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News: Shigella Bacteria

- An outbreak of shigella bacteria is believed to be the reason behind the recent incident of suspected food poisoning in Kasargod district, Kerala.

Shigella Bacteria

- Shigella is a genus of bacteria that causes an infection called **shigellosis**.
- It is the **second leading cause of diarrhea (after Rotavirus) worldwide and the third leading cause of death in children less than 5 years old.**
- The **annual number** of shigellosis episodes throughout the world is estimated to be **164.7 million**.
- Symptoms of shigellosis include **diarrhoea, fever, stomach cramps which can last for seven days.**
- Shigella is **generally transmitted through contaminated food or water, or through person to person contact.**
- Shigellosis is **primarily a disease of poor and crowded communities that do not have adequate sanitation or safe water.**
- The **incubation period of shigellosis is typically 1–4 days.**

The severity of the disease varies by the infecting species.

- *Shigella dysenteriae* infections usually cause dysentery, which may also occur in infection with *Shigella flexneri*.
- *Shigella boydii* and *Shigella sonnei* often have self-limited watery diarrhea.

Vaccines

- Currently, **there are no vaccines** available for shigellosis.
- Medium Priority Bacteria: Due to the increasing rate of multidrug resistance, in particular resistance to fluoroquinolone in Asian and African regions, this has been classified as a medium priority for research and development of new and effective antibiotic treatments by the WHO Priority Pathogens List of antibiotic-resistant bacteria.

Treatment Protocol

- **Hydration:** The cornerstone of *Shigella* treatment is the **maintenance of hydration and electrolyte balance.**
- In young children, **oral rehydration with a reduced osmolarity solution is indicated to treat the WHO defined category** of some dehydration and is preferable to intravenous fluids unless severe dehydration is present.

- **Use of Antibiotics:** Although shigellosis is primarily self limiting, **antibiotics are recommended for reducing illness duration and for preventing transmission.**
- The current drugs of choice are third-generation cephalosporins (ceftriaxone or cefixime) and macrolides (azithromycin).