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DRG und Pflege – DRG et soins – DRG and Nursing

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- CINAHL, the Cumulative Index to nursing and Allied Health Literature
- Locatorplus (National Library of Medicine USA) <http://locatorplus.gov/>

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1. Literaturverzeichnis auf deutsch

Fischer W (2002). **Diagnosis Related Groups (DRGs) und Pflege : Grundlagen, Codierungssysteme, Integrationsmöglichkeiten.** Bern: H. Huber, 2002

Was hinter DRG-Systemen steckt, wird in diesem Buch beschrieben und aus der Sicht der Pflege besprochen. Anhand von Studien wird die mangelnde DRG-Homogenität belegt. Im Buch wird die Hypothese aufgestellt, dass eine Linderung möglich sein könnte, wenn die Pflege besser integriert würde. Dazu werden Instrumente zur Beschreibung der Pflege vorgestellt und Modelle der Integration der Pflege in DRG-Systemen. [Autor]

Bibliothèque : CDSP | Cote : KIS-1076

Fischer W (1999). **Die Bedeutung von Pflegediagnosen in Gesundheitsökonomie und Gesundheitsstatistik.** 2. erweiterte Aufl. Wolfertswil: ZIM (Zentrum für Informatik und wirtschaftliche Medizin), 1999

Abstract : Pflegediagnosen könnten Teil eines erweiterten Minimaldatensatzes von Krankenhäusern werden, der momentan nur ärztliche und administrative Daten enthält. Er wird aus ökonomischen und epidemiologischen Gründen seit 1998 auch in der Schweiz eingefordert. Diese Entwicklungen stellen die Pflegenden vor zwei wichtige Fragen: Handelt es sich bei Pflegediagnosen um relevante Informationen, welche die Pflege in ökonomische Diskussionen einbringen kann? Und: Gibt es bereits Begriffssysteme für Pflegediagnosen, die so weit entwickelt sind, dass sie als allgemein anerkannte Standards eingesetzt werden könnten? In dieser Studie wird die erste Frage vertieft: Welche Informationen der Pflege sind nützlich und notwendig, um ökonomische Fragestellungen beantworten zu können? Sie liefert somit Entscheidungsgrundlagen für die Anträge, welche Berufsverbände der Pflegenden auf politischer und krankenhausbezogener Ebene stellen werden. [Autor]

Bibliothèque : CDSP | Cote : PBW-1102

Baumberger D (2001). **Pflegediagnosen als Indikator der Streuung des Pflegeaufwandes in DRGs.** Schaffhausen: D. Baumberger, 2001.

http://www.lep.ch/pdf/Masterarbeit_Baumberger.pdf

Zweck: Die Studie untersucht die Streuung des Pflegeaufwandes in einzelnen DRGs und den Einfluss von Pflegediagnosen, DRGs, Aufenthaltsdauer, Urlaub, Alter und Geschlecht auf den Pflegeaufwand.

Bibliothèque : CDSP | Cote : PBW-1131

Kahlisch A, Kobold C, Rau B (2004). **Pflege im DRG-System: die Fallgruppe sagt wenig über den Pflegebedarf.** *Pflege Zeitschrift* 2004; 57(1):26-29.

Joa C, Faschingbauer C (2003). **Kosten- und Leistungsrechnung im Intensivpflegebereich: INPULS macht den Aufwand deutlich.** *Pflege Zeitschrift* 2003; 56(9):651-655.

Traenapp H (2003). **Leistungserfassung in der Intensivpflege: Unterschiede werden sichtbar.** *Pflege Zeitschrift* 2003; 56(9):656-660.

von Gagern-Unkel UF (2003). **Die Arbeitsorganisation im Krankenhaus muss sich entscheidend ändern : die Umsetzung der DRGs und ihre Auswirkungen.** *Pflege Aktuell* 2003; 57(2):75-77.

Bahar A (2002). **Dokumentation von Pflegeproblemen und pflegerelevanten Diagnosen bei dem neuen pauschalierten Abrechnungssystem DRG.** *Kinderkrankenschwester* 2002; 21(8):336-344.

Baumberger D (2002). **Erklärung des unterschiedlichen Pflegeaufwandes pro DRG: was Pflegediagnosen leisten können.** *Pflege Zeitschrift* 2002; 55(7):493-496.

Isfort M (2002). **Leistungserfassung in der Pflege (LEP): denn Sie wissen, was Sie tun.** *Pflege Zeitschrift* 2002; 55(7):497-500.

Lanz CJ, Zinn W (2002). **Diagnosebezogene Tätigkeitsanalyse: spart Zeit und liefert Argumente.** *Pflege Zeitschrift* 2002; 55(4):262-265.

