

References: Restraints

REF ID: 2984

Level V: Case report

Topic 5: Evaluation/follow-up

Case study: VA facility reduces restraint use, boosts alternatives.(2003). *Joint Commission Perspectives on Patient Safety*, 3(7), 7-8, 10.

Journal Article, Case Study

REF ID: 3009

QM: Quality Measures

Topic 5: Evaluation/follow-up

Measuring up. how effective are your clinical protocols for restraint?(2003). *Joint Commission Benchmark*, 5(1), 4.

Journal Article, Tables/Charts

Collect and analyze data to show that your practice matches your P&Ps

REF ID: 2666

Level V: Case report

Topic 1: Risks

Bed rail-related entrapment deaths.(2002). *Joint Commission Perspectives. Joint Commission on Accreditation of Healthcare Organizations*, 22(11), 14-15.

Journal Article; H

REF ID: 3019

Level V: Program evaluation

Topic 2: Prevention

Fever falls, decreased use of restraints: SAIFE program delivers results.(2002). *COR Clinical Excellence*, 3(10), 3-5.

Journal Article, Tables/Charts

REF ID: 3007

Level VI: Opinion

Topic 4: Management

Research challenges use of restraints for institutionalized elderly patients.(2002). *Senior Care Management*, 5(2), 19-23.

Journal Article

There's almost never a good reason for elderly patients to be restrained, and plenty of studies have proved it. But researchers are still having trouble convincing hospitals.

REF ID: 2715

Level VI: Opinion

Topic 2: Prevention

Guideline for the prevention of falls in older persons. american geriatrics society, british geriatrics society, and american academy of orthopaedic surgeons panel on falls prevention.(2001). *Journal of the American Geriatrics Society*, 49(5), 664-672.

Guideline; Journal Article; Practice Guideline; IM

REF ID: 2690

Level IV: Non-experimental study

Topic 3: Assessment

Agostini, J. V., Leo-Summers, L. S., & Inouye, S. K. (2001). Cognitive and other adverse effects of diphenhydramine use in hospitalized older patients. *Archives of Internal Medicine*, 161(17), 2091-

2097.

Journal Article; AIM; IM

BACKGROUND: Diphenhydramine hydrochloride is a commonly prescribed medicine in hospitalized patients, but its adverse effects on older patients remain unclear. **METHODS:** We enrolled 426 hospitalized medical patients aged 70 years or older in a prospective cohort study in a university hospital. Measurements included baseline and daily assessments including Mini-Mental State Examination scores, Confusion Assessment Method ratings, direct observations for medical devices (urinary catheter or physical restraints), and blinded medical record extractions for diphenhydramine use. **RESULTS:** Of the 426 patients, 114 (27%) received diphenhydramine during hospitalization and shared similar baseline characteristics including age, sex, delirium risk, and Mini-Mental State Examination scores compared with nonexposed patients. The diphenhydramine-exposed group was at an increased risk for any delirium symptoms (relative risk [RR], 1.7; 95% confidence interval [CI], 1.3-2.3) and for individual delirium symptoms, including inattention (RR, 3.0; 95% CI, 1.5-5.9), disorganized speech (RR, 5.5; 95% CI, 1.0-29.8), and altered consciousness (RR, 3.1; 95% CI, 1.6-6.1). Exposed patients also had increased risk for urinary catheter placement (RR, 2.5; 95% CI, 1.0-6.0) and longer median length of stay (7 vs 6 days; $P = .009$). A dose-response relationship was demonstrated for most adverse outcomes. Overall, 24% of diphenhydramine doses were administered inappropriately. **CONCLUSIONS:** Diphenhydramine administration in older hospitalized patients is associated with an increased risk of cognitive decline and other adverse effects with a dose-response relationship. Careful review of its use is necessary in this vulnerable population.

REF ID: 2723

Level VI: Opinion (Practice Guideline)

Topic 4: Management

Allen, M. H., Currier, G. W., Carpenter, D., Ross, R. W., & Docherty, J. P. (2005). Treatment of behavioral emergencies 2005. *J.Psychiatr.Pract.*, 11 Suppl 1, 5-108; quiz 110-2.

Consensus Development Conference; Journal Article; Practice Guideline; IM

OBJECTIVES: Due to inherent dangers and barriers to research in emergency settings, few data are available to guide clinicians about how best to manage behavioral emergencies. Key constructs such as agitation are poorly defined. This lack of empirical data led us to undertake a survey of expert opinion, results of which were published in the 2001 Expert Consensus Guidelines on the Treatment of Behavioral Emergencies. Several second-generation (atypical) antipsychotics (SGAs) are now available in new formulations for treating behavioral emergencies (e.g., intramuscular [i.m.] olanzapine and ziprasidone; rapidly dissolving tablets of olanzapine and risperidone). Critical questions face the field. The SGAs are significantly different from the FGAs and from each other and have not been studied in unselected patients as were the FGAs. Can the SGAs be thought of as a class, do all antipsychotics have similar anti-agitation effects in different conditions, and, if equally effective, what limits might their safety profiles impose? Should antipsychotics be used more specifically to treat psychotic conditions, while benzodiazepines (BNZs) alone are used nonspecifically? Few data are available concerning combinations of SGAs and BNZs, and findings concerning the traditional combination of haloperidol plus a BNZ may not be relevant to combinations with SGAs. The culture is also evolving with more emphasis on patient involvement in treatment decisions. An international consensus has been developing that calming rather than sedation is the appropriate endpoint of behavioral emergency interventions. We undertook a new survey of expert opinion to update recommendations from the earlier survey. **METHOD:** A written survey of 61 questions (1,020 options) was mailed to 50 experts in the field, 48 (96%) of whom completed it. The survey sought to define level of agitation at which emergency interventions are appropriate, scope of assessment depending on urgency and patients' ability to cooperate, guiding principles for selecting

