

Prelim Bits 02-03-2017

Pneumococcal conjugate vaccine (PCV)

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- Pneumococcal vaccines are vaccines against the bacteria *Streptococcus pneumoniae* and can prevent cases of pneumonia, meningitis, and sepsis.

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- Pneumonia caused by the pneumococcus bacteria is supposed to be the most common.

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- It is spread from person to person through close contact.

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- PCV is a mix of several bacteria of the pneumococci family, which are known to cause pneumonia — hence 'conjugate' in the name.

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- Pneumonia is responsible for about 20% of under-5 child mortality in India, of which half are of pneumococcal origin.

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- It is estimated around 23% of the global pneumonia cases originate in India.

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- PCV has been introduced in the Universal Immunisation Programme recently.

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Prosopis Juliflora

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- *Prosopis Juliflora* is a shrub or small tree in the family Fabaceae commonly known as Seemai Karuvelam.

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- It is native to Mexico, South America and the Caribbean.

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- It was initially introduced in India during colonial times.

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- Later in 1960s it was Seed Bombed i.e. aeri ally seeded by helicopter in

Southern Tamilnadu to meet firewood demand.

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- Since then it has become invasive species.
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- It causes stomach poisoning in livestock by inducing a permanent impairment of its ability to digest cellulose.
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- It causes drying up of water bodies and ground water as it absorbs more than 4 litres of water to obtain one kg of biomass.
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- It cannot even shelter birds as it produces less oxygen and more carbon dioxide.
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- It causes land erosion due to the loss of the grasslands that are habitats for native plants and animals.
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- Dispersal of the species is mainly through animals by endozoochory (dispersal by vertebrate animals).
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- Other modes of seed dispersal are -
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1. Autochory - Self dispersal
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2. Barochory - Dispersal by gravity
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3. Anemochory - Dispersal by air
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4. Hyderochory - Dispersal by water
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5. Chiropterochory - Dispersal by bats
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6. Epizoochory - Dispersal by Non-vertebrate animals
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Ballistic Missile Defence

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- Recently, Advanced Air Defence (AAD) is been successfully tested from Abdul Kalam Island off the coast of Odisha, intercepting the incoming

enemy missile at the range of 15-30 km.

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- **Advanced Air Defence (AAD)**/ Ashvin Advanced Defense interceptor is capable of destroying missiles at endo-atmosphere altitudes of 20-40 kilometers.
- It is part of India's two tiered ballistic missile defence.
- The other is the **Prithvi Air Defence (PAD)** / Pradyumna Ballistic Missile Interceptor capable of destroying missiles at exo-atmospheric altitudes of 50-80 kilometers which was tested last month.
- The Ballistic Missile Defence shield is expected to be achieved by 2022.

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