

5.7 MEASLES

NOTIFIABLE

RECOMMENDATIONS

Assess all migrants for previous measles vaccination.

Vaccinate (MMR):

All migrants without documented evidence of previous measles vaccination should be offered MMR vaccination as follows:

- All children at 12 months of age should receive an MMR vaccine, with a second dose at 4-5 years of age. If protection is urgently required, the second dose can be given four weeks after the first⁽¹⁾

- All others according to the National Immunisation Office Advisory Committee (NIAC) “late entrants catch-up schedule” for children and adults, as follows:⁽²⁾
 - 12 months to 4 years; 1 dose MMR
 - *4-9 years; 2 doses MMR ≥28 days apart (*One dose if not yet in primary school; second dose will be given in junior infants)
 - 10-17 years; 2 doses MMR ≥ 28 days apart
 - 18 years and over; 2 doses MMR ≥ 28 days apart

Measles is an acute viral illness caused by a morbillivirus of the paramyxovirus family. Humans are the only known host. It spreads by coughing and sneezing, close personal contact or direct contact with infected nasal or throat secretions. The virus remains active and contagious in the air or on infected surfaces for up to two hours. It can be transmitted by an infected person from four days before rash onset to four days afterwards. It is very infectious –one case of measles can infect 12-18 unvaccinated people.⁽¹⁾

Epidemiology

Measles incidence in Ireland reduced dramatically with the introduction of a monocomponent measles vaccine in 1985. In 1988 combined measles, mumps, rubella (MMR) vaccine was introduced for children aged 12-15 months; in 1992 a second dose of MMR was recommended, now given at 4-5 years of age. Local and national outbreaks have occurred, predominantly affecting sub-groups of the population with low vaccination coverage.⁽¹⁾

The World Health Organisation's (WHO) latest measles and rubella elimination country profile for Ireland in 2018 confirmed that Ireland has achieved measles and rubella elimination status in 2018⁽³⁾ A vaccine uptake rate of 95% with two doses of measles vaccine is required to halt endemic transmission of the virus and thus eliminate measles.⁽²⁾The uptake of the MMR vaccine in Ireland is below optimum levels. According to HPSC data, the uptake rate for both the first and second doses of the MMR vaccine is <90%,⁽⁴⁾ which is below the 95% recommended by WHO

Rationale for assessment

The rationale for assessing the vaccination status of new entrants is:

- Measles is preventable by vaccination.⁽¹⁾
- Approximately 30% of measles cases suffer one or more complications.⁽¹⁾
- Close living conditions facilitate transmission and the occurrence of outbreaks, putting those who are nonimmune at risk.

- To maintain measles elimination status in Ireland

Assessment

The following indications for measles assessment and vaccination are based on the Immunisation Guidelines for Ireland 2022.⁽¹⁾

A history of measles or measles vaccination should be requested of all migrants. Without documented evidence of measles vaccination migrants should be offered MMR vaccination as outlined below.

Vaccination

- All children at 12 months of age should receive an MMR vaccine, with a second dose at 4-5 years of age. If protection is urgently required, the second dose can be given four weeks after the first.⁽¹⁾
- All others according to the NIAC “late entrants catch-up schedule” for children and adults, as follows:⁽²⁾
 - 12 months to 4 years; 1 dose MMR
 - *4-9 years; 2 doses MMR ≥28 days apart (*One dose if not yet in primary school; second dose will be given in junior infants)
 - 10-17 years; 2 doses MMR ≥ 28 days apart
 - 18 years and over; 2 doses MMR ≥ 28 days apart

Note A: MMR vaccine can be given to those who have a history of measles, mumps or rubella infection.

Note B: Pregnancy should be avoided for 1 month after MMR vaccine.

Human normal immunoglobulin (HNIG)

The use of HNIG has proven effective in preventing or reducing the severity of measles if given early following exposure. A risk assessment should be undertaken by a public health doctor prior to its administration.⁽²⁾

References

- (1) National Immunisation Advisory Committee. Chapter 12. Measles. Updated February 2024. Available at: https://rcpi.access.preservica.com/uncategorized/IO_3a9e3acb-949b-48e5-a2b5-d353f88bde37/
- (2) National Immunisation Advisory Committee. Chapter 2. General Immunisation Procedures 2022; Delayed immunisation / late entrants to Irish health-care system. Available at: https://rcpi.access.preservica.com/uncategorized/IO_812f584c-e1b8-4dd0-9aab-a4370f9b9f83/
- (3) World Health Organization. Measles and rubella elimination country profile Ireland. 2018. Available at: https://iris.who.int/bitstream/handle/10665/337779/WHO-EURO-2020-1421-41171-55983_eng.pdf?sequence=2&isAllowed=y
- (4) HSE Health Protection Surveillance Centre. DTaP-IPV & MMR vaccine uptake in Junior Infants & children aged 4-5 years in Ireland, 2021/2022. Available at: <https://www.hpsc.ie/a-z/vaccinepreventable/vaccination/immunisationuptakestatistics/immunisationuptakestatisticsforjuniorinfants/DTaPIP%20and%20MMR%20vaccine%20uptake%202021-2022%20v3.0.pdf>