# CONTACT PRECAUTION: THE PERCEPTION OF PEOPLE ACCOMPANYING CHILDREN HOSPITALIZED AT A PEDIATRIC UNIT

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#### **ABSTRACT**

This is a descriptive, exploratory and qualitative fieldwork conducted at the pediatric unit of a university hospital in northern Paraná. The purpose was to analyze the perception of people accompanying hospitalized children in regards to contact precaution. Twenty individuals participated and the instrument used for data collection had two parts: the first part was directed at obtaining the accompanying person's social data; and the second one contained guiding questions on the topic. After analyzing the data in which the method of interpretation of the senses was used, consisting of three distinct steps, four categories emerged: "Instructions about contact precautions to accompanying persons"; "Understanding the usefulness of contact precautions"; "Difficulties and easy aspects of using contact precautions"and "Feelings in relation to the experience". The majority demonstrated that they did not understand the usefulness of this practice, and the main difficulties were related to physical discomfort and changes in routine. Feelings such as embarrassment, humiliation and prejudice were associated with experience. It is necessary to improve the information provided, regarding the correct use of apparel, and the emotional support offered to accompanying persons by health professionals.

Keywords: Pediatric nursing. Drug Resistance. Nosocomialinfection. Precaution.

## INTRODUCTION

It is now known that the contact precaution is necessary because of the high incidence of multi-resistant microorganisms (MR) that can harm the individual's recovery and the effectiveness of antibiotics. Such resistance, prevailing in bacteria, is detected when there is loss of bacterial sensitivity to one or more classes of antimicrobial agents, making the therapeutic possibilities decrease what causes microorganisms and results in a nosocomial infection (NI) (1). This is understood as the infection acquired after the patient's admission to hospital, manifested during hospitalization or after discharge, generally after 72 hours of the patient's admission, which may be related to hospital or to hospital procedures (2).

The severity of consequences caused by bacterial resistance may vary according to the

establishment and affected population <sup>(1)</sup>. By owning the immature immune system, the child is more likely the spread of these agents, in addition to sharing objects, malnutrition, congenital anomalies, use of immunosuppressive and hematic-oncological diseases, which can facilitate the development of microbial resistance and NI<sup>(2)</sup>.

Thus there is biological damage and significant increase in hospital spending, as long hospital stay, influencing also in increased mortality <sup>(1,3)</sup>. In separate studies, the mortality associated with NI ranged from 10% to 33.8%, which can be considered alarming since the availability of such practices can reduce proportions <sup>(3-4)</sup>.

Because of these losses, it is necessary the use of contact precautions, understood as a set of practices that prevent direct and indirect transmission of resistant organisms from a patient and the environment where the patient is

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inserted. Some practices for contact precautions are highlighted, such as: private room whenever possible, or the use of cohort allocating patients with bacteria together in the same room; not sharing objects; use of gown and gloves for handling the patient and their belongings; removal of apron after leaving the room and hand hygiene to control spread of pathogens (1)

Despite the constant improvement and technological advances of health resources, simple practices such as hand hygiene and adherence to contact precautions are still essential to control the NI and microbial resistance <sup>(1)</sup>. With regard to the accompanying person often the meaning and usefulness of the infection preventive measures are not always well understood, increasing the possibility of transmission, so this may cause damage in the patient's and professionals' rehabilitation process.

The theme of the prevalence and incidence of multi-drug resistant bacteria has been conquering the field of research; however, most of these are dealt with epidemiological form or the address of the health professional's vision. The companion is astudy subject little explored despite the prominence in the spread control process of the bacteria.

Therefore, this study aimed to understand the perception of children accompanying pediatric unit and the contact precautions.

## MATERIALS AND METHODS

This is a field research, descriptive and exploratory qualitative approach, conducted in the pediatric unit of a university hospital north of Paraná. The unit in question was inaugurated in 1970 and belongs to the Maternal Child Division of the hospital. The pediatric unit is designed to meet children from newborns to 11 years 11 months and 29 days-old (children under 12 years-old) of pediatric clinics, pediatric surgery and other (orthopedics, specialties hematology, neurology, etc.). This sector works with integral care provided throughout the care provided to the child.