Pohl C (2002). **Darstellung von Pflegebedürftigkeit und Pflegeaufwand: was medizinische Diagnosen nicht leisten können.** *Pflege Zeitschrift* 2002; 55(8):576-581.

Modellkonzept: medizinisch-pflegerische Patientendokumentation (2001). *Pflege Aktuell* 2001; 55(6):354-356.

Hubinger HD, Reichel G (2001). **Herausforderungen durch die DRG: Pflegeleistung sichtbar machen.** *Pflege Zeitschrift* 2001; 54(11):791-796

Keppler P (2001). **Australische Expertinnen berichten über ihre Erfahrungen: Einfluss der DRG auf die Pflege.** *Pflege Zeitschrift* 2001; 54(4):234-235.

Kunzel A, Schanz B (2001). **Wo steht die Pflege nach Einführung des neuen Entgeltsystems?** *Krankenpflege Journal* 2001; 39(10-12):305-311.

Rotschopf H (2001). **DRGs und Pflege.** *Pflege Aktuell* 2001; 55(4):209-211.

Rehwinkel I (2000). **Diagnosis Related Groups : (k)ein Thema für die Pflege? (Teil 1). Hintergründe der Einführung von DRGs in der Bundesrepublik.** *Pflege Aktuell* 2000; 54(9):484-487.

Rehwinkel I (2000). **Diagnosis Related Groups : (k)ein Thema für die Pflege? (Teil 2).** *Pflege Aktuell* 2000; 54(10):555-559.

Schrader U (2000). **DRGs : der Einfluss auf die Pflegeinformationssysteme.** *Pflege Aktuell* 2000; 54(10):550-553.

Faschingbauer C (1999). **Pflegekategorien als Basis der Bestimmung des Pflegeaufwands auf der Intensivstation : ein Modell der Intensivstation der Neurochirurgischen Klinik der Universitätsklinik Heidelberg.** *Pflege Zeitschrift* 1999; 52(9):suppl-15.

Scheiwein V (1999). **Aufgaben der DGKS in der Altenpflege.** *Osterreichische Krankenpflegezeitschrift* 1999; 52(5):22-24.

Tilquin C (1997). **Messung des Pflegeaufwandes und DRG's.** *PCS News* 1997;(25):7-10.
<http://www.isesuisse.ch/de/veroeffentlichungen/pcs25/tilquina.htm>

2. Une sélection de références en français

Nakov K (2004). **Le surcoût des soins intensifs est-il adéquatement reflété dans le système de classification APDRG ?** Lausanne: IEMS (Institut d'économie et de management de la santé), 2004
Abstract : Avec l'introduction des APDRG comme nouveau système de remboursement des hôpitaux du canton de Vaud, un des problèmes émergeant liés à l'hypothèse d'imparfaite homogénéité des DRGs est celui du financement des cas nécessitant des soins intensifs.
Bibliothèque : CDSP | Cote : LME-1000-V63

Nakov K, Chale JJ (2004). **Tarification à l'APDRG en Suisse : risques sur le financement des soins intensifs ?** *Journal d'économie médicale* 2004; 22(7/8):355-366.

Abstract : L'objectif premier de l'étude est de tester l'homogénéité des APDRG dans l'optique du financement des séjours pouvant comprendre un passage en Soins Intensifs (SI). Le second objectif est d'identifier les facteurs pouvant influencer de manière significative la variabilité de la durée de séjour et des coûts et d'élaborer un modèle de prédiction du recours aux SI pouvant servir d'outil de contrôle administratif des établissements dotés de SI. L'étude est basée sur des données de patients hospitalisés au Centre Hospitalier Universitaire Vaudois (CHUV) entre le 01.01.2000 et le 31.12.2001 et regroupés dans 605 APDRG. [Extrait du résumé des auteurs, p. 355]
Bibliothèque : CDSP | Cote : ART-3905

Holstein J, Duportail P, Wilquin M, Duportail F, Tardy J, Lepage E (2002). **Variables explicatives de la charge en soins infirmiers dans le PMSI SSR.** *Journal d'économie médicale* 2002; 20(5):291-299.
Abstract : Dans l'outil PMSI SSR (Soins de suite et de réadaptation), la charge en soins infirmiers est approximée par la dépendance physique des patients et par leurs diagnostics. Notre étude, menée dans 3 établissements de Soins de suite et de réadaptation, avait pour objectif de vérifier si la part de l'intensité des soins infirmiers expliquée par les variables de dépendance et de morbidité était réellement pertinente. En plus des variables PMSI recueillies en routine dans les services, les trois établissements considérés ont recueilli pendant un semestre la charge en soins infirmiers évaluée par la méthode des SIIPS. (résumé d'auteur)

Delaire f, Czernichow P, Cuvillier P, Germain B (1998). **Prise en compte des soins infirmiers dans le PMSI : étude pilote dans 3 services hospitaliers publics.** *Journal d'économie médicale* 1998; 16(7-8):477-486.

