21 - PRESSURE ULCERS IN HOSPITALIZED PATIENTS: ANALYSIS OF THE PREVALENCE, RISK FACTORS AND EXISTING INJURIES.

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INTRODUCTION

Regarding the pressure ulcer issues, specialists and researchers have been driven to communicate their knowledge through books and scientific articles on several points: incidence and prevalence, risk factors, scale for risk evaluation and an approach to prevention and treatment of these injuries. However, it is known that, empirically, the positive results of the construction of all this knowledge are in the beginning. There is a disconnection between the clinical research and the application of its results. All this disarticulation has made it difficult for the access of professionals to technological advances available for preventions and treatment of pressure ulcers, affecting the quality of the treatment.

There is not a specific cause for pressure ulcers development, but there is combination of several risk factors including the control of all professionals in the medical assistance, not just nurses. Therefore, some norms are confirmed by research results purposing to mediate this issue with a higher resolution such as know the clients, the etiology of the pressure ulcers and the available materials in the institution, choose a predictive scale is most suited to your needs to analyze the risk, maintenance professionals, elaborate protocols to unify and guide actions, develop strategies to reevaluate these protocols and the commitment and extensive involvement of all assistance professionals. It aims to reduce, or at least to keep the data under control mitigating the problems caused by pressure ulcers to patients, family, professionals and institutions.

Pressure ulcers are prevalent and have high incidence in short-term and long-term assistance. It causes a psychological and physical suffering and it may also further exacerbate the health problems by acting as a portal of entry for infections and another complications. It means an increase of costs, time inside of a hospital and death rate.

Concerning pressure ulcers issue, it is extremely important to determine the current situation compared to the number of patients who developed this harm. It enables professionals to elaborate upon these problems with an individualized plan and specialized care to improve the assistance to patients.

METHODS

By means of a quantitative approach, this retrospective cross-sectional study was performed in a government hospital in João Pessoa, Paraiba, Brazil, in medical clinical, surgery unit, intensive therapy and semi-intensive care unit. All patients admitted to hospital areas raised above had their records used by this study between January to December, 2009. A minimum of two pressure ulcer records registered by nursing and being admitted to the hospital over 24 hours are the inclusion criterias. It was a total of 70 records. The data was collected from records and registered in a previously developed instrument. It contained patient identification, clinical data and pressure ulcers assessment. Subsequently, by means of descriptive statistics the data were analyzed and presented in the form of tables and graphics to evidence the pressure ulcers prevalence and to characterize the injury development in the examined service.

The research project has been assessed and found compliant by Research Ethics Committee at the Santa Emilia de Rodat College (FASER), nº 034/2010, according to resolution nº 196/96 on National Health Committee.

RESULTS

One thousand two hundred forty-four records were selected during the data capture period in accordance with inclusion criterias raised before, of whom seventy patients had pressure ulcers development, in total of 5,6%.

Table 1 – Characteristics of pressure ulcers patients admitted to the Hospital, João Pessoa, Paraiba, 2009.

Variables	N	%
Gender:		
Male	38	54,3
Female	32	45,7
Age:		
< 50 years	11	15,7
51 to 60	09	12,9
61 to 70	14	20,0
71 to 80	17	24,3
> 80 years	19	27,1
Patients admitted:		
To 15 days	17	24,3
16 to 30 days	24	34,3
31 to 50 days	20	28,6
51 to 60 days	02	2,8
Over 60 days	07	10
∑	**70**	**100**

Source: patients records

The prevalence of 54,3% by male gender are shown in the table 1. Older age patients had predominance (44,3%) from 61 to 80 years old and over 80 years old. Most of patients had remained in the hospital from 16 to 30 days (34,3%) followed by 31 to 50 (28,6%) and to 15 days (24,3%).

Table 2 – Pressure ulcers development after being admitted to hospital. João Pessoa, Paraiba, 2009.

Variables	N	%
Length of Hospital stay:		
15 days	53	75,7
16 to 30 days	8	11,4
31 to 40 days	5	7,2
After 60 days	4	5,7
Σ	**70**	**100**

Most pressure ulcers had occurred in the first fifteen days after being admitted to hospital as shown in table 2. According to NPUAP categories, the existing injuries had been defined in stage I (22,8%), stage II (38,6%), stage III (21,4%) and stage IV (4,3%). Most advanced stages had been associated to patients with more than one injury. The sacral and calcaneus had been the most affected locals by ulcers in thirteen patients as shown in figure 1.