interventions, and appropriate physical and medication strategies at different levels of diagnostic confidence for a variety of provisional diagnoses and complicating conditions. A modified version of the RAND Corporation's 9-point scale for rating appropriateness of medical decisions was used to score most options. Consensus was defined as a non-random distribution of scores by chi-square "goodness-of-fit" test. We assigned a categorical rank (first line/preferred, second line/alternate, third line/usually inappropriate) to each option based on the 95% confidence interval around the mean. Ratings were used to develop guidelines for preferred strategies in key clinical situations. This study received financial support from multiple sponsors, with the panel kept blind to sponsorship to reduce possible bias. Medication ratings were based on responses of only those respondents with direct experience with each drug. In reporting practice patterns, the panel was asked to respond based on actual data rather than estimates. RESULTS: The expert panel reached consensus on 78% of the options rated on the 9-point scale. The responses suggest that physicians can make provisional diagnoses with some confidence and that pharmacological and nonpharmacological interventions are selected differentially based on diagnosis and other salient demographic and medical features. BNZs are recommended when no data are available, when there is no specific treatment (e.g., personality disorder), or when they may have specific benefits (e.g., intoxication). No single SGA emerges as a nonspecific replacement for haloperidol; instead, different SGAs are preferred in various circumstances consistent with current evidence. To the degree that haloperidol is recommended, it is almost always in combination with a BNZ; haloperidol alone is preferred only in the medically compromised. In contrast, the SGAs are more often recommended for use alone, and the panel would avoid combining BNZs with some SGAs. Oral risperidone alone or combined with a BNZ receives strong support in a variety of situations. Oral olanzapine was rated very similarly to risperidone, with slightly higher ratings than risperidone in situations where it has been studied (e.g., schizophrenia, mania) and slightly lower ratings where it has not been studied or safety may be a concern; there was less support for combining oral olanzapine with a BNZ. For oral treatment of agitation related to schizophrenia or mania, olanzapine alone, risperidone alone or combined with a BNZ, and haloperidol plus a BNZ are first line, with strong support also for combining divalproex with the antipsychotic for presumed mania. Oral ziprasidone and quetiapine generally received similar second-line ratings in most situations. If a parenteral agent is needed, i.m. olanzapine alone received somewhat more support than i.m. ziprasidone alone; however, there was more support for i.m. ziprasidone alone or combined with a BNZ than for i.m. olanzapine plus a BNZ, probably reflecting safety concerns. For example, for a provisional diagnosis of schizophrenia, first-line parenteral options are i.m. olanzapine or ziprasidone alone or i.m. haloperidol or ziprasidone combined with a BNZ. Neither of the new parenteral formulations received as much support as traditional agents (i.m. BNZs, i.m. haloperidol) when no data are available or the diagnosis involves medical comorbidity or intoxication. When initial intervention with risperidone, ziprasidone, or haloperidol is unsuccessful, the panel recommended adding a BZD to the antipsychotic. However, when initial treatment with olanzapine or quetiapine is unsuccessful, increasing the dosage is recommended. Perphenazine was consistently rated second line and droperidol and chlorpromazine received third-line ratings throughout. CONCLUSIONS: Within the limits of expert opinion and with the expectation that future research data will take precedence, these guidelines suggest that the SGAs are now preferred for agitation in the setting of primary psychiatric illnesses but that BNZs are preferred in other situations.

REF ID: 2740

Level VI: Opinion (Practice Guideline)

Topic 4: Management

**Allen, M. H., Currier, G. W., Hughes, D. H.,
Consensus Panel for Behavioral Emergencies.
treatment of behavioral emergencies.**

**Reyes-Harde, M., Docherty, J. P., & Expert
(2001). The expert consensus guideline series.
–*Postgraduate Medicine, (Spec No)(Spec No), 1-88;***

quiz 89-90.

