Health Protection CPD Event – Migrant Health

Immunisations and vulnerable migrants –

Protecting ill health through prevention

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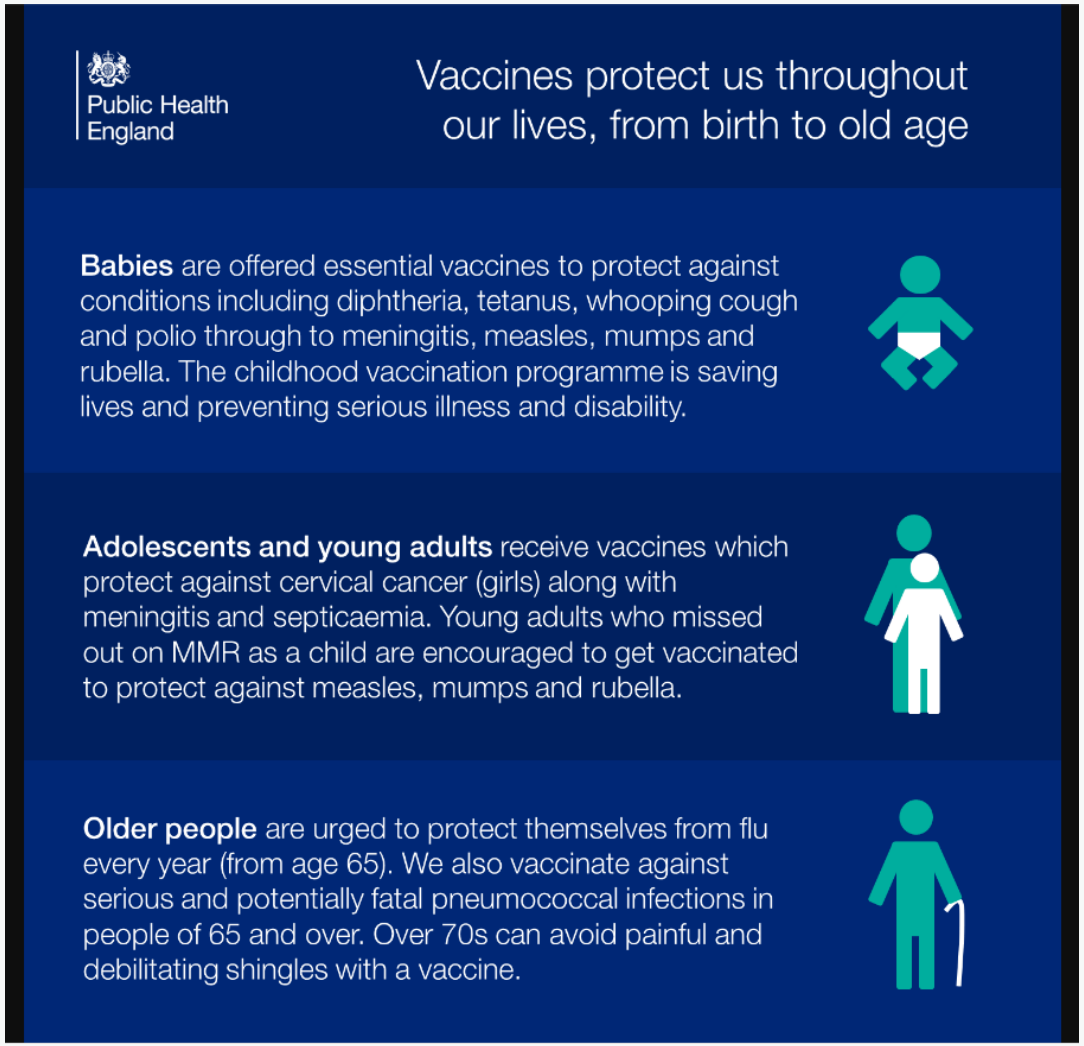


Active immunity through vaccination.