Abstract : A partir d'une mesure de la charge en soins infirmiers par la méthode PRN ou SIIP auprès de trois groupes de population, l'auteur a voulu vérifier l'hypothèse selon laquelle la mesure de soins infirmiers délivrés au cours des hospitalisations explique la durée du séjour des patients, indépendamment des données déjà recueillies pour les Groupes Homogènes de Malades (GHM).

Closon MC, López Novella M (1997). **Résumé infirmier minimum, résumé clinique minimum : outils d'évaluation, de gestion et de financement des soins infirmiers : recherche "coûts-pathologie".** [Bruxelles]: Ministère des affaires sociales, de la santé publique et de l'environnement (Belgique), 1997
Abstract : Ce document présente en première partie une analyse des données RIM [Résumé infirmier minimum] et RCM [Résumé clinique minimum] à partir d'échantillons de 15 jours (utilisation d'un système de pondération pour les données RIM; modélisation de la charge infirmière relative, etc). Il traite en seconde partie de l'utilisation des indicateurs de besoins dans le système de financement des soins infirmiers (présentation générale d'un nouveau système de financement; estimation des groupes homogènes de patients; estimation des poids attribués aux différents groupes homogènes en termes de la lourdeur de la charge de travail). Il définit en troisième partie des outils de gestion en présentant l'étude américaine: "Nursing resource definition in DRGs" et l'étude australienne : "The patient assessment and information system [PAIS]". En annexe figurent les APDRGs présents dans les échantillons RIM-RCM de 15 jours, les variables structurelles, et la fréquence d'apparition des différentes activités infirmières/étude PAIS

Bibliothèque : CDSP | Cote : PBW-1081

Mougeot M, Naegelen F (1997). **La réglementation hospitalière : tarification par pathologie ou achat de soins ?** *Economie et prévision* 1997; 3-4(129-130):207-220.

Abstract : De fait, si l'élaboration de DRG a suscité en France un grand nombre de publications sur les systèmes d'information, les méthodes de classification, ou sur la comptabilité analytique hospitalière, elle a peu fait l'objet de réflexions sur la logique inhérente à ce mode de réglementation et de financement des soins. Le but de cet article est la mise en évidence de cette logique et la comparaison des performances d'une organisation fondée sur le paiement prospectif par DRG et une organisation reposant une logique d'achat de soins

Bibliothèque : CDSP | Cote : ART-1047

Tilquin C (1997). **Mesure des charges en soins et DRG's.** *PCS News* 1997;(25):5-7.

<http://www.isesuisse.ch/fr/publications/pcs25/tilquin.htm>

Association des hôpitaux du Québec, Fortin J (1996). **Quantification et analyse de variance de l'intensité des soins infirmiers par DRG dans un hôpital québécois**. Montréal: AHQ (Association des hôpitaux du Québec), 1996

Association des hôpitaux du Québec, Desrosiers G (1993). **La gestion contemporaines des soins infirmiers à l'heure des DRG**. Montréal: AHQ (Association des hôpitaux du Québec), 1993
Abstract : Le premier chapitre de l'ouvrage présente la toile de fond de la progression des systèmes d'information de gestion (SIG) dans le système de santé québécois. Le deuxième traite de l'impact de ces orientations sur l'élaboration spécifique du SIG en soins infirmiers. Le troisième expose le cadre de référence servant d'appui aux projets DESIGN (DEveloppement de Systèmes d'Information de Gestion en Nursing) mis au point par l'AHQ. Enfin, en annexe, le lecteur trouvera une série de résumés d'articles permettant de se familiariser avec le sujet. Tout au long du document et à la fin de celui-ci, une bibliographie appuiera les travaux de ceux et celles qui désirent poursuivre leur recherche. [Auteurs]
Bibliothèque : CDSP | Cote : PBW-1122

Sermes W (1989). **Nouveaux critères pour la classification des patients : "Nursing Related Groups" : une recherche en cours**. *Krankenpflege - Soins Infirmiers* 1989; 82(7):60-63.

