

Nursing Advice for the Prevention of Pressure Ulcers: A Prevalence Study of this Phenomenon in a Hospital for Adult Care in Italy

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ABSTRACT

Pressure ulcers are clinical-healthcare disorders that require a highly-skilled healthcare team, because of the multiple aetiological complexity of pressure ulcers and the frequent multiple pathological characteristics of individuals at risk.

Thanks to their specific role in resolving this disorder; their accountability in handling pressure ulcers and the continuity of care they provide, nurses are in particular the health professionals who can ensure high quality competences and provide appropriate advice.

In Italy, the practical experiences of Nursing Advisory Centres for pressure ulcers are still very few, so in our study we described the experience of a Hospital in Northern Italy.

Aim: To evaluate the patient outcomes of nursing advice interventions for pressure ulcers by checking whether the ulcers improved or worsened.

Methods: We performed systematic prevalence and incidence studies on the indicators for healthcare outcomes. The studies were conducted throughout the hospital, bearing in mind the differences linked to the characteristics of the various departments.

Results: We found that Nursing Advisory interventions proved to be effective in preventing the onset of new pressure ulcers and at limiting the extension and the aggravation of those already existing.

Conclusions: Advanced nursing practise is an opportunity for development within the professional community. Nurse Advisors, during interventions, allowed to fill initial gaps, providing guidance to other nurses especially when it came to designing and identifying the most appropriate healthcare strategies.

Keywords: Risk management, pressure ulcers, nursing advice, prevention

Introduction

Pressure ulcers are a major clinical issue, both in the hospital and in the community setting due to: their significant number (The multicentred AISLeC, 1984), as quality key indicators for nursing care and medical treatments provided to multi-pathological and disabled patients, the need for integrated interventions along the healthcare process between the hospital and the community, the need to put into place appropriate preventive measures and treatments, the great discomfort they cause to patients if not dealt with competence and appropriately, thus lengthening their stay in hospital and increasing social and financial costs.

Pressure ulcers are therefore universally recognized as a relevant healthcare issue that weighs heavily both on the National Healthcare Service and on the health professionals, because of the great number of cases, the high costs both for the individual and the society in general, as well as the healthcare complications and complexity linked to them. According to estimations made by the Wound Healing Society, in the world about 13 million people suffer from chronic skin lesions.

Costs involve wound-care management and materials used for medications, drug therapies, the increase of patient morbidity with consequent lengthening of hospital stay, as well as lawsuits and compensation.

Nurses are almost always accountable for the onset of pressure wounds, because in their healthcare plan they are

expected to put in place actions that avoid the onset and/or aggravation of pressure ulcers in individuals who already suffer from this disorder, either in hospital or at home.

Perhaps for no other disease like pressure ulcers, treatment has been and partially still remains very heterogeneous and diversified, but also poorly monitored and sometimes even discriminated.

In Italy, the role of nurses as advisors still has not been developed in the hospital and community healthcare settings, but considering the radical changes that have occurred in the last 10 years at a legislative level, both in terms of education and professional practise, it is possible to hypothesize that the role of nurses as advisors will fully develop in the future.

These changes have profoundly transformed the concept of responsibility and the competences required to deal with increasingly complex healthcare issues and they now ensure a high quality service that also takes into account the need to address and cope with any situation involving clinical risk prevention and management.

Nurse practitioners can advise other nurses. For this reason, it is necessary to have a systematic documentation of the advanced clinical services provided. This documentation will open up new areas of clinical knowledge for further studies and developments (The multicentred AISLeC, 1984); (Funkesson KH, Anbäcken EM, Ek AC, 2007).

Materials and Methods

Since 2002, prevalence studies have been carried out on a monthly basis and on the same day in all the wards of our Hospital, monitoring the number of pressure ulcer patients per ward. Data were collected by nurses specialized in wound-care in collaboration with the staff nurses of the various units.

At the same time, incidence studies were conducted to compare the number of patients already affected by pressure ulcers with those at risk of developing them, to detect which phenomena aroused major healthcare issues, both for the entire hospital and for the single wards and units.

Patients at risk were identified upon admission using the Norton Scale. Patients found to be at risk or who were already affected by pressure wounds were included in a monitoring chart containing the following data: the patient's origin, wound stage, improvement/aggravation of the wound

classified according to the regression or progression of the stage.

The presence of lesions was classified in stages, using the N.P.U.A.P. (National Pressure Ulcers Advisory Panel) assessment scale. The assessment of the healing process, defined as grading, was made using the Push Tool 3.0 Scale, which told us whether the lesion was improving or getting worse.

When a patient already had a wound, the medication plan was reported on the respective medication chart. Attached to this chart, there was the mobilization action plan for the prevention of lesions in patients at risk. At the advisory centre, there was an expert nurse ready to give advice over the phone on a 24/7 basis.