Consensus Development Conference; Guideline; Journal Article; Practice Guideline; Review; AIM; IM

OBJECTIVES: Behavioral emergencies are a common and serious problem for consumers, their communities, and the healthcare settings on which they rely to contain, assess, and ultimately help the individual in a behavioral crisis. Partly because of the inherent dangers of this situation, there is little research to guide provider responses to this challenge. Key constructs such as agitation have not been adequately operationalized so that the criteria defining a behavioral emergency are vague. The significant progress that has been made for some disease states with better treatments and higher consumer acceptance has not penetrated this area of practice. A significant number of deaths of patients in restraint has focused government and regulators on these issues, but a consensus about key elements in the management of behavioral emergencies has not yet been articulated by the provider community. The authors assembled a panel of 50 experts to define the following elements: the threshold for emergency interventions, the scope of assessment for varying levels of urgency and cooperation, guiding principles in selecting interventions, and appropriate physical and medication strategies at different levels of diagnostic confidence and for a variety of etiologies and complicating conditions. **METHOD:** In order to identify issues in this area on which there is consensus, a written survey with 808 decision points was developed. The survey was mailed to a panel of 52 experts, 50 of whom completed it. A modified version of the RAND Corporation 9-point scale for rating appropriateness of medical decisions was used to score options. Consensus on each option was defined as a non-random distribution of scores by chi-square "goodness-of-fit" test. We assigned a categorical rank (first line/preferred choice, second line/alternate choice, third line/usually inappropriate) to each option based on the 95% confidence interval around the mean rating. Guideline tables were constructed describing the preferred strategies in key clinical situations. **RESULTS:** The expert panel reached consensus on 83% of the options. The relative appropriateness of emergency interventions was ascertained for a continuum of behaviors. When asked about the frequency with which emergency interventions (parenteral medication, restraints, seclusion) were required in their services, 47% of the experts reported that such interventions were necessary for 1%-5% of patients seen in their services and 32% for 6%-20%. In general, the consensus of this panel lends support to many elements of recent Health Care Financing Administration regulations, including the timing of clinician assessment and reassessment and the intensity of nursing care. However, the panel did not endorse the concept of "chemical restraint," instead favoring the idea that medications are treatments for target behaviors in behavioral emergencies even when the causes of these behaviors are not well understood. Control of aggressive behavior emerged as the highest priority during the emergency; however, preserving the physician-patient relationship was rated a close second and became the top priority in the long term. Oral medications, particularly concentrates, were clearly preferred if it is possible to use them. Benzodiazepines alone were top rated in 6 of 12 situations. High-potency conventional antipsychotics used alone never received higher ratings than benzodiazepines used alone. A combination of a benzodiazepine and an antipsychotic was preferred for patients with suspected schizophrenia, mania, or psychotic depression. There was equal support for high-potency conventional or atypical antipsychotics (particularly liquids) in oral combinations with benzodiazepines. Droperidol emerged in fourth place in some situations requiring an injection. **CONCLUSIONS:** To evaluate many of the treatment options in this survey, the experts had to extrapolate beyond controlled data in comparing modalities with each other or in combination. Within the limits of expert opinion and with the expectation that future research data will take precedence, these guidelines provide some direction for addressing common clinical dilemmas in the management of psychiatric emergencies and can be used to inform clinicians in acute care settings regarding the relative merits of various strategies.

REF ID: 2958

Level VI: Opinion

Topic 4: Management

Australian Society for Geriatric Medicine. (2005). Australian society for geriatric medicine position statement no. 2: Physical restraint use in older people -- revised 2005. *Australasian Journal on Ageing*, 24(4), 213-217.

Journal Article, Standards

REF ID: 2974

QM: Quality Measures

Topic 5: Evaluation/follow-up

Aydin, C. E., Bolton, L. B., Donaldson, N., Brown, D. S., Buffum, M., & Elashoff, J. D. et al. (2004). Creating and analyzing a statewide nursing quality measurement database. *Journal of Nursing Scholarship*, 36(4), 371-378.

Journal Article, Research, Tables/Charts

PURPOSE: To explicate a replicable methodology for designing and analyzing a large ongoing reliable and valid quality database to examine nurse staffing and patient care outcomes in acute care hospitals.

DESIGN: Prospective nurse staffing, process of care, and patient outcomes data based on the American Nurses Association's (ANA) nursing quality indicators collected from a voluntary convenience sample at acute care hospitals in California with rolling-site accrual. **METHODS:** The ongoing CalNOC database development and repository project, the largest statewide effort of its kind in the United States (US), currently includes data on hospital nurse staffing, patient days, patient falls, pressure ulcer and restraint prevalence, registered nurse (RN) education, and patients' perceptions of satisfaction with care.

FINDINGS: As of May 2003, the CalNOC database contained staffing data from 842 units in 134 acute care hospitals over 20 quarters from April 1998 to March 2003. The repository also included clinical outcome information on 34,262 reported patient falls, pressure ulcer prevalence data on 41,982 patient observations, and service outcome data on patient satisfaction from 26,461 patients. Participating hospitals receive quarterly reports allowing them to benchmark their own performance against other participating hospitals. CalNOC methods have been adapted and replicated by both the Military Nursing Outcomes Database and VA Nursing Outcomes Database projects, and CalNOC nursing-sensitive measures have been endorsed by the National Quality Forum. **CONCLUSIONS:** This working model for collecting reliable and valid data was derived from multiple hospitals across California. The data are the basis for studies to contribute to the development of evidence-based public policy, and for ongoing study of the effects of nurse staffing on clinical and service outcomes.

