Lunch and Learn NIO webinar: Catch-up Vaccination – BoTP and IPAs

Dr Treasa Kelleher
Specialist in Public Health Medicine
National Immunisation Office
February 2023

Objectives

- Be able to identify when catch-up vaccination is needed
- Understand the reasons why patients may not be up to date on recommended vaccines
- Particular focus on catch-up vaccination for Beneficiaries of Temporary Protection (BoTPs) and International Protection Applicants (IPAs) in Ireland

Basics of Catch-up Vaccination

- Catch-up vaccination is required if an infant or child is **more than 1 month** or **1 dose behind** the recommended schedule.

- They should then be placed on a catch-up schedule, with the intervals between vaccines reduced to the minimum allowable.

Source: Chapter 2. General Immunisation Procedures – National Immunisation Advisory Committee (NIAC) Immunisation Guidelines for Ireland

Basics of Catch-up Vaccination

Why might individuals be behind schedule?

- Change of opinion
- Other life stressors at the time the child's vaccines were due
- Late entrants to the Irish health system which includes BoTPs and IPAs

Individuals who are not up to date with the schedule are not adequately protected against vaccine preventable diseases and should be vaccinated as soon as possible.

Risk of Infectious Diseases

Certain migrants entering Ireland are at elevated risk of infectious diseases:

- Incidence of various infectious diseases in their country of origin
- Disrupted living conditions before or during their displacement that may increase the risk of disease transmission
- Severe malnutrition leading to immune defects
- Due to circumstances in their home country, they may have received sub-optimal or no vaccinations in their country of origin.
- They may be up to date with vaccines in their country of origin but require additional vaccines to catch-up to the Irish schedule.

All children resident in Ireland should be caught up to the Irish schedule.

Immunisation Records for those coming to Ireland

Are immunisation records available?

- The National Immunisation Advisory Committee (NIAC) Immunisation Guidelines for Ireland advise that children or adults coming to Ireland with no documented or reliable verbal history of immunisation or disease, should be assumed to be unimmunised.

- This includes those coming from areas of conflict (such as Ukraine).

- It may be assumed that undocumented doses (or unreliable verbal history) have not been received, and the Irish catch-up recommendations for that age should be followed.

WHO: Vaccine-Preventable Diseases

Measles:

- WHO reports more than 140,000 people worldwide died from measles in 2018 – mostly children under the age of 5 years, despite the availability of a safe and effective vaccine.
- Ten countries with the highest numbers of measles cases - WHO European Region, January-December 2022:

  Tajikistan (451), Türkiye (116), Russian Federation (102), United Kingdom (50), Poland (27), Kyrgyzstan (20), France (19), Italy (18), Belgium (17), Germany (14).

  Data source: Monthly aggregated and case-based data reported by Member States to WHO/Europe directly or via ECDC/TESSy data as of 31 January 2023
- In WHO European Region - vaccination coverage less than recommended 95% for MMR 2.

Polio:

- Ukraine has been experiencing an outbreak of type-2 circulating vaccine-derived poliovirus (cVDPV2) since October 2021.
- The national immunisation coverage with three doses of polio vaccine in Ukraine was 83% in 2020.

Vaccine-Preventable Diseases

Diphtheria:

- An increase in cases of toxigenic Corynebacterium diphtheriae has been identified among asylum seekers arriving into England in 2022 and 2023.

- As of 12 February 2023, cumulative total of 74 cases for 2022 and 2023.

Irish Immunisation Schedule based on NIAC advice

Each chapter of NIAC Immunisation Guidelines states:

"In some circumstances, advice in these guidelines may differ from that in the Summary of Product Characteristics of the vaccines. When this occurs, the recommendations in these guidelines, which are based on current expert advice from NIAC, should be followed".

Childhood Immunisation Schedule

- The Department of Health is guided by National Immunisation Advisory Committee (NIAC) recommendations.
- The vaccines included in the primary childhood immunisation programme are recommended from 2 months of age and are provided over 5 visits at 2, 4, 6, 12 and 13 months.
- Protecting children when they are most vulnerable to **13** vaccine preventable infectious diseases.
- **Children and adults presenting late for vaccination from other jurisdictions having commenced a different vaccine schedule should catch up with the Irish immunisation schedule.**

Primary Childhood Immunisation Schedule

Primary Immunity from 2 months of age for all

From the age of 2 months

The following vaccines need 3 doses to achieve primary immunity

- ✓ Tetanus
- ✓ Diphtheria
- ✓ Pertussis
- ✓ Polio
- ✓ Hepatitis B

Catch-up with Irish schedule

Children who are incompletely vaccinated, should catch up with to the Irish schedule as per the Immunisation Guidelines for Ireland.

