

Targeted surveillance and intervention effect analysis of CRO in inpatients of a tertiary teaching hospital in China for 7 years

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Background

- Infection by carbapenem resistant organism (CRO) poses a significant threat to inpatients. This study analyzes the trend of hospital infection/colonization in CRO through target surveillance, optimization of information dissemination, and ward management measures, providing a basis for CRO prevention and control.

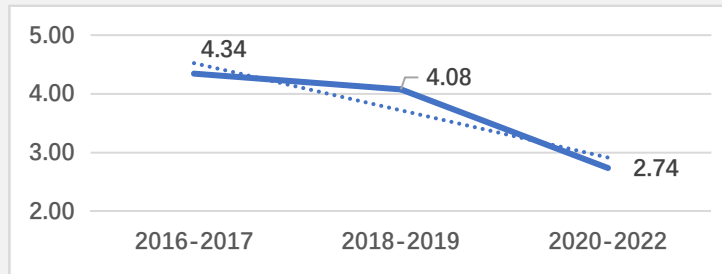


Fig.1 The rates of CRO hospital acquired infection or colonization (number of CRO hospital acquired infection or colonization / number of inpatients*1000‰)

Result

- The rates of CRO hospital acquired infection/colonization were 4.34 %, 4.08 %, and 2.74 %, respectively. The difference between the latter two was statistically significant ($\chi^2= 21.11, P<0.01$).

Conclusion

- Through target surveillance, optimizing the management measures of the ward can effectively reduce the rates of CRO hospital acquired infection/colonization.

Method

- Target surveillance was conducted on inpatients with CRO strains, including carbapenem-resistant Enterobacteriaceae (CRE), Acinetobacter baumannii (CR-AB), and Pseudomonas aeruginosa (CR-PA) in a tertiary teaching hospital from 2016 to 2022. After removing duplicate and contaminated strains, whether the newly detected CRO strains were brought in or acquired within the hospital were determined.
- The clinical department implemented contact isolation measures, with single room isolation in the ICU and bedside isolation in the general ward. When staff came into contact with patients, they wore isolation clothes, gloves, and masks. The environment was disinfected three times a day, and medical equipment and items were disinfected after each use.

- Other management measures were divided into three stages.

