

Integrated Clinical Management System to Prevent Catheter Related Infections

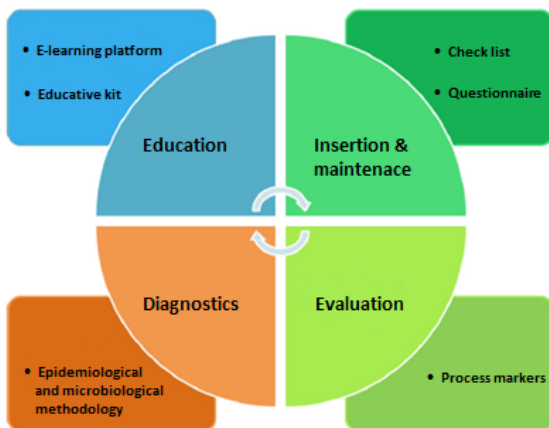
Introduction

Nosocomial infections (hospital-acquired) occur in 5-10% of all patients admitted to an institution. Catheter-related bacteremia (CRB) is one of the most important nosocomial infections for the frequency, comorbidity and mortality associated to it. The average cost of an episode of CRB is approximately 18,000 euros. If in 500 hospitals in Spain were possible to prevent 5 of these episodes per year, the National Health System could save 45 million euros annually.

It is estimated that, at least 50% of CRB are preventable.

Product

We have developed an integrated approach to reduce catheter-related infections. The system ranges from training in the insertion and maintenance of catheters to aspects of diagnosis and mechanisms to evaluate the evolution of the problem:



- We have an interactive e-learning platform for continuous training of the medical staff involved in the care of catheters.
- Best practices insertion and maintenance of the catheter are internalized through a practical approach. The platform simulates real life through an on-line course and provides necessary documentation to improve monitoring of catheters in daily practice.
- An educative kit consisting of informational posters and leaflets.
- A standardized clinical protocol for the insertion and maintenance of central intravascular and peripheral catheters, including a checklist and tracking.
- Clinical protocols to ensure compliance to the best practices for insertion and maintenance of intravascular catheters.
- Diagnostic and evaluation procedures of the colonization and catheter-related infection.

State of Development

This integrated system is implemented in the daily routines of the *Hospital General Universitario Gregorio Marañón*.

Currently the clinical impact of the Moodle-based e-learning platform is being evaluated in a continuous learning program. The near future developments include creating a game dynamic that would promote a healthy competition between players and therefore increase motivation to learn.

Advantages

- Individualized and motivating learning platform.
- The personnel involved in the care of catheters can learn at the time of their choice.
- Accreditation of the staff.
- Posters and leaflets of the educative kit support continuous learning of the medical staff.
- The clinical protocol for catheter insertion and maintenance helps to improve quality management in hospital..
- The clinical protocols for monitoring compliance ensure high quality of service at the time of insertion and maintenance of catheters.
- The system permits considerable saving costs for the hospital and for the overall healthcare system.
- The system increases efficiency of staff in the care of catheters.

Application

The clinical management system has an overall goal to prevent the occurrence of catheter related infections.

The e-learning platform and educational kit are targeted for health personnel training and the protocols to be used in daily clinical practice.

IPR Position

Copyright application number M-003545/2013.

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Opportunity

The integrated approach to the prevention of catheter-related infections is available for licensing system along with implementation services.

We are also looking for partners in the development and commercialization of technology e-learning platform.

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