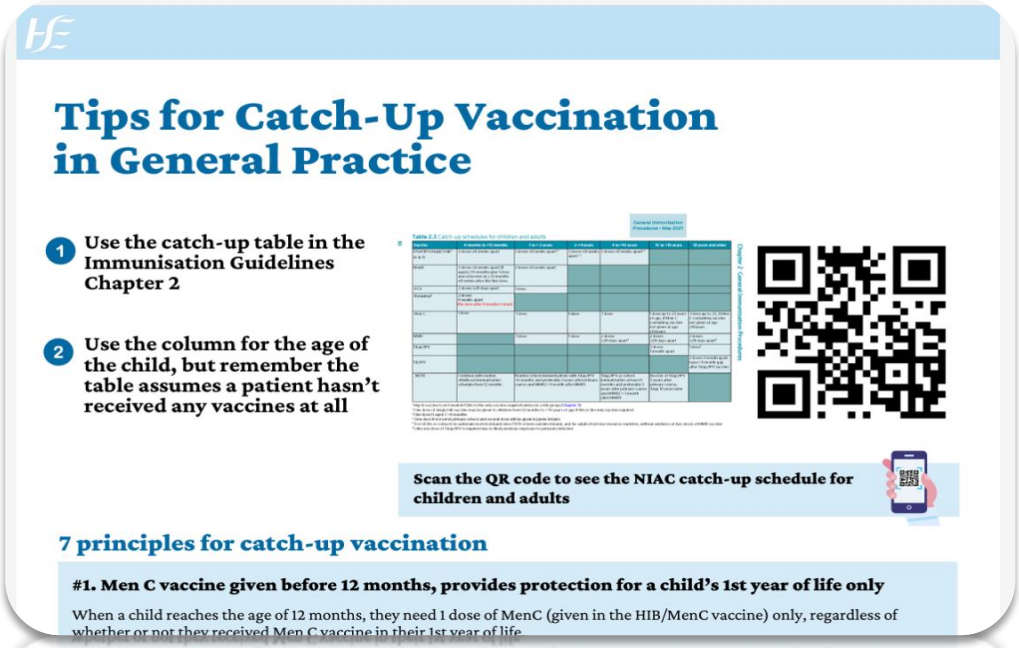
Vaccines given in Irish schedule not given in countries where refugees come from:

- MenB (recommended up to age 2 only unless in at-risk group).
- PCV13 (recommended up to age 2 only unless in at-risk group)
- MenC (recommended up to 1st year of secondary school, when they will receive MenACWY).
- Rotavirus vaccines (given until 8 months & 0 days only).

7 Principles of Catch-up Vaccination

1. **Men C vaccine given before 12 months, provides protection for a child's 1st year of life only**
   When a child reaches the age of 12 months, they need 1 dose of MenC (given in the HIB/MenC vaccine) only, regardless of whether or not they received Men C vaccine in their 1st year of life.
2. **PCV13 vaccine given before 12 months, gives protection for a child's 1st year of life only**
   When a child reaches the age of 12 months, they need 1 dose of PCV13 only, regardless of whether or not they have received PCV13 in their 1st year of life.
3. **If the 6 month vaccines are late e.g. given at 9 months, there is no need to delay the 12 month vaccines**
4. **If a child needs to catch up with both 12 and 13 month vaccines, they can be given at one visit**
5. **Once a child reaches the age of 2, NIAC advises they no longer need PCV13 vaccine or MenB vaccine, even if they have never had these vaccines**
   The exception is children with at-risk conditions who should be vaccinated.
6. **Once a child reaches the age of 10, they no longer need HIB vaccine**
7. **A child over the age of 1 year, needs a single dose of MenC up until MenACWY is given in school**

7 Principles of Catch-up Vaccination



Tips for Catch-Up Vaccination in General Practice

1. Use the catch-up table in the Immunisation Guidelines Chapter 2
2. Use the column for the age of the child, but remember the table assumes a patient hasn't received any vaccines at all

Scan the QR code to see the NIAC catch-up schedule for children and adults

7 principles for catch-up vaccination

#1. Men C vaccine given before 12 months, provides protection for a child's 1st year of life only

When a child reaches the age of 12 months, they need 1 dose of MenC (given in the HIB/MenC vaccine) only, regardless of whether or not they received Men C vaccine in their 1st year of life

There is a printable version of these principles available from www.immunisation.ie which can be useful to have in your workspace.