3. A selection of references in English

3.1 Key articles of J.M. Welton & E.J. Halloran

Nursing diagnosis and DRG : file / compiled by : CDSP (Centre de documentation en santé publique)
Bibliothèque : CDSP | Cote : PBW-1110

Ce dossier contient un article en français : La durée d'hospitalisation et l'allocation des ressources: les DRG sont insuffisants! [selon EJ Halloran] / par Gyslaine Desrosiers. In: *Artère*, n° spécial (1992), 1 p, ainsi que les articles en anglais cités ci-dessous :

Welton JM, Halloran EJ (2000). **A comparison of nursing diagnosis to the DRG and APR-DRG in predicting hospital death and discharge to a nursing home**. *Nursing Informatics 2000: the evolution of technology and nursing: 7th International Congress on Nursing Informatics*, Auckland, NZ; 5 p. [> CD-ROM]

Abstract : The lack of nursing data in the standardized hospital discharge abstract for the United States produces a gap in our understanding of the relationship between nursing care and patient outcome. This study addresses that issue and tests whether nursing diagnosis is a predictor of two clinical outcome variables, death and discharge to a nursing home. We performed a secondary data analysis of daily collected nursing diagnosis (NDX) and collapsed these data as means on to the discharge abstract of 75,629 adult, nonpsychiatric patients admitted to a university hospital between 1986 and 1989. NDX was compared to the DRG and APR-DRG using logistic regression. Fifty percent of the data were randomised into a development data set, the remainder of the data (validation data set) were tested using models from the development data set to evaluate for model over-fitting. NDX, DRG and APR-DRG were significantly associated with death and discharge to a nursing home ($p < .0001$) and when NDX was added to models containing either the DRG or APR-DRG, explained variance and model discrimination improved for both dependent variables ($p < .0001$). Nursing diagnosis is an independent predictor of two hospital clinical outcome variables. The improvement in explanatory power and discrimination outcome variables. The improvement in explanatory power and discrimination when nursing diagnosis is added to the existing DRG and APR-DRG demonstrates that data collected by nurses is complimentary and not redundant to the DRG and APR-DRG. The findings support the inclusion of nursing diagnosis in the hospital discharges abstract. [Authors]

Welton JM, Halloran EJ (1999). **A comparison of nursing and medical diagnoses in predicting hospital outcomes.** *Proceedings / AMIA 1999; Annual Symposium.*:171-175.

Abstract : The main premise of the Nursing Minimum Data Set (NMDS) is that nursing data should be included in the hospital discharge abstract. Yet to date, little empirical evidence has been published to measure the efficacy or usefulness of these nursing data elements. We report the results of a comparison between a daily collection of nursing assessments using nursing diagnoses (NDX) to the Diagnostic Related Group (DRG) and the All Payer Refined DRG (APR-DRG) in their ability to predict three common outcome variables: hospital days, ICU day, and total charges. A secondary data analysis was performed from a large existing data set of four years patient data from a Midwest University hospital. Findings: NDX is significantly associated with hospital length of stay, ICU length of stay, and total charges. NDX also improves explanatory power when added to models with DRG or APR-DRG. This suggests that nursing data compliments existing data and is not redundant with the DRG or APR-DRG. The findings also suggest that NDX explains a different portion of the variance of the three outcome variables in this series. The results of this study support the argument that nursing data should be included in the hospital discharge abstract [Author]

Halloran EJ, Welton JM, Englehardt SP, Thorson MW (1997). **Patient outcomes and nurses' classification data.** *Studies in Health Technology & Informatics* 1997; 46:94-98.

Abstract : The patient classifications done by nurses for all adult patients (n = 15,500) discharged from an urban teaching hospital in one year were retrieved and analyzed by discharge status. Classification results were summarized by physical-functional, psychological-social, and dependence categories and were associated with discharge disposition; patients discharged home were less dependent than others discharged to nursing homes or those who died in the hospital. Diagnosis related group (DRG) payment weights were somewhat independent of the patient classification scores and were not associated with adverse outcomes

Halloran EJ, Payne F. (1988). **Computerized nurse assessment of patient functional and social status** In: *Nursing and computers: 3rd International Symposium on Nursing Use of Computers and Information Science, 20-23 June 1988*, p. 538-548

Abstract : To optimally manage a patient's hospital course, data explanatory of patient nursing care dependency are required. A nurse management information system, based on patient case mix and nurse capability enables those responsible for allocating nursing resources to managed patient care more effectively and efficiently. This nursing case mix management system complements the DRG medical data system, the social service data system, and together these three discipline-related data sources provide information highly predictive and explanatory of patient resource use, cost, and length of stay. [Extr. Article, p. 539]

Halloran EJ, Payne F. (1988). **Conceptual considerations, decision criteria, and guidelines for development of the nursing minimum data set from an administrative perspective** In: *Identification of the nursing minimum data set / HH Werley, NM Lang*, 1988, p. 48-66