REF ID: 2695

Level IV: Non-experimental study

Topic 1: Risks

Balon, J. A. (2001). Common factors of spontaneous self-extubation in a critical care setting. *International Journal of Trauma Nursing*, 7(3), 93-99.

Journal Article; N

A prospective, concurrent study was conducted of all patients who self-extubated in a mixed critical care setting during a 14-month period. The purpose of the study was to identify the incidence and common factors associated with spontaneous self-extubation (SSE). A total of 75 cases of SSE occurred in 68 patients who had an incidence of 38.5 SSEs per 100 intubated days. The analysis of common factors of the total population found the following: 60 cases (80%) were restrained; 44 cases (59%) required reintubation; 66 cases (88%) followed commands or localized painful stimuli at the time of SSE; and 67 cases (89%) elicited spontaneous eye opening or –opened eyes to verbal command at the time of SSE.

Only 18 cases (24%) had analgesia administered within 1 to 2 hours of SSE. Twenty-four cases (32%) had anxiolytics administered within 4 hours of SSE. Of the 56 cases of SSE that were witnessed, 43 cases (73% of those observed) were considered deliberate rather than accidental. The practice of using intravenous boluses on an "as needed" dosing frequency for administering sedation and analgesia was a common factor in SSE. Adequate doses of sedation and analgesia delivered by continuous infusion may prevent SSE in alert, intubated patients.

REF ID: 3028

Level 1: Systematic Review

Topic 1: Risks

Basante, J., Bentz, E., HeckHackley, J., Kenion, B., Young, D., & Holm, M. B. (2001). Falls risk among older adults in long-term care facilities: A focused literature review. *Physical and Occupational Therapy in Geriatrics, 19(2), 63-85.*

Journal Article, Review, Tables/Charts

Purpose: To identify falls risk-factors relevant to practitioners in studies that examined the contributions of medications, deconditioning, and physical restraints to falls among long-term care facility residents. The literature review consolidates data from 21 studies into an easy to use format. Method: Twenty-one research articles published between 1990 and 1999 were reviewed by random assignment by a research team. A matrix was developed to allow for easy identification of risk factors and study designs. Results: Studies indicated that use of medications (e.g., psychotropics, antidepressants, antihypertensives, and diuretics), deconditioning (e.g., lower extremity weakness, certain gait and balance disorders), and physical restraints (e.g., vests, pelvic restraints, and lap trays) all contributed to an increase in falls among long term care facility residents. Conclusion: The rate of falls among older adults residing in long term care facilities is substantially increased by the use of certain medications, deconditioning, physical restraints, or any combination of these factors. Practitioners need to recognize risk factors that may lead to falls and subsequent decreases in functional status and quality of life for older adults residing in long term care facilities. Identification of these risk factors in individual residents and among all residents in a facility is the first step toward fall prevention.

REF ID: 3037

Level V: Case report

Topic 2: Prevention

Bernick, L., & Bretholz, I. (2001). Safe mobility program: A comprehensive falls prevention program for a multi-level geriatric setting... readers frequently ask for reprints of articles they find valuable in their practice. here is one such article: A reprint from perspectives, vol. 23(3). *Perspectives, 25(3), 12-19.*

Journal Article, Algorithm, Tables/Charts

REF ID: 2649

Level IV: Non-experimental study

Topic 1: Risks

Birkett, K. M., Southerland, K. A., & Leslie, G. D. (2005). Reporting unplanned extubation. *Intensive & Critical Care Nursing : The Official Journal of the British Association of Critical Care Nurses, 21(2), 65-75.*

Journal Article; N

Between 1995 and 2002 seven clinical audits were undertaken in consecutive periods over twelve months to determine the frequency and risk factors associated with reported unplanned extubation (UE) within a 22-bed general and surgical Intensive Care Unit (ICU). Nursing and medical staff provided information on the patient's age, diagnosis, mental status, precipitating causes and investigations/treatment

ordered. Following the first audit, modifications were made to include anonymous reporting. Additional information was also obtained on the patient's position, sedation regimen, method of endotracheal tube (ETT) placement and the use of physical restraints. A clinical indicator was established to monitor the UE incidence based as a rate of UE per 100 patients. Audit results were between 1.06% and 4.86% with an aggregate rate from 1995 to 2002 of 2.6%. This rate compares favourably with the range of 2.8-22.5% reported in the literature. Over the survey periods, 28-60% of patients were assessed as being confused or agitated, 47-67% restrained and 53-70% sedated. The UE reported rate initially increased when anonymous reporting was introduced from 1.06% to 4.86%. Unplanned extubation incidence subsequently decreased in Surgical ICU following the introduction of clinical pathways, early weaning and nurse led extubation. Monitoring UE in ICU provides important information on the quality of care. We would recommend a system of anonymous reporting to more freely reflect incidence.

REF ID: 2983

Level VI: Opinion

Topic 4: Management

Blais, L. (2004). The dilemma of restraint use in LTC: Re-examining the legislative and ethical implications. *Canadian Nursing Home*, 15(2), 20-22.

Journal Article

Although dramatic progress in minimizing the use of restraints has been made over the past decade, ethical considerations and the laws of the land appear to be in conflict. This dilemma is addressed.