- Vaccines generally provide immunity similar to that provided by the natural infection, but without the risk from the disease or its complications

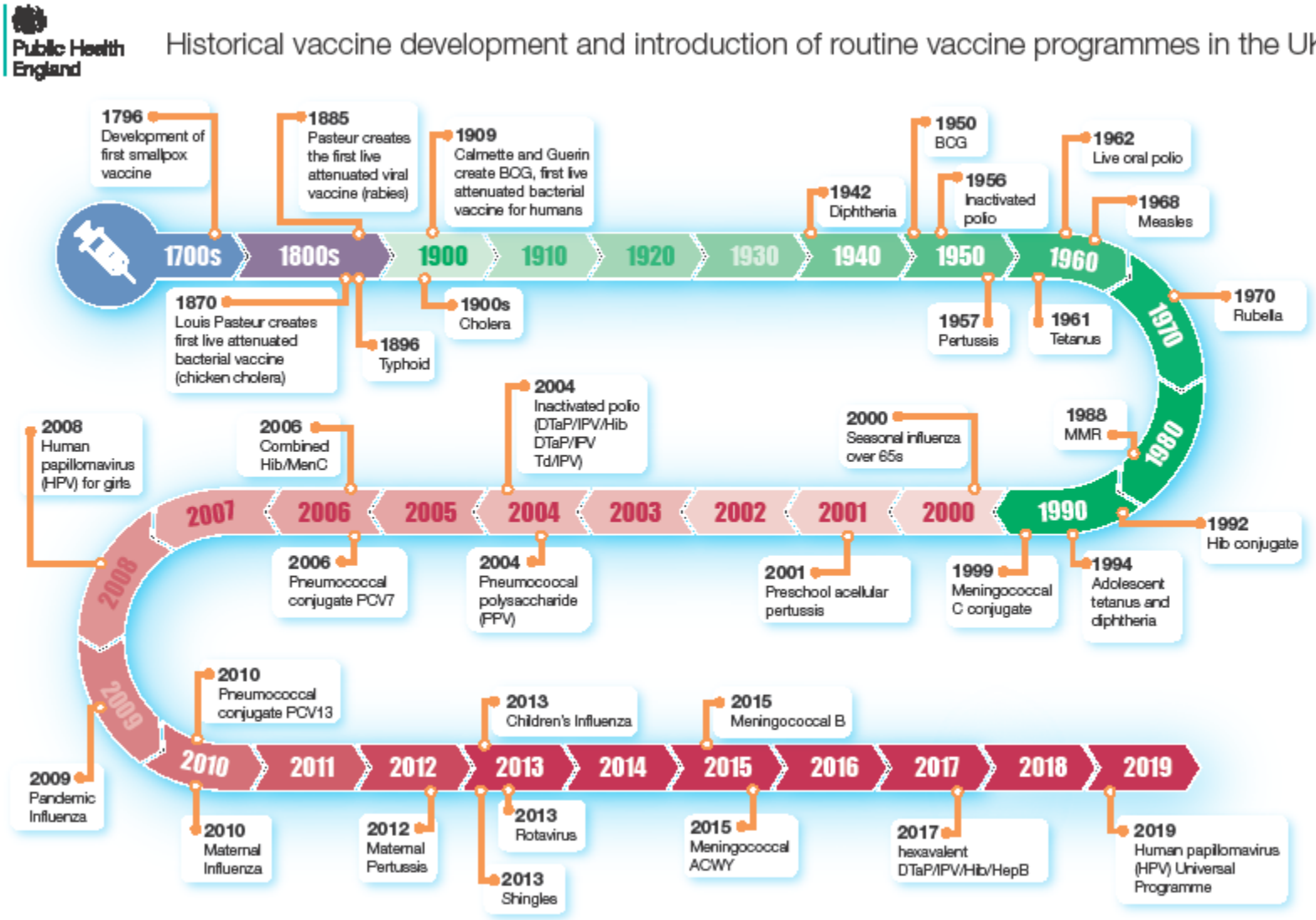
Passive immunity through transfer of antibodies from immune individuals e.g Mother,

- most commonly across the placenta e.g. maternal pertussis
- Blood/blood products e.g. Immunoglobulin

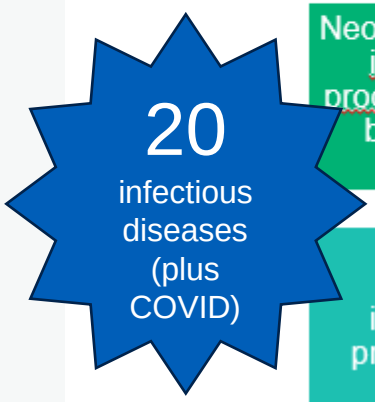
The primary aim of vaccination is to protect the individual who receives the vaccine