Abstract : The nursing minimum data set (NMDS) should provide the nurse administrator with some measure of the demand for nursing services, as well as a measure of the capability and cost of meeting the demand. The measures employed must be standardized to facilitate comparison of demand and allocation in the variety of settings where nursing is practiced. A comprehensive patient classification tool and a description of the nurses assigned to give care are the elements of an NMDS that offer considerable promise for assisting nurse administrators in resource allocation decision making to achieve effective and efficient nursing care. [...] The focus of this chapter is to describe elements of a nursing case-mix management system designed to enable more optimum allocation of nursing resources and to illustrate its use by describing a system under research and development. A nursing information system would complement the DRG medical data system and the social service data system, and together these three discipline-related data sources would provide information highly predictive and explanatory of patient resource use and cost. [Extr. Article, p. 48-50]

3.2 Other documents of interest

Adomat R, Hewison A (2004). **Assessing patient category/dependence systems for determining the nurse/patient ratio in ICU and HDU: a review of approaches.** *Journal of Nursing Management* 2004; 12(5):299-308.

Abstract : BACKGROUND: A huge range of patient classification systems/tools are used in critical care units to inform workforce planning, however, they are not always applied appropriately. Many of these systems/tools were not originally developed for the purposes of workforce planning and so their use in determining the nurse:patient ratio required in critical care settings raises a number of issues for the organisation and management of these services. AIM: The aim of this paper is to review the three main assessment systems that are commonly used in critical care settings in the UK and evaluate their effectiveness in accurately determining nurse : patient ratios. If the application of these systems/tools is to enhance care, a thorough understanding of their origins and purpose is necessary. If this is lacking, then decisions relating to workload planning, particularly when calculating nurse : patient ratios, may be flawed. CONCLUSIONS: Patient dependency/classification systems and patient dependency scoring systems for severity of illness are robust measures for predicting morbidity and mortality. However, they are not accurate if used to calculate nurse : patient ratios because they are not designed to measure nursing input. Nursing intensity measures provide a useful framework for calculating the cost of providing a nursing service in critical care and can serve as a measure of nursing input, albeit a fairly basic one. However, many components of the nursing role are not "accounted" for in these measures. IMPLICATIONS: The implications of these findings for the organization and management of critical care services are discussed. Careful consideration of these areas is vital if a cost efficient and cost-effective critical care service is to be delivered

Hall LM, Doran D, Pink GH (2004). **Nurse staffing models, nursing hours, and patient safety outcomes.** *Journal of Nursing Administration* 2004; 2004 Jan; 34(1):41-45.

Abstract : BACKGROUND DATA: Limited research has been conducted examining the effect of nurse staffing models on costs and patient outcomes. OBJECTIVE: The objective of this study was to evaluate the effect of different nurse staffing models on costs and the patient outcomes of patient falls, medication errors, wound infections, and urinary tract infections. METHODS: A descriptive correlational study was conducted in all of the 19 teaching hospitals in Ontario, Canada. The sample comprised hospitals and adult medical, surgical, and obstetric inpatients within those hospitals. RESULTS: The lower the proportion of professional nursing staff employed on a unit, the higher the number of medication errors and wound infections. The less experienced the nurse, the higher the number of wound infections. Nurse staffing models that included a lower proportion of professional nursing staff in the mix used more nursing hours in this study. CONCLUSIONS: The results of this study suggest that a higher proportion of professional nurses in the staff mix (RNs/RPNs) on medical and surgical units in Ontario teaching hospitals are associated with lower rates of medication errors and wound infections. Higher patient complexity was associated with greater patient use of nursing care resources

Heslop L, Diers D, Gardner B, Poh BC (2004). **Using clinical data for nursing research and management in health services** [Review]. *Contemporary Nurse* 2004; 2004 Jul-Aug; 17(1-2):8-18.

Abstract : Nurses generate large quantities of data at different operational levels in a health service organization. Administrative managerial data include the number of nursing hours per patient day and cost data related to nursing services while clinical data include the documentation of direct patient care only. In this paper, we explain standard clinical data elements in the HIS (Hospital Information System). The construction of the data is traced from patients' medical records to coding procedures within ICD (International Classification of Disease) classification and DRG (Diagnostic Related Groups) of casemix. Examples are given from Australian data and definitions, but much of the same information can be found in hospital information systems throughout the world. Practical applications that demonstrate how patient data can be used for research and management purposes in nursing are given. Finally, future directions and issues related to the use of datasets for nursing research are explored

Spilsbury K, Meyer J (2001). **Defining the nursing contribution to patient outcome: lessons from a review of the literature examining nursing outcomes, skill mix and changing roles** [Review]. *Journal of Clinical Nursing* 2001; 10(1):3-14.