Minimum Intervals and Catch-up Vaccination

- The optimal recommended ages and intervals provide the best immune response.
- The minimum interval is the shortest time between two doses of a vaccine in which an adequate response to the second dose can be expected.
  - Refer to Table 2.2 in NIAC guidelines for optimal and minimum intervals
- In exceptional circumstances (e.g. imminent international travel, measles outbreak) it may be necessary to provide one or more vaccines at less than the optimal age or interval.
- **This accelerated schedule should not be used routinely. Remaining doses should be given at recommended intervals to ensure the best protection.**

Catch-up with Irish schedule up to the age of 4 years

Vaccine	4 months to <12 months	1 to < 2 years	2-<4 years
DTaP/IPV/ HepB[1]/Hib[2] 6 in 1	3 doses ≥8 weeks apart	3 doses ≥8 weeks apart[2]	3 doses ≥8 weeks apart [1,2]
MenB	2 doses ≥8 weeks apart (if aged ≥ 10 months give 1 dose and a booster at ≥ 12 months 8 weeks after the first dose)	2 doses ≥8 weeks apart	
PCV	2 doses ≥8 weeks apart	1 dose	
Rotavirus[3]	2 doses 8 weeks apart **(No dose after 8 months 0 days)**		
MenC[4]	1 dose	1 dose	1 dose
MMR		1 dose	1 dose
NOTE	Continue with routine childhood immunisation schedule from 12 months	Routine school immunisations DTaP/IPV at least 6 months and preferably 3 years after primary course MMR2 ≥1 month after MMR1	

Catch-up with Irish schedule over 4 years of age who are unvaccinated or incompletely vaccinated years

Vaccine	4 -9 years	10 -17 years	18 years and older
DTaP/IPV/HepB[1]/ Hib[2] 6 in 1	3 doses ≥8 weeks apart [1,2]		
MenC[3]	1 dose	1 dose up to 23 years of age, if Men C containing vaccine not given at age ≥10years	1 dose up to 23 years of age, if Men C containing vaccine not given at age ≥10years
MMR	2 doses ≥28 days apart[4]	2 doses ≥28 days apart	2 doses ≥28 days apart[5]
Tdap/IPV[6]		3 doses ≥28 days apart	1 dose[7]
Td/IPV			2 doses ≥28 days apart – leave ≥28 day gap after Tdap/IPV
NOTE	DTaP/IPV at least 6 months and preferably 3 years after primary course and MMR2 ≥ 1 month after MMR1	Booster of Tdap/IPV 5 years after primary course; Tdap 10 years later	

NIAC Catch-up Schedule Changes August 2022

Tdap/IPV (IPVBoostrix) vaccine is no longer available in Ireland, prompting new guidelines from NIAC for those unvaccinated/incompletely vaccinated aged 10 and over

Children aged 10 to 13 inclusive - now recommended DTaP/IPV (Tetravac) x 3 doses at ≥ 28 day intervals

Children aged 14 to 17 inclusive - now recommended:
Tdap (Boostrix) vaccine x 1 dose
followed by Td/IPV (Revaxis) x 3 doses at ≥ 28 day intervals

Adults aged 18 and over - now recommended:
Tdap (Boostrix) vaccine x 1 dose
followed by Td/IPV (Revaxis) x 3 doses at ≥ 28 day intervals

NIAC Catch-up schedule IF Tdap/IPV not available (August 2022)

Table 2.4a Catch-up schedule for unvaccinated or incompletely vaccinated aged 10 years and older if Tdap/IPV is unavailable

