

RESEARCH

Nursing activities in the prevention and control of nosocomial infection in the emergency sector

Atuação da enfermagem na prevenção e controle da infecção hospitalar no setor de urgência
Atuación de la enfermería en la prevención y control de la infección hospitalaria en el sector de urgencia

Airana Caroline Laudisio Sales¹, Gladys Carvalho de Araújo Alencar², Lorena Rocha Batista Carvalho³, Marcelo de Moura Carvalho⁴, Maria Auricélia Pereira de Sousa Costa⁵, Camila Aparecida Pinheiro Landim⁶

ABSTRACT

Objective: To evaluate the performance of the nursing staff in the prevention and control of nosocomial infection in the emergency sector. **Method:** This is a field study, the exploratory kind with quantitative and qualitative approach and was conducted through a questionnaire and a check list of invasive procedures. The study population consisted of 77 professionals of nursing staff, 15 nurses, 59 practical nurses and 03 nursing assistants. **Results:** The results showed that the professionals of the nursing staff know the importance of the prevention and control of hospital infection, but only a few knew conceptualize this issue correctly and completely. **Conclusion:** The safe and effective care can be reality from the acknowledgment of health professionals about the standard precautions to be taken while handling a hospitalized patient. **Descriptors :** Hospital infection, Nursing, Prevention.

RESUMO

Objetivo: Avaliar a atuação da equipe de enfermagem na prevenção e controle de infecção hospitalar no setor de urgência. **Método:** Trata-se de um estudo de campo, do tipo exploratório, com abordagem quanti-qualitativa e foi realizado por meio de um questionário e por um check list dos procedimentos invasivos. A população do estudo constitui-se de 77 profissionais da equipe de enfermagem, sendo 15 enfermeiros, 59 técnicos de enfermagem e 03 auxiliares em enfermagem. **Resultado:** Os resultados apontaram que os profissionais da equipe de enfermagem conhecem a importância sobre a prevenção e controle da infecção hospitalar, mas somente alguns sabiam conceituar esse tema de forma correta e completa. **Conclusão:** A assistência segura e eficaz pode ser realidade a partir do reconhecimento do profissional de saúde sobre as medidas de precaução-padrão que devem ser tomadas ao atender um paciente hospitalizado. **Descritores:** Infecção hospitalar, Enfermagem, Prevenção.

RESUMEN

Objetivo: Evaluar el desempeño de la equipo de enfermería en la prevención y control de la infección hospitalaria en el sector de urgencia. **Método:** Se trata de un estudio de campo, exploratorio, con enfoque cuantitativo y cualitativo, y fue realizado a través de un cuestionario y por una lista de verificación de procedimientos invasivos. La población del estudio consistió en 77 enfermeros del equipo de enfermería, siendo 15 enfermeros, 59 técnicos y 03 auxiliares de enfermería. **Resultados:** Los resultados mostraron que los profesionales del equipo de enfermería conocen la importancia de la prevención y control de la infección hospitalaria, pero sólo algunos sabían conceptualizar este tema de forma correcta y completa. **Conclusión:** La asistencia segura y efectiva puede ser la realidad a partir del reconocimiento del profesional de la salud acerca de las medidas de precaución estándar que deben ser tomadas durante la atención a un paciente hospitalizado. **Descriptor:** Infección hospitalaria, Enfermería, Prevención.

¹ Nurse. Specialist in Emergency Department by UNINOVAFAPI University Center. E-mail: airana_salles@hotmail.com

² Medical. Master student in Family Health by UNINOVAFAPI University Center. E-mail: gladysalencar@yahoo.com.br

³ Nurse. Master student in Family Health by UNINOVAFAPI University Center. E-mail: lorena_lrb@yahoo.com.br

⁴ Nurse. Master in Nursing from the Federal University of Piauí. E-mail: @ yahoo.com marcelo.mcarvalho

⁵ Graduating of Dentistry of UNINOVAFAPI the University Center. E-mail: auriceliasousa46@hotmail.com

⁶ Nurse. PhD in Sciences from the University of São Paulo. Professor of UNINOVAFAPI University Center. E-mail: camila@uninovafapi.edu.br

INTRODUCTION

The infection acquired during hospitalization and that it was not present or in their incubation period on admission of the patient is called nosocomial infection (NI). Generally are those that appear after 48 hours of hospitalization. Currently, changing the term nosocomial infection (NI) per share related to health Healthcare-Associated Infections (HAI) has been suggested because it reflects better the cause of acquiring these infections.¹

In Brazil, only in the last two decades this important issue has been addressed in a more effective and scientific way. The Ministry of Health on June 24, 1983, introduced Ordinance 196, which determined that "All hospitals in the country should maintain Commission for Control of Hospital Infection (CDC) independent of the supporting entity".¹

Knowledge of new invasive techniques has increased nosocomial infection and what can be noticed with this fact is that the knowledge of health professionals on the prevention and control of infection has not developed in the same proportion.

