A George Institute Fact Sheet

Sepsis in India Prevalence Study
SIPS — *November 2020*

The George Institute
for Global Health   India
Better treatments. Better care. Healthier societies.

Facts:

- One in five deaths worldwide is related to sepsis.

- In 2017, there were estimated 11 million sepsis cases in India with close to 3 million deaths.

- Sepsis can affect about one in every 100 individuals.

- 85 per cent of sepsis cases occur in low- to middle-income countries.

- Incidence of sepsis peaks in early childhood, with more than 40 per cent of all cases occurring in children under 5.

- 34 per cent of sepsis patients in India die in the intensive care unit (ICU).

- There is not one single bacteria or virus that causes sepsis — rather it can result from any type of pathogenic infection. This can make its treatment incredibly difficult.

- Sepsis-related deaths can be prevented by early management of infections and implementation of antibiotic stewardship policies.

Project Cycle:
2018 - 2021

Partners:
The Apollo Institute for Medical Sciences, Hyderabad, India

Supporters:
Low-and Middle-Income Countries TGI Seed grant

Background:

- Sepsis, defined as the body's life-threatening response to infection, was recognised as a global health priority by the World Health Organization in 2017.

- In developing countries such as India, with a population of 1.34 billion people, the epidemiology of sepsis is poorly understood despite high mortality and morbidity rate. This problem is further compounded by a very high level of antimicrobial resistance, which is also a major health problem in India.

Aims:

- To estimate the prevalence of sepsis in Indian ICUs.

- To describe sepsis patient clinical characteristics, antimicrobial use, treatments received, and 30 -day outcomes.

- To compare prevalence rates between old (SIRS) and new (SEPSIS-3) sepsis definitions (SIRS vs Sepsis 3).

- To undertake a gender specific analysis to determine prevalence, characteristics and differential outcomes for male and female patients.

- To describe the antibiotic usage and antimicrobial resistance in Indian ICUs.

- To describe hospital level antibiotic stewardship practices.

- To describe ICU level processes of care.

Methods:

- A prospective, one day, observational, multicentre, nation-wide point-prevalence study.

Impact:

- This study will provide up-to-date knowledge of the epidemiology and outcomes of sepsis using the old (SIRS) and current sepsis definition (Sepsis 3), and antibiotic use in Intensive Care Units (ICUs) in Indian hospitals and report on antimicrobial resistance patterns by undertaking a point prevalence study in a representative sample of Indian ICUs — both public and private and from the different geographic regions.

- This data will inform policy makers and provide a platform for developing strategies for the prevention and management of sepsis, antibiotic usage and antimicrobial resistance in India.

Contact:

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The George Institute For Global Health:

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