

## 86 - NURSING ASSISTANCE CONDUCTS IN THE FACE OF TRANSFUSION REACTIONS IN A UNIVERSITY HOSPITAL IN NATAL

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### INTRODUCTION

The practice of transfusion permeates the different stages in treating the patient, such as organ transplant, use of anticancer drugs and various surgical procedures, however, even being a common and frequent therapeutic procedure, the transfusion of blood products require special care in order to reduce risks, considering that some can be fatal (CHAMONE; DORLHIAC-LLACER; NOVARETTI, 2001). The transfusion of blood components is an irreversible event that brings benefits and risks to the patient, such risks known as transfusion reaction.

The transfusion reaction are any and all complications that occur as a result of blood transfusion during or after the infusion, and are divided into immune and not immune, acute or chronic (OLIVEIRA; COZAC, 2003). Among the transfusional reactions, are the acute hemolytic transfusion reactions, the anaphylactic, the febrile non-hemolytic, the pulmonary complications, the electrolyte imbalance, the bacterial sepsis, hypothermia, the graft-versus-host disease, the alloimmunization, the volume overload, iron overload and immunosuppression (BRASIL, 2004; CALLERA, 2004).

However, the occurrence of transfusion reactions varies depending on the product used and the type of receiver. As a result, all patients should be monitored carefully during the transfusion, and any sign or symptom should be promptly investigated (AABB, 2002).

In that sense, it is necessary to know the types of transfusion reactions, the blood related to them and their impact, for the introduction of preventive and corrective measures that reduce these risks (CALLERA, 2004). According to the AABB (American Association of Blood Bank) it is estimated that 1 to 3% of blood transfusion lead to a transfusion reaction (AABB, 2002). This percentage rises to 10% in multitransfused patients. Some authors extend the concept of transfusion reaction to any complication arising from the transfusion, which would make this proportion even greater, it is estimated that one in five transfusions induce some kind of complication (CHAMONE; DORLHIAC-LLACER; NOVARETTI, 2001).

For Ribeiro and Mayor (2001), the complexity of treatments and conduct involving the patients submitted to transfusion requires preparation and competence of the multidisciplinary team.

According to Montes; Barros and Barros (2002), to monitor the transfusion therapy, it is the role of nursing, because this is who remains close to the patient at all stages of blood transfusions.

The role of nursing staff becomes crucial to learn to identify the signs and symptoms of a reaction that often passes unnoticed as well as provide assistance in accordance with the symptoms the patient presents (OLIVEIRA; COZAC, 2003).

The recommended conducts for the general nursing staff in the face of a transfusion reaction are immediately stop the transfusion, check vital signs and clinical condition of the patient, keep the venous access with saline, check data to identify the label of blood, confronting with the data of the patient, notify the doctor immediately and notify the blood bank (BRASIL, 2004).

Thus, we believe that the nursing staff performs key role in safety transfusion, through early detection of reactions, since these are professionals who provide full assistance to patients. According the above, this study aims to assess the knowledge of the nursing team on the care actions taken in the face of a transfusion reaction and the signs and symptoms of transfusion reaction. Therefore, to analyze the management care of nursing staff in university hospital is a powerful tool for defining strategies geared to generate positive impact on quality of care to patients in need of this therapy.

### METHODOLOGY

It is a descriptive study with prospective data and quantitative approach, conducted at University Hospital Onofre Lopes (HUOL), located in the city of Natal/RN.

The population was composed by 53 nursing technicians and 1 nurse who participated in the training in General Care in Hemotherapy, in September 2008.

Data were collected using a structured instrument that allowed seek information on the variables of the study.

With the signing of agreement at the end of the General Directors of HUOL and with consideration and assent of the Ethics Committee of the University Hospital Onofre Lopes under the No. 198/08, in consonance to the resolution 196/96 of the National Health Council that incorporates Research Regulators Guidelines, involving living beings (BRASIL, 1996).

The data collected were organized in electronic database by typing in the spreadsheet application Microsoft Excel, then exported and analyzed by SPSS statistical program and made the statistical description treatment.

### RESULTS AND DISCUSSION

The study population was composed of 98.1% of nursing technicians, and 1.9% by nurses. There was a predominance of females (92.6%). Most of the searches performed, whose population was the nursing staff, found the prevalence of technicians and nursing assistants, (FAKIH, 2006).