The prevalence of nosocomial infection in hospitals could be avoided by the fact of the health professionals follow the procedures performed in certain behaviors, such as handwashing.

In Brazil, this issue is considered serious given that 720,000 people are infected each year in Brazilian hospitals ,and, of these, 144,000, or 20% progress to death. This situation is aggravated by the tolerance index of hospital infections, which in our country is around 6%, tripling the percentage tolerance of the World Health Organization (WHO), J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control... a fact that aggravates the situation of Brazilian hospitals because the cost of patients with nosocomial infection is three times higher than the cost of hospital patients without infection.²

In 2000, it was reported the prevalence of AI of referral hospitals and teaching, located in the capital Teresina, and presents itself as follows: Hospital Areolino de Abreu, 37.7%; Maternity Dona Evangelina Rose 11.3% , Children's Hospital Lucidio Portela, 35.7%; Hospital of Infectious and Contagious Diseases, 23.7%, and 31.1% Hospital Getúlio Vargas. This way, the prevalence of AI in the five referral hospitals in Teresina was 27.9%, ie 12.4% more than the registered prevalence at the national level which is 15.5%.³

For there to be prevention and control of nosocomial infections, one can not ignore a process of formation / continuing education of health professionals, both by frequent changes that invade the area of health, which requires a constant production and reproduction of knowledge, as the need for this knowledge production has applicability in daily practice of health professionals. The knowledge, when applied to job actions, that is when used as working and guiding the actions of workers know, causes changes in the labor process, which will intervene, reflects on quality of care, especially in reducing infection rates.⁴

The process of training / education of the worker in and for the work is beyond the formal training that ,often, compose the institutionalized educational activities, that is, is based in the process of worker's training that provides the redesign of habits , reflection , transformative action, continuing education in the labor process, which is part of it and where it is processed.⁴

This study has as research problem the experience of nursing staff in the prevention and

Sales ACL, Alencar GCA, Carvalho LRB *et al.* control of hospital infection in emergency care unit of a referral hospital for emergency Teresina. And guiding question as nursing staff works in prevention and control of nosocomial infection in a health care unit?

The study's general objective is to evaluate the performance of the nursing staff in the prevention and control of hospital infection in emergency hospital sector and specific objectives: to characterize the nursing team that acts in the emergency sector, describing the experience of the nursing staff on prevention and control of hospital infection; describe the prevention and control of hospital infection carried by the nursing staff and to compare the achievement of invasive procedures performed by nursing staff with institutional guidelines.

METHODOLOGY

This is a field study with an exploratory quantitative and qualitative approach, it allows a better investigation of the research problem and the study of cultural phenomena on Hospital Infection.

The exploratory study is a type of field work, which develops an investigation whose objective is the formulation of questions or problems of a phenomenon, in order to familiarize the researcher with the environment, fact or phenomenon to modify or clarify concepts.⁵ The field study is intended to analyze a specific group of activities that may be of a working group intended at direct observation of the activities of the group under study, through direct observation of this action with the use or interpretation of the J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control... interview documents relating to the activity of the subject to explain the occurrence of a phenomenon.⁶

The study was conducted in the emergency department of a public hospital in emergency reference in Teresina-PI. The study population was made up by professional team of nurses working in the emergency department, which is composed of 77 people, 15 nurses, 59 nursing technicians and 03 nursing assistants.

Data were collected through a questionnaire, which contained open and closed questions that characterized the subject of the research about knowledge covering hospital infection and by means of a check list which was followed step by step the techniques of each procedure to review performing, checking if it was in accordance with the procedures manuals of the hospital.

Data were entered in Excel 2010 program. To assist in the organization of statistical data, the analysis results were reported in tables and graphs and the discussion made based on the literature produced on the subject.

This study was performed according to the recommendations of the National Health Council, pursuant to the Protocol 466/2012, which deals with the Guidelines and Standards Regulatory Research Involving Human Subjects. All participants signed an Informed Consent Form (ICF) to participate in the study, whose names were not coded to identify them.

RESULTS AND DISCUSSION

Characteristics of participants

The characterization of the professionals who participated in the study is presented below in Table 1 and Graphic 1.

Sales ACL, Alencar GCA, Carvalho LRB *et al.*

Table 1 - Characterization of the professional emergency treatment at the public hospital emergency reference. Teresina - Piauí, 2013 (n = 77)

Characteristics	Nº	%
Age (years)		
20 -- 30	34	44,1
31 -- 40	21	27,3
41 -- 50	13	16,9
51 -- 60	8	10,4
>60	1	1,3
Formation		
Nursing Assistant	3	3,9
Nursing Technician	59	76,7
Nurse	15	19,4
Formation Time (years)		
< 1	1	1,3
1 - 10	50	64,9
11 - 20	17	22,1
21 - 30	7	9,1
31 - 40	2	2,6
Time of service in the industry (year)		
< 1	8	10,4
1	13	16,9
2	7	9,1
3	4	5,2
4	19	24,7
5	26	33,7
Specialization on the field		
Yes	31	41,6
No	45	58,4
Performs qualification in the area		
Sometimes	46	59,7
Often	24	31,2
Don't realize	7	9,1