The number of participants was determined after reaching the proposed goal, totaling twenty children companions who need contact precautions, established by confirmation of being carriers of the bacteria MR by the Hospital Infection Control Commission (CCIH), or because they are awaiting results of the swab (collected survey which investigate the presence of MR bacteria in the skin microbiota and mucous membranes) to be fit in risk criteria to be carrying these bacteria.

Data were collected in August and September 2013, using instrument which consists of two parts: the first one aimed at obtaining social data companion (gender, age, relationship to the child, education level and occupation), and the second part composed of guiding questions on the subject: "What was the explanation that health professionals have when you put your child in contact precautions?"; "What did youunderstand about that?" And "How is the experience of having your child in contact precautions? And what do you feel about it?"

The statements were recorded for further analysis of the data. In this analysis we used the Senses Interpretation Method which consists of three distinct stages: Reading comprehension of selected material, material exploration and development of interpretive synthesis, based on principles that seek to interpret the context, reasons and logics of speech, actions and interrelations between groups and institutions <sup>(5)</sup>.

This study was submitted to the Research Ethics Committee (CEP) of the State University of Londrina/Universidade Estadual de Londrina (UEL) for analysis and opinion to the recommendations of the National Health Council Resolution 466/12 (CNS)<sup>(6)</sup> and approved on the advice CEP / UEL 216,757, CAAE 10788713.9.0000.5231. The interviews were conducted after acceptance to participate in the study and signed the Instrument of Consent. To ensure confidentiality of the identities of respondents it was used to letter "E" as code name, followed by the number corresponding to the order of interviews.

## **RESULTS AND DISCUSSION**

Regarding the characterization of the participants, all were female and had an age range between 15 and 44 years-old, most of them are mothers of children who were hospitalized <sup>(18)</sup>. As for education, five of the companions completed primary school, five women said they had incomplete primary school, four women have complete high school degree, and five reported incomplete high school. Only one companion has completed higher education. Of the total sample, 10 patients had no employment.

The finding that all of the participants were women resembles another study conducted in a university hospital of Minas Gerais, with nine companions of children in contact precautions, showing that much of the child care is given to females<sup>(7)</sup>.

From the analysis of data obtained in the interviews, four categories were revealed: "Guidelines on contact precautions to companions"; "Understanding on contact precautions utility", "Difficulties and facilities in use of contact precautions", "Feelings in relation to the experience", which are presented and discussed below.

# Guidelines on contact precautions to companions

The quality of communication between health professional and companion about contact precautions can influence the effectiveness of the practice. In the following lines, itcan be seen that the family does not provide information necessary to understand the importance of using personal protective equipment (PPE):

They explained that it is necessary to use the apron. When they did the swab examination they explaining to me that it is for seeing if it had been some germ of another hospital he was admitted [...] but they do not gave me much explanation. (E1)

The practice of contact precautions requires the provision of solid and precise information, which has not occurred effectively, according to a study in a hospital in Rio de Janeiro (8). Recently, a survey conducted with 36

companions in Maranhão listed the various needs that the information was considered a prime necessity, but little supplied by health professionals <sup>(9)</sup>.

In addition to the lack of information, the use of scientific terminology and not precautionary meaning of enlightenment can harm the companion of understanding <sup>(8)</sup>, as in the following statement:

They told me but I could not quite understand. Because they said there is a bacterium that is "resistible" to the antibiotic and so they have examined him (E15).

A study of 14 mothers on a Pubic Hospital in Fortaleza confirmed as the accompanying feel the need effective communication through proper terminology, in which the procedures are understood. It is necessary that health professionals seek to provide information in a clear way, allowing reducing anxiety<sup>(9)</sup>.

Inadequate information about contact precautions can also create stress and guilt in the accompanying that end up imagining the worst outcome for the child with bacteria MR <sup>(8)</sup>. Because they were not trained on this diagnosis, the interviewees express concern about the child's health status:

Oh it was hard, because I thought that she was sick, so sick, when they brought her here. I did not want to bring her here because I thought something had happened and they did not tell me (E4).