Results

The prevalence study was made by comparing the number of affected patients with those at risk. This allowed us to evaluate the phenomenon in relation to the care provided. (Graph 1)

In 5 years, we observed that even when you have a substantially stable population, there was however a constant increase of the population at risk with a marked reduction of affected individuals.

We observed a gradual reduction in the number of

aggravations during our 3-year monitoring period of the lesions (Graph 2).

The three hospital units where this disorder was most common were orthopaedics, neurology and resuscitation. In the three-year period of observation, between 2005 and 2007, there was a particularly significant reduction in the number of aggravations in the resuscitation and neurology departments (Graph 3). In orthopaedics instead the trend was stable, mainly due to the availability of the aids.

Conclusions

Our study emphasised the importance of setting up advisory centres in the community in collaboration with the main health centres. These advisory centres should be run by professionals who are highly skilled in treating pressure ulcers. The results we obtained could be measured thanks to the

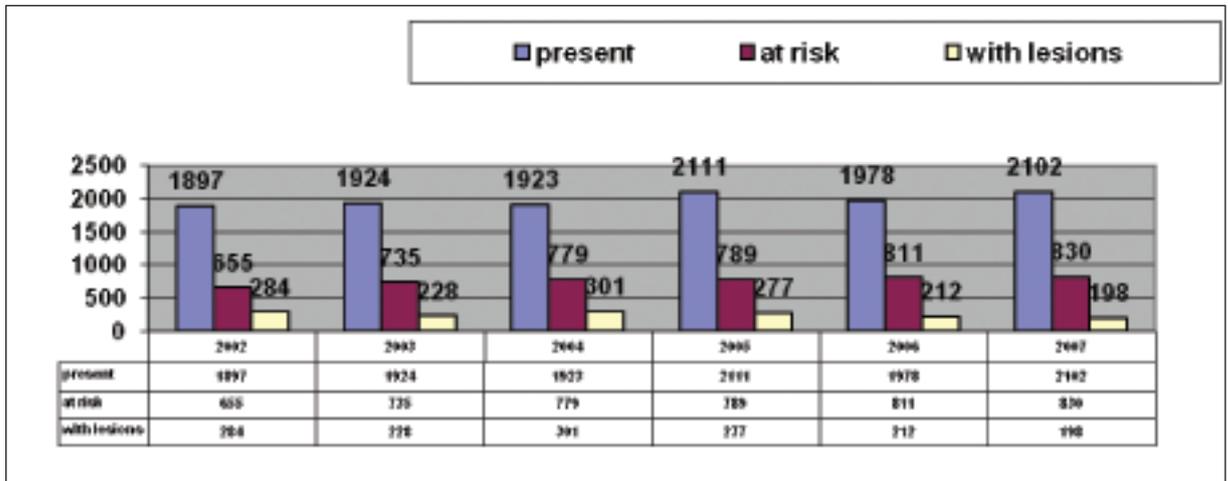
systemization of the assessment of the clinical disorder by using different tools along the various monitoring phases.

With regard to the nursing advisory service, we felt it will fully develop in the near future.

