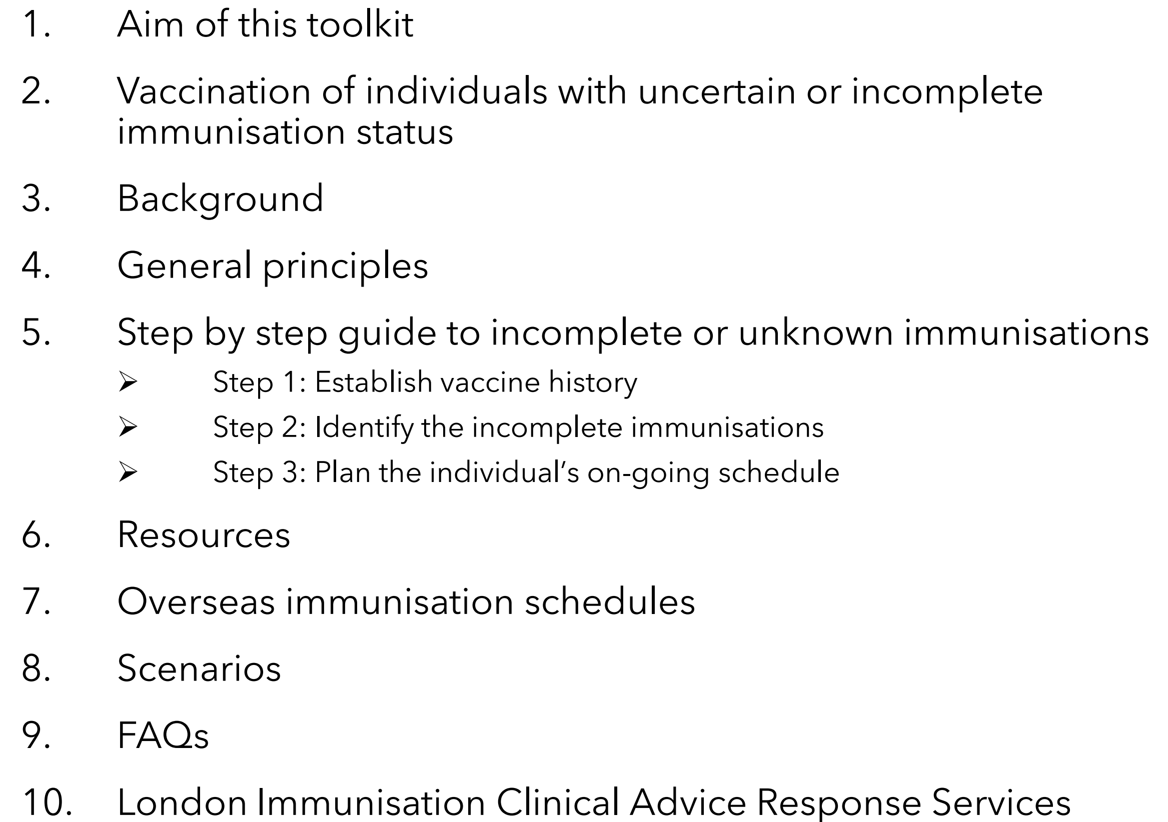
NHS England London

Toolkit for management of patients with unknown or incomplete immunisation histories

Produced by the Immunisation Clinical Advice Response Service (NHSE London Region) – August 2024



1. Aim of this toolkit
2. Vaccination of individuals with uncertain or incomplete immunisation status
3. Background
4. General principles
5. Step by step guide to incomplete or unknown immunisations
   - Step 1: Establish vaccine history
   - Step 2: Identify the incomplete immunisations
   - Step 3: Plan the individual’s on-going schedule
6. Resources
7. Overseas immunisation schedules
8. Scenarios
9. FAQs
10. London Immunisation Clinical Advice Response Services

Aim of this toolkit

The aim of this toolkit is to offer a step by step guide to support the management of vaccinating patients where their immunisation history is unknown or incomplete. This toolkit should be used in in conjunction with Vaccination of individuals with uncertain or incomplete immunisation status (publishing.service.gov.uk), which can be found on slide 2.

