

INFECTIOUS DISEASES - II
RE-EMERGING INFECTIONS

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Abstract: *Despite effective and extensive vaccination, infectious diseases such as pertussis, diphtheria, syphilis and Hansen's disease are on the rise since the last few decades in the United States with outbreaks being reported in many other countries like Australia, Brazil, United Kingdom and Chile in the last decade. While certain infections such as syphilis have plausible reason for the resurgence explained by increases in high-risk sexual behavior among people from all socio-demographic backgrounds, re-emergence of infections like Hansen's disease is due to high level of migration from endemic zones, secondary drug resistance or irrational use of antibiotics. Continuous monitoring of antigenic changes in the bacteria and evolution of resistance to antibiotics along with regular surveillance on the duration of immunity achieved by the vaccine is necessary.*

The re-emergence could also be due to changes in the transmission patterns and epidemiology of infections like pertussis and possible waning of vaccine induced immunity in adults as seen by the growing trend of cases amongst adults and adolescents. Some of the steps which can be taken to control pertussis are ensuring high on-time vaccine coverage of above 90% all over the globe particularly for the primary vaccination schedule and first booster doses. It is better to protect the newborn by immunisation of pregnant mothers and healthcare workers and by cocooning. Three major measures to counter the resurgence of diphtheria are high immunization coverage nearly 90% of target groups (including children at 5 years and adults), prompt diagnosis and management of

diphtheria cases, and rapid identification of close contacts and their proper management to prevent secondary cases. Surveillance must be strengthened to identify new outbreaks of infection especially syphilis, thereby enabling a rapid response for treatment of infected individuals and their contacts and to determine which intervention strategies are working and warrant expansion.

Keywords: *Pertussis, Syphilis, Hansen's disease, Diphtheria, Re-emergence, Vaccines, Antigenic changes.*

Points to Remember

- **Steps to control pertussis are immunisation of pregnant mothers and healthcare workers, and cocooning besides ensuring a high on-time vaccine coverage of above 90%.**
- **Diphtheria resurgence can be tackled by atleast three major measures - high immunization coverage nearly 90%, prompt diagnosis and management of cases and rapid identification of close contacts.**
- **Surveillance must be strengthened to identify new outbreaks / re-emergence of infections.**

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