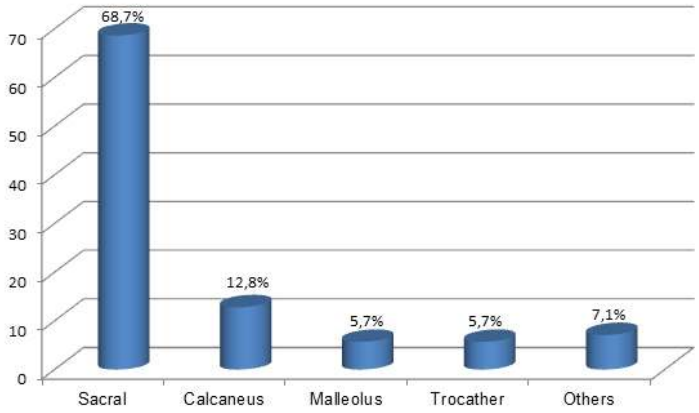


Figure 1 – Topographic Location of pressure ulcers. João Pessoa, 2009.

Pressure ulcers were most commonly identified at the sacral location (68,7%) and calcaneus (12,8%).

Table 3 – Risk Factors Identified in the sample. João Pessoa, Paraiba, 2009.

Variables	N	%
Underlying Diseases	63	90,0
Anemia[I]	34	48,6
Drugs Use[II]	19	27,1
Humidity exposure[III]	44	62,8
Altered level of awareness[IV]	22	31,4
Length of hospital stay	53	75,7
Σ	**70**	**100**

[I]hemoglobin level < 11mg/dl; [II]corticosteroids and vasopressors; [III]Incotinent; [IV]sedation, numbness or coma.

Underlying diseases were more common in most of the patients who had presented pressure ulcers (90%) followed by a total length of hospital stay over fifteen days (75,7%), humidity exposure (62,8) and anemia (48,6%).

DISCUSSION

According to the results, males and the elderly were most affected of whom had similar effect in others researches.

Articles and scientific books confirm the organic system, including the tegumentary, is affected in the senescence by changes which are exposed to development of skin injuries. Therefore, it demands professionals provide prophylactics measures to avoid pressure ulcers in the elderly group mitigating the suffering for them and their families.

The pressure ulcers prevalence increases with the age which is more common in patients more than seventy years old. The maintenance of elderly skin integrity needs further care considering the breakdown and healing vulnerability.

The total length of hospital stay and the beginning of pressure ulcers development reveals worrying evidence since most patients remained in the hospital more than fifteen days and the pressure ulcers started to develop within fifteen days after being admitted.

Similar results were obtained in a study performed in Joinville, Santa Catarina which verified the injury development within thirteen days in the surgery unit, eight days in the clinical unit and ten days in the intensive therapy unit. Other research performed in São Paulo, which deals with the same issue, identified pressure ulcers between the second and fifteenth days after being admitted to the hospital.

After analyzing the length of hospital stay, a study performed in two intensive therapy units, Natal, Rio Grande do Norte, has revealed a longer hospitalization increases the pressure ulcers development.

It is common opinion that length of hospital stay is directly related with pressure ulcers appearance, which might increase the risk of injuries development to older patients and comorbidity cases, which in turn aggravates the length of hospital stay and new injuries exposure.

These results reinforce the urgent need for client analysis and a planning of preventive interventions in the first hours

after a patient is admitted to avoid, or at least to delay the onset of this injury which is responsible for a longer hospital stay, healing may be slowed and might trigger other ailments. It is up to nursing staff and, especially the nurse responsible for the total care, daily assessment, risks evaluation, prescribe interventions, record the procedures and evaluate the achievements to prevent sores.

This study corroborated with other studies have shown more common affected location are sacral and calcaneus. These results are relevant to the patient situation because it occurs over a bony prominence as a result of pressure, friction and shear, factors considered more important in causing pressure ulcers.

Empirically, it is common opinion that the dorsal or supine position is more common to care-dependent patient because, at times, by clinical condition or the lack of time of the nurse staff which argues is too engaged. Therefore, these results point to a plan of care and the execution to these more affected locations with prophylactic measures, such as: recommended surface; repositioning patients every two hours; avoid friction and shear; avoid skin wetness, dirtiness and hydration; apply polyurethane film and hydrocolloid foam on more common affected sites and, especially raising awareness to patients about the importance of these measures.

The most prevalent diseases to pressure ulcer patients have been diabetes mellitus, hypertension and stroke. Formation of skin lesions has a strong association with these diseases since clinical conditions might further its development.

In this study, anemia is not considered an underlying disease, but a risk factor which contributes to pressure ulcers formation and the healing may be slowed by low level of oxygen support and cell nutrients. Anemia has presented 48,6% in the sample.