Vaccine Timeline

The immunisation programme in the UK continues to evolve, meeting the demand to improve the control of infectious diseases through vaccination



Section 7a Vaccination Programmes



Neonatal hepatitis B immunisation programme (babies born to Hep B mums)	Pertussis pregnant women immunisation programme	Neonatal BCG immunisation programme (at risk babies)	Immunisation against diphtheria, tetanus, pertussis, poliomyelitis Hib and Hep B
Rotavirus immunisation programme	Meningitis B (MenB) immunisation programme	Meningitis ACWY (MenACWY) immunisation programme	Hib/MenC immunisation programme
Pneumococcal immunisation programme	DTaP/IPV and dTaP/IPV (pre-school booster) immunisation programme	Measles, mumps and rubella (MMR) immunisation programme	Human papillomavirus (HPV) immunisation programme (inc MSM)
Td/IPV (teenage booster) immunisation programme	Seasonal influenza immunisation programme	Seasonal influenza immunisation programme for children	Shingles immunisation programme

UK Health Security Agency

The complete routine immunisation schedule — From September 2023

Age due	Diseases protected against	Vaccine given and trade name		Usual site[1]
Eight weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, *Haemophilus influenzae* type b (Hib) and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	Meningococcal group B (MenB)	MenB	Bexsero	Left thigh
	Rotavirus gastroenteritis	Rotavirus[2]	Rotarix[2]	By mouth
Twelve weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	Pneumococcal (13 serotypes)	Pneumococcal conjugate vaccine (PCV)	Prevenar 13	Thigh
	Rotavirus	Rotavirus[2]	Rotarix[2]	By mouth
Sixteen weeks old	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis B	DTaP/IPV/Hib/HepB	Infanrix hexa or Vaxelis	Thigh
	MenB	MenB	Bexsero	Left thigh
One year old (on or after the child's first birthday)	Hib and MenC	Hib/MenC	Menitorix	Upper arm/thigh
	Pneumococcal	PCV booster	Prevenar 13	Upper arm/thigh
	Measles, mumps and rubella (German measles)	MMR	MMRvaxPro[3] or Priorix	Upper arm/thigh
	MenB	MenB booster	Bexsero	Left thigh
Eligible paediatric age groups[4]	Influenza (each year from September)	Live attenuated influenza vaccine LAIV[5,6]	Fluenz Tetra[3,6]	Both nostrils
Three years four months old or soon after	Diphtheria, tetanus, pertussis and polio	dTaP/IPV	Boostrix-IPV	Upper arm
	Measles, mumps and rubella	MMR (check first dose given)	MMRvaxPro[3] or Priorix	Upper arm
Boys and girls aged twelve to thirteen years	Cancers and genital warts caused by specific human papillomavirus (HPV) types	HPV[5]	Gardasil 9	Upper arm
Fourteen years old (school Year 9)	Tetanus, diphtheria and polio	Td/IPV (check MMR status)	Revaxis	Upper arm
	Meningococcal groups A, C, W and Y	MenACWY	Nimenrix	Upper arm
65 years old	Pneumococcal (23 serotypes)	Pneumococcal Polysaccharide Vaccine (PPV23)	Pneumovax 23	Upper arm
65 years of age and older	Influenza (each year from September)	Inactivated influenza vaccine	Multiple	Upper arm
65 from September 2023[7]	Shingles	Shingles vaccine	Shingrix	Upper arm
70 to 79 years of age (plus eligible age groups and severely immunosuppressed)[7]	Shingles	Shingles vaccine	Zostavax[3,7] (or Shingrix if Zostavax contraindicated)	Upper arm

1. Intramuscular injection into deltoid muscle in upper arm or anterolateral aspect of the thigh.
2. Rotavirus vaccine should only be given after checking for SCID screening result.
3. Contains porcine gelatine.
4. See annual flu letter at: www.gov.uk/government/collections/annual-flu-programme
5. See Green Book HPV Chapter 18a for details on immunising immunocompromised young people who will need 3 doses.
6. If LAIV (live attenuated influenza vaccine) is contraindicated or otherwise unsuitable use inactivated flu vaccine (check Green Book Chapter 19 for details).
7. See Green Book Shingles Chapter 28a for details on eligible age groups including severely immunosuppressed individuals from age 50.