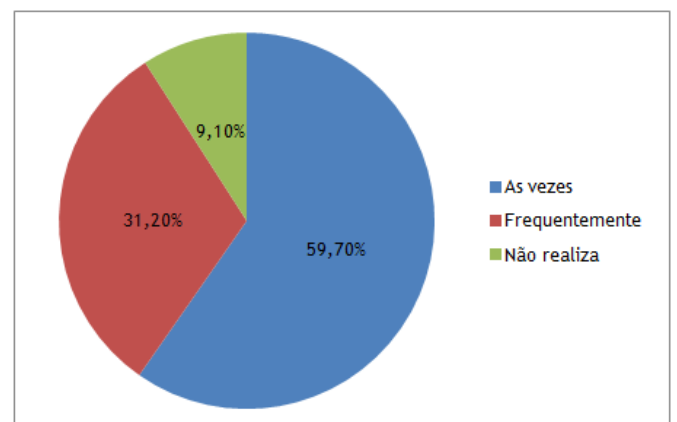
Source: Direct Research

Source: Direct research

The study population consisted of 77 professional staff nurses working in the emergency department of a public hospital referral. It is observed in Table 1, 44.1% (34) were aged between 20 and 30 years, 27.3% (21) were between 31 and 40 years, 16.9% (13) were between 41 and 50 years, 10.4% (08) were between 51 and 60 years and 1.3% (01) had more than 60 years. As for training, 3.9% (03) were nursing assistants, 76.7% (59) were nursing technicians and 19.4% (15) were nurses. Regarding the training time 64.9% (50) had between 1 and 10 years, 22.1% (17) had between 11 and 20 years and 9.1% (07) were 21 to 30 years. Length of service in the industry, 16.9% (13) J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control...) were for 1 year working at that location, 24.7% (19) were already 4 years and 33.7% (26) were already 5 years. As for specialization in 41.6% (32) had already done some specialization and 58.4% (45) had none. Regarding capacity building in the area, 59.7% (46) sometimes performed training, 31.2% (24) participated frequently and 9.1% (07) do not perform.

Graphic 1 - Realization of qualification in the area it serves. Teresina - Piauí, 2013 (n = 77).



Source: Direct research

In Graphic 1 shows the percentage of professional nursing team who performed qualification in the area. It can be seen that 59.7% of the professionals perform the qualification sometimes to perfect the activity area, 31.2% frequently and 9.1% did not do qualification, since the improvement and updating of knowledge are important for hospital practice safe and effective.

In the specific Norms of the profession, as is the case of COFEN Resolution 240/2000, approving the Code of Ethics for Professional Nursing and contain the fundamental principles, rights, duties, prohibitions, offenses and penalties that fit the nursing professionals in the exercise of their profession, we highlight the following responsibility: "Article 18 Keeping up, expanding its technical, scientific and cultural knowledge, for

Sales ACL, Alencar GCA, Carvalho LRB *et al.* the benefit of customers, community and the development of the profession.⁷

This vision of education as a component of the work process, allows the worker to reflect on their everyday practice, examine every action taken, enables justifying their actions in a knowing and not previously produced in routinization, doing the do, which can lead the alienation of the worker.⁸

The nurse plays a key role in the prevention of nosocomial infection, it has to act in a concise manner throughout this process. Moreover, it has to be able to participate in the realization of a tour that demonstrates to be more risk-free infection. The training and improvement to become the key pieces for this to occur.⁹

Through the resources that the study offers the nurse is able to establish itself as the primary link in the hospital environment to bring quality of care, return the institution to its own benefit and become the healthiest labor camp.

Currently, these professionals are more active, but still not enough, attending courses to enhance their knowledge in order to act legally within this area.¹⁰

Researching about what makes it difficult the participation of nurses in the prevention of infection, found that the formation, lack of guidance and educational activities offered by CCIH institutions aggravates what could be remedied if these settings are taken into account.¹¹

To change the problem of hospital infection, several factors should be revised, and the most essential investment in staff training and promotion of study sessions.¹²

Importance of prevention and control of hospital infection

J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control...
The contents extracted from the questionnaires (Appendix A) answered by professional nursing staff show that they know the importance of the prevention and control of hospital infection, as can be seen in the statements below:

It is of utmost importance the prevention and control of infection in this sector, since there are many professionals and many patients in various specialties and degrees of risk, in which an infectious process certainly would result in significant worsening of clinical symptoms. (Nurse 1)

Brings improvement to the treatment, shorter treatment time and reduction in length of stay. (Nursing Technician 1)

A nosocomial infection (NI) is currently a concern not only of the competent organs of health, but as an issue of social, ethical and legal implications in relation to the lives of users and risk they are submitted.³

For the objectives for preventing infection are accepted and put into practice, the professionals should be made aware and educated about how they can help make that happen, also showing the importance of the outcome for both the patient and the professional.¹³

Concept of hospital infection for healthcare professionals

According to the report of the professionals can be observed that only a few knew conceptualize correctly and complete the definition of nosocomial infection.