The incontinence was a common factor to wetness (62,8%), considering that patients were not wearing Foley catheter in its turn is another risk factor because of skin maceration and the weakening of surface tissue layers. Within this scope, the nurse staff have an important rule since they are responsible for patient care which includes some measures of skin protections, such as: hygiene and skin hydration, change the diaper in regular periods, wear a condom to drain urine to a collector and to keep the skin free from exposure, keep clean and stretch sheets and others measures in its turn might prevent pressure ulcers to patients.

An altered level of consciousness was also verified with 31,4% in this study. It decreases a perception to specific site injured, re-positioning, request care or to warn an exposure to urine. Neurological alterations become patients more care dependents, such as re-positioning and hygiene.

The vasopressors and corticosteroids use with 27,1% might have influence in the onset of lesions since it causes reaction in the organism, such as vasoconstriction and altered blood flow as well as other systemic alterations which might be triggered. In this context, Medeiros in his dissertion, by means of statistic test, has verified an association between medicine use and pressure ulcers development to the elderly admitted to the hospital.

The length of hospital stays over fifteen days with 75,7% was also evidenced in this study.

It is common opinion that other factors contribute to pressure ulcers development, such as altered nutrient status, hypoproteinemia, edema, pression, friction and shear but it was not identified because of lack or records. However, other important data registered by nurse staff were extracted in the health improvement of the patient, which reveals most patients were bedridden, immobile or had a cognitive deficit in its turn contribute to keep a patient on the bed subject to risk such as shear and friction. Therefore, by these factors, all those raised before and the characteristics of the injured (most of them are elderly), include the importance of multi-professional interaction in the care process in order to prevent pressure ulcers and to optimize the patient condition, improving the assistance quality.

CONCLUSION

This study identified prevalence according to parameters described by literature, but comparing with national survey, the prevalence is lower, which might not conclude as a result of not-development of the pressure sore to patients admitted to institution or under-reporting, by fact this research is retrospective in its turn is limited to patient records.

Most of ailments such as adjacent diseases, older individuals and the length of hospital stay are the most common diseases to have shown risk factors.

The pressure ulcer characteristics do not differ from other researches already published previously, which developed in the first fifteen days of hospital stay with most prevalence to sacral location and stage II.

The research has demonstrated to be a useful tool to outline the pressure sore in our view and to draw attention to health professionals about the pressure ulcer issue and its problems.

REFERENCES

ARAÚJO, T. M.; MOREIRA, M. P.; CAETANO, J. Á. Avaliação de risco para úlcera por pressão em pacientes críticos. Rev. enferm. UERJ., v. 19, n. 1, p.58-63. 2011. Disponível em: http://www.facenf.uerj.br/v19n1/v19n1a10.pdf. Acesso em 12 de jul 2012.

BRANDÃO, E. S.; SANTOS, J. A.; SANTOS, I. Úlceras por compressão: importância da avaliação do cliente. In: SILVA, et al. Feridas: fundamentos e atualizações em enfermagem. 3 ed. São Paulo: yendis, 2011.

COSTA, I. G. Incidência de úlcera por pressão em hospitais regionais de Mato Grosso, Brasil. Rev. Gaúcha Enferm., v. 31, n. 4, p.693-700. 2010. Disponível em: http://www.scielo.br/scielo.php?pid=S1983-14472010000400012&script=sci_arttext. Acesso em 09 de agosto de 2012.

FERNANDES, N. C. S.; TORRES, G. V. Incidência e fatores de risco de úlceras de pressão em pacientes de unidade de terapia intensiva. Cienc. Cuid. Saude, v. 7, n. 3, p. 304-310. 2008. Disponível em: http://periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/6484/3855. Acesso em: 14 jul 2012.

FREITAS, M. C. et al. Úlcera por pressão em idosos institucionalizados: análise da prevalência e fatores de risco. Rev. Gauch enferm., v. 32, n. 1, p.143-50. 2011. Disponível em: http://www.scielo.br/scielo.php?pid=S198314472011000100019&script=sci_arttext. Acesso em: 12 jul 2011];

GOMES, F. S. L. et al. Factors associated to pressure ulcers in patients at Adult Intensive Care Units. Rev Esc Enferm USP., v. 44, n. 4, p. 1065-71. 2010. Disponível em: http://www.scielo.br/pdf/reeusp/v44n4/en_31.pdf. Acesso em: 20 jul 2011.

GOMES, F. S. L.; MAGALHÃES, M. B. B. Úlcera por pressão. In: BORGES, E. L. et al. Feridas: como tratar. 2º Ed. Belo Horizonte: Coopmed, 2008. Cap.11, p. 189-223.