Lopes and Leal (2005) commented that the process of feminisation of nursing is considered a historical fact built, due to the charitable context, which gave birth to nursing. This reality has imposed that the care provided to patients were by women, primarily due to association with the mothers, healers and with knowledge of informal health care practices.

As for the institutional linkage of technical nursing, we got 63.0% of nurses from Instituto Euvaldo Lodi (IEL), 29.6% nursing volunteer and 5.6% are from Fundação Norte Riograndense de Pesquisa e Cultura (FUNPEC). The nurse is an award federal official.

Regarding the education of the participants, 96.3% have completed the second grade and third grade was found in 3.7%.

In reviewing the population in terms of age, we found that 68.5% of subjects were between 20 to 30 years, followed by the range of 31 to 40 years with 24.1% and the range between 41 and 53 years with 7, 4%. The fact that young people have predominated in the population can be justified, possibly, by way of acquisitions in the institution under study, especially those in nursing, that the vast majority are trainees.

On the length of experience in nursing, showed that 46.3% are from 1 to 5 months, followed by 35.2% from 6 to 12 months

and only 9.3% has more than 3 years experience. Regarding the response of the people on already witnessed a transfusion reaction, only 16.7% said so. What creates a doubt, this event is really missing in HUOL or they don't know how to diagnose, since the literature shows that 1 to 3% of transfusions result in transfusion reaction.

In reviewing the Table 1, in about the response on signs and symptoms of transfusion reaction, we observed that even taking note of an answer from the presented list, many find it difficult to associate the signs and symptoms as a transfusion reaction.

**Table 1** Distribution of answers about signs and symptoms of transfusion reaction, HUOL/RN/BRAZIL, 2008.

Signs and symptoms	N	%
Fever	26	48,1
Chills	37	68,5
Urticaria	10	18,5
Nausea	15	27,8
Lumbar pain	5	9,3
Tachycardia	20	37,0
Cyanosis	9	16,7
Dyspnea	11	20,4
Vomit	13	24,1
Hypertension	17	31,5
Hypotension	23	42,6
<b>Total</b>	<b>54</b>	<b>100,0</b>

Amorim Filho (2000) puts it is not always easy to identify a transfusion reaction, often the signs and symptoms are so mild that go unnoticed, it is no other reason that its incidence is very underestimated.

On Table 2, we observe that even described and placed in sequence as called in Haemovigilance Manual (BRASIL, 2004) on the conduct of nursing in the face of the reactions, the population of the study had doubts about this issue.

**Table 2** - Distribution of assistance conducts taken by the nursing staff in the face of a transfusion reaction, HUOL/RN/BRAZIL, 2008.

CONDUCT IN THE FACE OF A TRANSFUSION REACTION	COTRACTUAL BOND WITH HUOL									
	UFRN		IEL		FUNPEC		Volunteer		TOTAL	
	N	%	N	%	N	%	N	%	N	%
Stop transfusion	1	1,9	25	46,3	3	5,6	15	27,8	44	81,5
Keep venous access with saline	0	0,0	13	24,1	2	3,7	11	20,4	26	48,1
Notify Doctor and Nurse	1	1,9	31	57,4	3	5,6	16	29,6	51	94,4
Check vital signs	1	1,9	33	61,1	3	5,6	16	29,6	53	98,1
Look for medicines	1	1,9	33	61,1	3	5,6	15	27,8	52	96,3
Register in nursing files	1	1,9	30	55,6	3	5,6	15	27,8	49	90,7
Forward blood samples and blood components to blood banks	1	1,9	27	50,0	1	1,9	12	22,2	41	75,9
Fulfill the notification formulary	1	1,9	32	59,3	3	5,6	16	29,6	52	96,3
<b>TOTAL</b>	<b>1</b>	<b>1,9</b>	<b>34</b>	<b>63,0</b>	<b>3</b>	<b>5,6</b>	<b>19</b>	<b>29,6</b>	<b>54</b>	<b>100,0</b>

However, it is very important to have the health care team trained to early detect a transfusion reaction so that appropriate measures are taken quickly and it will be possible through the identification of signs and symptoms of a transfusion reaction.

## CONCLUSION

This study shows that nursing professionals are having difficulty in identifying and linking the signs and symptoms of a transfusion reaction. The conduct of nursing care in the face of transfusion reactions are not always appropriate, i.e., there is not complying with the protocol established by the Ministry of Health.

