Loss of human lives caused by administering food by the venous route: a reflection on the safety of nursing care

DOI: 10.5935/1415-2762.20140038

I once heard a patient say something that made me both scared and sad. When he was being admitted into the hospital, he said to his doctor: "Don't leave me. I am afraid they might kill me here". He said this soon after the media had reported widely on two deaths, less than a month previously, caused by food administration using the veins of hospitalized patients. In one case, milk was administered by the venous route to a newborn child and, in the other, soup was administered to the vein of an elderly person. Throughout Brazil, food administration by venous route is one of the main causes of legal suits in Nursing. It causes irreparable damage to the families and gives the profession a bad name.

For more than a decade, specific legislation to regulate the practice of parenteral and enteral nutrition therapy exists in Brazil (Ordinances 272/1998 and Resolution 63/2000)^{1,2}, setting the minimum requirements for the use of these treatments.

These ordinances recommend the creation of a Multidisciplinary Team composed of physicians, nurses, nutritionists and pharmacists, who must be qualified and trained specifically to assist in Nutritional Therapy (NT). The legislation brings Brazil to the vanguard of such therapies due to their interdisciplinary concerns and the quality of assistance they aim to ensure for patients who need nutritional support. Nurses are assigned the responsibility of managing diets, which involves taking part in the choice of quality materials, preparing patients and families concerning the use of NT, inserting the enteral feeding catheter, conserving the diets until administration, ensuring that administration of enteral and parenteral nutrition is done safely and effectively, prescribing care and monitoring patients. In addition, nurses are in charge of standardizing procedures and training all their teams. We must remember that in the routine practice nurses are not in charge of administering enteral nutrition, which is relegated to the teams of technicians and nursing assistants.

Studies show that the presence of a Nutritional Therapy Multiprofessional Team (NTMT) lowers costs and increases efficacy and safety in the use of NT. However, data reveals only a few hospitals have a NTMT composed of trained members who work enough hours to perform their duties. Moreover, it is not uncommon to find nurses who do not fully understand the seriousness of the risks and the complexity of this therapy, as it is not part of their care priorities.^{3,4}

Nowadays, nurses can already rely on resources that foster error prevention in enteral nutrition administration (ENA), such as the use of different colored equipment used exclusively for this purpose, as well as needles with tips that do not connect to intravenous catheters or other connecting devices such as the three way stopcock. It should be stressed, however, that cases when the errors mentioned above could happen included patients who were not using enteral or parenteral nutrition therapy. The individuals affected had been prescribed diets via oral route, which were infused with a syringe into their venous network in both situations. These episodes call for a reflection on the causes of this kind of error. 5.6

The failures highlight the nursing staff's unawareness of the fact that food cannot be given by venous route except when the formulations are specially prepared for this purpose, as in the case of parenteral nutrition (PN), which the team must know how to distinguish from EN. It should be stressed that there are specific PN formulas which can be adminis-

tered via peripheral routes. Was it the case that the workers of the institutions where the errors occurred had not undergone any in-service training about diet care for patients and about EN and PN? Did they not learn this topic when they were at nursing school? Is there no training focused on patient safety in those hospitals? Is there not a NTMT in those hospitals with a qualified nurse available to provide continuing education for the team?

Teaching institutions must recognize the importance of teaching enteral and parenteral NT, which most of them touch upon only briefly, and they must also focus on risk prevention not only for higher education students but also on the technician levels. Managers of health institutions must urgently become sensitive to the importance of having an effective NTMT, of providing training for nurses, who need the time and the conditions to apply their knowledge as part of the whole team in order to deliver safe and effective care. Finally, who knows, it might one day be possible to ensure that administration not only of EN by enteral route but also of all the intravenous solutions becomes a procedure that can only be performed by nurses.

Jaqueline Almeida Guimarães Barbosa PhD in Nursing degree, Member of the SBNPE (Brazilian Society of Parenteral and Enteral Nutrition; Brazil).

References

- Brasil. Ministério da Saúde. Agência Nacional de Vigilância Sanitária. Portaria n°272, de 08 de abril de 1998. Aprova
 o regulamento técnico para fixar os requisitos mínimos para a TNP. [Cited 2014 Jul 20]. Available from: www.anvisa.
 gov.br/legis/portarias/272.98.htm
- Brasil. Ministério da Saúde. Agência Nacional de Vigilância Sanitária. Resolução nº 63 de 6 de julho de 2000. Dispõe sobre o regulamento técnico para a TNE. [Cited 2014 Jul 20]. Available from: www.anvisa.gov.br/legis/resol2000/63_00rdc.htm
- 3. Naylor CJ, Griffiths RD, Fernandez RS. Does a multidisciplinary total parenteral nutrition tean improve patient outcomes? A systematic review. J Parenter Enteral Nutr. 2004; 28(4): 251-58
- 4. Bottoni A. Perfil dos hospitais de grande porte de São Paulo quanto à Terapia Nutricional: Impacto da EMTN [tese]. São Paulo: Universidade de São Paulo; 2005.
- 5. Matsuba C, Magnoni D. Enfermagem em Terapia Nutricional. São Paulo: Sarvier; 2009.
- Conselho Federal de Enfermagem. Resolução COFEN nº 277/2003. Dispõe sobre a ministração de Nutrição Parenteral e Enteral. Brasilia: COFEN; 2003.