

**Table 4: Summary of WHO Position Papers – Immunization of Health Care Workers<sup>A</sup>**

The information below is provided to assist countries to develop national policies for the vaccination of health care workers (HCWs). It is expected that HCWs are fully vaccinated per the national vaccination schedule in use in their country.

<b>Antigen</b>	<b>Vaccination of Health Care Workers Recommended</b>
<b>Hepatitis B<sup>1</sup></b>	Immunization is suggested for groups at risk of acquiring infection who have not been vaccinated previously (for example HCWs who may be exposed to blood and blood products at work).
<b>Polio<sup>2</sup></b>	All HCWs should have completed a full course of primary vaccination against polio.
<b>Diphtheria<sup>3</sup></b>	Particular attention should be given to revaccination of HCWs with diphtheria boosters every 10 years. Special attention should be paid to immunizing HCWs who may have occupational exposure to <i>C. diphtheria</i> .
<b>Measles<sup>4</sup></b>	All HCWs should be immune to measles and proof/documentation of immunity or immunization should be required as a condition of enrollment into training and employment.
<b>Rubella<sup>4</sup></b>	If rubella vaccine has been introduced into the national programme, all HCWs should be immune to rubella and proof/documentation of immunity or immunization should be required as a condition of enrollment into training and employment.
<b>Meningococcal<sup>5</sup></b>	One booster dose 3-5 years after the primary dose may be given to persons considered to be at continued risk of exposure, including HCWs.
<b>Influenza<sup>6</sup></b>	HCWs are an important group for influenza vaccination. Annual immunization with a single dose is recommended.
<b>Varicella<sup>7</sup></b>	Countries should consider vaccination of potentially susceptible health-care workers (i.e. unvaccinated and with no history of varicella) with 2 doses of varicella vaccine
<b>Antigen</b>	<b>No current recommendation for vaccination of Health Care Workers</b>
<b>BCG<sup>8</sup></b>	There is no recommendation for HCWs, but vaccination may be considered for tuberculin-negative persons in unavoidable and close contact with cases of multidrug-resistant TB.
<b>Pertussis<sup>9</sup></b>	HCWs should be prioritized as a group to receive pertussis vaccine.
<b>Tetanus<sup>10</sup></b>	There is currently no recommendation regarding HCWs.
<b><i>Haemophilus influenzae</i> type b<sup>11</sup></b>	The main burden of disease lies in infants under 5 years of age. Work in a health care setting is not indicated as a factor for increased risk. There is currently no recommendation regarding HCWs.
<b>Pneumococcal<sup>12</sup></b>	The main burden of disease lies in infants under 5 years of age. Immunocompetent adults are not at increased risk for serious pneumococcal disease. HCWs are not indicated as a group at increased risk of pneumococcal disease.
<b>Rotavirus<sup>13</sup></b>	Children are the target group for rotavirus vaccination as they have the greatest burden of disease. Adults including HCWs are not at increased risk of severe disease.
<b>HPV<sup>14</sup></b>	HCWs are not at increased risk of HPV. The primary target group for vaccination is girls aged 9-14.
<b>Japanese Encephalitis<sup>15</sup></b>	Health-care workers are generally not at special risk of contracting JE. Workers at high-risk in endemic areas, such as those involved in vector control, should be vaccinated.
<b>Yellow Fever<sup>16</sup></b>	Individuals in endemic countries and travelers to these countries should receive a single dose of yellow fever vaccine. Work in a health care setting is not indicated as a factor for increased risk. There is currently no recommendation regarding HCWs.
<b>Tick-borne Encephalitis<sup>17</sup></b>	Health-care workers are generally not at special risk of contracting JE. Workers at high-risk in endemic areas, such as those involved in vector control, should be vaccinated.
<b>Typhoid<sup>18</sup></b>	Typhoid vaccines should be employed as part of comprehensive control strategies in areas where the disease is endemic. Work in a health care setting is not indicated as a factor for increased risk. There is currently no recommendation regarding HCWs.
<b>Cholera<sup>19</sup></b>	Cholera vaccines may be employed as part of comprehensive control strategies in areas where the disease is endemic as well as to prevent and respond to cholera outbreaks <sup>9</sup> . There is currently no recommendation regarding HCWs.
<b>Hepatitis A<sup>20</sup></b>	Hepatitis A is transmitted through contaminated food and water or direct contact with an infectious person. HCWs are not indicated as a group at increased risk of hepatitis A infection.
<b>Rabies<sup>21</sup></b>	HCWs are not at increased risk of rabies infection.
<b>Mumps<sup>22</sup></b>	Routine mumps vaccination is recommended in countries with a well-established, effective childhood vaccination programme and the capacity to maintain high level vaccination coverage with measles and rubella vaccination. HCWs are not indicated as a group at increased risk.
<b>Dengue (CYD-TDV)<sup>23</sup></b>	HCWs are not at increased risk of dengue

