research.
- 3.1.3 The training centres other than HKCH must have clinical units for Paediatrics, Neonatal Intensive Care Unit (NICU), Special Care Baby Unit (SCBU) and Paediatric Intensive Care Unit (PICU)
- 3.1.4 Radiological department equipment must include
- (a) Ultrasound with appropriate high frequency transducers
  - (b) Fluoroscopy with paediatric dose reduction options
  - (c) CT with proper paediatric protocols in use
  - (d) NM
  - (e) MRI with proper paediatric protocols, MR spectroscopy, MR perfusion, MRA/V and DTI

#### **3.2 TRAINER REQUIREMENTS**

As specified in the Guidelines on Higher Specialist Training (Radiology).

### 3.3 DURATION OF TRAINING

3.3.1 Minimum training - 3 months. This is for radiologists who would like to have better exposure in Paediatric Radiology.

3.3.2 Standard training – 6 months. This is for radiologists who would like to have more in-depth training in Paediatric Radiology

3.3.3 Extended training – 9 months to 1 year. This is recommended for radiologists who pursue to subspecialize in Paediatric Radiology in the future.

3.3.4 HKCH takes up pivotal role in Paediatric Radiology training, in which mandatory rotation to HKCH is necessary. It includes at least 3 consecutive weeks of attachment in HKCH in every 3 months of Paediatric Radiology training. On the other hand, at least 4 consecutive weeks of attachment in training centres other than HKCH is required in every 3 months of Paediatric Radiology training to gain knowledge in other clinical spectrum. Rotation of Paediatric Radiology trainees between HKCH and other accredited training centres is preferably reciprocal and attachment to HKCH within the Paediatric Radiology training period is preferred. The arrangement of rotation will be organized by the training supervisors among HKCH and other accredited training centres.

### 3.4 MINIMUM NUMBER OF EXAMINATIONS REQUIRED

3.4.1 As there are no specific RIS coding for Paediatric examinations; the statistics should be retrieved from RIS for patients 18 years of age or younger.

3.4.2 The following table shows the minimum requirement for 6-month training:

<b>Examination</b>	<b>RIS Coding (please refer to 3.5.2)</b>	<b>Requirement</b>
<b>Plain Film Reporting</b>	1101-1799	400
<b>Ultrasound</b>		
Brain	3201	60
Others:	<i>Excluding the above</i>	200 (Minimum 10 Hip + 10 Spine)
<b>Fluoroscopy/Contrast studies</b>		
MCU / VUS	2201, 3322	20 (Minimum 5 MCU)
Others (including observation)	<i>Excluding the above</i>	10
<b>CT</b>		
Brain	4101, 4102	50
Others	4103-4499	80
<b>MRI</b>		
Brain	8101, 8102	100
Others	8103-8699	60

<b>Examination</b>	<b>RIS Coding (please refer to 3.5.2)</b>	<b>Requirement</b>
<b>NM</b> Any examination	9001-9999	10

3.4.3 Exposure to neonatal (<1 month of age) imaging is essential. Examinations performed for this age group should be separately recorded in details and manually logged in the training period of Paediatric Radiology. At least 200 neonatal imaging examinations (minimum requirement: 100 CT/MRI/USG examinations, 100 plain films) are required for every 6 months of Paediatric Radiology training.

3.4.5 Observation of or assistance in Paediatric Angiography and Radiological Intervention (including intussusception reduction) is encouraged.

### 3.5 CLINICAL RADIOLOGICAL CONFERENCES AND OTHER MEETINGS

Please refer to the Guidelines on Higher Specialist Training (Radiology).

### 3.6 PRESENTATIONS AND PUBLICATIONS

Please refer to the Guidelines on Higher Specialist Training (Radiology).

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