I've stayed up with fear. Because I thought her problem was serious. We cannot touch each other;we cannot sit up on the other's bed. We are afraid. Does she have anything? (E11).

It is important that the companions are informed about the difference of a colonized patient with a multidrug-resistant bacteria and an infected patient, considering that the colonization by itself is not considered a disease. Colonization by a multidrug resistant microorganism is defined as a resistance to different classes of antimicrobial agents tested in microbiological tests<sup>(10)</sup>.

By being colonized by multidrug-resistant bacteria it is necessary a medical treatment, however, precautions in a hospital are important, in order to avoid the spread and possible infection through a gateway or an immune depressed state <sup>(10)</sup>.

On the other hand, some respondents reported that they were instructed on the use of contact precautions, and in most cases the nursing staff was responsible for the orientation. Findings of other studies of child companions in Minas Gerais and Rio de Janeiro confirm the importance of these professionals in controlling the spread of bacteria MR (7.8).

I would feel embarrassed if I came in one place and everyone would come and no one came to me explain the cause of that. But as soon as I arrived I went in without apron and then they have barred me and explained to me (E16).

- [...] The nurses were explaining to me because at first I did not want to use, did not like to use. So they explained me and I understood (E19).
- [...] A nurse told me firstly. I think she was the head of the nurses here in the sector, who commented. So this morning the doctor also talked to me and a nursing technician as well. (E9)

Similar results were found in a study conducted in Rio de Janeiro with nine companions, in which the mothers reported they were not guided about the NI control, unlike others who mentioned adequate clarification on the subject <sup>(8)</sup>.

## **Understanding on contact precautions utility**

With the analysis of the reports it was possible to learn that most caregivers do not have a proper understanding regarding the use of contact precautions.

Many of them have the perception that the use of this practice is for the protection of the child in need of insulation, not the people who are around:

- [...] We come from outside with bacteria. So we arrive here and have to wear aprons and gloves for not to "contaminate her" (E3).
- [...] I do not take him for fear of contaminating him.Whatever... (E6)

The apron and the glove is for "me" do not pass any bacteria to her, in case [...] (E9)

[...] If I have no apron and glove, I'm going out there and come back and I can contaminate her

with a bacterium. Her risk is greater, you know? [...] (E10)

[...] Today I went to the market to buy a toothbrush for her. So I left out there, I came back and went in. So I think my clothes, if there is something it's here. So I went there and put the apron (E11).

The multidrug-resistant bacteria can be transmitted through direct or indirect contact with the patient. Direct contact is defined as physical contact between the source and the host, which can occur through the hands of health care professional and/or accompanying. The indirect contact occurs through a medium intermediate, such as clothing, gloves and other contaminated objects. Because of this, it is important to clarify the companions that precaution is important so that they do not become means of dissemination within the hospital environment.<sup>(11)</sup>

The lack of knowledge about contact precautions was also identified in another study conducted in Rio de Janeiro with ten companions, in which, eight ones had little knowledge and two had no knowledge about the subject <sup>(12)</sup>. Few companions demonstrated basics of the practice, being the same as those interviewed reported being properly oriented, which reinforces the importance of providing accurate and continuous information, not just at a time <sup>(7,8)</sup>.

Although not always they know the correct meaning of contact precautions, the companion is an active participant in the NI control that when properly stimulated and guided by the staff, has attitudes of reducing spread of bacteria (7.10).

# Difficulties and facilities in use of contact precautions

Besides the behavior of caregivers in caring for the child in the wards is perceptive, it was revealed that contact precautions is not properly used by most of them, taking into account the difficulty they attach to provide care bearing the EPI:

Because it is very bad handling the baby with a cold glove, even in this weather (E7).

[...] At the time she is asleep I get it off because it is very hot (E13).

[...] I cannot do anything for him when I'm wearing a glove [...] (E15).

I don't wear a glove. Ah! Because it is very bad to be with that glove (E18).

In another survey, conducted in the Northeast of Brazil, the accompanying adult patients on contact precautions mentioned the use of protective equipment such as gloves as a paramount importance in the control of hospital infection. They also showed adequate understanding of the subject <sup>(12)</sup>. Still in this study, the use of garment may have been negatively influenced by the difficulty of understanding on contact precautions utility.