The purpose of this toolkit is to support you to make sure patients are up to date with their immunisations, according to the routine UK immunisation schedule.

We are always looking for ways to improve our service, so if you have any suggestions for future updates of this toolkit, please email london.immunisationqueriescars@nhs.net.

Further information about immunisations can be found on the London Region Immunisations webpage.

Vaccination of individuals with uncertain or incomplete immunisation status

Please use this link to access incomplete immunisation algorithm: 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

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)

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

[#] 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

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Background

- For a variety of reasons, some individuals may present not having received some or all their immunisations or may have an unknown immunisation history.
- Sometimes immunisation schedules differ between counties or immunisations are missed.
- People coming to the UK may not have received all the vaccines necessary to protect them and the wider population.
- All individuals have the right, under the NHS constitution, to receive the vaccinations that the Joint Committee on Vaccination and Immunisation (JCVI) recommends under an NHS-provided national immunisation programme, as appropriate for their age.
- Where an individual born in the UK or overseas presents with an inadequate immunisation history, every effort should be made to clarify what immunisations they may have had.
- Anyone who has not completed the routine immunisation programme as appropriate for their age should have the outstanding doses as described in the relevant chapters of the Green Book.

General principles

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Immunisation history

- Unless there is a documented or reliable verbal vaccine history, individuals should be assumed to be unimmunised and a full course of immunisations planned - please refer to the UKHSA algorithm here for more information.
- Where patients arrive from overseas with a documented or reliable verbal history of immunisation, vaccination details should be recorded on the patient's GP record.
- A patient's GP record should contain all of their immunisation history including those given overseas and those given which are not part of the UK schedule as this provides a full picture of their immunisation status and contributes to population coverage. See here for SNOMED codes.

Planning catch up immunisations

- Plan the individual's catch-up immunisation schedule after offering the immunisations that there is no reliable history for.
- It is better to co-administer catch-up immunisations over the least number of visits and within the minimum possible timescale.
- The aim is to protect the person in the shortest time possible and with the minimum number of barriers for the person or their family.

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Step 1: Establish vaccine history

- As outlined in Chapter 11 Greenbook where an individual presents with an inadequate immunisation history, every effort should be made to clarify what immunisations they may have had.
- This could include contacting child health information service (CHIS) or health visiting or school nursing service or previous GP if they were born in the UK.
- If children or adults are new to the UK, a documented or reliable verbal history of immunisation can be used to clarify what immunisations they may have had.
- In the absence of a documented or reliable verbal history of immunisation, it should not be assumed that individuals have received all the vaccines in their national schedule. It is more helpful to assume that any undocumented or non-robust verbally assured doses are missing and the UK catch-up recommendations for that age should be offered.

Documented or reliable history can include:

- Pictures on mobile phone.
- Written records: Useful foreign language translation tool adapted from CDC.

  Robust verbal history

  If you are relying on verbal immunisation history, ensure that you clearly document the conversation in a dated text entry including why and how you have arrived at this information. For example detailing the parent's/carers history, or using the child's date of birth and one of the overseas immunisation schedules on slide 13 or resources on slide 17.

- Remember! Unless there is a documented or reliable verbal vaccine history, individuals should be assumed to be unimmunised and a full course of immunisations planned.
- If there is a documented or reliable verbal history of immunisation, vaccination details should be recorded on the patient's GP patient record.
- A patient's GP record should contain all of their immunisation history including those given overseas and those given which are not part of the UK schedule as this provides a full picture of their immunisation status and contributes to population coverage. This will also ensure that data flows correctly and other professionals can see vaccinations given. See here for SNOMED codes.