Sales ACL, Alencar GCA, Carvalho LRB *et al.*

It is the infection acquired in hospitals within 72 hours of admission and 30 days after discharge. (Practical Nursing 2)

It is worth noting that the hospital or nosocomial infection is one that is defined as an acquired after admission of the patient and manifested during the same hospitalization or after discharge infection, up to 30 days, while it may be related to hospital.¹⁴

However, the following testimony, professional nursing makes it clear that it considers the infection like a parasite or a disease.

Are opportunistic parasites that reside in the human body. (Nursing Assistant 1)

It is noticed that there is a lack of understanding by professionals on the concept of infection, many even thinking it is already a preexisting disease that comes to manifest in hospital¹⁵.

Consequences of nosocomial infection for the patient

Is more likely to get other infections within the hospital environment and delay admission due to the use of drugs, which has a certain amount of days to act. (Nursing Technician 3)

The infection leads to trauma to the patient going to the hospital to treat a disease and eventually become another problem, he loses the credibility of the health service. (Nursing Technician 4)

Nursing activities in the prevention and control... Longer hospital stay, vulnerability of the body even death and higher costs for the Unified Health System - SUS. (Nursing Technician 5)

Is emerging as technological advances, yet the hospital infection is still present in the hospital, causing morbidity and mortality in high-cost hospitalization because of increased patient stays for the completion of treatment and withdrawal longer the patient's personal life and professional.⁸

The issue of NI in Brazil grows every day, whereas the cost of clients with NI is three times higher than the cost of clients without infection. Hospital infection can cause irreparable damage and even cause death of the patient.⁶

Most important measures to prevent hospital infections

According to the testimony, it was noticed that the professionals know at what points should be strict to prevent hospital infection, as reported below.

Wash hands before and after any procedure. (Technical Nursing 6)

Handwashing, aseptic techniques during procedures and use of personal protective equipment and isolation when needed. (Nurse 1)

Environmental cleanliness and handwashing. (Nursing Technician 7)

The use of basic precautions helps the professional in the provision of appropriate

Sales ACL, Alencar GCA, Carvalho LRB *et al.* services, through the proper use of Personal Protective Equipment (PPE) technical procedures, according to Norm No .6 (NR-6) of Ordinance No.. 3,214, of June 8, 78. These measures are expected to generate improvements in quality of care and decrease costs arising from infections and hospital practice both for professionals and for clients and their families.⁶

Handwashing means removing microorganisms that are in the skin, dirt and dead cells. So it is an act that should be taken by all health professionals to prevent hospital infection and thereby making an investment your conscience.¹⁵

Hospital infection is favored by the carelessness of patients regarding their personal hygiene and inadequate cleaning of the hospital environment in which they are leading to increased length of hospital stay.⁶

Importance of handwashing in patient care

It was proved that the professional understands that handwashing is important for both the patient protection and for himself.

It is important because you do not contaminate yourself nor contaminates the patient.
(Nursing Technician 8)

It is protection for the patient and the professional. (Nurse 3)

With that avoids cross-contamination between patients and even for the professional.
(Nursing Technician 9)

Nursing activities in the prevention and control...
Nursing is essential role to promote a surveillance within the team regarding handwashing because as nursing has greater contact with the patient, it is necessary to encourage this standard caution.¹³

Hand washing has long been proven as the best approach to control hospital infection and the spread of microorganisms within the hospital.¹⁵

Personal Protective Equipment - PPE professional uses in its daily routine to prevent and control hospital infection

Professionals do not use full PPE in daily work, showing that there exists a fault of utmost importance to the patient and the nursing professional.

I use gloves, hats, masks, shoe covers and disposable apron.
(Nurse 4)

Proceeding glove, lab coat, hat and mask. (Nursing Technician 10)

Gloves and lab coats. (Nursing Technician 11)

Gloves. (Nursing Technician 12)

Among the preventive measures of hospital infection highlight the personal protective equipment (PPE), which are designed to protect professionals in risk of exposure or when handling chemical and biological operations, as well as risk of cuts with sharp objects. PPEs can still be considered a device for individual use to protect the physical integrity and health of the worker.¹¹

A pattern of conduct has to be built by professionals with consistent technical reasons, in the form of habits and ways of working to be able to offer assistance with quality your service, that

