Practice Nurse Immunisation Update

Practice Nurse Update

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Tricia Smith Bsc(Hons) RGN RM RT

Managing Childhood Immunisation Clinics – Best Practice Guidelines – RCN Sept 2018

- Before giving a vaccine always check:
- Remember your 8 Rs
- Right patient
- Right vaccine and diluent (where applicable)
- Right to give (ie, no contraindications)
- Right time (including correct age and interval, as well as before the product expiration date)
- Right dose
- Right route (including correct needle gauge and length and technique)
- Right site
- Right documentation (to ascertain what the patient has already had/needs)

Vaccine Update Search Index



VACCINE UPDATE





This is an index of the topics covered by Vaccine update including revised guidance, policy and programme implementation information. It has been designed so that you can search VU content specifically. It is important to always refer to the most recent advice.

Latest editions







Adobe Acrobat Reader is required to access all functions within this document June 2019

Last updated: June 2019

Updated guidance on immunisation training

- National Minimum Standards and Core Curriculum for Immunisation Training for Registered Healthcare Practitioners
- Revised February 2018

 <u>file:///C:/Users/marga/Desktop/Training standards and core curriculum immu</u> <u>nisation.pdf</u>

	Competency Assessment Tool: Registered Staff - For staff registered on a professional register such as NMC , GMC, HCPC, GPhC	Not applicable (NA) to current area of practice	Self-assessment Record: met (M) or needs to improve (NI) (initial & date)	Supervisor review Record: met (M) or needs to improve (NI) (initial & date)	Record action plan for any assessed as 'needs to improve' (as agreed with supervisor)
	Part 1: Knowledge		Self-Assessment	Supervisor review	
a	Can provide evidence of attendance at a specific, comprehensive immunisation training course. (The course should cover all of the topics detailed in the "Core Curriculum for Immunisation Training") and/or provide evidence of completing an immunisation eLearning programme (state the name of course/type of training attended).				
b	Has successfully completed a knowledge assessment e.g. an e-learning course assessment, end of course test, etc				
lc	Able to access the online Green Book and is aware of the electronic update nature of this publication.				
ld	Able to access other relevant immunisation guidance e.g. DH/PHE/NHS England letters, Vaccine Update, Q&As on new or revised vaccine programmes, the PHE algorithm for persons with unknown or uncertain immunisation status, or Wales and NI equivalents.				
le	Knows who to contact for advice if unsure about vaccination schedules, vaccine spacing and compatibility, eligibility for vaccines or if a vaccine error occurs (e.g. local Screening and Immunisation team, PHE Health Protection Team, other locally available immunisation lead or Wales and NI equivalents).				
lf	Able to access current information on other countries' schedules if required (e.g. World Health Organisation (WHO) or the European Centre for Disease Control (ECDC) websites) and can advise patients and/or parents/carers if any additional vaccines are needed.				
lg	Able to discuss the relevant national and local immunisation programmes and the diseases for which vaccines are currently available. Aware of programmes for specific clinical risk groups and use of vaccination in outbreak situations. Knows where to refer to if vaccines are not available locally (e.g. BCG or travel vaccines).				
lh	Is able to advise on appropriate safe, timely administration of the vaccine(s) required by the patient.				
li		trl+C			
ij	Able to explain the general principles of immunisation e.g. why multiple and/or booster doses are required, why intervals need to be observed between doses and why influenza vaccine needs to be given annually.				
	Aware of local and national targets for immunisation uptake and why				







HCA Guidance

- National minimum Standards and Core curriculum for immunisation training of healthcare support workers
- <u>https://assets.publishing.service.gov.uk/government/uploads/system</u> /uploads/attachment_data/file/464033/HCSW_Training_Standards_S eptember_2015.pdf

Uncertain or Incomplete schedule

August State State

Vaccination of individuals with uncertain or incomplete immunisation status

For online Green Book, see www.gov.ukigovernmentiorganisations/public-health-england/series/immunisation-againsHirfectious-disease-the-green-book + For other countries' schedules, see http://apps.who.int/immunization_monitoring/globalsummary/

