

Draft recommendations for vaccination of health workers against measles and rubella

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Outline

- Background
- Review of existing WHO recommendations
- Review of literature concerning experience with nosocomial transmissions of measles and rubella and infection control measures
- Discussion
- Draft recommendations

Background

- Health workers (HW) are critical to the promotion of health globally
- Health workers:
 - persons who engage in the promotion, protection or improvement of the health of the population
 - Health care workers (HCWs), nurses, laboratory, janitors, secretaries, etc. and persons in public health such as field workers, epidemiologists, laboratorians, community workers, etc.
- In both developed and developing countries,
 - transmission of vaccine-preventable diseases continues to occur in health care settings
 - health care workers (HCWs) being the source of exposure for susceptible patients or other HCWs.

Background - 2

- For measles and rubella, several outbreak reports document this risk of transmission of measles and rubella among HCWs and patients.
- Health workers who investigate or respond to suspected cases of infectious diseases are at risk of contracting and/or transmitting the disease.

Background - 3

- All six WHO regions have goals for measles elimination and two have rubella elimination goals
 - Nosocomial outbreaks continue to occur even in countries close to or post elimination.
- To interrupt the transmission of measles and rubella,
 - uniform and high levels of immunity must be ensured in the population including HWs.
- To ensure immunity among HWs in order to reduce or prevent nosocomial transmission,
 - WHO global and regional recommendations.

Methods

- Headquarters
 - Data sources: online IVB policies catalogue, IVB documents and publication, fact sheets, position papers, WER
 - Keywords: terms containing or related to HCWs (HCP, HCW, HW, HP, Health staff, HC staff and health professional)
- Regional
 - publication section websites, recommendations for vaccination of HCWs

Results - Global

- 12 documents were identified
 - Measles vaccine position paper (2009)
 - The importance of vaccinating health workers is underlined by the numerous measles outbreaks occurring in health institutions, affecting both health workers and patients.
 - Rubella vaccine position paper (2011)
 - The importance of vaccinating health workers has been demonstrated by outbreaks that occurred in health institutions and affected both health workers and patients.

Results - Regional

- AFR – (1st consultation – Measles TAG) (2005)
 - Countries are strongly encouraged to implement WHO/AFR recommendations on vaccination for all health workers, regardless of previous vaccination status or history of measles.
- AMR
 - “all health care workers must be immune to measles and rubella.” (measles elimination field guide – 2005)
 - IEC recommendations – HCW must be immune to measles and rubella

Results - Regional - 2

- EMR-
 - No recommendations
- EUR
 - 2005-2010 Strategic Plan
 - Such people include those attending schools or universities, those in the military and those working in health care settings.
- SEAR
 - No recommendations

Results - Regional - 3

- WPR
 - 2011 TAG –
 - TAG recommends that all countries implement measures to prevent or reduce nosocomial transmission of measles virus, including ensuring immunity against measles among health care workers
 - Accelerated rubella/CRS Strategic Plan
 - for all countries and areas:- ensure immunity in health care workers to prevent nosocomial transmission of rubella

Literature Review

- Review of Nosocomial Measles Outbreak
 - Identified 35 papers reporting nosocomial transmission since 1998-2010
 - Compared to the previous review published in 1997
 - 25 papers over a 22 years period
- Review of HCW policies for vaccination in EURO
 - Measles
 - 12 of the 30 countries recommend measles vaccination for all HCWs.
 - In Finland HCW vaccination against measles is mandatory.
 - 15 countries no recommendations for HCW vaccination against measles .
 - Rubella
 - 11 countries of the 30 countries recommend rubella vaccination for all HCW.
 - In Finland, vaccination of HCWs against rubella is mandatory.
 - 15 remaining European countries have no recommendations

Literature review

- Articles from several countries (e.g., Bulgaria, Singapore, Korea, China, Australia, U.S., etc) on recent nosocomial measles outbreaks. One example:
 - Bulgaria
 - 326 cases of nosocomial transmission
 - 286 cases among non-healthcare workers who acquired the disease in a hospital setting.
 - Between October 2009 and April 2010, 40 healthcare workers contracted the disease. Mean age was 38 years.
- Several rubella outbreaks document the risks of exposing pregnant women to rubella.

Cost of health-care associated outbreak

- In 2008 in the US,
 - 14 patients with confirmed cases,
 - 7 (50%) acquired measles in health care settings
 - Only 1 of the 11 with health care access were appropriately isolated resulting in multiple exposures/contacts
- In US, recommendations on evidence for immunity in HCWs
 - 2 hospitals confirmed that 1776 (25%) of 7195 HCWs lacked evidence of measles immunity.
 - 139 (9%) of 1583 tested seronegative for measles immunoglobulin G, including 1 person who acquired measles.
 - The 2 hospitals spent US\$799,136 responding to and containing 7 cases in these facilities.

Infection Control Measures

- Infection control measures have evolved in the 20th and 21st century.
 - Many countries have their own guides/guidelines for infection control
 - Despite the availability of guidelines*, one risk factor associated with nosocomial outbreaks, inadequate implementation of infection control measures

*whqlibdoc.who.int/hq/2007/WHO_CDS_EPR_2007.6_eng.pdf

Summary

- While both HQ and Regional policies and guidelines highlight the importance of vaccination of health workers,
 - there is a need to be more explicit and pro-active in ensuring HWs are immune
- Some regions recommend that HCW be immune; however some regions have no recommendations
- Nosocomial transmission outbreaks continue to occur and can be costly
- Infection control measures should be enforced.

Draft Recommendations

- Health workers should be immune to measles and rubella, as soon as rubella vaccine is introduced into the national program
 - All HW must provide proof of immunity either through receipt of 2 doses of MCV and at least 1 dose of RCV containing vaccine or serologic test results.
 - As serologic screening is not recommended in most settings because it is more costly than vaccination
- Standard infection control measures should be enforced to prevent or reduce the spread of measles and rubella.
- Regions and countries should develop plans to operationalize these recommendations.

Question for SAGE WG

- Does the evidence presented support the draft recommendations to vaccinate health workers against measles and rubella?