The nursing team has an important role in supervising the correct use of garment in caution, both by professionals and by companions, and despite the weaknesses found, the quality of care offered to the MR patient has improved in recent years (15).

On the other hand, in the present research sector, adherence to EPI has not been carried out adequately by health professionals, making it difficult to raise awareness of the use of equipment from companions. A survey conducted in Goiania with 28 nursing professionals showed that in 40.9% of procedures performed there was not hand hygiene before and after care (14).

The difficulties regarding the use of contact precautions go beyond the physical discomfort and change the routine of children and companion because some prohibitions should be imposed in order to ensure complete halt ofbacteria spread<sup>(17-19)</sup>:

- [...] It's not nice to stay locked inside. In the PS (ER) downstairsit is better because you can make contact, but the risk is greater there than here [...] (E10).
- [...] We had freedom. I went with her as often as she wanted to get outside, I took sunbathe of the day, at 17:00. In the evening I went down again, you got it? Now here we cannot, we avoid going out (E11).
- [...] I would like to have normal contact with her (E13)
- [...] It's bad, it's lack of habit (E14)

Despite the difficulties to be relevant, some companions showed facilities and detected

positive points regarding the use of PPE, noting the idea that the presence of gloves and apron is associated with the prevention of NI:

[...] I'm using it correctly and I do not care (E3)

No, it's natural. It's normal. I am not freaking out about it. I am not afraid because I have to use (E7).

[...] It's great. It is prevention. For me it's all right (E12)

If it is to prevent it is a good thing, right? I do not mind. (E15)

I even prefer to use it because thereare children who have something. Just like he got these bacteria, it may have some other he does not have to take it as well (E17)

Everyone should use [...] that's okay that the pediatric nurse is just one from Pediatrics, but if suddenly one is called to an emergency in other sector. We do not know if there is or not, then it is very important to use the apron and glove (E20)

It is important that companions understand the real meaning and importance of precaution in the hospital environment and become collaborators in this process, sofor the prevention of the MR bacteria spread occurs more effectively. Also, when well understood, the companion begins to inspect the others so that everyone complies with the established standards.

# Feelings in relation to the experience

Apart from the difficulties related to physical discomfort and changes in routine, some participants also revealed negative feelings related to this experience, ranging from embarrassment, prejudice and humiliation:

It's weird. It gives the impression that you have something that goes to someone else, a communicable disease, from contact. It's complicated (E1).

Ah, looks like I'm dirty, you know? That's how I feel (E4).

I found it humiliating because it was like to be in the same room with the other bacteria and having to use apron anyway. But as that bacterium was stronger, people ignored them, they scoffed. Sometimes they talked like "oh it's all the same bacteria, all the same, so it's okay to mix one thing with the other" [...] Then the other people who are in the other rooms, which were only MR, another bacterium, sometimes they scoffed because we were where the bacteria was stronger. (E8).

It's embarrassing. I do not like this (E6).

But I do not like because they are talking about it. There was a doctor who said he was about to go high and I said "It's taking a while to give high for him" and he said "yes, we will see just right soon, so he would not be spreading bacteria in the hospital", there I was upset (E19).

Hospitalization of children can bring negative feelings to accompanying, as a threat, stress, fear and concern (15), and the constant fear of the possibility of acquiring NI (16). In these cases, in which The NI is already installed, some care is necessary to interrupt the transmission of bacteria chain are required not to hamper other patients. However, because they require a differentiated care, patients on contact precautions are exposed to discrimination, anxiety and fear, also needing care that meet emotional and subjective demands, easing the suffering experienced in the hospital (18).

## FINAL CONSIDERATIONS

After the end of each interview, contact precautions utility was duly informed to companions. Even before the end of the testimonies, some companions started their own thinking on the subject and began to reconsider the practical use. From this understanding it was possible to identify

facilities and difficulties in adherence to contact precautions, especially in the pediatric unit where the companion is essential in the child's hospitalization process.

