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MEDIDAS DE PRECAUÇÃO DE CONTATO PARA PREVENÇÃO E CONTROLE DE INFECÇÕES: RELATO DE EXPERIÊNCIA

MEASURES OF CONTACT PRECAUTION TO PREVENT AND TO CONTROL INFECTIONS: EXPERIENCE REPORT

PRECAUCIONES DE CONTACTO PARA PREVENIR Y CONTROLAR LAS INFECCIONES: RELATO DE EXPERIENCIA

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RESUMO

Objetivo: descrever experiência de teste de *checklist* elaborado pelo SCIH na avaliação das medidas de precaução de contato nas unidades de internação de um hospital particular de Belo Horizonte. **Método**: estudo descritivo, do tipo relato de experiência dos aspectos observados na prática do SCIH em relação à implementação de um *checklist* piloto. Os dados empíricos foram produzidos durante os meses de agosto a outubro de 2015, totalizando 120 observações diretas nas unidades de internação. **Resultados**: foram observadas não conformidades ligadas, principalmente, ao armazenamento do avental. **Conclusão**: o *checklist* contribuiu para avaliação das medidas de precaução de contato nas unidades de internação e mostrou-se uma boa opção para o levantamento de necessidades de treinamentos, porém o armazenamento do avental permaneceu incorreto.
Descritores: Infecção hospitalar; Controle de infecções; Unidades de internação.

ABSTRACT

Objective: to describe the test experience of the checklist elaborated by the SCIH in the evaluation of contact precaution measures in the hospitalization units of a private hospital in Belo Horizonte. **Method**: this is a descriptive study, in the type of experience report of the aspects observed in the practice of SCIH concerning the implementation of a pilot checklist. The empirical data were produced from August to October 2015, totaling 120 direct observations in the hospitalization units. **Results**: We observed nonconformities in relation to improper apron storage. **Conclusion**: the checklist contributed to the evaluation of contact precautions in the hospitalization units and proved to be a good option for the survey of training needs, but the storage of the apron remained incorrect.
Descriptors: Hospital infection; Infection control; Inpatient care units.

RESUMEN

Objetivo: describir la experiencia de prueba lista preparada por SCIH en la evaluación de las precauciones de contacto en las unidades de hospitalización de un hospital privado en Belo Horizonte. **Método**: descriptivo tipo de estudio experiencia en el informe de los resultados observados en la práctica de SCIH con respecto a la aplicación de una lista de control piloto. Se produjeron datos empíricos durante los meses de agosto a octubre de 2015, por un total de 120 observaciones directas en las unidades de hospitalización. **Resultados**: Se observaron las conformidades en relación con algunos elementos de la evaluación de las precauciones de contacto relacionadas principalmente con el almacenamiento delantal. **Conclusión** la lista de verificación contribuyó a la evaluación de las precauciones de contacto en las unidades de hospitalización y resultó ser una buena opción para elevar las necesidades de formación, pero el almacenamiento delantal permaneció incorrecta.
Descriptores: Infección hospitalaria; Control de infecciones; Unidades de internación.

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INTRODUCTION

The Healthcare associated Infections (HAI) are a global public health problem, as they lead to longer hospital stays, increase costs of care and morbidity and mortality rates [1-6]. In the United States, annually, about 1.7 million IRAS occur with a total registry of 98,987 deaths. In Brazil, data show that between 5 and 15% of patients hospitalized in tertiary hospitals acquire some infection related to care[1,3].

The transmission of IRAS can happen in several ways, by contact (direct and indirect), droplets and aerosols. From these ones, there is the transmission by contact that occurs from the propagation of microorganisms from one person to another through the hands and/or inanimate objects. The patient, when acquiring a microorganism different from its resident flora, may be colonized, remaining asymptomatic or evolving to infection, manifesting signs and symptoms[2].

Infection can make treatment complex when the bacterium is resistant to one or more classes of antibiotics [7]. In the United States, between 20-50% of all antibiotics prescribed are considered inadequate or unnecessary, contributing to the spread of the antimicrobial resistance (AR) phenomenon [8]. In addition to indicating the appropriate treatment according to the specificity of the pathogen, contact precaution measures are adopted in patients with multidrug-resistant microorganisms (MDR) [9-10].

Measures of contact precaution are used to prevent the dissemination of epidemiological microorganisms and indicate hand hygiene (HM), the constant use of the apron, gloves and private room in the practice of care [2,9-10]. When there is not adherence of the health team to these specific measures, the spread of microorganisms between professionals / patients, characterized as cross-transmission, leads to an increase in hospital infection rates and other serious consequences[2, 10-12].