Selective immunisation programmes

Target group	Age and schedule	Disease	Vaccines required
Babies born to hepatitis B infected mothers	At birth, four weeks and 12 months old[1,2]	Hepatitis B	Hepatitis B (Engerix B/HBvaxPRO)
Infants in areas of the country with TB incidence >= 40/100,000	Around 28 days old[4]	Tuberculosis	BCG
Infants with a parent or grandparent born in a high incidence country[3]	Around 28 days old[4]	Tuberculosis	BCG
Children in a clinical risk group	From 6 months to 17 years of age	Influenza	LAIV or inactivated flu vaccine if contraindicated to LAIV or under 2 years of age
Pregnant women	At any stage of pregnancy during flu season	Influenza	Inactivated flu vaccine
	From 16 weeks gestation[5]	Pertussis	dTaP/IPV (Boostrix-IPV)

1. Take blood for HBsAg at 12 months to exclude infection.
2. In addition hexavalent vaccine (Infanrix hexa or Vaxelis) is given at 8, 12 and 16 weeks.
3. Where the annual incidence of TB is >= 40/100,000 – see www.gov.uk/government/publications/tuberculosis-tb-by-country-rates-per-100000-people
4. Check SCID screening outcome before giving BCG.
5. Ideally before 32 weeks gestation but may still be given after 32 weeks.

Additional vaccines for individuals with underlying medical conditions

Medical condition	Diseases protected against	Vaccines required[1]
Asplenia or splenic dysfunction (including due to sickle cell and coeliac disease)	Meningococcal groups A, B, C, W and Y Pneumococcal Influenza	MenACWY MenB PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine
Cochlear implants	Pneumococcal	PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age)
Chronic respiratory and heart conditions (such as severe asthma, chronic pulmonary disease, and heart failure)	Pneumococcal Influenza	PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine
Chronic neurological conditions (such as Parkinson's or motor neurone disease, or learning disability)	Pneumococcal Influenza	PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine
Diabetes	Pneumococcal Influenza	PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine
Chronic kidney disease (CKD) (including haemodialysis)	Pneumococcal (stage 4 and 5 CKD) Influenza (stage 3, 4 and 5 CKD) Hepatitis B (stage 4 and 5 CKD)	PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine Hepatitis B
Chronic liver conditions	Pneumococcal Influenza Hepatitis A Hepatitis B	PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine Hepatitis A Hepatitis B
Haemophilia	Hepatitis A Hepatitis B	Hepatitis A Hepatitis B
Immunosuppression due to disease or treatment[4]	Pneumococcal Shingles vaccine Influenza	PCV13 (up to 10 years of age)[2,3] PPV23 (from 2 years of age) Shingrix – over 50 years of age[5] Annual flu vaccine
Complement disorders (including those receiving complement inhibitor therapy)	Meningococcal groups A, B, C, W and Y Pneumococcal Influenza	MenACWY MenB PCV13 (up to 10 years of age)[2] PPV23 (from 2 years of age) Annual flu vaccine

[The complete routine immunisation schedule from September 2023 (publishing.service.gov.uk)]

Vaccination Delivery/Access

- Primary Care
- Community Pharmacy
- School Aged Immunisation Services (SAIS)
- Maternity Services
- Some secondary care providers/services