Step 2: Identify the incomplete immunisations

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- Once you have established the individual's vaccine history the 'Vaccination of individuals with uncertain or incomplete immunisation status algorithm' should be used to determine what vaccines are required to protect the patient.
- Compare the vaccine history with the child or individual's CURRENT age on the algorithm. There is a useful video explaining how to use the algorithm in practice to increase confidence and skills in utilising the tool, this also includes scenarios to work through: Immunisation training webinar 2 - completing immunisations using the PHE algorithm - Health Publications.
- Ensure that you read all the information in the individuals age column, including the footnotes, as essential additional information is recorded here too.
- Offer all immunisations for which there is no documented or reliable vaccine history to the individual or their family to bring them back up to schedule.

Step 3: Plan the individual's on-going schedule

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- Plan the individual's catch-up immunisation schedule after offering the immunisations that there is no reliable history for.
- Provide prompt protection and offer the missing vaccine as soon as possible.
- It is always more useful to do this with a minimum number of visits and within a minimum possible timescale, you are aiming to protect the individual in the shortest time possible and with the minimum number of barriers for the person or their family.
- Ensure the patient is aware of what schedule they are following, that they have a record of this and understand when they must return for any follow-up appointments. Ensure the schedule they are following is documented. Green book chapter 11 The UK immunisation schedule (publishing.service.gov.uk) provides further information of intervals between vaccines.

Summary

Establish – Confirm vaccine history

Code - any documented or reliable immunisation history.

Identify – Identify the missing vaccines and discuss with patient/family/carers

Plan – Plan the schedule and offer the missing vaccines

Resources

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Webinars	Guidance	Information for Migrants
• This series of webinars is designed to help immunisers revise and update their knowledge of key areas in immunisation: Primary care immunisation webinar series - GOV.UK (www.gov.uk). They are intended as updates for those already immunising, not as foundation training for new immunisers. • Manage incomplete vaccination histories using the UKSHA algorithm and other resources: Immunisation training webinar 2023 - completing immunisations using the UKHSA algorithm - Health Publications. These contain useful scenarios which could be used for training purposes.	• The UK Immunisation schedule is available at: https://www.gov.uk/government/publications/the-complete-routine-immunisation-schedule. • The Green Book is available at: Immunisation against infectious disease - GOV.UK (www.gov.uk). • The most up to date information about the UK vaccine programmes is available at: Vaccine update - GOV.UK (www.gov.uk). • Collection of UKHSA immunisation resources and information: Immunisation – GOV.UK (www.gov.uk) .	• Immunisation information for migrants is the most up to date information for anyone who has moved to the UK. • Paper copies of the Moved to the UK - migrant health immunisation leaflet in English are available to order for free and translated versions are available to download or print locally in the following languages: Albanian, Arabic, Bengali, Chinese (simplified), Chinese (traditional) Farsi, Kurdish, Panjabi, Pashto, Portuguese, Romanian, Romany, Russian, Somali, Spanish, Tigrinya, Turkish, Ukrainian and Urdu.

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Overseas immunisation schedules

The sources below provide information on current immunisation schedules in non-UK countries. In the absence of a documented or reliable verbal history of immunisation, it should not be assumed that individuals have received all the vaccines in their national schedule.

Name	Link	Information
World Health Organisation	Vaccination schedules for individual European countries and specific age groups (europa.eu)	Provides all the schedules in the EU and history of any changes of schedule.
World Health Organisation	WHO Immunization Data portal	This provides every schedule globally. Please be aware that this is information on current schedules of immunisation that are freely provided. Some countries do have add-on schedules on top of this, which is worth checking.

Scenarios

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What if a primary course of immunisations has been started but not completed?

- You can resume the course, there is no need to repeat doses or restart a course.
- Therefore, where any course of immunisation is interrupted, there is normally no need to start the course again - it should simply be resumed and completed as soon as possible.
- Source: Green book chapter 11 The UK immunisation schedule (publishing.service.gov.uk)

Scenarios

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What if the parent/carer insists the child has received all their required vaccinations in their country of origin and therefore will not consent to you 'starting again?