With this, it is necessary that professionals continuously seek to participate in nursing education through continuing education in order to ensure the health and welfare of patients in need of transfusion therapy.

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## NURSING ASSISTANCE CONDUCTS IN THE FACE OF TRANSFUSION REACTIONS IN A UNIVERSITY HOSPITAL

### IN NATAL

#### ABSTRACT

The practice of transfusion permeating the different stages in treating the patient, such as organ transplant, use of anticancer drugs and various surgical procedures, however, even a therapeutic procedure is common and frequent, the transfusion of blood products require special care in order to that risk is diminished, such as transfusion reactions, considering that some can be fatal. This study aims to assess the knowledge of the nursing team on the pipes taken care front of a transfusion reaction and the signs and symptoms of transfusion reaction. Descriptive study with prospective data and quantitative approach, conducted at Hospital Universitário Onofre Lopes (HUOL), located in the city of Natal / RN. The population was composed by 53 technicians from nursing and 1 nurse who participated in the training of care in general Hemotherapy in September 2008. Regarding the response of the people already on Tuesday witnessed a transfusion reaction only 16.7% say so. The answer about the signs and symptoms of transfusion

reaction were rigors (68.5%), fever (48.1%), hypotension (42.6%), tachycardia (37.0%), hypertension (31.5%), Nausea (27.8%), dyspnea (20.4%), urticaria (18.5%), cyanosis (16.7%) and pain (9.3%). Regarding the response on the pipes front of transfusion reactions, we observed that even described and placed in sequence as called for in haemovigilance Manual, the population of the study had doubts about this issue. This study shows that nursing professionals are having difficulty in identifying and linking the signs and symptoms of a transfusion reaction. The conduct of nursing care front of transfusion reactions are not always appropriate, ie there is not complying with the protocol established by the Ministry of Health

**Key words:** signs and symptoms, blood transfusion, nursing.

#### **CONDUITES ASSISTANCE DU PERSONNEL INFIRMIER DE TRANSFUSION RÉACTION AU FRONT EN UN HOPITAL UNIVERSITAIRE A NATAL RESUMÉ**

La pratique de la transfusion en imprégnant les différentes étapes dans le traitement du patient, tels que la transplantation d'organes, utiliser des médicaments anticancéreux et de diverses interventions chirurgicales, cependant, même une procédure thérapeutique est commun et fréquent, la transfusion de produits sanguins besoin de soins spéciaux afin de que le risque est diminué, tels que les réactions transfusionnelles, compte tenu du fait que certains peuvent être mortels. Cette étude vise à évaluer les connaissances de l'équipe des soins infirmiers sur les conduites pris en charge avant une transfusion de réaction et les signes et les symptômes de réaction de la transfusion. Étude descriptive avec les perspectives de données et d'approche quantitative, réalisée à Hospital Universitário Onofre Lopes (HUOL), situé dans la ville de Natal / RN. La population était composée de 53 techniciens de soins infirmiers et 1 infirmière qui ont participé à la formation de soins en général Hemotherapy en Septembre 2008. En ce qui concerne la réponse de la population le mardi déjà assisté à une transfusion de réaction seulement 16,7% le dire. La réponse sur les signes et les symptômes de réaction de la transfusion ont été frissons (68,5%), de la fièvre (48,1%), hypotension (42,6%), tachycardie (37,0%), hypertension (31,5%), Nausées (27,8%), dyspnée (20,4%), urticaire (18,5%), cyanose (16,7%) et de la douleur (9,3%). En ce qui concerne la réponse sur les conduites avant de réactions transfusionnelles, a fait observer que même décrit et mis en séquence comme il est demandé au Manuel d'hémovigilance, la population de l'étude a des doutes quant à cette question. Cette étude montre que les soins infirmiers professionnels ont de la difficulté à identifier et à relier les signes et les symptômes d'une réaction transfusionnelle. Le comportement des soins infirmiers avant de réactions transfusionnelles ne sont pas toujours appropriées, c'est-à-dire il ne respecte pas le protocole établi par le Ministère de la Santé

**Mots clés:** signes et les symptômes, de transfusion sanguine, soins infirmiers.

#### **CONDUCTAS LA ASISTENCIA DE PERSONAL DE ENFERMERÍA DE TRANSFUSIÓN REACCIÓN AL FRENTE EN UN HOSPITAL UNIVERSITARIO EN NATAL RESUMEN**