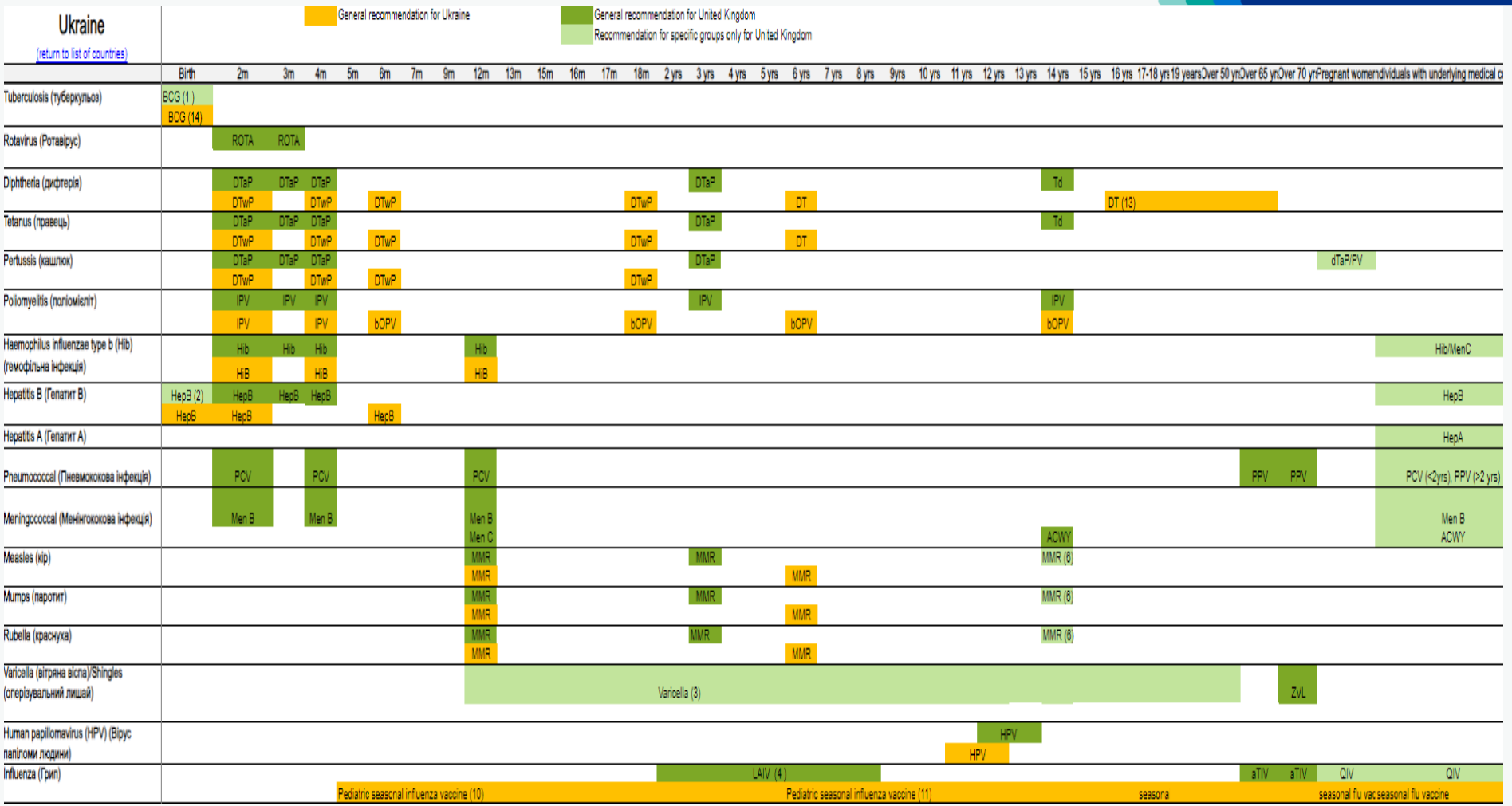
Risks /Challenges Associated with Migrant Population

- Different countries have different vaccination schedules:
  - parents may think they/their child is up to date
  - Don't understand UK schedule
  - Reluctant to consent for further vaccines
- Different vaccines/vaccine names/components to those used in UK e.g. may still be separate measles, mumps, rubella vaccine rather than combined MMR – not easily recognised**: UK and international immunisation schedules comparison tool**

The spreadsheet lists the 21 countries which most people immigrating to the UK come from, and gives their vaccinations schedules, the name of the diseases or vaccines in the local language and, where available, the vaccines used in the countries of origin.