Infants from two months of age up to first birthday	Children from first up to second birthday	Children from second up to tenth birthday		From tenth birthday onwards
DTaP/IPV/HIb/HepB* + PCV** + MenB** + rotavirus*** Four week gap DTaP/IPV/HIb/HepB + rotavirus*** Four week gap DTaP/IPV/HIb/HepB + PCV** + MenB** * DTaP/IPV/HIb/HepB + PCV** + MenB** * DTaP/IPV/HIb/HepB should be given to all children born on or after 1st August 2017 in the UK or abroad or children born abroad who have already	DTaP/IPV/HIb ¹ + PCV ¹ + HIb/Men C ¹ + MenB ¹¹ + MMR Four week gap DTaP/IPV/HIb ¹ Four week gap DTaP/IPV/HIb ¹ + MenB ¹¹ ¹ DTaP/IPV can be given if DTaP/IPV/Hib not available. DTaP/IPV/HIb/HegB can be given if netther of these two vaccines are available or if child has already	DTaP/IPV/HIb* + HIb/MenC* + MMR Four week gap DTaP/IPV/HIb* + MMR Four week gap DTaP/IPV/HIb* * DTaP/IPV can be given if DTaP/IPV/HIb not available. DTaP/IPV/HIb HepB can be given if nether of these two vaccines are available or if child has already commenced course with this vaccine Al un- or incompletely immunised children only require one dose of		Td/IPV + Man ACWY * + MMR Four week gap Td/IPV + MMR Four week gap Td/IPV *• Those aged from 10 years up to 25 years who have never received a MenC-containing vaccine should be offered MenACWY • Those aged 10 years up to 25 years may be eligible or
started their primary schedule with this vaccine Children born before 1st August 2017 should receive DTaPIPV/HIb vaccine unless Hepatitis B vaccine is specifically indicated or DTaPIPV/Hib cannot easily be obtained.	commenced course with this vacche. All un-or Incompletely immunised children only require one dose of HIb, Men C (until teenage booster) and PCV over the age of one year. It does not matter if two Hb-containing vaccines are given at the first appointment or if the child receives additional Hb at subsequent appointments if	Hib and Men C (unli teenage booster) over the age of one year. It does not matter if two Hib-containing vaccines are given at the first appointment or if the child receives additional Hib at subsequent appointments if DTaPIPV/Hb vaccine is given		Minose aged to years up to 25 years in any be induce of may shortly become eligible for MenACWY. Refer to MenACWY national programme information for further details on eligibility
A child who has already received one or more doses of primary diphtheria, tetanus, poilo and pertusisis should complete the course as above. Any missing doses of Hib and/or HepB can be given as Hib/MenC and/or, if eligible, monovalent hepatitis B, at monthly intervals	DTaP/IPV/Hb or DTaP/IPV/HbHepB vaccine is given. III Children who received less than 2 doses of MenB in the first year of life should receive two doses of MenB In their second year of life at least two months apart. Doses of MenB can be given one month apart.	Boosters + subsequent vaccination First booster of DTaP/IPV or dTaP/IPV can be given as early as one year following completion of primary course to re-establish on routine schedule. Additional doses of DTaP/IPV/HIb-containing vaccines	Г	Boosters + subsequent vaccination First booster of Td/PV Preferably five years following completion of primary course
** Doses of PCV and MenB should ideally be given two months apart but can be given one month apart if necessary to ensure the immunisation schedule is completed (i.e. if schedule started at 10m of age) *** Vaccination with rotavirus should not be	If necessary to ensure the two dose schedule is completed (i.e. if schedule started at 22m of age) Boosters + subsequent vaccination	given under three years of age in some other countries do not count as a booster to the primary course and should be discounted Subsequent vaccination – as per UK schedule		Second booster of Td/IPV Ideally ten years (minimum five years) following first booster HPV vaccine for girls from
started for infants aged 15 weeks or older • First dose to be given only if infant is more than 6 weeks and under 15 weeks • Second dose to be given only if infant is less than 24 weeks old	As per UK schedule MMR – from first birthday onwards • Doses of MMR/measles vaccine given prior to 12 months of • For individuals <18 months of age a minimum interval of th			twelfth up to eighteenth birthday Girls commencing HPV vaccine course: — before age 15 yrs should follow 2 dose 0, 6-24 months schedule
Boosters + subsequent vaccination As per UK schedule ensuring at least a one month Interval between DTaP/IPV/HIDIHepB and HID/ MenC doses and a two month Interval between	For individuals >18 months of age a minimum of one month should be left between first and second doces Two doses of MMR should be given irrespective of history of measies, mumps or rubeila infection and/or age If child <3y4m, assess whether two doses are needed now or whether child can return to routine schedule and receive second dose with pre-school DTaP/IPV			 at age 15 yrs and above should follow 3 dose 0, 1, 4-6 months schedule If interrupted, course should be resumed but not repeated, ideally allowing appropriate intervals between remaining doses
PCV and MenB primary and booster doses	Flu vaccine (during flu season) • Those aged 65yrs and older (including those turning 65 ye • Children eigible for the current season's childhood influenza p • Those aged 6 months and older in the defined clinical risk	rogramme (see Annual Flu Letter for date of birth range)	•	 For two dose course, give second dose even if more than 24 months have elapsed since first dose or girl is then aged 15 yrs or more Three dose courses started but not completed before eighteenth birthday should be completed ideally allowing 3 months between second and third doses (minimum one month interval if otherwise unlikely to complete course) If girl commenced three dose course under 15yrs prior to September 2014, and has:
A individuals coming to UK part way through their Immunisation schedule should be transferred onto the UK schedule and immunised as appropriate for age of the primary course has been started but not	Pneumococcal polysaccharide vaccine (• Those aged 65yrs and older • Those aged 2yrs and older in the defined clinical risk gro		•	
 In the print as yourse the source to be no need to repeat doses or restart course Plan catch-up immunisation schedule with minimum number of visits and within a minimum possible timescale – aim to protect individual in 	Shingles vaccine • Those aged 70yrs and 78yrs • In addition, individuals who have become eligible since the start of the shingles programme in September 2013 remain eligible until their 80th birthday (see eligibility on PHE website)		┛	 only received one dose, give a second dose 6-24m later to complete a two dose course received two dose less than six months apart, give a third dose at least three months after second dose
shortest time possible	MW185.06 Effective from Noven	nber 2017 – Authorised by: Laura Craig Note: BC		patitic B vaccines for those at high risk should be given as per