IRION, G. Feridas. Novas abordagens, manejo clínico e Atlas em cores. 2 ed. Rio de Janeiro: Guanabara Koogan, 2012.

MATTIA, A. L. et al. Úlcera por Pressão em UTI: fatores de risco e medidas de prevenção. Saúde Coletiva, v. 7, n. 46. p.296-299. 2010. Disponivel em: http://redalyc.uaemex.mx/src/inicio/ArtPdfRed.jsp?iCve=84215678003. Acesso em: 21 de set 2012.

MATOS, L. S.; DUARTE, N. L. V.; MINETTO, R. C. Incidência e prevalência de úlcera por pressão no CTI de um Hospital Público do DF. Rev. Eletr. Enf., v. 12, n. 4, p. 719-26. 2010. Disponível em:
http://www.revistas.ufg.br/index.php/fen/article/viewFile/8481/8495. Acesso em: 06 jul 2011.

MARTINS, D. A.; SOARES, F. F. R. Conhecimento sobre prevenção e tratamento de úlceras de pressão entre trabalhadores de enfermagem em um hospital de Minas Gerais. Cogitare Enferm., v. 13, n. 1, p. 83-7. 2008. Disponível em: http://ojs.c3sl.ufpr.br/ojs2/index.php/cogitare/article/view/11956/8437. Acesso em: 20 Ago 2011.

MEDEIROS, A. B. F. Úlcera por pressão em idosos hospitalizados: análise da prevalência e fatores de risco. Fortaleza, 2006. 125p. Dissertação (Mestrado em enfermagem). Universidade Estadual do Ceará, Fortaleza, 2006. Disponivel em:
http://www.uece.br/cmacclis/dmdocuments/adriana_bessa_fernandes_medeiro.pdf

MENEGON, D.B, et al. Implantação do protocolo assistencial de prevenção e tratamento de úlcera de pressão no hospital de clínicas de porto alegre. Rev HCPA. v. 27, n. 2, p. 61-4. 2007. Disponivel em:
http://seer.ufrgs.br/hcpa/article/view/2031/1174. Acesso em 12 de jan 2012.

MORO, A. et al. Avaliação dos pacientes portadores de lesão por pressão internados em hospital geral. Rev. Assoc Med Bras., V. 53, n. 4, p.300-4. 2007. Disponível em: http://www.scielo.br/pdf/ramb/v53n4/13.pdf . Acesso em 12 de jul 2012.

NPUAP Pressure ulcer stages – National Pressure Ulcer Advisory Panel, 2009 (internet) Disponivel em: http://www.npuap.org/resources/educational-and-clinical-resources/pressure-ulcer-categorystaging-illustrations/. Acesso em 15 de ago 2012.

ROCHA, J. A.; MIRANDA, M. J.; ANDRADE, M. J. Abordagem terapêutica das úlceras de pressão - intervenções baseadas na evidência. Acta Med Port., v. 19, p. 29-38, 2006. Disponível em: http://actamedicaportuguesa.com/pdf/2006-19/1/029-038.pdf. Acesso em: 14 de maio 2012.

SILVA, D. P. et al. Úlcera por pressão: avaliação de fatores de risco em pacientes internados em um hospital universitário. Rev. Eletr. Enf., v. 13, n. 1, p.118-23. 2001. Disponivel em: http://www.fen.ufg.br/revista/v13/n1/v13n1a13.htm. Acesso em 05 set 2012.

WOUND OSTOMY AND CONTINENCE NURSES SOCIETY (WOCN).Guideline for prevention and management of pressure ulcers.Mount Laurel (NJ): Wound, Ostomy, and Continence Nurses Society (WOCN); 2010, 96 p. (WOCN clinical practice guideline; n. 2). Disponível em: http://www.guideline.gov/content.aspx?id=23868. Acesso em 24 jan. 2012.

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PRESSURE ULCERS IN HOSPITALIZED PATIENTS: ANALYSIS OF THE PREVALENCE, RISK FACTORS AND EXISTING INJURIES

ABSTRACT

It was aimed to examine the prevalence of the pressure ulcers, risk factors, the elapsed time to develop it after being admitted to the hospital and the features examined by existing injuries. It is a documental and retrospective study with a quantitative approach performed in a government hospital in João Pessoa, Paraiba. The samples were composed by seventy medical records which have shown pressure ulcer registries. The data was analyzed by descriptive statistic. The prevalence of 5,6% was verified with masculine predominance (54,3%), patients over 65 years old (71,4%), patients from 31 to 50 days in-hospital (28,6%) and those that developed the injuries during the first fifteen days of hospitalization (75,7%). Risk factors more present were the underlying diseases (90%). Regarding the existing injuries (68,7%), the sacral and calcaneus areas (12,8%) and patients with stage II (35,7%). Patients more susceptible to develop pressure ulcers were identified in order to approve the care plan and install the appropriate preventive measures and treatment.