UK and international immunisation schedules comparison tool - GOV.UK (www.gov.uk)

- Ascertaining what vaccines individuals moving to England from abroad have received
- Vaccines received elsewhere being recorded in the GP IT system/patient Clinical Record/CHIS



[Vaccination of individuals with uncertain or incomplete immunisation status (publishing.service.gov.uk)]

UK Health Security Agency

Vaccination of individuals with uncertain or incomplete immunisation status

For online Green Book, see www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book • For other countries' schedules, see immunizationdata.who.int/listing.html?topic=vaccine-schedule&location=

Infants from two months of age up to first birthday

DTaP/IPV/Hib/HepB[a†] + MenB[b] + rotavirus[c]
Four week gap
DTaP/IPV/Hib/HepB + PCV13[d] + rotavirus[c]
Four week gap
DTaP/IPV/Hib/HepB + MenB[b]

[a] A child who has already received 1 or more doses of primary diphtheria, tetanus, polio and pertussis should complete the 3 dose course with DTaP/IPV/Hib/HepB. Any missing doses of Hib and/or HepB can be given as Hib/MenC and/or, monovalent hepatitis B, at 4 week intervals

[b] Doses of MenB should ideally be given 8 weeks apart. They can be given 4 weeks apart in order for the primary MenB immunisation schedule to be completed before the first birthday if possible (i.e. if schedule started after 10m of age)

[c] First dose of rotavirus vaccine to be given **only** if infant is more than **6** weeks and under **15** weeks and second dose to be given **only** if infant is less than **24** weeks old

[d] Infants who are aged 12 weeks or over when starting their primary schedule can be given their single infant priming dose of PCV13 with their first set of primary immunisations. If a child has received PCV10 vaccine abroad, they should be offered 1 dose of PCV13 (at least 4 weeks after PCV10 was given)

Boosters + subsequent vaccination

As per UK schedule ensuring at least a 4 week interval between primary DTaP/IPV/Hib/HepB and the booster Hib/MenC dose, and a minimum 4 week interval between MenB and PCV13 priming and booster doses.

General principles

- unless there is a documented or reliable verbal vaccine history, individuals should be assumed to be unimmunised and a full course of immunisations planned
- individuals coming to UK part way through their immunisation schedule should be transferred onto the UK schedule and immunised as appropriate for age
- if the primary course has been started but not completed, resume the course – 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 shortest time possible

Children from first up to second birthday

DTaP/IPV/Hib/HepB[††] + PCV13[††] + Hib/Men C[††] + MenB[†††] + MMR
Four week gap
DTaP/IPV/Hib/HepB[†]
Four week gap
DTaP/IPV/Hib/HepB[†] + MenB[†††]

[†] DTaP/IPV/Hib/HepB is now the only suitable vaccine containing high dose tetanus, diphtheria and pertussis antigen for priming children of this age. Children born from 01/08/17 who received primary vaccines without HepB should be opportunistically offered a 3 dose course of monovalent HepB vaccine. If they are in a high-risk group or are exposed to hepatitis B, they should be proactively offered a hepatitis B vaccine course

[††] All un- or incompletely immunised children only require 1 dose of Hib, Men C (until teenage booster) and PCV13 over the age of 1 year. It does not matter if 2 Hib-containing vaccines are given at the first appointment or if the child receives additional Hib at subsequent appointments if DTaP/IPV/Hib/HepB vaccine is given. If a child has received PCV10 vaccine abroad, they should be offered 1 dose of PCV13 (at least 4 weeks after PCV10 was given)

[†††] Children who received less than 2 doses of MenB in the first year of life should receive 2 doses of MenB in their second year of life at least 8 weeks apart. Doses of MenB can be given 4 weeks apart if necessary to ensure the 2 dose schedule is completed (i.e. if schedule started at 22m of age)

Boosters + subsequent vaccination

As per UK schedule

Children from second up to tenth birthday

DTaP/IPV/Hib/HepB[^^] + Hib/MenC[^^] + MMR
Four week gap
DTaP/IPV/Hib/HepB[^] + MMR
Four week gap
DTaP/IPV/Hib/HepB[^]

[^] DTaP/IPV/Hib/HepB is now the only suitable vaccine containing high dose tetanus, diphtheria and pertussis antigen for priming children of this age. Children born from 01/08/17 who received primary vaccines without HepB should be opportunistically offered a 3 dose course of monovalent HepB vaccine. If they are in a high-risk group or are exposed to hepatitis B, they should be proactively offered a hepatitis B vaccine course.

