

## 7<sup>th</sup> Middle East - Global Summit and Expo on **Vaccines & Vaccination**

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### An overview of vaccination management

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The immune system is a complex network of specialized organs and cells protects the body from destruction by foreign agents and microbial pathogens degrades and removes damaged or dead cells and exerts a surveillance function to prevent the development and growth of malignant cells. Immunization is defined as the procedure by which the body is prepared to fight against a specific disease. It is used to induce the immune resistance of the body to a specific disease. Immunization is of two types: Passive immunization and Active immunization. A vaccine is a substance that is introduced into the body to prevent infection or a certain pathogen, can be used in bacterial, viral, parasitic infections. Type of vaccine: Inactivated-these are previously virulent microorganisms that have been killed with chemicals or heat example Cholera, hepatitis-A; Live, attenuated-these are live microorganisms that have been cultivated under conditions that disable their virulent properties example yellow fever, measles, rubella and mumps; Toxoids-these are inactivated toxic compounds from micro-organisms example tetanus and diphtheria and subunit-rather than introducing a whole inactivated or attenuated microorganism to an immune system, a fragment of it can create an immune response example HBV. Routes of administration: Deep subcutaneous or intramuscular route (most vaccines), oral route (Sabine vaccine, oral BCG vaccine), intra-dermal route (BCG vaccine), scarification (small pox vaccine) and intranasal route (live attenuated influenza vaccine). scheme of immunization include primary vaccination; one dose vaccines (BCG, variola, measles, mumps, rubella, yellow fever), multiple dose vaccines (polio, DPT, hepatitis B) and booster vaccination to maintain immunity level after it declines after some time has elapsed (DT, MMR). Periods of maintained immunity due to vaccines are short period (months): Cholera vaccine, two years: TAB vaccine, three to five years: DPT vaccine, five or more years: BCG vaccine, ten years: yellow fever vaccine and solid immunity: Measles, mumps and rubella vaccines.

### Biography

Mohamed Fathy Abd El Reheem is the Founder and General Manager of Climax Healthcare Services Company (LLC). He works as a Quality Manager at Al-Ansari Specialist Hospital, KSA. He has more than 15 years of consulting experience focusing on Healthcare Services for public and private sector clients (Healthcare Construction, Health Systems, Hospitals, Pharmaceutical and Medical Product Companies) in Egypt and Gulf region. He has expertise in patient safety, quality measurement and management and medical staff. He has worked as Healthcare Organization Consultant 2010. He holds a PhD in Hospital Management, Ashley University, USA and MBA, Brooklyn Park University NY, USA, 2013 and is a Certified Professional in Healthcare Risk Management (CPHRM) 2003, Risk Management Foundation of the Harvard Medical Institutions. He has graduated from School of Medicine MBBCh, 1997, Diploma of Hospital Management, 2007 (Ain Shams University) and Diploma in Total Quality Management in Healthcare, 2005 (AUC). He is also a Member of Fellow in American Institute of Health Care Quality (AHCQ) 2007, American Heart Associations, Saudi Quality society and American Society for Quality.

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