In the hospital of study, the evaluation of contact precautions in the hospitalization units did not occur in a systematic way, making it difficult to epidemiological surveillance of hospital infections. In addition, the Hospital Infection Control Service (SCIH) experienced in practice a series of difficulties faced by the multidisciplinary team, especially the incorrect use of the cloak during the assistance to the isolated patient. Based on this problem, the following guiding question had emerged: does the preparation of a checklist contribute in any way to the evaluation of contact precaution measures in the hospitalization units?

This experience report sought to describe a relevant case occurred in a private hospital in Minas Gerais that could generate contributions to the knowledge of health professionals in aspects that address the current guidelines for infection prevention and control. It is important to disseminate new reflections to the multidisciplinary team, proposing discussions and consequently improving the care practice offered to the patient.

Thus, the present study aimed to describe a checklist test developed by SCIH in the evaluation of contact precaution measures in the hospitalization units of a private general hospital in Belo Horizonte.

METHODS

It is a descriptive study, in the type of experience report. Experience report defined as a descriptive research tool that presents a reflection on an action or a set of actions that approach an area experienced in the professional scope of interest of the scientific community [13].

Empirical data were produced from August to October 2015. The study sample happened for convenience: 120 observations in the wards of the adult hospitalization sector. In this case, we used direct and posterior observation, annotation on items without a checklist.

The instrument was built by the nurse of SCIH with the help of a nursing student who used it as a theoretical basis the *Guideline* [2] of the Centers for Disease Control and Prevention (CDC). The following pre-established items were highlighted: identification plate of visible insulation in the patient's room; Presence of apron; Apron hung properly; Gloves available in the industry; Supplies to sanitize hands; and exclusive use of materials for the isolated patient (pressure device, thermometer and others). In this model, it was not evaluated a percentage of HM practices of the multidisciplinary team, since this indicator is part of a larger project executed no study hospital has adjusted recommendations of the Multimodal Hand Hygiene Strategy [14].

The checklist was used by SCIH twice a week in the morning (09:00) in all patients who

were on precaution of contact by MDR microorganism (average: 10 patients/week). This instrument was initially aimed at improving the epidemiological surveillance of SCIH and detecting possible flaws in relation to contact precaution measures.

At first, eighty evaluations were carried out and, subsequently, on-site trainings with the multidisciplinary team. Initially, a folder was prepared for each professional with the theme "Precautionary measures of contact as a strategy to reduce the infections related to Health Care". The content of the training covered the following topics: HAI concept; What the precautionary measures of contact are; What the precautions regarding contact precaution are; The right ways to remove and hang the apron; And the importance of the five moments of hand hygiene [2, 14]. The duration was 30 minutes and nursing professionals (n = 60), physiotherapy (n = 10) and medical staff (n = 4) were obtained as a target audience.

After completing the training, the checklist items were evaluated again by professionals of the infection control following the recommended methodology: direct observation (n = 40) and later annotation. This study did not require an opinion from the Research Ethics Committee; however, the norms of Ordinance n. 466 of December 12th, 2012, of the National Health Council (CNS)[15].

RESULTS AND DISCUSSION

Table 1 showed that most professionals visibly fixed a "contact precaution" sign on the door of the isolated patient's room. It is inferred that professionals are concerned in advicing others to adopt as adequate preventive according to the institutional protocol.

Table 1 - Results of the checklist items by the SCIH in the Hospitalization Units, 2015.

Review itens of *checklist*	**Direct observations**	
	Pre-training (n=80)	**Post-training (n=40)**
Visible Insulation Board	95%	100%
Presence of apron in rooms	80%	100%
Apron properly hung	2,8%	10%
Gloves available in the sector	57,5%	83,3%
Supplies to sanitize the hands	98%	100%
Exclusive use of materials	22,5%	22,5%

Source: Author.

In the evaluation of the second and third items of the checklist, it was observed that in most of the rooms, there was a cloth apron, but few aprons were properly hung. In this case, it is known that the risk of dissemination of microorganisms to other patients is greater due to inadequate storage[6, 12].

Regarding the provision of procedure gloves, a little more than a half was accessible for collective use. In this case, the observation occurred only in the morning, so the rate is not reliable when we consider the absence of a fixed schedule for the nursing to request and to obtain this material in the institution's pharmacy during the workday.