La práctica de la transfusión impregnando las diferentes etapas en el tratamiento de la paciente, tales como trasplante de órganos, el uso de medicinas contra el cáncer y los diversos procedimientos quirúrgicos, sin embargo, incluso un procedimiento terapéutico es común y frecuente, la transfusión de productos sanguíneos requieren especial atención, a fin de que el riesgo ha disminuido, tales como reacciones de transfusión, teniendo en cuenta que algunos pueden ser mortales. Este estudio tiene como objetivo evaluar los conocimientos del equipo de enfermería en el cuidado tubos delante de una transfusión de reacción y los signos y síntomas de reacción transfusional. Estudio descriptivo con los posibles datos y enfoque cuantitativo, realizado en el Hospital Universitário Onofre Lopes (HUOL), situada en el ciudad de Natal / RN. La población estaba compuesta por 53 técnicos de enfermería y 1 enfermera que participó en la formación de la atención en general Hemoterapia en septiembre de 2008. En cuanto a la respuesta de la gente ya el martes testigos de una transfusión de reacción sólo el 16,7% decirlo. La respuesta acerca de los signos y síntomas de reacción transfusional se rigores (68,5%), fiebre (48,1%), hipotensión (42,6%), taquicardia (37,0%), hipertensión (31,5%), Náuseas (27,8%), disnea (20,4%), urticaria (18,5%), cianosis (16,7%) y dolor (9,3%). En cuanto a la respuesta de los tubos delante de reacciones transfusionales, se observó que incluso se describe y se coloca en la secuencia como se pide en el Manual de hemovigilancia, la población del estudio tenía dudas acerca de este problema. Este estudio muestra que los profesionales de enfermería están teniendo dificultad en la identificación y vinculación de los signos y síntomas de una reacción transfusional. La conducta de los cuidados de enfermería delante de transfusión de reacciones no son siempre adecuados, es decir, no está cumpliendo con el protocolo establecido por el Ministerio de Salud

Palabras clave: signos y síntomas, transfusión sanguínea, enfermería.

#### **CONDUTAS ASSISTENCIAIS DA EQUIPE DE ENFERMAGEM FRENTE ÀS REAÇÕES TRANSFUSIONAIS EM UM HOSPITAL UNIVERSITÁRIO EM NATAL RESUMO**

A prática transfusional permeia as diferentes fases no tratamento ao paciente, como os transplantes de órgãos, uso de medicamentos antineoplásicos e diversos procedimentos cirúrgicos, entretanto, mesmo sendo um procedimento terapêutico comum e freqüente, as transfusões de componentes sanguíneos exigem cuidados especiais, a fim de que riscos sejam diminuídos, como as reações transfusionais, tendo em vista que alguns podem ser fatais. Este estudo tem o objetivo de avaliar o conhecimento da equipe de enfermagem sobre as condutas assistenciais adotadas frente a uma reação transfusional e os sinais e sintomas sugestivos de reação transfusional. Estudo descritivo com dados prospectivo e abordagem quantitativa, realizado no Hospital Universitário Onofre Lopes (HUOL), localizado no Município de Natal/RN. A população foi composta por 53 técnicos de enfermagem e 1 enfermeiro que participaram do treinamento sobre Cuidados gerais em Hemoterapia no mês de setembro de 2008. Com relação à resposta da população sobre já ter presenciado uma reação transfusional apenas 16,7% afirmam que sim. A resposta sobre os sinais e sintomas sugestivos de reação transfusional foram calafrios (68,5%), febre (48,1%), hipotensão (42,6%), taquicardia (37,0%), hipertensão (31,5%), náuseas (27,8%), dispnéia (20,4%), urticária (18,5%), cianose (16,7%), e dor lombar (9,3%). Com relação à resposta sobre as condutas frente às reações transfusionais, observamos que mesmo descrito e colocado na seqüência como preconiza o Manual de Hemovigilância, a população do estudo teve dúvidas na resposta. O presente estudo evidencia que os profissionais de enfermagem estão com dificuldade em identificar e associar os sinais e sintomas de uma reação transfusional. As condutas assistenciais de enfermagem frente às reações transfusionais nem sempre estão adequadas, ou seja, existe um não cumprindo do protocolo estabelecido pelo Ministério da Saúde.

**Palavras-chaves:** sinais e sintomas, transfusão de sangue, enfermagem.