MARKET & SUPPLY UPDATE

Ebola Vaccine

CONTEXT

- To date, of the four Ebola species which cause disease in humans, most outbreaks, and all outbreaks between 2014 and 2022, have been caused by the Zaire ebolavirus (EBOV) species.
- In 2022, Sudan ebolavirus (SUDV) reemerged in Uganda after more than 10 years since last outbreak.
- As Ebola virus disease outbreaks are relatively rare and unpredictable, there is no natural market for the vaccine, and the vaccines are therefore secured through the global stockpile. Vaccines in the stockpile, nearing expiry, can be accessed for preventive vaccination of health care workers and field line workers.
- Two Ebola vaccines are currently WHO pre-qualified: rVSVΔG-ZEBOV-GP and a two-regimen Ebola vaccine Ad26.ZEBOV and MVA-BN-Filo. These vaccines are licensed for use to prevent Zaire ebolavirus. There is currently no licensed Ebola vaccine documented to protect against Sudan ebolavirus.
- SAGE currently recommends a global (EBOV) Ebola vaccine stockpile containing 500,000 doses. This is estimated to be sufficient to avert outbreaks of similar scale as the one experienced in 2014-2016.
- The global Ebola vaccine stockpile has been operational since 2021 and reached its target level at the end of 2022. It currently contains rVSVΔG-ZEBOV-GP vaccine only.
- The allocation decision for deployment of Ebola vaccine from the global stockpile is made by the International Coordination Group (ICG) on Vaccine Provision. UNICEF manages the stockpile on behalf of the ICG and delivers vaccines to countries based on ICG approval.

SUPPLY & DEMAND

Supply overview, ICG Stockpile:
• Today’s stockpile level (28 August 2023): 423,910 doses
• Deployments from stockpile since January 2021: 145,620 doses
  of which 6,570 for outbreak
• Destroyed due to expiry (June 2023): 42,620 doses
• Doses in stockpile expiring in 2024: 206,390 doses

Additional supply of rVSVΔG-ZEBOV-GP and Ad26.ZEBOV and MVA-BN-Filo Ebola vaccines can be available, with 6-12 months notice.

New Ebola Vaccine Coordination Team (EVCT): a partnership of WHO, US CDC, Africa CDC, IFRC, MSF, UNICEF, Gavi and other partners established in Q3-2023 to help develop future preventive programme and guide countries on implementation strategies.

ISSUES & CHALLENGES

- SAGE learning agenda and future potential recommendations on preventive vaccination will impact the market dynamics with potential demand outside of outbreak context. However, in the context of competing public health priorities by countries most impacted by Ebola outbreaks, demand for preventive vaccination is highly uncertain and difficult to forecast.

Ebola vaccines with improved product characteristics as defined under the Ebola vaccine Target Product Profile are needed, including:
• Documentation (product label indication) for use in pregnant women, lactating women and young children;
• Reduced cold chain dependency, including vaccine demonstrating stability at 2-8°C for at least 6 months and vaccines with reduced cold chain storage volume requirements;
• Vaccines that can be administered at a dosage volume of 0.5mL, using standard 0.5 mL Auto-Disable injection device typically readily available at country level;
• Polyvalent Ebola vaccines (e.g., Zaire and Sudan species) and multivalent vaccines (including component targeting Marburg virus);
• Greater sustainability in production systems – due to the nature of the virus, access to surge capacity as and when needed for preventative vaccination.

LOOKING AHEAD

• Close collaboration with global, regional and country partners to understand countries’ demand for preventive vaccination.
• Continued work on ensuring timely access to Ebola vaccine from the stockpile and streamlining exiting processes with supplier of stockpiled vaccine.
• Continued engagement with vaccine manufacturers and developers and with WHO, Gavi, ICG, as well as regional and country partners on potential future demand for preventive vaccination and scale up of supply availability in line with evolving SAGE recommendations and demand dynamics.
• Continued engagement with manufacturers and developers on improving product characteristics and label indication.

FURTHER QUESTIONS OR ADDITIONAL INFORMATION? PLEASE CONTACT:
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