As for the inputs to HM (soap and alcohol preparation), we obtained a good result in the checklist evaluation item. In the study hospital, all assistance points have alcohol devices and/or sinks with HM supplies as recommended by the World Health Organization (WHO) (14). The point of assistance is characterized as a place where three elements meet: the patient, the health professional and the assistance or treatment involving the contact with the patient or its surroundings (patient area) (14). Although hand hygiene was not evaluated in the pilot test, the practice is simple and effective for the prevention and control of HAI (2-6).

In the evaluation of the use of exclusive materials per isolated patient, it was found that few rooms provided individually the pressure device, thermometer, stethoscope and others. Thus, as a way to prevent cross-transmission,

professionals of SCIH directed the cleaning and disinfection of these objects among patients. It is known that restricted and individual use reduces the spread of microorganisms in the hospital environment, and may lead to a decline in colonization/infections due to health care [2,5,9].

After evaluation and analysis of the data collected in two months of observation, the need for on-site training with the professionals of the multidisciplinary team was raised. A publicity material was developed (folder) with the help of the marketing and communication sector of the hospital, later delivered to the participants involved in the learning process.

During the training, the team was participative and clarified the doubts regarding the theme. During the dialogue, hand hygiene was unanimously considered the main measure for the reduction of infections that is directly related to the quality of medical-hospital care.

However, it was notorious that the greatest difficulty was tied to the use of the apron. In the study hospital there are stands in all rooms to hang these garments, not justifying the physical structure as the cause of the problem. In addition, the nursing team reported discomfort in the use of this item mainly due to the excessive heat generated during bathing in the bed. Physiotherapy practitioners stated that wearing personal protective equipment (PPE) did not disrupt their routines and the medical staff did not manifest during the discussion period. A study found similar data regarding the use of the apron, highlighting the inconvenience generated to the professionals during the care offered to the patient[9].

After the training, the six items in the checklist were evaluated again. It was observed that all the infirmaries had the identification plate and the presence of the apron near the bed, but few professionals remained hanging it adequately. This fact raised concern among researchers and raised the need to carry out greater awareness actions with health professionals. Therefore, it is inferred that preventive education contributes to the valorization of the correct use of PPE [16].

Gloves were available in most hospital settings. Although this rate is not realistic, it should be emphasized that SCIH perceived an overvaluation of the use of this material in the practice of care. The study states that gloves are more used by the health team when compared to HM[6]. This fact may contribute to the spread of pathogens in the hospital environment, thus increasing the number of unexpected infectious events[2, 4].

In the evaluation of the materials of exclusive use per isolated patient, there was not improvement of adhesion. This problem is related to the lack of structure and insufficient quantitative available to every hospital. In this case, infection control professionals continued to emphasize to the whole team the importance of correctly disinfecting these objects among patients to reduce microbial load[2].

At the end of the evaluations, it was noticed the need to maintain training with less periodicity, approaching the recommendations for the use of the apron, and a quarterly recycling model was proposed to update the multidisciplinary team. A study has shown that newly trained professionals tend to follow more institutional protocols when compared to those with extensive experience and tend not to recycle knowledge over time[17].

Several authors emphasize the importance of training the multidisciplinary team to be successful in aspects that affect the prevention and control of HAI. In addition, it is important to highlight the need for changes in attitude and behavior of health professionals to improve adherence to specific preventive measures[17-20].

The use of the checklist made it possible to improve the epidemiological surveillance process of SCIH through the identification of failures that occur in the care given to the patient in contact precaution [21]. With the results obtained through this instrument it was possible to understand the aspects intrinsic to the work process that influence the increase or decline of the global rate of hospital infection.

Considering the limitation that the study occurred in a single private hospital, where the HM technique was not evaluated along with the items in the checklist, and the direct observations in the second moment happened close to the training, it was necessary to expand the research to other hospitals for the purpose of comparisons and possible generalizations to improve the practices of prevention and control of infections.

CONCLUSION

The checklist allowed detecting fails related to inappropriate storage of the cloth apron that may favor the cross-transmission of microorganisms in the hospital environment. Additionally, it contributed to the evaluation of

contact precaution measures in the hospitalization units and it was approved after three months of testing to be incorporated into the work process of the Hospital Infection Control Service.

This instrument proved to be a good option for surveying training needs with the multidisciplinary team. In this sense, items that obtained low adherence were worked together with the health professionals to generate positive impact in improving the quality of care offered to the isolated patient, however the storage of the apron remained incorrect.

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