Abstract : A review of the evidence to define the nursing contribution to patient outcome is presented. The review relies on work related to nursing sensitive outcomes, skill mix and changing roles. Methodological difficulties associated with these studies are highlighted. Areas requiring further research are discussed. It is suggested that experimental evidence is not always appropriate, when attempting to describe nursing activity. The authors advocate that new methodologies, in particular practitioner-centred research, are needed to unpack the nature of nursing. [References: 111]

Diers D (1999). **Casemix and nursing** [Review]. *Australian Health Review* 1999; 22(2):56-68.

Abstract : The American Nurses' Association did not embrace the introduction of diagnosis related groups, believing they would not recognise nursing activity nor acuity and would bring about the economic demise of nursing. Australian nurses, by contrast, recognised the window of opportunity that the work towards Australian national diagnosis related groups and funding mechanisms provided to move nursing resources into the political and policy mainstream. This paper reviews the American and Australian nursing experience with casemix, acuity and cost weighting. It uses examples from more recent work to argue for the use of casemix information in new ways, for 'process improvement' or 'evidence-based management'. The paper concludes that the next great leap forward in casemix may require attention to building the information and human infrastructures, so that the valuable clinical-financial information produced by casemix-based information systems can truly inform management and policy. [References: 38]

Campbell T, Taylor S, Callaghan S, Shuldham C (1997). **Case mix type as a predictor of nursing workload**. *Journal of Nursing Management* 1997; 1997 Jul; 5(4):237-240.

Abstract : In the current health care service, the need to measure nursing workload has become the subject of major debate. Attempts have been made to relate workload and nurse staffing; however, despite there being systems for this there appears to be no single recognized formula. Case mix groups have been advocated as a useful tool for measuring nursing workload, particularly in Canada where work continues. Case mix groups work on the basis that patients who are clinically similar and use equivalent resources are grouped using procedure and diagnostic codes. The retrospective study examines the relationship between case mix, resource utilization and nursing effort to determine whether future workload could be predicted using these parameters. The sample included 798 patients and 30 nurses over the period 1993-1994 with analysis of data from the Patient Administration System (PAS) and TEAMWORK, which purports to measure nurse workload. Results showed that there was little relationship between nursing workload and case mix grouping and recommendations are made for future research

Diers D, Bozzo J (1997). **Nursing resource definition in DRGs. RIMS/Nursing Acuity Project Group** [Review]. *Nursing Economics* 1997; 15(3):124-130.

Abstract : The use of traditional nurse-specific patient classification/acuity systems for staffing are obsolete as they do not interact with other elements of hospital information systems (HIS). In the face of rapidly advancing managed care penetration the challenge for nursing has become the capability to measure and manage cost, quality, and outcomes by integrating nursing resource information into the standard HIS spawned by DRGs. Earlier efforts to quantify nursing relative intensity measures and correlate them with DRGs were not successful. New health care software technology (as well as combined financial and clinical department support) can now provide integrated clinical information and financial information by DRG for each patient's clinical record. Expert clinician medical-surgical and ICU nursing panels were empowered to evaluate and arrive at group consensus placing designated DRGs in clusters according to their average nursing care resource requirements. The method was tested and validated. [References: 18]

Fanker S (1996). **Issues in casemix funding for acute inpatient psychiatric services and their relevance to mental health nursing**. *Australian and New Zealand Journal of Mental Health Nursing* 1996; 5(3):95-102.

Abstract : With increased recognition by government, health administrators, and clinicians of the need to simultaneously contain health expenditure, improve the productivity and efficiency of health services and maintain quality of patient care, applications of casemix funding have been advocated as an alternative

means of financing acute hospital care. Currently in Australia, the Commonwealth's casemix development program is encouraging the States and Territories to participate in certain casemix initiatives. Acute psychiatric hospital care and treatment have been excluded from the initial stages of the implementation of casemix in recognition of a number of inherent obstacles or challenges affecting the utility and accuracy of casemix in funding the psychiatric sector. Despite anecdotal claims that the reduced length of stay that often occurs under casemix payment systems may negatively impact upon the quality of care and patient outcomes, to date little empirical research has been directed towards measuring the potential impact of psychiatric casemix on the quality of patient care. Psychiatry cannot afford to ignore the casemix debate on account of its current exclusion from the early phases of implementation. To do so is to run the risk of having casemix imposed at some later stage in the absence of consultation. In the meantime it is vital that mental health professionals, including nurses, participate in the development and implementation of casemix, and contribute to research aimed at increasing or maximizing the relevance of casemix to the funding of psychiatric services. [Author]
Bibliothèque : CDSP | Cote : ART-1356

Biordi DL (1995). **Accounting for nursing costs by DRG... selected authors from 1985 update their articles.** *Journal of Nursing Administration* 1995; 1995 Jan; 25(1):6-8.

