

LIFE COURSE OF VACCINES AND VACCINATION



Current Vaccines Recommended in a Lifetime

Vaccination in Pregnancy (4)	Infant, toddlers (≥9)	School Entry/] Adolescents (7)	Adults (>3)	≥60 to 65 yrs (5-7)
<ul style="list-style-type: none"> • Tdap • Influenza • COVID-19 • RSV 	<ul style="list-style-type: none"> • DTaP-Hib-IPV-HBV • PCV • Rotavirus • Influenza • MenACWY • MenB • TBE (>1 yr) • MMR-V • RSV ab** (BCG) 	<ul style="list-style-type: none"> • Boosters Tdap • Influenza • COVID-19 • MenACWY • MenB • HPV • TBE 	<ul style="list-style-type: none"> • Tdap-IPV • Influenza • HPV • "Workplace Vx" 	<ul style="list-style-type: none"> • Tdap • Influenza • COVID-19 • PCV • Zoster • RSV • (MenACWY) • (MenB)

Medical Need Based on Special Host or Special Exposure

Traveler (based on risk)	Underlying diseases	B-&T-cell Defect/ Cancer	Emerging infections	Locally relevant Infections
<ul style="list-style-type: none"> • Boosters • TBE (FSME) • HAV • HBV • Influenza • COVID • MenACWY • MenB • JE • Typhoid • Rabies • Yellow fever • Dengue • Cholera • CHKG 	<ul style="list-style-type: none"> • Influenza • COVID • Boosters • (risk-based Vx) 	<ul style="list-style-type: none"> • Influenza • COVID • PCV • MenACWY • MenB • <i>H. influenzae b</i> • HBV • Boosters 	<ul style="list-style-type: none"> • COVID • Cholera • Mpox • Ebola • (Avian influenza) • Others 	<ul style="list-style-type: none"> • COVID • Cholera • Mpox • Ebola • (Avian influenza) • Others

Life Course of Vaccines From Idea to Protection

Medical Need	
01 License	<ul style="list-style-type: none"> • Pre-Clinical research (90% failure rate); Clinical development to document efficacy, safety, reactogenicity (another 90% failure rate); average duration: 10 years
02 Recommendation: Comprehensive Review on	<p> SCIENCE ACCEPTANCE FINANCING CO-OPERATION</p>
03 Payment, Reimbursement	<ul style="list-style-type: none"> • Health economic calculations; in some countries payment comes along with the recommendation
04 Best Practice	<ul style="list-style-type: none"> • Scientific Societies may recommend vaccines for "their" special hosts – not necessarily reimbursed
05 Patient Preference	<ul style="list-style-type: none"> • All above; cultural, religious and individual beliefs and values
06 Real Vaccine Use	<ul style="list-style-type: none"> • All of the above – indicates Effectiveness of national vaccination system
Population Based / Individual Protection	