

**Oral Presentation Abstract: O3**

**Title:**

Active Clinical Surveillance of Hospital-acquired Infections (HAI) in South Africa- Implementation, Impact and Challenges

**Author:**

 Warren Lowman, Ronel Senekal

**Aim:**

Our aim is to report on the establishment of an incident-based active clinical surveillance system in the setting of a private-sector hospital. It serves as a first report, based on an internationally accepted standard surveillance system, of HAI rates in South Africa. We describe the impact and challenges associated with such a surveillance system in the context of a South African private healthcare setting.

**Objectives:**

The primary objective is to present comprehensive unit-specific surveillance data that details device-associated HAI rates. Additionally we highlight the main challenges associated with implementation of the surveillance system and the impact of the system on HAI rates and healthcare measures.

**Methods:**

Device-associated infections (DAI) including catheter-associated urinary tract infections (CAUTI), central-line associated bloodstream infections (CLABSI) and ventilator-associated pneumonia (VAP) were initially targeted for surveillance. Infections were defined according to the standardized CDC surveillance definitions. Denominator data was collected by trained ward-based healthcare workers. HAI rates are calculated by device-usage and reported per 1000 device days.

**Results:**

The surveillance system has taken 5 years to produce reliable data. CAUTI and CLABSI rates have decreased from 6.64 to 1.08 and 1.81 to 0.35 per 1000 catheter days, respectively. The decrease is directly attributable to establishment of a surveillance system with targeted interventions. The surveillance system continues to expand with the addition of new surveillance parameters on an annual basis.

**Conclusion:**

Surveillance is the cornerstone of an effective infection prevention and control strategy and must be utilized to guide interventions. However, reliable and accurate surveillance data is necessary and this requires a robust system which only develops over time and is highly dependent on personnel.