Abstract : This study demonstrates the feasibility of determining total nursing costs by DRGs and reinforces the findings of previous studies using the patient classification system methodology. Study implications regarding population trends, inequities of nursing resource use by DRGs, and others are discussed also. A final note warns of the potential liability of isolating nursing costs

Ballard KA, Gray RF, Knauf RA, Uppal P (1993). **Measuring variations in nursing care per DRG.** *Nursing Management* 1993; 1993 Apr; 24(4):33-36.

Cockerill R, Pallas LO, Bolley H, Pink G (1993). **Measuring nursing workload for case costing.** *Nursing Economics* 1993; 1993 Nov-Dec; 11(6):342-349.

Abstract : It is important for nurse executives to understand the consequences of different methods of measuring nursing costs in determining total patient care costs. Nursing is the largest component of a case cost and the study reported in this article examined the impact of using different nursing workload measurement systems in developing case costs and how they relate to nurse executives. The considerable consequences of these findings for case costing are discussed

Eckhart JG (1992). **Meta-analysis on costing out nursing services** [Doctoral Dissertation] (University of San Diego) ; D.N.SC. 212 p.

Abstract : This descriptive meta-analytic study investigated 73 primary studies on costing out nursing services. A critical review of the literature revealed that findings from the various published and unpublished studies were inconsistent and inconclusive. This meta-analysis integrated the literature to identify the relationships between nursing costs and a second variable. The most frequently reported variables among the primary studies were compared using Pearson r correlations and percentages. The variables of total and direct nursing costs were correlated to the variables of length of stay, direct nursing care hours, hospital costs, and diagnostic related grouping (DRG) reimbursements. Analysis was conducted two ways. First the studies were treated as a single value for each variable reported. In addition, relationships were examined between the variables for frequently reported DRGs. Treating each study as a single finding, the research revealed statistically significant correlations between several variables. Total nursing costs were found to correlate .85 to direct nursing care hours, .99 to hospital costs, and .65 to length of stay. Direct nursing costs revealed .94 correlations to direct hours, .95 to hospital costs, and .83 to length of stay. Nursing costs did not correlate, with any statistical significance, to DRG reimbursements. When frequently studied DRGs were examined, only eight yielded statistically significant results, although no consistency between the variables was noted. When percentages were calculated, total nursing costs were reported to be 22.15% of hospital costs and direct nursing costs were found to be 15.68%. The major benefit nursing derives from costing out services is the increased ability to justify, monitor, and control costs within the cost-conscious health care environment. The use of meta-analysis, with descriptive primary studies, is validated as a tool for summarizing nursing knowledge and advancing nursing practice. A major limitation of this study was the different definitions of direct nursing care and

direct nursing costs found among the primary studies. For future nursing research, specific definitions for total and direct nursing costs and direct nursing care are recommended. [Author]

Patterson C (1992). **The economic value of nursing** [Review]. *Nursing Economics* 1992; 1992 May-Jun; 10(3):193-204.

Abstract : The economic value of nursing relates to the purchaser's perspective. A three-level model of nursing services purchasers is presented. Selected economic/management concepts are examined in relation to nursing's economic value and these three purchaser perspectives

Stefan S, Gillies DA, Biordi D (1992). **Nursing care costs for a DRG sub-group.** *Nursing Economics* 1992; 1992 Jul-Aug; 10(4):277-281.

Abstract : This study determined the average cost of nursing care for two DRGs and evaluated how a specific nursing intervention, Phase I Cardiac Rehabilitation, impacts on these costs. A unit-based methodology to determine the cost of providing nursing care to patients who stay on more than one nursing care unit during their hospital stay will facilitate decision making by nurse administrators and clinicians to contain rising health care costs

Bostrom J, Mitchell M (1991). **Relationship of direct nursing care hours to DRG and severity of illness.** *Nursing Economics* 1991; 9(2):105-111.