[^^] All un- or incompletely immunised children only require 1 dose of Hib and Men C (until teenage booster) over the age of 1 year. It does not matter if 2 Hib-containing vaccines are given at the first appointment or if the child receives additional Hib at subsequent appointments if DTaP/IPV/Hib/HepB vaccine is given

Boosters + subsequent vaccination

First booster of dTaP/IPV can be given as early as 1 year following completion of primary course to re-establish on routine schedule. Additional doses of DTaP-containing vaccines given under 3 years of age in some other countries do not count as a booster to the primary course in the UK and should be discounted. Subsequent vaccination – as per UK schedule

From tenth birthday onwards

Td/IPV[#] + MenACWY[*] + 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 may shortly become eligible for MenACWY usually given around 14y of age. Those born on/after 1/9/1996 remain eligible for MenACWY until their 25th birthday

Boosters + subsequent vaccination

First booster of Td/IPV: Preferably 5 years following completion of primary course
Second booster of Td/IPV: Ideally 10 years (minimum 5 years) following first booster

HPV vaccine

- all females (born on/after 01/09/91) and males (born on/after 01/09/06) remain eligible for HPV vaccine up to their 25th birthday on the adolescent programme
- eligible immunocompetent individuals aged 11 to 25 years only require a single dose of HPV vaccine
- eligible individuals who are HIV positive or immunosuppressed should be offered a 3 dose schedule at 0, 1, 4-6 months
- for details of GBMSM HPV vaccination programme, please see Green Book HPV chapter
- any dose of Cervarix, Gardasil or Gardasil 9 would be considered valid if previously vaccinated or vaccinated abroad

Shingles vaccine

- **severely immunosuppressed individuals** from 50 years of age (eligibility as defined in the Green Book Shingles chapter 28a): 2 doses of Shingrix vaccine 8 weeks to 6 months apart; no upper age limit to start or complete the course
- **immunocompetent individuals** from their 65th and 70th birthday (see Shingles: guidance and vaccination programme on GOV.UK website for eligibility): 2 doses of Shingrix vaccine 6 months to 12 months apart. Once these individuals have become eligible, they remain eligible until their 80th birthday. The second dose of Shingrix vaccine can be given up to 81st birthday to those who have commenced but not completed the course
- **immunocompetent individuals** aged from 70 years who were previously eligible for shingles vaccination before 01/09/23 should receive Zostavax (unless contraindicated) until stocks of this vaccine are exhausted, after which Shingrix should be offered

MMR – from first birthday onwards

- doses of measles-containing vaccine given prior to 12 months of age should not be counted
- 2 doses of MMR should be given irrespective of history of measles, mumps or rubella infection and/or age
- a minimum of 4 weeks should be left between 1st and 2nd dose MMR
- if child <3y4m, give 2nd dose MMR with pre-school dTaP/IPV unless particular reason to give earlier
- second dose of MMR should not be given <18m of age except where protection against measles is urgently required

Flu vaccine (during flu season)

- those aged 65yrs and older although recommendations may change annually so always check Annual Flu Letter
- children eligible for the current season's childhood influenza programme (see Annual Flu Letter for date of birth range)
- those aged 6 months and older in the defined clinical risk groups (see Green Book Influenza chapter)

Pneumococcal polysaccharide vaccine (PPV)

- those aged 65yrs and older
- those aged 2yrs and older in the defined clinical risk groups (see Green Book Pneumococcal chapter)

[#] If an individual has received any OPV in another country since April 2016, these doses should be discounted as it is unlikely that they will protect against all 3 polio types. Most countries who still use OPV have a mixed OPV and IPV schedule so if sufficient IPV doses have been received for age, no additional IPV doses are needed.
BCG and Hepatitis B vaccines for those at high risk should be given as per Green Book recommendations. Individuals in clinical risk groups may require additional vaccinations. Please check Green Book chapters.