Note: BCG and Hepatitic B vaccines for those at high risk should be given as per Green Book recommendations and have therefore not been included in this algorithm

Updated Routine Schedule

Diphtheria, tetanus, pertussis (whooping cough), polio, Haemophilus imfluenzae type b (Hib) and hepatitis B Pneumococcal (13 serotypes) Meningococcal group B (MenB)	DTaP/IPV/Hib/HepB Pneumococcal conjugate vaccine (PCV)	Infanrix hexa Prevenar 13	Thigh Thigh
	conjugate vaccine (PCV)	Prevenar 13	Thiah
Meningococcal group B (MenB)			
	MenB	Bexsero	Left thigh
Rotavirus gastroenteritis	Rotavirus	Rotarix	By mouth
Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa	Thigh
Rotavirus	Rotavirus	Rotarix	By mouth
Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa	Thigh
Pneumococcal (13 serotypes)	PCV	Prevenar 13	Thigh
MenB	MenB	Bexsero	Left thigh
Hib and MenC	Hib/MenC	Menitorix	Upper arm/thig
Pneumococcal	PCV	Prevenar 13	Upper arm/thig
Measles, mumps and rubella (German measles)	MMR	MMR VaxPRO ² or Priorix	Upper arm/thig
MenB	MenB booster	Bexsero	Left thigh
Influenza (each year from September)	Live attenuated influenza vaccine LAIV ^{2, 3}	Fluenz Tetra ^{2, 3}	Both nostrils
Diphtheria, tetanus, pertussis and polio	DTaP/IPV	Infanrix IPV or Repevax	Upper arm
Measles, mumps and rubella	MMR (check first dose given)	MMR VaxPRO ² or Priorix	Upper arm
pillomavirus (HPV) types 16 and HPV (two doses (and genital warts caused by 6-24 months apart)		Gardasil	Upper arm
Tetanus, diphtheria and polio	Td/IPV (check MMR status)	Revaxis	Upper arm
Meningococcal groups A, C, W and Y disease	MenACWY	Nimenrix or Menveo	Upper arm
Pneumococcal (23 serotypes)	Pneumococcal Polysaccharide Vaccine (PPV)	Pneumococcal Polysaccharide Vaccine	Upper arm
Influenza (each year from September)	Inactivated influenza vaccine	Multiple	Upper arm
	Shinales	Zostavax ²	Upper arm
	Ib and hepatitis B lotavirus lotavirus lotavirus lotavirus lotavirus lotavirus lotavirus lotavirus lotavirus lotavirus lib and MenC heumococcal (13 serotypes) lib and MenC heumococcal derman measles) whenB nfluenza (each year from applicmatics) lophtheria, tetanus, pertussis and lolo whealse, mumps and rubella dersite and the lolo lophtheria, tetanus, pertussis and lolo whealse, mumps and rubella dersite and the lolo lophtheria, tetanus, pertussis and lolo lophtheria, tetanus, pertussis and lolo lophtheria, tetanus, pertussis dersite and pertus logitable	Ib and hepatitis B ¹¹ Construction Conseo Construction Construction	bib and hepatitis B ¹¹ Clamport of the patitis A for a set of the patitis and the patitis A for a set of the patitis A for a