Abstract : Great variation in nursing resource use is documented within DRGs. Much of this variation may be explained by patient severity of illness. Variance in nursing resource use within DRGs can be reduced by using a severity of illness instrument to score patients

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Rubenstein L (1991). **Measuring the quality of nursing surveillance activities for five diseases before and after implementation of the DRG-based prospective payment system.** In: Rubenstein L, editor. *Patient outcomes research: examining the effectiveness of nursing practice: proceedings of the State of the Science Conference, September 11-13, 1991.* Bethesda, MD: National Institutes of Health, 1991: 39-53

Abstract : The nursing quality measures we discuss here evaluate whether nurses performed indicated assessments of key signs and symptoms (nursing surveillance). Results for our nursing surveillance scales showed adequate interrater and interitem reliability. Nursing performance on most criteria showed adherence to the criteria about 70 to 90 percent of the time. The validity of the nursing surveillance scale items was demonstrated by the presence of a relationship between good (high level of) nursing surveillance and patient survival at 30 and 180 days after hospital admission, adjusting for sickness at admission (p less than .05). We found that nursing surveillance improved between 1981-2 (before DRG's) and 1985-6 (after DRG's); based on the relationship between nursing surveillance and subsequent patient mortality, the change in nursing surveillance would be expected to account for a mortality reduction, in the post-DRG period, of .6 to .8%. The improvement in nursing surveillance was accompanied by improvements in physician assessment, diagnosis, and treatment. Overall, improvements in the quality of care across the five medical conditions were associated with a 1 percentage point reduction in 30-day mortality rates after the introduction of the Prospective Payment System. (Abstract Truncated)

Villemare ME (1991). **Nursing intensity: relationship between predicted and actual nursing resource consumption and the effect on patient outcomes.** [Doctoral Dissertation] (University Of California, San Francisco) 1991; D.N.S. 197 p.

Abstract : The purpose of this research was to determine the effect of providing predicted hours of nursing care on the outcomes of cost of nursing care and length of stay (LOS). A nursing intensity of patient care model was developed to provide the conceptual framework. Data for this correlational study were collected at three acute care facilities in Northern California during October, 1989 for Phase I and from December, 1989 to July, 1990 for Phase II. During Phase I, predicted and actual hours provided to a sample of 120 patients were obtained on one medical and on surgical unit at each of the sites. Audits of the medical records provided the predicted and actual hours for each patient for each shift on four study days. Regression analysis found predicted hours explained 83.8% of the actual hours provided to individual patients. Predicted and actual unit hours for the six study units were highly correlated and ranged from ($r = .795$ to $r = .995$). Responses to a Perceptions of Staffing Adequacy Questionnaire were

congruent with the individual and unit level of staffing. During Phase II, data were collected on a total sample of 240 patients admitted to one of three study units with a diagnoses of one of the four selected Diagnosis Related Groups (DRGs). Records were audited until a sample of 20 patients in each DRG at each site was attained. Results of multiple regression of predicted and actual hours to LOS and cost of care were significant with respective R squared of .927 and .930. However, significant differences were also found between the predicted and actual hours of care. Analysis of this variance between predicted and actual hours indicated patients who received the predicted hours of care had shorter lengths of stay and lower costs of nursing care. These relationships were dependent upon the hospital to which the patient was admitted, and the DRG assigned. Complex relationships were found between the hours of care, staff mix, LOS, and cost of care. Standard costing techniques were defined and applied consistently across sites to determine cost ratios and the cost of care. Direct nursing costs accounted for 20% of DRG reimbursements and 25% of total hospital costs for this sample. (Scientific symbols modified where possible in accordance with CINAHL policy.)

Levine-Aruff J, Groh DH (1990). **The allocation of scarce nursing resources.** *Nurse Managers' Bookshelf* 1990; 1990 Mar; 2(1):130-156.

Barhyte DY, Glandon GL (1988). **Issues in nursing labor costs allocation.** *Journal of Nursing Administration* 1988; 1988 Dec; 18(12):16-19.

Abstract : Prospective payment has created a desire for improved internal operating efficiency by nurse executives and hospital administrators. Identifying nursing costs is one step in obtaining those efficiencies. Improved nursing cost allocation methods have been developed but these systems are costly to implement. Finding a low cost alternative to such systems would be valuable. The authors present direct comparisons of conventional daily and acuity based nursing labor costs allocation systems. Consistent with the findings of others, they demonstrate substantial differences between these methods. There is a high correlation of nursing labor costs with the patient's ancillary costs. However, the correlation is not sufficiently strong to use as a proxy for nursing costs. Consequently, nurse executives should strive to implement nursing cost allocation systems

Cromwell J, Price KF (1988). **The sensitivity of DRG weights to variation in nursing intensity.** *Nursing Economics* 1988; 1988 Jan-Feb; 6(1):18-26.

Abstract : Previous studies of nursing and DRGs have documented considerable variation in daily nursing intensity within and across DRGs. The impact of this variation on the accuracy of the DRG weights was simulated. The results show that adjusting for this variability would have fairly negligible effects on DRG specific and hospital specific payments

Mowry MM, Korpman RA (1985). **Do DRG reimbursement rates reflect nursing costs?** *Journal of Nursing Administration* 1985; 1985 Jul-Aug; 15(7/8):29-35.