Effective from 1 September 2023

Risks /Challenges Associated with Migrant Population

- High level of vaccine hesitancy –
    - maybe cultural as opposed to scientific,
    - maybe related to vaccine contents e.g. porcine
    - maybe specific health concerns, side effects etc
- Individuals not registered with GP - as length of stay is variable ranging from a few weeks to multiple months.
    - Often asylum seekers are moved at short notice,
    - planned appointments/interventions are not completed,
    - information not transferred between providers.
- Lack of support/information:
    - English is not first language
    - Where English is spoken – Literacy may be low
    - Distrust of or don't understand the NHS/Health Authorities

Challenges for Primary Care

- Capacity/time to effectively reach this population
  - potential outreach clinics – logistics (cold chain, equipment, transport)
  - Focused/targeted sessions
  - may require higher level of input, longer appointments, need translation services)

QOF is intended to support optimal delivery and performance and ensure everyone is up to date with their immunisations in a timely manner. For childhood vaccines, the thresholds are set based on coverage required to achieve herd immunity.

- Individuals are often outside of schedule and unable to complete schedule in required timeframe – affects performance data and Quality Outcome Framework compliance.

RISK - Un or under vaccinated populations increases risk of outbreaks

Enablers

- Financial - Changes to the 2023/24 GP contract:
  - Item of Service (IoS) fee is **per dose administered** (not completed course, which applied pre-2021)
  - Repayment for performance below 80% coverage for routine childhood programmes has been removed, **hence there are no financial risk to practices.**
  - Changes to the childhood vaccination and immunisation indicators within QOF (reduced lower thresholds and higher upper thresholds)
  - Introduction of a new **Personalised Care Adjustment (PCA)**
    - for patients who registered at the practice too late (either too late in age, or too late in the financial year) to be vaccinated in accordance with the UK national schedule
    - ***means the patient is removed from the denominator of the indicator, so this will not affect the practices overall performance in relation to QOF.***
  - Where a patient has been vaccinated overseas in accordance with the UK National Vaccination Schedule, practices can record delivery of the vaccination in their clinical system to ensure that the vaccination counts towards QOF achievement (although an IoS fee cannot be claimed).

Key Messages

- Generally high uptake/coverage rates across YH **BUT** pockets of low uptake and inequality, including Asylum population.

- Need to achieve high **AND** equitable coverage/uptake – across all communities

- Need to increase vaccination rates in vulnerable migrants/populations – **Reduce risk of outbreaks/morbidity**

- Work with UKHSA YH to identify low uptake and high migrant population

Tailoring Immunization Programmes (TIP)

Developed by the WHO Regional Office for Europe

- Grounded in scientific evidence and country experience

- Aims to integrate people-centred research and behavioural insights into planning and policy.

- Founded on three main pillars:
  - six values and principles
  - a theoretical model and
  - a phased process with detailed exercises.

- Understand the characteristics and needs of vulnerable migrants locally - Work in partnership with people with lived experience - *Shouldn't assume what the needs and experiences are of vulnerable migrants.*
    - *NHSE have published statutory guidance for the NHS around working in partnership with people and communities.*

Key Messages

- Understand the barriers and drivers to vaccination – design services to meet local needs (support, motivate, enable)
    - *Working in partnership with people with lived experience will enable a far greater understanding of the barriers and enablers to good uptake. They could codesign interventions to improve uptake.*

- Identify the models and interventions that are most effective/most likely to work

- Map existing service models across the local footprint –
    - how effective are they?
    - What are the gaps?
    - How do they map to the above points?

- Utilise commissioning and contracting frameworks to support*:*
    - *Bespoke outreach models may be appropriate, for example the provision of primary care services in sites accommodating asylum seekers.*
    - *Vaccination by providers other than primary care*

Key Messages/Action

- Work collaboratively across the ICS to ensure immunisations are delivered as part of a wider package of health support - MECC. This may be through a range of models
    - *GP practices can be part of / link to the Safe Surgeries initiative (Doctors of the World)*
    - Make use of existing mechanisms and community assets to improve uptake –
        - **VCSEs** *are often trusted and skilled at engagement and have established relationships with different groups, especially those who experience health inequalities. Having peer advocates is important for this population; trusted relationships and feeling safe are key.*
        - *Local authorities have mechanisms in place to engage with communities, and each ICB has established structures around VCSE partnerships*

- It is **Never** too late to catch-up on the vaccinations recommended in England
- Assess and record vaccination history as soon as possible
- If there is no documented evidence of vaccination or in doubt – vaccinate (you cannot over vaccinate someone) as per algorithm to bring up to England schedule https://www.gov.uk/government/publications/vaccination-of-individuals-with-uncertain-or-incomplete-immunisation-status