### **Service area/ Sub-specialty Name:**





Paediatric Immunology, Allergy and Infectious Diseases (PIAID)

Membership:

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Dr TL QUE, COS (Microbiology) TMH

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**Deliberation Process:** Dr PW KO, COS (PAED &AM). CMC and OLMH

Dr. Frankie CHENG (PAED), PWH

Prior discussion in Meetings	Date	Outcome
Clinical Work Group Representatives Meeting	Pending arrangement	ТВС
Clinical Management Committee (CMC)	Pending arrangement	TBC
Work Group on Manpower & Training	Pending arrangement	TBC
<ul> <li>Planning &amp; Commissioning Committee (PCC)</li> </ul>	Pending arrangement	TBC

#### **Existing service arrangement**

- Infectious disease inpatient services at secondary level are currently provided by most HA
  paediatric departments while tertiary services are provided in 4 PIAID centres ( PMH, PWH
  QEH, QMH), which are accredited by College to be training centres.
- HA IDC at PMH a tertiary ID centre has 24 paediatric beds including 2 ICU beds
- Primary immunodeficiency are essentially cared by PWH and QMH with HSCT service.
- QEH and QMH serve children with HIV/AIDS
- PWH and QMH have high volume service of complicated allergy cases and mostly are under ambulatory care.
- QMH's PIAID service also take charge of tertiary autoinflammatory condition,
   immunedysregulatory and rheumatological cases

# **Existing manpower and service throughputs**

Existing manpower	PMH (1 CON, 1 AC, 1 RT) PWH (2RT, 1CUHK staff) QEH (2AC, 1 RS) QMH (1CON, 1AC, 1 RT and 2 HKU staff)  Remark: 1 HKU staff and 1 AC of PWH not counted in this pool to avoid double counting with Oncology service/Transplant service Laboratory ( microbiology and immunology service) not counted
Existing caseload	ID Total New case/yr 2000 OP 240 IP 1760 Episode/yr 4000  IA Total New Case/Yr 350 OP 300 IP 50 Episode/yr 4000

## Proposed service arrangement in the context of HKCH development

Hospital	Role	Scope of Services
НКСН	<ul> <li>Coordinating</li> <li>Common protocols</li> <li>Leadership</li> <li>Comprehensive one-stop service</li> <li>Multidisciplinary complicated case</li> <li>Non-communicable ID cases</li> <li>Tertiary</li> </ul>	<ul> <li>Diagnostic evaluation and management of conditions like:         <ul> <li>Primary immunodeficiency</li> <li>Anaphylaxis</li> <li>Multiple drug and food allergy</li> </ul> </li> <li>Stem cell transplantation of immunodeficiency</li> <li>Immunomodulatory therapy</li> <li>Specific allergen immunotherapy -oral tolerance induction</li> <li>Use of biologic agents</li> </ul> <li>Severe or complicated cases of non-communicable infectious diseases include:         <ul> <li>Opportunistic infections in immunocompromized hosts</li> <li>Severe/complex infections requiring organ/surgical support and multidisciplinary care</li> <li>Infections caused by multiple-drug resistant organisms</li> <li>Disseminated infection with herpes group viruses</li> <li>Invasive/systemic fungal, atypical mycobacterial or parasitic infections.</li> </ul> </li>
Regional hospitals	<ul><li>Secondary</li><li>Referral network</li><li>Prevention</li><li>Step-down</li></ul>	<ul> <li>Secondary care and step-down immunology, allergy and infectious diseases services</li> <li>IDC -the designated centre for emergency preparedness and first line defence for containing initial community outbreaks of novel, emerging or reemerging infectious diseases and agents of biological attack</li> <li>Antibiotic –stewardship and infection control</li> </ul>

#### Phased implementation plan before full-team establishment in HKCH

- 12 months prior commencement could start relocate old cases to HKCH clinics
- Set up 5 clinics ID, immunology, allergy, HIV, inflammatory/vasculitis (by 1C+4AC)
- Trial run of 2 months of logistics in accepting referrals from other hospitals
- Ambulatory skin test/food and drug challenge service
- Providing consultation service to other subspecialties
- Be responsible for the operation of the 29 isolation beds in HKCH & part of general paediatrics when full functioning

### Service areas requiring collaboration and planning with other sub/-specialties

Oncology

**HSCT** 

### **Manpower Planning**

	Manpower requirement for HKCH		Existing manpower to be	Estimated Additional Manpower
	Interim arrangement	Full-team establishment	transferred to HKCH	Requirement
CON	1 consultant (interim) 2 consultants (Full team)		1	1
AC	4 AC(interim) 4 AC ( Full team)		4	
RS/RT	5		5	
TOTAL	10(11)		10	

#### **Justifications for Manpower Requirement**

Hub and spoke service model

The HKCH team will share the remainder out-patient clinic at 4 PIAID centres (PMH, PWH, QEH, QMH)

Lead Antibiotics-stewardship Porgramme for HKCH

Lead Infection control for HKCH

Forming an allergy referral /anaphylaxis prevention network

Comprehensive training programme for whole HK

# Supporting Slide

# Way forward

- To provide training opportunities and to implement improvement initiatives to cater for the service gaps identified:
  - Management of infections in critical care patients and immunocompromized hosts
  - Allergen immunotherapy and insufficient capacity in handling provocation test
  - Care model for orphan inflammatory diseases
  - Use in novel therapy and biologic agents