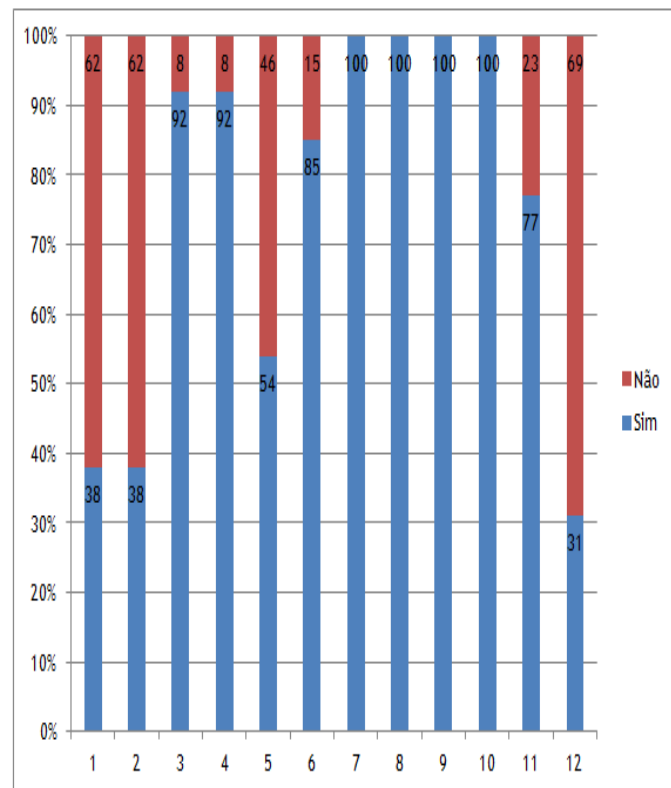
Sales ACL, Alencar GCA, Carvalho LRB *et al.* is, be aware of putting into practice the training they received.⁶

Nursing activities in the prevention and control... adhesive plaster or micropore; 10 - Collect material; 11 - Remove gloves; 12 - Sanitize hands.
Fonte: Pesquisa direta

Characteristics of the evaluation of invasive procedures

Through observation and use of the checklist (Appendix B) in realization of the invasive procedures, can be seen important data about the way it was carried out certain steps of importance for the control of nosocomial infection. Was chosen from each step procedures considered essential and which could never be done differently from procedures manuals the hospital. The data obtained are presented in the graphs of paragraph 2, 3 and 4.

Graphic 2 - Record of the percentage of peripheral venipuncture procedures performed by nursing professionals in the emergency room of a public referral hospital compared to the institutional rules. Teresina - Piauí, 2013 (n = 13).



Legend: 1 - Wash hands, 2 - Explain to the patient and family the procedure; 3 - Put on gloves procedure; 4 - Select a suitable vein; 5 - tourniquet 15 to 20 cm from the site chosen for puncture; 6 - Conduct cleansing site chosen in the direction of venous return; 7 - Observe the blood reflux, 8 - Connect immediately with the jelco; 9 - Secure with

Are displayed on Graphic 2 that most of the steps can not be performed different procedures of the institution of peripheral venous puncture were not performed by all professional nursing staff manual. Among them we can mention: not washing hands before (62 %) and after the procedure (69 %) did not wear gloves procedure (8 %) and not remove them after the procedure (23 %) and not perform the sterilization of the chosen location (15%).

All these techniques are part of the development and improvement of new modes of care. Knowledge of health professionals on the prevention and control of infections does not accompany this desenvolvimento.⁶

No use knowledge of the phenomenon and preventive measures if it assists not to adopt in its professional.⁸

Hand hygiene in the prevention and control of hospital infection programs is a priority practice, considering that the single most important measure to reduce the rates of these infections in the hospital setting action. The main purpose of hand hygiene is the process of reducing the transmission of microorganisms by hands, preventing infecções.⁶

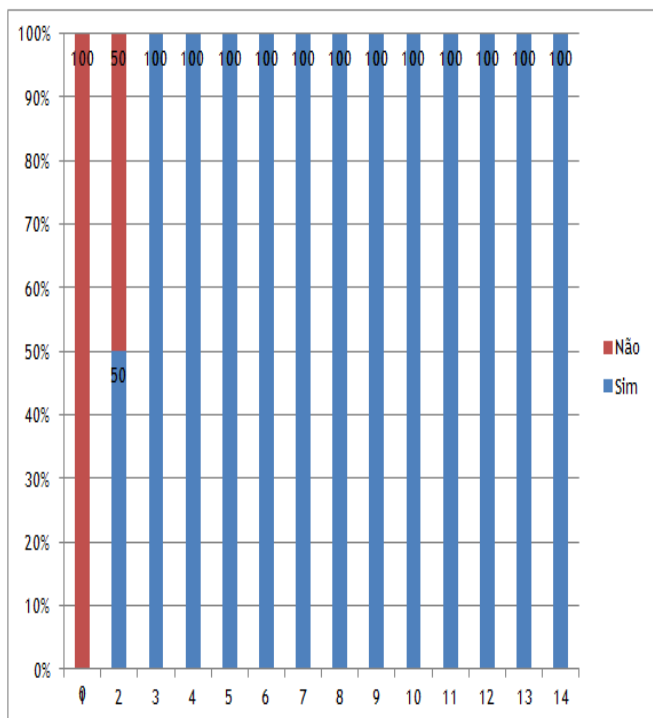
Regarding the use of PPE in this case being the sleeve procedure, so put them on before the procedure and remove them after use decreases the risk great chance for infection. The use of the glove before performing the procedure does not rule out compulsory handwashing after removal of luva.¹⁵

In health services, especially emergency care, most accidents involving professional healthcare is the lack in the use of PPE , to put the

Sales ACL, Alencar GCA, Carvalho LRB *et al.* gloves on a procedure, the professional will be decreasing the chances of lead or bring some infection in their hands . The use of safe practices and the use of gloves significantly reduces the risk of harm to the patient and himself professional.⁵

Asepsis of the chosen puncture towards the venous return location is another important point, because taking care of asepsis and antisepsis during the procedure , the risks for opening an access to sterile body tissues by an invasive procedure become is less harmful to a possible infection hospitalar.2 addition to the correct technique , the efficacy of antiseptic used is of great importance.

