

28 Aug 2017

Dear Principal

LOCAL CASE OF DIPHTHERIA AND IMMUNISATION REQUIREMENTS

A local case of diphtheria, a first since 1992, has surfaced in an unvaccinated foreign worker on 3 August 2017. The Bangladeshi worker passed away on 4 Aug 2017.

In Singapore, compulsory vaccination against diphtheria has been established as part of the National Childhood Immunisation Programme since 1962. As diphtheria vaccination is compulsory by law for children, the vaccination coverage for diphtheria in children aged two in the Singaporean population remains high (at 96% to 98%).

Thanks to routine immunisation, it is a disease of the past. However, it is important to continue immunisation against diphtheria because there is a risk that the infection can be brought in by people who have travelled to or come from countries where diphtheria still exists.

The best way to prevent diphtheria is to get immunised. Diphtheria vaccine is given as 5-in-1 or 6-in-1 injection (Diphtheria /Pertussis/Tetanus/Polio/Haemophilus Influenza b) or Diphtheria /Pertussis/Tetanus/Polio/Haemophilus Influenza b/ Hepatitis B) in infants and 3-in-1 injection (Tetanus/Diphtheria/acellular Pertussis-Tdap) in older children.

Measles is also endemic in Singapore. In May 2016, the number of measles cases nearly tripled, MOH urged parents to get their children immunised. Half of the cases were children under 12 months who have yet to receive their MMR and the rest were children who defaulted on their immunisation.

It is important that young children receive two doses of MMR vaccine, the first dose at 12 months and a second dose between 15-18 months. Measles vaccine is given as a 3-in-1 injection (Measles/Mump/Rubella).

Vaccination generates immunity to and prevents against infectious diseases, and reduces the risk of disease outbreaks. The herd immunity protects children under 12 months who are too young to be immunised as well as children who are immuno-compromised e.g. suffering from leukaemia or chronic kidney disease.

In Singapore, the National Childhood Immunisation Programme (NCIP) is in place (**Annex A**) to ensure comprehensive vaccination coverage. The NCIP covers vaccinations against tuberculosis (also called BCG); hepatitis B; diphtheria, pertussis and tetanus (together as DTaP); poliomyelitis; measles, mumps and rubella (together as MMR); pneumococcal disease; and human papillomavirus.

Only diphtheria and measles vaccinations are compulsory by law.

Several measures are in place to ensure high vaccination coverage in the local population. These includes:

- (i) mandating vaccinations (measles and diphtheria) through the Infectious Diseases Act (IDA).
- (ii) administrative measures – BCG and Hepatitis B vaccinations are given at birth in hospitals, and parents are provided with a health booklet to follow-up on subsequent recommended childhood vaccinations. The booklet is checked by doctors during medical reviews and vaccinations certificates are required for pre-school and primary school registration.
- (iii) vaccinations offered to children through various healthcare providers including the School Health Service, Health Promotion Board (HPB).

We would appreciate if Principals would remind parents of the Singapore National Childhood Immunisation Schedule and the need to adhere to it in accordance with Singapore's Infectious Disease Act.



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**NATIONAL CHILDHOOD IMMUNISATION SCHEDULE,
SINGAPORE**

Vaccination against	Birth	1 Month	3 months	4 months	5 months	6 months	12 months	15 months	18 months	10-11 years [^]
Tuberculosis	BCG									
Hepatitis B	HepB (D1)	HepB (D2)			HepB (D3) [#]					
Diphtheria, Tetanus, Pertussis			DTaP (D1)	DTaP (D2)	DTaP (D3)				DTaP (B1)	Tdap (B2)
Poliovirus			IPV (D1)	IPV (D2)	IPV (D3)				IPV (B1)	OPV (B2)
<i>Haemophilus influenzae</i> type b			Hib (D1)	Hib (D2)	Hib (D3)				Hib (B1)	
Measles, Mumps, Rubella							MMR (D1)	MMR (D2) [#]		
Pneumococcal Disease			PCV (D1)		PCV (D2)		PCV (B1)			
Human Papillomavirus		Recommended for females 9 to 26 years; three doses are required at intervals of 0, 2, 6 months								

BCG	Bacillus Calmette-Guérin vaccine	D1/D2/D3	1 st dose, 2 nd dose, 3 rd dose
HepB	Hepatitis B vaccine	B1/B2	1 st booster, 2 nd booster
DTaP	Paediatric diphtheria and tetanus toxoid and acellular pertussis vaccine	[^]	Primary 5
Tdap	Tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine	#	3 rd dose of HepB can be given at the same time as the 3 rd dose of DTaP, IPV, and Hib for the convenience of parents.
IPV	Inactivated polio vaccine	##	2 nd dose of MMR can be given between 15-18 months
OPV	Oral polio vaccine		
MMR	Measles, mumps, and rubella vaccine		
Hib	<i>Haemophilus influenzae</i> type b vaccine		
PCV	Pneumococcal conjugate vaccine		