- You should use one of the tools on slides 13 & 14 to determine that country's schedule and identify what vaccines are needed to transfer them to the UK schedule.

- The sources list the current schedules in non-UK countries, not necessarily the schedule at the time when the child was due their vaccination. However, you can only work with the information currently available to you, so it's a good idea to ensure you record the date that you accessed the source within the text entry again, as evidence for how you came to your clinical decision.

- As well as ensuring that you clearly document the clinical decisions and conversations in a dated text entry, it is also vital that you record any vaccines given elsewhere in the notes using an appropriate SNOMED codes including the date of administration, so that individuals can be identified as vaccinated for purposes of call/recall/ QOF/COVER data and management of outbreaks.

FAQs

What if the child in their country of origin has received a fourth dose of a diphtheria/tetanus/pertussis-containing vaccine at around 18 months?

- Booster doses given before three years of age should be discounted, as they may not provide continued satisfactory protection until the time of the teenage booster. The routine preschool and subsequent boosters should be given according to the UK schedule: Green book chapter 11 The UK immunisation schedule (publishing.service.gov.uk).

What if an individual has come to the UK part way through their immunisation schedule?

- They should be transferred onto the UK schedule and immunised as appropriate for their age.
- Any documented or reliable verbal history of immunisation should be recorded on the patient's GP patient record.

FAQs

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What if a child has received OPV in another country?

- As per the Vaccination of individuals with uncertain or incomplete immunisation status (publishing.service.gov.uk) 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'. If this child has had no IPV then the practice will need to follow the pathway for 'children from their second to tenth birthday'
- Although they may have received several of these antigens already 'for children under 10 years, DTaP/IPV/Hib/HepB should be recommended to catch up IPV (as per the vaccination of individuals with uncertain or incomplete immunisation status algorithm), even if IPV is the only outstanding antigen.
- This will mean some children may receive extra doses of some antigens (in this case Diphtheria, Tetanus, Pertussis, Hib and HepB), which may result in increased localised reactogenicity but will not otherwise be harmful.
- Although DTaP/IPV has fewer antigens, this is only licensed as a booster vaccine, not a primary, so recommending DTaP/IPV/Hib/HepB will offer the best protection to children and avoid potential errors.

FAQs

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What if a child has received more primary doses of a vaccine than we give as part of the routine schedule, do they still need a booster?

- Primary vaccinations are given to prime the immune system to defend itself against various infections.
- Booster vaccinations are given to elongate this response over a longer period of time. This means it is important as to when a booster is given in relation to the primary vaccination.
- PCV is a 1+1 schedule: 1 dose to prime and 1 dose to boost at 12 months. No matter how many PCV vaccines are given in the first year of life a booster dose is still required over the age of 12 months

London Immunisation Clinical Advice Response Service

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If you can't find the answer in any of the previous resources or need further support, please contact London ICARS by email at: london.immunisationqueriescars@nhs.net.

- The aim of the London Immunisation Clinical Advice Response Service (ICARS) is to provide public health guidance to clinicians administering all vaccines commissioned under Section 7A, including COVID-19 and Mpox, and to respond to clinical incidents as they arise in these programmes.
- ICARS operates Monday-Friday, 9am-5pm (excepting bank holidays) and endeavours to respond to enquiries within two working days.
- In the event of a clinical incident relating to COVID-19 or Section 7A vaccination programmes in London, please complete an incident form here, or email london.immunisationqueriescars@nhs.net.
- ICARS can also support with clinical queries relating to the Section 7A and COVID-19 vaccination programmes. Clinical queries may include, scheduling, eligibility, and vaccine contraindications.

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Thank you

For further information please contact the Immunisation Clinical Advice Response Service (part of NHSE London Region) london.immunisationqueriescars@nhs.net.

Adapted with kind thanks to NHSE colleagues in the North East, North Cumbria, Leicestershire, Lincolnshire & Northamptonshire Regions.