## References

1. Hepatitis B vaccines, WHO position paper, *Weekly Epidemiological Record*, 2009, 84: 405-420
2. Polio vaccines and polio immunization, WHO position papers, *Weekly Epidemiological Record*, 2016, 91: 145-168
3. Diphtheria, WHO position paper, *Weekly Epidemiological Record*, 2006, 81: 21-32
4. Meeting of the Strategic Advisory Group of Experts on immunization (SAGE), November 2013 – Conclusions and recommendations, *Weekly Epidemiological Record*, 2013, 89: 1-20. *New WHO Position Paper to be published April 28 2017*
5. Meningococcal vaccines, WHO position paper, *Weekly Epidemiological Record*, 2011, 86: 521-540
6. Vaccines against influenza, WHO position papers, *Weekly Epidemiological Record*, 2012, 87: 461-476
7. Varicella and herpes zoster vaccines, WHO Position Paper, *Weekly Epidemiological Record*, 2014, 89: 265-288
8. BCG vaccine, WHO position paper, *Weekly Epidemiological Record*, 2004, 79: 25-40
9. Pertussis vaccines, WHO position paper, *Weekly Epidemiological Record*, 2015, 90: 433-460
10. Tetanus vaccine, WHO position paper, *Weekly Epidemiological Record*, 2017, 92: 53-76
11. *Haemophilus influenzae* type b (Hib) vaccination, WHO position paper, *Weekly Epidemiological Record*, 88: 413-428
12. Pneumococcal vaccines, WHO position paper, *Weekly Epidemiological Record*, 2012, 87: 129-144
13. Rotavirus vaccines, WHO position paper, *Weekly Epidemiological Record*, 2013, 88: 49-64
14. Human Papillomavirus vaccines, WHO position paper. *Weekly Epidemiological Record*, 2014, 89: 465-492. *Revision in progress based on the recommendations from the SAGE Meeting October 2016*
15. Japanese encephalitis vaccines, WHO position paper, *Weekly Epidemiological Record*, 2015,90: 69-88.
16. Vaccines and vaccination against yellow fever, WHO position paper, *Weekly Epidemiological Record*, 2013, 88: 269-284
17. Vaccines against tick-borne encephalitis, WHO position paper, *Weekly Epidemiological Record*, 2011, 86: 241-256
18. Typhoid vaccines, WHO position paper, *Weekly Epidemiological Record*, 2008, 83: 49-60
19. Cholera vaccines, WHO position paper, *Weekly Epidemiological Record*, 2010, 85: 117-128
20. Hepatitis A vaccines, WHO position paper, *Weekly Epidemiological Record*, 2012, 87: 261-276
21. Rabies vaccines, WHO position paper, *Weekly Epidemiological Record*, 2010, 85: 309-320
22. Mumps virus vaccines, WHO position paper, *Weekly Epidemiological Record*, 2007, 82: 49-60
23. Dengue (CYD-TDV), WHO Position Paper, *Weekly Epidemiological Record*, 2016, 91: 349-364

<sup>a</sup> Health Care Workers (HCWs) are defined as all persons involved in patient care such as health care professionals, residents, students, laboratory staff, administrative and service staff, as well as persons in public health such as field workers, epidemiologists, laboratory staff and community health workers.

<sup>b</sup> Please refer to the WHO publication, *Vaccination in acute humanitarian emergencies: a framework for decision making*, for details on cholera vaccination in response to outbreaks - [http://apps.who.int/iris/bitstream/10665/92462/1/WHO\\_IVB\\_13.07\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/92462/1/WHO_IVB_13.07_eng.pdf)