Graphic 3 - Record of the percentage of procedures for urinary catheter performed by professional nurses from the emergency room of a public referral hospital compared to the institutional rules. Teresina - Piauí, 2013 (n = 04).



Legend: 1 - Wash hands, 2 - Explain to the patient and family the procedure; 3 - Open the package of bladder catheterization exposing the sterile materials; 4 - Open the package of the probe and put it on the sterile field; 5 - Put on sterile gloves; 6 - Making the sterilization solution with PVP-I topical in the perineal region; 7 - Take the gauze soaked in antiseptic solution with tweezers; 8 - Discard the gauze; 9 - Place the fenestrated field; 10 - Place urinary catheter a 20 ml syringe and needle in the sterile field; 11 - Enter the urinary catheter in the urethra (a) patient, 12 - Putting the waste (garbage) in plastic bag; 13 - Remove gloves; 14 - sanitize hands.
 Fonte: Pesquisa direta

J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control...

Are displayed on Graphic 3 that most of the steps can not be performed different procedures of the institution of peripheral venous puncture were not performed by all professional nursing staff manual. Among them we can mention: not washing hands before (62%) and after the procedure (69%) did not wear gloves procedure (8%) and not remove them after the procedure (23%) and not perform the sterilization of the chosen location (15%).

All these techniques are part of the development and improvement of new modes of care. Knowledge of health professionals on the prevention and control of infections does not accompany this development.⁶

Is no use knowledge of the phenomenon and preventive measures if it assists not to adopt in their professional practice.⁸

Hand hygiene, in the prevention and control of hospital infection programs is a priority practice, considering that the single most important measure to reduce the rates of these infections in the hospital setting action. The main purpose of hand hygiene is the process of reducing the transmission of microorganisms by hands, preventing infections.⁶

Regarding the use of PPE in this case being the procedure glove, either put them on before the procedure and remove them after use decreases the risk great chance for infection. The use of the glove before performing the procedure does not rule out compulsory handwashing after glove removal.¹⁵

In health services, especially emergency care, most accidents involving professional healthcare is the lack in the use of PPE, to put the gloves on a procedure, the professional will be decreasing the chances of lead or bring some infection in their hands. The use of safe practices

Sales ACL, Alencar GCA, Carvalho LRB *et al.* and the use of gloves, significantly reduces the risk of harm to the patient and own professional.⁵

Asepsis of the chosen puncture location towards the venous return is another important point, because taking care of asepsis and antisepsis during the procedure, the risks for opening an access to sterile body tissues by an invasive procedure become is less dangerous for a possible nosocomial infection.² In addition to the correct technique, the efficacy of antiseptic used is of great importance.

Are displayed on Graphic 3 that most of the steps can not be performed different of manual procedures of the institution of the delayed vesical catheterization were performed by all professionals in the nursing staff. Among them we can mention: Open the package of bladder catheterization exposing the sterile materials (100%), open the package of the probe and put it on the sterile field (100%), putting on sterile gloves (100%), making aseptic solution with PVP-I topical in the perineal region (100%), urinary catheter put a 20 ml syringe and needle in the sterile field (100%), enter the urinary catheter in the patient's urethra (100%) put the waste (garbage) in the plastic bag (100%), removing gloves (100%) and hand hygiene (100%).

However, it may be noted that percentage point to certain failures by professionals, they are not washing hands before the procedure (100%) and did not explain to the patient and family the procedure (50%).

According to epidemiological data, 35% to 45% of all cases of hospital-acquired infections are urinary tract infections, 80% are related to the use of the delayed vesical catheter (main vehicle of transmission).³

Despite all the findings that it is important to adhere to the measures and practices with J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control... regard to the way it performs the technique of washing hands, the hands of health professionals still a major cause of nosocomial infection.¹⁵

Handwashing should be affirmed as the primary means of prevention and control of hospital infection, and also, as a simple and affordable to all professionals in the hospital environment.¹¹

The adoption of this practice has significance in the fact that a large percentage of nosocomial infections can be avoided, since most microorganisms in transient microbial hand, that is, those obtained through contact with colonized or infected persons or materials could be easily eliminated through proper cleaning, ceasing to be a basic condition for release.¹⁴

Therefore, failure to wash hands before performing the procedure, implies the involvement of the effectiveness of the result to be expected at the end.