Vaccine	10-13 years	14 – 17 years	18 years and older
DTaP/IPV	3 doses ≥28 days apart		
Tdap		1 dose[1]	1 dose[1]
Td/IPV		3 doses ≥28 days apart – leave ≥28 day gap after Tdap[2]	3 doses ≥28 days apart – leave ≥28 day gap after Tdap[2]
MenC	1 dose up to 23 years of age, if Men C containing vaccine not given at age ≥10 years		
MMR	2 doses ≥28 days apart[3]		
NOTE	Booster of Td/IPV 5 years after primary course; Tdap 10 years later		

[1] Only one dose of Tdap is required due to likely previous exposure to pertussis infection

[2] There may be increased reactogenicity due to four tetanus containing vaccines in a short time

[3] For HCWs or contacts in outbreaks born in Ireland since 1978 or born outside Ireland; and for adults from low resource countries, without evidence of two doses of MMR vaccine

Catch-up for different age groups (i)

Vaccines required if never vaccinated

At 12 months of age to < 2 years of age

- ✓ 6in1 x 3 doses, ≥ 8 weeks apart
- ✓ MenB x 2 doses, ≥ 8 weeks apart
- ✓ MMR, MenC, PCV13 X 1 dose each

From 2 years of age up to 10 years of age

- ✓ 6in1 x 3 doses, ≥ 8 weeks apart
- ✓ MMR
  - *Age 2 to <4 years* - 1 dose (then should receive second MMR as part of routine school immunisations from 4 years of age – second MMR at least one month after the first dose)
  - *Age 4 to <10 years* - 2 doses ≥28 days apart
- ✓ MenC x 1 dose
  - (MenB and PCV13 not recommended) - recommended up to age 2 only unless in at-risk group).
  - If missed 4in1 in school - DTaP/IPV at least 6 months and preferably 3 years after primary course

Catch-up for different age groups (ii)

From 10 years to 13 years inclusive

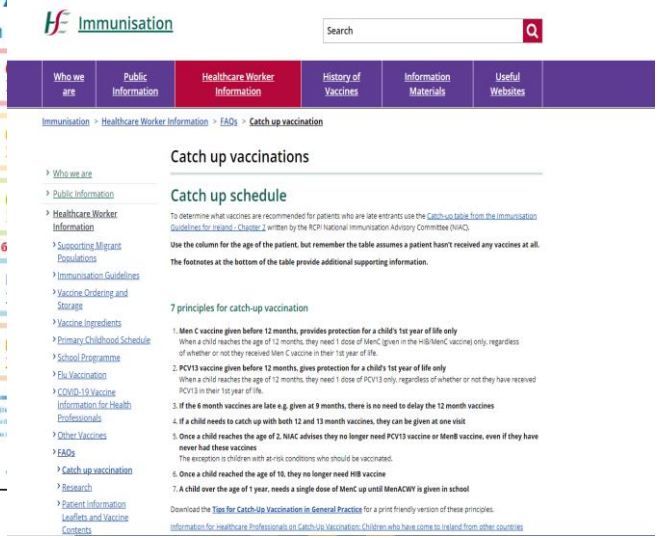
- ✓ DTaP/IPV x 3 doses ≥ 28 days apart and then Td/IPV 5 years after primary course
- ✓ High dose diphtheria and pertussis vaccines are licensed for those aged 10 -13 years
- ✓ MMR x 2 doses ≥ 28 days apart
- ✓ MenC containing vaccine, (MenACWY only given in 2nd level schools)

Catch-up for different age groups (iii)

From 14 years up to 18 years

- ✓ Tdap x 1 dose, followed by Td/IPV x 3 doses ≥ 28 days apart – leave ≥ 28 day gap after Tdap
- ✓ Low dose diphtheria and pertussis vaccines are licensed for those aged 14 -18 years
- ✓ MMR x 2 doses ≥ 28 days apart
- ✓ MenC containing vaccine (MenACWY only given in 2nd level schools)
    - 1 dose <23 years of age if MenC containing vaccine not given at ≥10 years

Resources for Healthcare Professionals



Dedicated webpage at: www.immunisation.ie

- Catch-up vaccination toolkit
- FAQs
- COVID-19 vaccination information
- Information in other languages, including Ukranian
- Email us at immunisation@hse.ie

NIAC Guidelines

- Now hosted on the RCPI website
- Contain guidelines on catch-up vaccinations, including all of the catch-up tables shown in this presentation

Acknowledgements

- All National Immunisation Office Staff, supporting and enabling this Lunch and Learn Session today