REF ID: 2826

Level V: Literature review

Topic 1: Risks

Bliss, M. R. (2004). The rationale for sitting elderly patients in hospital out of bed for long periods is medically unsubstantiated and detrimental to their recovery. *Medical Hypotheses*, 62(4), 471-478.

Journal Article. Review

The notorious statement by Asher about the dangers of bed rest [Brit Med J 1947; ii: 967-8] which continues to be quoted out of context in leading medical journals today is inapplicable to modern short stay elderly hospital patients and has little medical foundation. 'Blood clotting in the veins' is more likely to result from venous stasis during sitting than from lying down. 'Lime draining from the bones' refers to subjects' spending weeks, not hours, in the horizontal position and similar losses have been shown to occur in healthy people immobilised in chairs for long periods during the day. Constipation is common in sick old people and there is no evidence that 'scybala stacking up the colon' is more likely to occur in bed than in a chair. The 'flesh rotting from the seat', or pressure sores, occur as frequently or more frequently, in sick patients nursed in chairs as in bed. 'Urine leaking from the distended bladder' may be reduced in very debilitated old people sitting in chairs, but at the expense of impaired renal function associated with reduced perfusion in the upright posture and exacerbated incontinence due to a compensatory diuresis at night. The 'spirit evaporating from the soul' today is more likely to afflict old patients who are exhausted by prolonged chair nursing and orthostatic hypotension due to age or illness. Recent studies in intensive care patients have highlighted the hypotension due to vasodilatation which can occur in infection and trauma. There is no evidence that nosocomial pneumonia is reduced by sitting patients out of bed, and lack of sleep is likely to exacerbate infection and delay recovery. Preventing patients from lying down when they feel the need is a violation of their rights and has been shown to be probably as injurious as the Victorian practice of preventing healthy patients from getting up. Physiotherapy is obviously important but patients should be allowed to decide for themselves how long they spend in or out of bed. [References: 72]

REF ID: 3012

Topic 4: Management

Level V: Literature Review

-Bourbonniere, M., & Evans, L. K. (2002). Advanced

practice nursing in the care of frail older adults. *Journal of the American Geriatrics Society*, 50(12), 2062-2076.

Journal Article, Review, Tables/Charts

Models of care for frail older adults have increasingly used advanced practice nurses (APNs) to achieve outcomes. Knowledge of the common APN functions and skills that contribute to the success of these models could better inform education and evidence-based practice and guide further research, but published investigations associated with models of gerontologic care neither describe fully these functions and skills nor link the activities of the APN with specific outcomes. Using examples primarily from the University of Pennsylvania School of Nursing, this paper identifies, describes, and analyzes common functions and skills of APNs in published gerontologic care models; examines the strength of the evidence for the effect of APNs on outcomes of care; and identifies areas for further study.

REF ID: 2988

Level IV: Non-experimental study

Topic 1: Risks

Bourbonniere, M., Strumpf, N. E., Evans, L. K., & Maislin, G. (2003). Organizational characteristics and restraint use for hospitalized nursing home residents. *Journal of the American Geriatrics Society*, 51(8), 1079-1084.

Journal Article, Research, Tables/Charts

OBJECTIVES: To examine the effect of organizational characteristics on physical restraint use for hospitalized nursing home residents. **DESIGN:** Secondary analysis of data obtained between 1994 to 1997 in a prospective phase lag design experiment using an advanced practice nurse (APN) intervention aimed at reducing physical restraint for a group of hospitalized nursing home residents. **SETTING:** Eleven medical and surgical units in one 600-bed teaching hospital. **PARTICIPANTS:** One hundred seventy-four nursing home residents aged 61 to 100, hospitalized for a total of 1,085 days. **MEASUREMENTS:** Physical restraint use, APN intervention, age, perceived fall risk, behavioral phenomena, perceived treatment interference, mental state, severity of illness, day of week, patient-registered nurse (RN) ratio, patient-total nursing staff ratio, and skill mix. **RESULTS:** Controlling for the APN intervention, age, and patient behavioral characteristics (all of which increased the likelihood of restraint use), weekend days as an organizational characteristic significantly increased the odds of restraint (weekend day and patient-RN ratio on physical restraint use: odds ratio (OR) = 1.92, 95% confidence interval (CI) = 1.38-2.68, P <.001; weekend day and patient-total staff ratio on physical restraint use: OR = 1.91, 95% CI = 1.37-2.66, P <.001; weekend day and skill mix on physical restraint use: OR = 1.91, 95% CI = 1.37-2.67, P <.001). **CONCLUSION:** Key findings suggest that organization of hospital care on weekends and patient characteristics that affect communication ability, such as severely impaired mental state, English as a second language, sedation, and sensory-perceptual losses, may be overlooked variables in restraint use.

Bourbonniere, M. G. (2001). Organizational characteristics and restraint use for hospitalized nursing home residents. (Doctoral dissertation, University of Pennsylvania). , 77. (UMI Order #AAI3031642.)