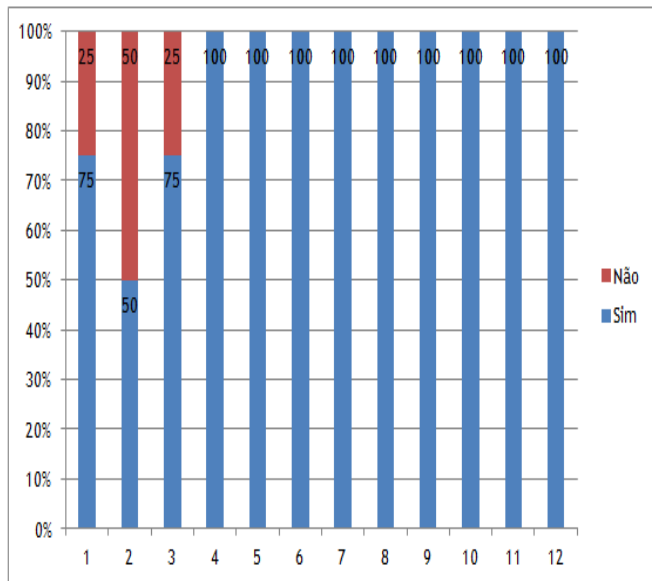
Another important point is the fact that the nurses have not explained to the patient nor the family, what procedure would be done.

Patients report that by losing contact with the family, end up getting more sensitive, with fears of what is happening and end up needing more specific help that would be the therapeutic relationship, which creates a bond of trust based on communication.¹²

The communication should happen especially with the nursing staff, they are those who are responsible for the full care of the hospitalized patient. Creating a bond of trust when unknown procedures by the patient are going to be performed, therefore, the importance of always explain what will be done.¹⁴

Sales ACL, Alencar GCA, Carvalho LRB *et al.*

Graph 4 - Record of the percentage of procedures of nasogastric catheters performed by nursing staff of the emergency room of a public referral hospital compared to the institutional rules. Teresina - Piauí, 2013 (n = 04).



Legend: 1 - Check the statement of the probe; 2 - Perform hand hygiene; 3 - Explain the procedure to the patient and family; 4 - Leaving the head of the bed to 45 degrees if there are no restrictions; 5 - Take the measurement of the extent probe, 6 - Put on the gloves; 7 - Lubricate the tube with topical anesthetic; 8 - Enter the probe gently; 9 - Request to get the probe in the throat make swallowing movements; 10 - Introduce 10-20 ml of air through probe and listen with stethoscope just below the xiphoid process; 11 - Fasten the probe on the patient's face; 12 - Wash hands;

Fonte: Pesquisa direta

It was found in Graphic 4 that some of the steps that were taken differently of the procedures of the institution for nasogastric catheters manual, although this procedure can only be performed by nurses. Among the steps taken appropriately, we can mention: Leave the head of the bed to 45 if there are no restrictions (100%), making the measurement of the length of the probe (100%), lubricate the tube with topical anesthetic (100%) gently insert the probe (100%), introducing 10-20 ml of air through the probe and listen with stethoscope just below the xiphoid process (100%) and fasten the probe in the patient's face (100%).

However, there is non-compliance of the three steps of the procedure by the nurse. They are: not verify the statement probing (25%) did not perform hand hygiene before the procedure (50%)

J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control... and did not explain the procedure to the patient and family (25%).

Despite being something important to do before performing a nasogastric catheters, verify indication probing is rarely addressed in the literature describing the nasogastric catheters is a very invasive procedure largely associated with nosocomial infection.³

In relation to hand hygiene, hand hygiene, in the prevention and control of hospital infection programs is a priority practice, considering that the single most important measure to reduce the rates of these infections in the hospital setting action. The main purpose of hand hygiene is the process of reducing the transmission of microorganisms by hands, preventing infections.⁶

The act of explaining to the patient what will be done, how and why a procedure that demonstrates that nursing professionals understand the patient's need to feel safe and it facilitates the procedure that must be done. Furthermore, it shows respect for the human being there is weakened.¹⁴

CONCLUSION

Can be seen the end of this research carried out in emergency care on the prevention and control of hospital infection by nursing staff that the study population consisted of 77 professional nursing team, where 44.1% (34) were aged between 20 and 30 years and young adults. As for formation the majority 76.7% (59) were nursing technicians and 19.4% (15) were nurses. Regarding the training time 64.9% (50) had between 1 and 10 years. As for specialization in 58.4% (45) had none. It can be seen that 59.7% of the professionals

Sales ACL, Alencar GCA, Carvalho LRB *et al.* perform the training times to perfect the activity area, however, 9.1% did not do training.

The contents extracted from questionnaires answered by professional nursing team showed that they know the importance of the prevention and control of hospital infection, however, the testimonies collected, some nurses made it clear that it considers the infection like a parasite or a disease denoting lack of knowledge on the subject.