SouthWest Screening & Immunisation Team, Public Health England

For routine immunisation enquiries, incidents and advice contact the

PHE SouthWest Screening & Immunisation Team:

England.swscreeningandimms@nhs.net

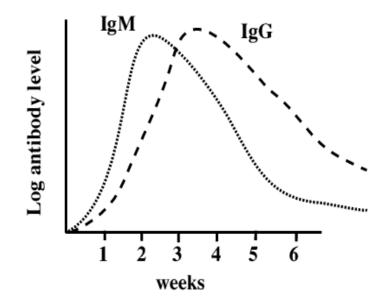
International immunisation schedules comparison tool

• <u>https://www.gov.uk/government/publications/uk-and-international-immunisation-schedules-comparison-tool</u>

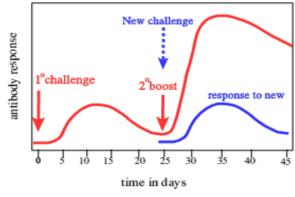
Video

<u>https://www.bbc.co.uk/news/av/health-48682113/immunisation-why-we-do-it-and-how-herd-immunity-works</u>

Primary immune response



Specific memory is the hallmark of the adaptive immune response



Primary immune response develops in the weeks following first exposure to an antigen
Mainly IgM antibody

Secondary immune response is faster and more powerful
Predominantly IgG antibody

With kind permission from Nick Holmes

Interval Spacing of vaccines

- Doses of the same inactivated vaccine 4 weeks apart (or 8w for PCV & Men B)
- Live vaccines If giving yellow fever 4 weeks apart
- No interval need be observed between: live and inactivated vaccines doses of different inactivated vaccines

Yellow Fever and MMR

- A four week minimum interval period should be observed between the administration of these two vaccines.
- Yellow Fever and MMR should not be administered on the same day.

Vaccine composition

In addition to the antigen, vaccines may contain some or all ofthe following components:

Component	Purpose	Example		
Adjuvants	enhance the immune response to a vaccine	MF59, aluminium salts, aluminium phosphate & potassium aluminium sulphate		
Taste improvers	Improve taste of the vaccine	sugar		
Additives	stabilise vaccines from adverse conditions such as freeze-drying or heat, thereby maintaining a vaccine's potency	gelatine		
Residuals from manufacturing	Inactivating agents	formaldehyde		
process	Antibiotics - prevent bacterial contamination during manufacturing process	neomycin, streptomycin, polymyxin B		
	Egg proteins- some vaccine viruses are grown in chick embryo cells Immunisation Department, Centre for Infection	influenza, yellow fever		

Aluminium salts are found in these vaccines used routinely in the UK.

- <u>6-in-1 vaccine</u>: Infanrix Hexa
- <u>PCV (pneumococcal conjugate vaccine)</u>: Prevenar 13
- <u>MenB vaccine</u>: Bexsero
- Pre-school Booster vaccines: Repevax, Infanrix IPV and Boostrix-IPV (0
- <u>HPV vaccine</u>: Gardasil
- <u>Teenage Booster vaccine</u>: Revaxis
- <u>HepB vaccine</u>: HBVaxPro

Fluad vaccine

 The main ingredient in MF59 is squalene oil, a naturally-occurring oil found in humans, plants and animals. The squalene oil in MF59 comes from fish oil and is highly purified before it is used

Formaldehyde – vaccine ingredient

- <u>6-in-1 vaccine</u> (Infanrix Hexa)
- <u>Hepatitis B vaccine</u> (HBVaxPro)
- <u>Pre-school Booster vaccines</u> (Repevax)
- <u>Teenage Booster vaccine</u> (Revaxis)

References

- <u>https://assets.publishing.service.gov.uk/government/uploads/system</u> /uploads/attachment_data/file/766685/Greenbook_chapter_1_002
 <u>.pdf</u>
- <u>http://vk.ovg.ox.ac.uk/vaccine-ingredients</u>

Resources

- Oxford Vaccine Group
- www.ovg.ox.ac.uk