REF ID: 2731

Level I: Systematic Review

Topic 5: Evaluation/follow-up

Bower, F. L., McCullough, C. S., & Timmons, M. E. (2003). A synthesis of what we know about the use of physical restraints and seclusion with patients in psychiatric and acute care settings: 2003 update. *Online J.Knowl.Synth.Nurs.*, 10, 1.

Journal Article; Review; IM

2000, Volume 7, Number 2 article of the synthesis of research findings on the use of restraint and seclusion with patients in psychiatric and acute

PURPOSE: This article is an update of the January 19, 2000, Volume 7, Number 2 article of the synthesis of research findings on the use of restraint and seclusion with patients in psychiatric and acute care settings. **CONCLUSIONS:** The little that is

known about restraint/seclusion use with these populations is inconsistent. Attitudes and perceptions of patients, family, and staff differ. However, all patients had very negative feelings about both, whether they were restrained/secluded or observed by others who were not restrained. The reasons for restraint/seclusion use vary with no accurate use rate for either. What precipitates the use of restraint/seclusion also varies, but professionals claim they are necessary to prevent/treat violent or unruly behavior. Some believe seclusion/restraint is effective, but there is no empirical evidence to support this belief. Many less restrictive alternatives have been tested with varying outcomes. Several educational programs to help staff learn about different ways to handle violent/confused patients have been successful. **IMPLICATIONS:** Until more is known about restraint/seclusion use from prospective controlled research, the goal to use least restrictive methods must be pursued. More staff educational programs must be offered and the evaluation of alternatives to restraint/seclusion pursued. When seclusion/restraint is necessary, it should be used less arbitrarily, less frequently, and with less trauma. As the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and the Health Care Financing Administration (HCFA) have prescribed, "Seclusion and restraint must be a last resort, emergency response to a crisis situation that presents imminent risk of harm to the patient, staff, or others" (p. 25) [99A].

REF ID: 2728

Level VI: Practice Guideline

Topic 4: Management

Bray, K., Hill, K., Robson, W., Leaver, G., Walker, N., & O'Leary, M. et al. (2004). British association of critical care nurses position statement on the use of restraint in adult critical care units. *Nursing in Critical Care*, 9(5), 199-212.

Guideline; Journal Article; Practice Guideline; N

Critical care nurses in the United Kingdom have become increasingly concerned about the use, potential abuse and risks associated with physical restraint of patients. Restraint in critical care is not only confined to physical restraint but can also encompass chemical and psychological methods. There are concerns regarding the legal and ethical issues relating to the (ab)use of physical restraint techniques in critical care. The aim of this article was to present the British Association of Critical Care Nurses (BACCN) position statement on the use of restraint in adult critical care units and to provide supporting evidence to assist clinical staff in managing this process.

REF ID: 2656

Level IV: Non-experimental study

Topic 1: Risks

Bredthauer, D., Becker, C., Eichner, B., Koczy, P., & Nikolaus, T. (2005). Factors relating to the use of physical restraints in psychogeriatric care: A paradigm for elder abuse. *Zeitschrift Fur Gerontologie Und Geriatrie : Organ Der Deutschen Gesellschaft Fur Gerontologie Und Geriatrie*, 38(1), 10-18.

Journal Article; IM

The purpose of this study was to address one component of the complex topic "elder abuse". A prospective observational study in the psychogeriatric unit of an acute psychiatric hospital demonstrated that 30% (n=37) of all included patients (n=122) were physically restrained. The highest incidence (48%) was found in elderly patients with severe cognitive impairments (diagnosis of dementia and/or delirium) (n=60). The most commonly used devices of physical restraints were bed rails (100%), belts (trunk 93%, limbs 40%) and chair-tables ("gerichair") (41%). Most restraints occurred at the beginning of hospitalization (83%). Physical restraints were continued for many days and on average of many hours a day. Patients with low cognitive status and serious mobility impairments showed a very high risk of being restrained (p=0.015; OR 32.0 [95% CI:2.0-515.1]). Inability to perform –ADL activities increased the frequency of restraint use

($p=0.035$; OR27.7 [95%CI: 1.3-604.1]). As possible co-factors repetitive disruptive behaviors were found. There was no significant difference between the frequency of falls in restrained or unrestrained patients during the observational period, but fall-related fractures ($n=2$) only occurred in restrained patients. It is possible that restraints increase the use of benzodiazepines and classical neuroleptics. These results confirm that physical restraints remain a common practice in psychogeriatric care. No evidence-based data support the value of restraints in regard to fall prevention and control of behavioral disturbances in elderly people with serious mental illness. In contrast, these devices can have serious adverse effects and mean one of the most severe interventions in fundamental human rights.

REF ID: 3044

Level VI: Opinion

Topic 4: Management

Bright, L. (2001). Restraint: Cause for continuing concern? *Journal of Adult Protection*, 3(2), 42-47.
Journal Article

This paper by the deputy chief executive of Counsel and Care describes the work this important voluntary organisation has under taken to examine physical intervention issues, particularly as they affect older people in residential care. It explores the extent to which residents of care homes may be subject to various forms of restraint and draws on discussions with managers and staff.