In another question, we verified that the professionals know what the infection can bring harm to hospitalized patients and consequently to the hospital. The professionals were found to be aware of the dangers that reverberate over this situation.

It was noticed that the professionals know at what points should be strict to prevent nosocomial infection, such as washing hands, how important both for the protection of patients and for himself.

As for questioning the use of PPE professionals made clear by their responses that do not use the full PPE in daily work, showing that there exists a flaw to the patient and the nursing professional.

Through observation and use of the checklist in the realization of invasive procedures, can be seen important data the way it was carried out certain steps of importance for the control of nosocomial infection. Were selected from each procedure steps considered essential and which could never be done differently from procedures manuals of the hospital.

Most of the steps were performed differently from the manual procedures, especially not handwashing before the procedure, but also does not explain the patient and family procedure.

Therefore, the failure of handwashing before performing the procedure may result in a J. res.: fundam. care. online 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control... serious risk of developing nosocomial infection at the same time, which is the main way to prevent and control.

We believe that safe and effective care can be reality from the recognition of health professionals about the standard precautions to be taken while handling a hospitalized patient.

We recommend that the health institution under study promote continuing education in a systematic manner for all nursing staff, the emergency care industry, but also to other sectors of the institution.

REFERENCES

1. Veronesi: Tratado de Infectologia. 3ª ed./Editor Científico: Roberto Focaccia - São Paulo: Atheneu, 2005.
2. Sousa BA. Responsabilidade civil dos profissionais de enfermagem nos procedimentos invasivos. Brasília, vol. 62, n.5, p.01-08, 2009.
3. Moura ME B et al. Infecção hospitalar: estudo de prevalência em um hospital público de ensino. Rev. bras. enferm., Brasília, v. 60, n. 4, Ago. 2007. Disponível em: <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S003471672007000400011&lng=en&nrm=iso>. Acesso em: 31 out 2012. <http://dx.doi.org/10.1590/S0034-71672007000400011>.
4. Azambuja EP, Pires DP, Vaz MRC. Prevenção e controle da infecção hospitalar: as interfaces com o processo de formação do trabalhador. Texto contexto - enferm., Florianópolis, v. 13, n. spe, p.79-86, 2004.
5. Sousa CMM et al. Representações sociais das implicações legais da infecção hospitalar e de seu controle. Brasília, vol. 60, n.4, p.01-10, 2007.
6. Gil A C. Como Elaborar Projetos de Pesquisa. 4ª ed. São Paulo: Atlas, 2007.

Sales ACL, Alencar GCA, Carvalho LRB *et al.*

7. Brasil. Conselho Nacional de Saúde. Resolução nº 196/96. Decreto Nº 93.933 de Janeiro de 1987. Estabelece critérios sobre pesquisa envolvendo seres humanos. *Bioética*, v. 4, n. 2, Supl., p. 15-25, 1996

8. Brasil. Ministério da Saúde. Resolução n. 240 de 2000. Brasília-DF, 2000. Disponível em: http://novo.portalcofen.gov.br/resoluo-cofen-2402000-revogada-pela-resoluo-cofen-3112007_4280.html. Acesso em 27 de Jun. 2013.

10. Marconi M A, Lakatos E M. Fundamentos da metodologia científica. 6 ed. São Paulo: Atlas, 2009.

11. Santos AM R *et al.* Como representações sociais da infecção hospitalar elaboradas por profissionais de enfermagem. *Rev. bras. enferm.*, Brasília, v 61, n. 4, agosto de 2008. Disponível em: <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S003471672008000400007&lng=en&nrm=iso>. Acesso em 31 out 2012. <http://dx.doi.org/10.1590/S0034-71672008000400007>

12. Coelho MS, Silva AC, Faria SSM. Higienização das mãos como uma estratégia fundamental no controle da infecção hospitalar: uma quantitativa. Rio de Janeiro, vol. 10, n. 21, p.01-12, 2011

13. Aguiar D F, Lima ABG, Santos RB. Uso das precauções-Padrão na Assistência de Enfermagem: Um Estudo retrospectivo. *Esc. Anna Nery*, Rio de Janeiro, v12, n. 3, setembro de 2008. Disponível em: <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S141481452008000300027&lng=en&nrm=iso> . Acesso em: 31 out 2012.

14. Valle ARMC *et al.* Representações sociais da biossegurança por profissionais de enfermagem de um serviço de emergência. Rio de Janeiro, vol. 12, n.2, p. 304 - 309, 2008.

15. Oliveira P S *et al.* Comunicação terapêutica em enfermagem revelada nos depoimentos de pacientes internados em centro de terapia intensiva. *Revista Eletrônica J. res.: fundam. care. online* 2013.dec. 5(6): 293-305

Nursing activities in the prevention and control... de Enfermagem, v. 07, n. 01, p. 54 - 63, 2005. Disponível em <http://www.revistas.ufg.br/index.php/fen>. Acesso em 01 jul. 2013.

Received on: 08/05/2013

Required for review: no

Approved on: 25/10/2013

Published on: 27/12/2013