KEY-WORDS: Pressure ulcers; Prevalence; Risk Factors

ULCÈRE DE PRESSION EN PATIENTS HOSPITALISÉS: ANALYSE DE LA PRÉVALENCE, FACTEURS DE RISQUE ET BLESSURES INSTALLÉS

RÉSUMÉ

Cette étude visait à déterminer la prévalence des ulcères de pression (UCPs), lês facteurs de risque, Le temps écoulé pour son développement après l'hospitalisation et lês caractéristiques presente es par dês lésions installées. L'étude a été rétrospective, par documents et quantitative menée dans un hôpital public à João Pessoa-PB. L'échantillon était constitué de 70 dossiers médicaux contenanten registrement d'UCP. Les données ont été analysées à l'aide de statistique descriptive. Il a été verifié une prévalence de 5,6%, avec une prédominance dês bhommes (54,3%) âgés de plus de 60 ans (71,4%) hospitalisés de 31 à 50 jours (28,6%) qui ont développé la lésion pendant les 15 premiers jours d'hospitalisation (75,7%). Les facteurs de risque lês plus présents ont été les maladies sous-jacentes (90%). Em ce qui concerne lês blessures installés (68,6%) dans le sacrum et le calcanéum (12,8%), classes em stade II (35,7%). Il a été identifié les individus lês plus sensibles au développement de UCP, afin de rendre possible subventionnerdes actions de soins et mettre em œuvre des mesures de prévention et um traitement approprié.

MOTS-CLÉS: Ulcère de pression; Prévalence; Facteurs de risques.

ÚLCERA POR COMPRESIÓN EN PACIENTES HOSPITALIZADOS: ANÁLISIS DE PREVALENCIA, FACTORES DE RIESGO Y LESIONES INSTALADOS

RESUMEN

Este estúdio tuvo como objetivo determinar La prevalencia de las úlceras de compresión (CPU), factores de riesgo, el tiempo transcurrido para su desarrollodes pués de La hospitalización y de las características que presenta lesiones instalados. Cuantitativa documental retrospectivo realizado e nun hospital público de João Pessoa. La muestra consistióen 70 registros que tenían UCP registro. Los datos fueron analizados utilizando estadística descriptiva. Encontramos una prevalencia de 5,6 %, com um predomínio del sexo masculino (54,3 %) mayores de 60 años (71,4 %) ingresaron 31 a 50 días (28,6 %) que desarrollaron el logo tipo de lesiónlos primeros 15 días de hospitalización (75,7 %) . Cuantos más factores de riesgo estaban presentes para enferme dadessubyacentes (90 %). Encuanto a las lesiones instalados (68,6 %) enelhueso sacro y calcáneo (12,8 %),

clasificados como estadio II (35,7 %). Se identificaron los individuos más susceptibles al desarrollo de CPUs para subsidiar lãs acciones de atención y poner em práctica las medidas de prevención y El tratamiento adecuado .

PALABRAS CLAVE: úlcera por presión; prevalência; Factores de riesgo

ÚLCERA POR COMPRESSÃO EM PACIENTES HOSPITALIZADOS: ANÁLISE DA PREVALÊNCIA, FATORES DE RISCO E LESÕES INSTALADAS

RESUMO

Objetivou-se verificar a prevalência das úlceras por compressão (UCPs), os fatores de risco, o tempo decorrido para seu desenvolvimento após internação no hospital e as características apresentadas pelas lesões instaladas. Estudo retrospectivo, documental, quantitativo realizado em um hospital público de João Pessoa-PB. A amostra foi composta de 70 prontuários que apresentavam registro de UCP. Os dados foram analisados pela estatística descritiva. Verificou-se prevalência de 5,6% com predominância do gênero masculino (54,3%), maiores de 60 anos (71,4%), internados de 31 a 50 dias (28,6%) e que desenvolveram a lesão logo nos primeiros 15 dias de hospitalização (75,7%). Os Fatores de risco mais presentes foram às doenças de base (90%). Quanto às lesões instaladas (68,6%) na região sacral e calcâneo com (12,8%), classificadas em estágio II (35,7%). Identificaram-se os indivíduos mais susceptíveis ao desenvolvimento das UCPs de forma a subsidiar as ações de cuidado e implantar as medidas preventivas e de tratamento adequadas.

PALAVRAS-CHAVE: Úlcera por pressão; Prevalência; Fatores de risco