REF ID: 2981

Level V: Literature review

Topic 4: Management

Capezuti, E. (2004). Minimizing the use of restrictive devices in dementia patients at risk for falling. *Nursing Clinics of North America*, 39(3), 625-647.

Journal Article, Review, Tables/Charts

The accumulating empirical evidence demonstrates that restrictive devices can be removed without negative consequences. Most importantly, use of nonrestrictive measures has been correlated with positive patient outcomes and represents care that is dignified and safe for confused elders. Most of these nonrestrictive approaches promote mobility and functional recovery; however, testing of individual interventions is needed to further the science. As the research regarding restrictive devices has been translated into professional guidelines and regulatory standards, the prevalence of usage has declined dramatically. New institutional models of care discouraging routine use of restrictive devices also will foster innovative solutions to clinical problems associated with dementia. Copyright (C) 2004 by Elsevier Science (USA).

REF ID: 2676

Level IV: Non-experimental study

Topic 2: Prevention

Capezuti, E., Maislin, G., Strumpf, N., & Evans, L. K. (2002). Side rail use and bed-related fall outcomes among nursing home residents. *Journal of the American Geriatrics Society*, 50(1), 90-96.

Journal Article; IM

OBJECTIVES: To analyze the effect of physical restraint reduction on nighttime side rail use and to examine the relationship between bilateral side rail use and bed-related falls/injuries among nursing home residents. **DESIGN:** Secondary analysis of data collected in a longitudinal, prospective clinical trial designed to reduce restraint use. **SETTING:** Three nonprofit nursing homes. **PARTICIPANTS:** To examine the first question regarding the effect of physical restraint reduction on side rail usage, we included all nursing home residents who survived a 1-year data collection period ($n = 463$). To answer the second research question concerning the relationship between side rail status and bed-related falls, subjects' side rail status for each of the four data collection —periods was compared. The sample for this analysis

includes only those with consistent side rail status (n = 319) for the four observations periods: either 0/1 side rail (n = 188) or 2 (bilateral) side rails (n = 131). MEASUREMENTS: Side rail and restraint status was directly observed by two research assistants, twice each night shift (10 p.m.-6 a.m.) for three nights at each of four data collection points. Nighttime fall-related outcome data were obtained from a review of nursing home incident reports during the entire 1-year data collection period (T1 through T4). Cognitive status was measured using the Folstein Mini-Mental State Examination. Functional and behavioral status was obtained using subscales of the Psychogeriatric Dependency Rating Scale. RESULTS: Over a 1-year period, there was an increase in the proportion of bilateral side rail use for all three nursing homes. Based on the multiple logistic regression analysis, there was no indication of a decreased risk of falls or recurrent falls with bilateral side rail use, controlling for cognition and functional and behavioral status (adjusted odds ratio (AOR) = 1.13, 95% confidence interval (CI) = 0.45,2.03). Similarly, bilateral side rail use did not reduce the risk of recurrent falls, controlling for cognition and functional status (AOR = 1.25, 95% CI = 0.33,4.67). CONCLUSION: Despite high usage of bilateral side rails, they do not appear to significantly reduce the likelihood of falls, recurrent falls, or serious injuries. Bed-related falls remain clinically challenging. The data from this study, coupled with increasing reports of side rail-related injuries and deaths, compel us to seek and empirically test alternative interventions to prevent bed-related falls.

REF ID: 3006

Level VI: Opinion

Topic 4: Management

Capezuti, E. A., & Braun, J. A. (2001). Medico-legal aspects of hospital siderail use. *Ethics, Law, and Aging Review*, 7, 25-57.

Journal Article, Pictorial, Tables/Charts

REF ID: 3049

QM: Quality Measures

Topic 4: Management

CarrollSolomon, P. A., Christian, V., Denny, D. S., Nordan, V. N., Therriault, M. F., & Van Wicklen, R. (2000). Preserving residents' rights in long-term care settings: A values-based approach to restraint reduction. *Journal for Healthcare Quality*, 22(4), 10-19.

Journal Article, Algorithm, CEU, Exam Questions, Forms, Tables/Charts

REF ID: 2959

QM: Quality measures

Topic 5: Evaluation/follow-up

Castle, N. G., Degenholtz, H., & Engberg, J. (2005). State variability in indicators of quality of care in nursing facilities. *Journals of Gerontology.Series A: Biological Sciences and Medical Sciences*, 60A(9), 1173-1179.

Journal Article, Research, Tables/Charts

REF ID: 2965

Level V: Case report

Topic 4: Management

Cheung, P. P. Y., & Yam, B. M. C. (2005). Patient autonomy in physical restraint. *Journal of Clinical Nursing*, 14(3a): International Journal of Older People Nursing), 34-40.

Journal Article, Case Study

Despite initiatives to raise the awareness of patient autonomy among healthcare providers, the use of physical restraints on frail or confused older patients continues to be a common practice in many healthcare settings. This paper examines the relationship between patient autonomy and the use of physical restraints by drawing on the literature —contradicting its efficacy and the assumption that its

use is necessary to protect the welfare of patients. It argues that the paternalistic use of physical restraints without patient's informed consent is morally unjustified and is an unequivocal violation of their autonomy. The duty to respect individual autonomy should be extended to a duty to respect the autonomy of older people who are being restrained. Only in this way can their human dignity and quality of life be enhanced.