However, the contact precaution still faces difficulties in its full membership, because the guidance provided to caregivers and the understanding of its usefulness are still undervalued. There are also limitations in the physical plant of the unit, damaging the division of beds correctly and making cross-infection rate between a child and another is a reality. Moreover, the long period of hospitalization of some children causes the companions get tired of using PPE.

It is not only nurses but to all professionals in the pediatric unit perform a humanized care and quality communication to subsidize the accompanying deal with NI. Health education also plays a key role in raising awareness and training of professionals for the interruption of transmission of microorganisms' chain, using preventive measures as the use of PPE and hand washing.

To improve adhesion and advance knowledge, it was designed a descriptive and explanatory folder for theme clarification, which addresses the importance of using PPE. These were given to the guest at the time of hospitalization. Moreover, a new study is being conducted in the same inpatient unit to evaluate the decolonization process of children and appropriateness of the front sector routines to contact precautions.

# PRECAUÇÃO DE CONTATO: PERCEPÇÃO DOS ACOMPANHANTES DE CRIANÇAS INTERNADAS EM UNIDADE PEDIÁTRICA

### **RESUMO**

Trata-se de uma pesquisa de campo, descritiva e exploratória de abordagem qualitativa, realizada na unidade pediátrica de um hospital universitário do Norte do Paraná, cujo objetivo foi analisar a percepção do acompanhante quanto à precaução de contato. Participaram vinte acompanhantes e o instrumento para coleta de dados foi composto por duas partes, a primeira destinada à obtenção de dados sociais do acompanhante e a segunda a questões norteadoras sobre a temática. Após a análise dos dados, em que utilizou-se o método de interpretação dos sentidos composto por três etapas distintas, emergiram quatro categorias: "Orientações sobre a precaução de contato aos acompanhantes"; "Entendimento sobre a utilidade da precaução de contato"; "Dificuldades e facilidades na utilização da precaução de contato" e "Sentimentos em relação à vivência". A maioria demonstrou não entender a utilidade da prática, e as dificuldades maiores foram relacionadas ao desconforto físico e mudança na rotina. Sentimentos como constrangimento, preconceito e humilhação foram associados à vivência. Há necessidade de aperfeiçoamento das informações fornecidas, melhor supervisão da utilização correta da paramentação e suporte emocional para as acompanhantes pelos profissionais de saúde.

Palavras-chave: Enfermagem pediátrica. Resistência microbiana a medicamentos. Infecção hospitalar. Precaução.

# PRECAUCIÓN DE CONTACTO: PERCEPCIÓN DE LOS ACOMPAÑANTES DE LOS NIÑOS HOSPITALIZADOS EN UNIDAD PEDIÁTRICA

Resumen: Se trata de una investigación de campo, descriptiva y exploratoria de enfoque cualitativo, llevada a cabo en la unidad pediátrica de un hospital universitario del Norte de Paraná, cuyo objetivo fue analizar la percepción de acompañantes con respecto a la precaución de contacto. Participaron veinte acompañantes y el instrumento de recolección de datos fue compuesto por dos partes, la primera destinada a obtener los datos sociales del acompañante y la segunda compuesta por preguntas orientadoras sobre el tema. Después del análisis de los datos, en el que se utilizó el método de interpretación de los sentidos compuesto por tres etapas distintas, surgieron cuatro categorías: "Directrices sobre la precaución de contacto a los acompañantes"; "Comprensión de la utilidad de la precaución de contacto"; "Dificultades y facilidades en el uso de la precaución de contacto" y "Sentimientos en relación a la experiencia". La mayoría demostró que no comprendía la utilidad de la práctica y las dificultades mayores se relacionaban con el malestar físico y los cambios en la rutina. Los sentimientos tales como el constreñimiento, prejuicio y la vejación fueron relacionados con la experiencia. Es necesario que se perfeccionen las informaciones dadas, así como es importante que haya una mejor supervisión de la correcta utilización de los trajes hospitalarios adecuados y un apoyo emocional a los acompañantes por parte de los profesionales de la salud.

Palabras clave: Enfermería pediátrica. Farmacorresistencia Microbiana. Infección hospitalaria. Precaución.

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