



GUIDELINES FOR THE PREVENTION OF INTRAVASCULAR CATHETER-RELATED INFECTIONS

DIRETRIZES PARA A PREVENÇÃO DE INFECÇÕES ASSOCIADAS A CATETERES INTRAVASCULARES

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Guideline is a word of the English vocabulary that translated into Portuguese means "diretriz". In several areas, Guidelines are developed with the aim of systematizing the best scientific evidence with regard to a particular issue, tracing guidelines and appropriate recommendations according to each situation. In these sense, the current has like objective of presenting to the public of health area in general, especially for the Nursing, the latest publication from the CDC (Centers for Disease Control and Prevention), providing subsidies for prevention of intravascular catheter-related infections.

The publication "Guideline for the Prevention of Intravascular Catheter-Related Infections", which was released from 2011,

has 83 pages and it has not yet gained a Portuguese version.

It was built jointly by a working group led by the Society of Critical Care Medicine (SCCM), in collaboration with the Infectious Diseases Society of America (IDSA), Society for Healthcare Epidemiology of America (SHEA), Surgical Infection Society (SIS), American College of Chest Physicians (ACCP), American Thoracic Society (ATS), American Society of Critical Care Anesthesiologists (ASCCA), Association for Professionals in Infection Control and Epidemiology (APIC), Infusion Nurses Society (INS), Oncology Nursing Society (ONS), American Society for Parenteral and Enteral Nutrition (ASPEN), Society of Interventional Radiology (SIR), American

Academy of Pediatrics (AAP), Pediatric Infectious Diseases Society (PIDS), and Healthcare Infection Control Practices Advisory Committee (HICPAC), and it is intended to replace the previous Guideline, published in 2002 by the same institution.

The text is comprised of four topics, namely: Notice to Readers, Introduction, Summary of Recommendations and Practical Information, and the last 2 are subdivided respectively, in 23 and 27 specific themes pertinent to the issue. The references appear at the end, being mostly current sources with up to 10 years of publication.

Early in the reading, in its notice to readers, it is clarified to them that this Guideline was developed for health professionals who insert intravascular catheters and for persons responsible for surveillance and control of hospital infections, outpatient and home, providing evidence-based recommendations, which is a much recommended practice currently in health area.

Still in this same chapter, it brings some highlighted areas, which subsequently are reinforced and judged relevant for the prevention of this type of infection, such as: education and training of health professionals who insert and maintain intravascular catheters, use of precautions with maximal sterile barriers throughout the insertion of Central Venous Catheter (CVC), use of chlorhexidine with concentration above 0.5% for skin antisepsis and avoiding routine replacement of central venous catheters as strategies for prevention of infections. According to the publication, the use of short-term central venous catheters impregnated with antiseptic / antibiotic and spongy coverings impregnated with chlorhexidine can be strategies recommended, if the infection rates do not get reduced with traditional measures.

Each recommendation was classified according to the categories of the Oxford Center for Evidence-Based Medicine, starting in IA (strongly recommended for implementation and strongly supported by experimental studies, clinical or epidemiological well developed) following in decreasing order to the level II (suggested for implementation and supported by clinical or epidemiological studies or by theoretical arguments). Furthermore, put some situations as unresolved issues, that is to say, the evidences are insufficient or there is no consensus about the effectiveness of the recommendation presented.

In the introduction, the material brings information about the overexposure of patients to the intravascular catheters and that several studies have associated bloodstream infections to the use of these devices, which increases the length of hospitalization and the hospital costs. Reiterates that everyone involved in the process of insertion and maintenance of intravascular devices, in a joint and multidisciplinary effort, should seek to eliminate bloodstream infections related to the use of catheters.

The objective of this Guideline is to provide subsidies for the reduction of rates of intravascular catheter-related infections at the lowest possible level, according to the population involved and the limitations of current technologies and strategies.

When starting the recommendations, the first set presented is about education, training and recruitment. There are four recommendations that discourse on the importance of educating professionals with regard to the indications, insertion procedures, maintenance and prevention of infection of Intravascular Catheters.

For Nursing it highlights a direct recommendation which is summarized in ensuring an adequate amount of nurses to the number of patients and that these nurses are uniform in level of training (Category IA).

Subsequently, it announces the selection of catheters and their insertion locations, encompassing the peripheral catheters, midline catheters and central venous catheter, opting for the best choice of the device according to the scheduled time of intravenous therapy and the drugs used, beyond the cares with the dressing.

Hand hygiene and the aseptic technique are also addressed, having as the key points the use of sterile gloves at the time of the insertion of catheters and hand hygiene before and after handling them.

Next, the guide presents recommendations on the maximum protective barrier, skin preparation for insertion of catheters and dressing changes, including the coverings indicated in different situations, as well as details of each one of them. Moreover, it brings a session of devices for fixation of the catheters.

The guideline considers the use of catheters and cuffs impregnated with antibiotics and antiseptics in specific situations, beyond of making mention of prophylactic antibiotic-therapy. It also

complements this issue encompassing aspects related to the use of topical antibiotic, antiseptics and use of anticoagulants for preventing infections.

The following topics have questions regarding the replacement of peripheral catheters and midline catheters, ventral venous catheters, Peripherally Inserted Central Catheters (PICC) and hemodialysis catheter, beyond the umbilical catheters and devices for monitoring invasive blood pressure, either peripheral or not.

With respect to the sets of administration of solutions, the material put forward some important points regarding the replacement of these sets and systems of needleless intravascular catheters.

The precise definition the specific type of catheter to be inserted, the terms used to describe infections related to device and the implementation of effective measures for preventing these events is a difficult and conflicting task for majority of professionals involved in the handling of intravenous therapy. In this sense, the guideline presented has a robust set of recommendations and strategies for prevention of catheter-related infections in adult and pediatric patients, from a thorough review of the evidences that are available in the world literature.

The text contributes to the updating of the professionals with regard to the best practices based on evidences about the control of catheter-related infections. For Nursing, it is a support tool in decision-making; an excellent way for we build a safe care and of quality, guided by the scientific knowledge.

REFERENCE

Centers for Disease Control and Prevention: Guidelines for the Prevention of Intravascular Catheter-Related Infections. *MMWR*; 2011. 83p.

Sources of funding: No

Conflict of interest: No

Date of first submission: 2012/02/09

Last received: 2012/11/30

Accepted: 2012/11/30

Publishing: 2012/12/01

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