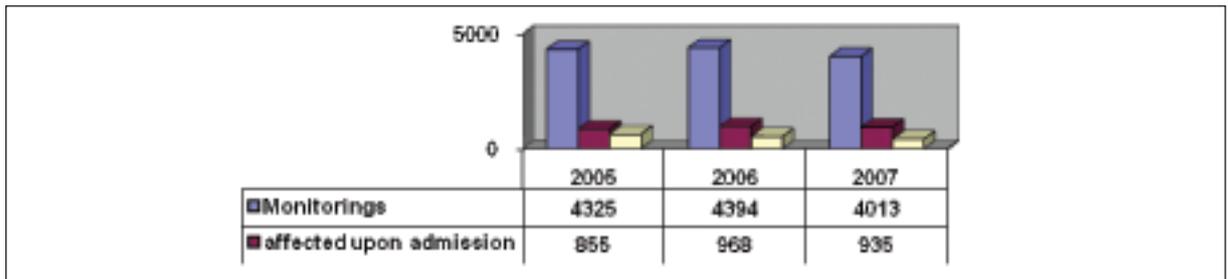
REFERENCES

- Codice Deontologico dell'Infermiere 2009 Approvato dalla Federazione Nazionale Collegi IPASVI con deliberazione n. 1/09 del 10.01.2009 e dal Consiglio Nazionale della Federazione Nazionale Collegi IPASVI nella seduta svoltasi in Roma in data 17.01.09
- Cutting KF, White RJ, Mahoney P, Harding KG. 2005 Clinical identification of wound infection: a Delphi approach. In EWMA Position Document. Identifying criteria for wound infection. London: MEP Ltd
- Cutting KF, White RJ. *Ostomy Wound Manage* 2005; 51(1):28-34 - Criteria for identifying wound infection – revisited.
- D.lgs 30 Dicembre 1992 n. 502 Supplemento Ordinario alla G.U. 30 dicembre 1992, n. 305 - articolo 6 comma 3 "Riordino della disciplina in materia sanitaria, a norma dell'articolo 1 della legge 23 ottobre 1992, n. 42"
- D.lgs. 229/99 Gazzetta Ufficiale n. 165 del 16 luglio 1999 - Supplemento Ordinario n. 132 - (art 16 bis) "Norme per la razionalizzazione del Servizio sanitario nazionale, a norma dell'articolo 1 della legge 30 novembre 1998, n. 419"
- European Wound Management Association (EWMA) 2006, Position document: Management of Wound Infection. London: MEP Ltd
- Stotts NA, Rodeheaver GT, Thomas DR, et al. 2001; 56(12):M795 M799 An instrument to measure healing in pressure ulcers: development and validation of the pressure ulcer scale for healing (PUSH). *J Gerontol A Bio Sci Med Sci*
- Tonelli et al. pag 20-27, 2/2001 Management infermieristico - La consulenza infermieristica: l'esperienza a disposizione dell'utente
- World Union of Wound Healing Societies (WUWHWS) 2007 - London: MEP Ltd - L'essudato e il ruolo delle medicazioni. Documento di Consenso.
- World Union of Wound Healing Societies (WUWHWS) 2008. Londra: MEP Ltd - Principi di best practice: Il sistema vacuum assisted closure: raccomandazioni d'impiego. Documento di consenso.
- AHCPR Supported Clinical Practice Guideline N.15 treatment of Pressure Ulcer National Library of Medicine (publication December 1994 revised 16 October 2008) ultima consultazione 02/02/2009 disponibile su <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat2.chapter:5124>
- AHRQ (Agency for Healthcare Research and Quality) <http://www.ahrq.gov/>
- AWMA - Clinical Practice Guidelines for the Prediction and Prevention of Pressure Ulcers (Australian Wound Management Association Inc. 2001) <http://www.lesioncutaneecroniche.it/linee%20guida/PDF/LDD/AWMA.pdf>
- Cumulative Index to nursing and Allied Health Literature (CINHAL) autori vari: new pressure sore remedy (last update 2009) (last consultation 21/02/2009)
- Defloor T, Gerrie Bours G, Schoonhoven L, Clark M, Draft, Issue 1 2002, Volume 4, epuap statement on prevalence and incidence monitoring, European Pressure Ulcer Advisory Panel,
- Funkesson KH, Anbäck EM, Ek AC.
- Nurses' reasoning process during care planning taking pressure ulcer prevention as an example. A think-aloud study. 2007 Sep;44(7):1109-19. Epub 2006 Jun 27, *Int J Nurs Stud*.
- Helberg D, Mertens E, Halfens RJ, Dassen T. *Ostomy Wound Manage*. 2006 Aug;52(8):60-72 – "Treatment of pressure ulcers: results of a study comparing evidence and practice"
- Hiser B, Rochette J, Philbin S, Lowerhouse N, Terburgh C, Pietsch C 2006 Feb;52(2):48-59 - *Ostomy Wound Manage*. "Implementing a pressure ulcer prevention program and enhancing the role of the CWOCN: impact on outcomes"
- AA.VV.: *JAN Journal of advanced Nursing* volume 57 issue 5 page 494-504 - published on line 5/2/2007 – "Pressure ulcers and their treatment and effects on quality of life: hospital inpatient perspectives"
- Joanna Briggs Institute (JBI) 12(3) 2008 Pressure ulcers – management of pressure related tissue damage Best Practice – "Topical negative pressure"
- McInemey JA 2008 Feb;21(2):75-8 - *Adv Skin Wound Care*. – "Reducing hospital-acquired pressure ulcer prevalence through a focused prevention program"
- Mistiaen P, Duijnhouwer E, Prins-Hoekstra A., Ros W.; Blaylock A. Volume 30, Number 5, November 1999, pp. 1050-1056(7) – *Journal of Advanced Nursing*; "Predictive validity of the BRASS index in screening patients with post-discharge problems"
- NICE (National Institute for Clinical Excellence) LG LdD January 2005 pressure ulcers first draft for consultation: The management of pressure ulcers in primary and secondary care
- National Guideline Clearing House, RNAO Registered Nursing Association of Ontario: Preventing Pressure Ulcers and Skin Tears in Evidence Based Geriatric Nursing Protocols for Best Practice
- Royal College of Nursing, 2005 A Clinical Practice Guideline "The management of pressure ulcers in primary and secondary care"
- RNAO nursing best practice guidelines program
- Risk Assessment & Prevention of Pressure Ulcer www.mao.org/bestpractices

Graph 1: Prevalence overview between 2002 and 2007



Graph 2: Overview of the aggravations observed in 2005, 2006 and 2007



Graph 3: Overview in % of the orthopaedic, neurology and resuscitation departments over the 3 years

