
Mumps FAQs for Health professionals/health students

Version 1.1

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This guidance should be viewed in association with guidance from the [National Immunisation Advisory Committee](#) of the Royal College of Physicians of Ireland.

What are the national recommendations to prevent mumps infection in health care workers (including health care students)?

Health-Care Workers (HCWs) born in Ireland since 1978 or born outside of Ireland in the following situations should be vaccinated;

1. Those who do not have evidence either of mumps infection or of having received 2 doses of MMR vaccine should be given 1 or 2 doses of MMR as required, separated by at least 1 month.
2. If an outbreak occurs in an institution or an area served by an institution, all HCWs without evidence of mumps infection or 2 doses of MMR vaccine should be given 1 or 2 doses of MMR vaccine as required.

Protection is important both for themselves and in the context of their ability to transmit mumps to vulnerable groups.

For the non-immune HCW exposed to mumps, will MMR vaccine provide post exposure protection?

- Antibody response to the mumps component vaccine does not develop quickly enough to provide effective prophylaxis after exposure to suspected mumps. However, the vaccine can prevent protection against future infection. If the individual is already incubating mumps MMR vaccination will not exacerbate the symptoms.

What action should be taken when a HCW has mumps?

- Exclude HCWs with active mumps illness until at least 5 days after onset of symptoms. The risk for transmission after 5 days is considered low.

Does human normal immunoglobulin have a role in preventing mumps?

Passive immunisation with immune globulin is not recommended and has no role in outbreak control.

How infectious is mumps?

The number of secondary cases of infection expected to result from an index case of mumps in a fully susceptible population (R_0 or basic reproduction number) is 10-12. By comparison, measles - a notoriously infectious virus - has an R_0 of 15-17. Transmission is facilitated by close contact with mumps cases, particularly in crowded settings.

What is the infectious period of a mumps case?

Although the virus has been isolated from saliva from 2 to 7 days before parotitis and may persist for as long as 9 days after onset of disease, the maximum infectious period is considered to be from 3 days before to 5 days after symptom onset.(1)

Have mumps outbreaks in health care settings been reported?

Reports of mumps transmission in health care settings are rare but have been reported. (2-4) The fact that mumps transmission in the health care setting is uncommon is most likely a result of the relatively low infectiousness and transmission rate of mumps and the fact that hospitalisation for mumps is relatively uncommon.

- Identify close work contacts and offer MMR, if appropriate, and health information regarding mumps and advice to contact occupational health department if symptomatic.

Protection offered by MMR vaccine and risk of infection

Because 1 dose of MMR vaccine is about 80% effective in preventing mumps and 2 doses is about 90% effective, some vaccinated personnel may remain at risk for infection. Therefore, HCWs should be educated about symptoms of mumps, including non-specific presentations, and should notify occupational health if they develop these symptoms.

Infection control

In addition to standard precautions, patients with clinical signs and symptoms of mumps illness should be cared for using droplet precautions.

Most mumps transmission likely occurs before parotitis onset and within the subsequent 5 days. Ideally, patients should be isolated for 5 days following onset of parotitis. In healthcare settings, both standard and droplet precautions with respiratory etiquette apply during the 5 day period of isolation.

Reference List

(1) Updated Recommendations for Isolation of Persons with Mumps. MMWR 57(40), 1103-1105. 10-10-2008.

(2) Wharton M et al. Mumps transmission in hospitals. Arch Intern Med 1990 150: 47-49. [Am J Infect Control](#). 2011 Oct;39(8):697-700. doi: 10.1016/j.ajic.2010.12.011. Epub 2011 Jun 8.

(3) [Gilroy SA](#) et al. Mumps exposure of a health care provider working in a neonatal intensive care unit leads to a hospital-wide effort that prevented an outbreak. [Am J Infect Control](#). 2011 Oct;39(8):697-700

(4) [Bonebrake AL](#) et al. Effects of mumps outbreak in hospital, Chicago, Illinois, USA, 2006. [Emerg Infect Dis](#). 2010 Mar;16(3):426-32. doi: 10.3201/eid1603.090198.