REF ID: 2739

QM: Quality Measures

Topic 5: Evaluation/follow-up

Chow, T. W., & MacLean, C. H. (2001). Quality indicators for dementia in vulnerable community-dwelling and hospitalized elders. *Annals of Internal Medicine*, 135(8 Pt 2), 668-676.

Journal Article; AIM; IM

No abstract

REF ID: 2693

Level VI: Opinion

Topic 4: Management

Coble, P., & Davis, J. (2001). Restraint reduction in a large tertiary medical center. *The Journal of Nursing Administration*, 31(7-8), 344-345.

Journal Article; AIM; IM; N

None

REF ID: 2703

Level V: Literature review

Topic 1: Risks

Cotter, V. T. (2005). Restraint free care in older adults with dementia. *The Keio Journal of Medicine*, 54(2), 80-84.

Journal Article; Review; IM

During the past two decades, significant research and several government and health care quality groups have advised against the use of physical restraints in hospitals and nursing homes, yet older adults are continuing to die, become injured or experience the iatrogenic complications associated with this practice. Deaths are usually caused by asphyxiation, but also occur from strangulation, or cardiac arrest. Older adults with dementia are at high risk for restraint use because of impaired memory, language, judgment and visual perception. In moderate to severe dementia, the risk of falls is greater because of gait apraxia and unsteadiness. Agitation, disorientation, and pacing behaviors from delirium or dementia can precipitate staff to use restraints to prevent harm to the older adult or to others. Physical restraints should be eliminated as an intervention in older adults with dementia because they are also very likely to cause acute functional decline, incontinence, pressure ulcers and regressive behaviors in a short period of time. The purpose of this paper is to disseminate the dangers of this clinical practice and to summarize the latest research in restraint free care and restraint alternatives in the United States.

REF ID: 2955

Level VI: Opinion

Topic 4: Management

Cotter, V. T., & Evans, L. K. (2003). Avoiding restraints in patients with dementia. *Try this: Best Practices in Nursing Care for Hospitalized Older Adults with Dementia*, 1(1), 2.

Journal Article

REF ID: 2964

Level V: Literature review

de Roza, J. (2004). Literature review: Factors restraints in the elderly. *Singapore Nursing*

Topic 4: Management

influencing nurses' decisions to use physical —*Journal*, 31(4), 12-16.

Journal Article, Pictorial, Review

The purpose of the literature review was to explore recent trends in the factors influencing nurses' decisions to use physical restraints in elderly patients. A search conducted using CINAHL yielded 27 articles. Three themes emerged from the review. These included: nurses' reasons for restraining patients, nurses' subjective experiences about restraint use and nurses' knowledge about restraint use. Results showed that major reasons for restraining were patient safety, facilitation of medical treatment, impaired cognitive status, behavior problems and inadequate staffing. Nurses experienced negative feelings and had to deal with legal and ethical issues. Nurses' knowledge about restraint use was inadequate. Implications for practice included restraint education programs and policy changes. Further research is needed in many areas, most notably efficacy of alternatives to restraints and ethical issues in restraint use. This abstract was translated into English by the publisher or author.

REF ID: 2657

Level IV: Non-experimental study

Topic 4: Management

de Vries, O. J., Ligthart, G. J., Nikolaus, T., & European Academy of Medicine of Ageing-Course III. (2004). Differences in period prevalence of the use of physical restraints in elderly inpatients of european hospitals and nursing homes. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, 59(9), M922-3.

Letter; AIM; IM

REF ID: 3050

Level V: Literature review

Topic 5: Evaluation/follow-up

Dellefield, M. E. (2000). The relationship between nurse staffing in nursing homes and quality indicators: A literature review. *Journal of Gerontological Nursing*, 26(6), 14-28.

Journal Article, Review, Tables/Charts

Studies that have examined the relationship between nurse staffing levels in nursing homes and quality have used various objective and perceptual types of structural, process, outcome, and composite quality indicators. Higher total nursing staff levels are associated with some quality indicators in nursing homes, including not-for-profit facility ownership, a lower proportion of Medicaid patients per facility, increased functional improvement of residents, a lower drug error rate, and lower numbers of survey-related deficiencies. The relationship between different types of nursing staff skill mix and specific structural, process, outcome, and composite indicators of quality is not well understood, making recommendations for specific staff (RN, LVN/LPN, CNA)/patient ratios premature.

REF ID: 2712

Level V: Literature Review

Topic 4: Management

Dimant, J. (2003). Avoiding physical restraints in long-term care facilities. *J.Am.Med.Dir.Assoc.*, 4(4), 207-215.

Journal Article; Review; IM

REF ID: 2686

Level IV: Non-experimental study

Topic 2: Prevention

Dunn, K. S. (2001). The effect of physical restraints on fall rates in older adults who are institutionalized. *Journal of Gerontological Nursing*, 27(10), 40-48.

Journal Article; N

(OBRA) of 1987, there has been a significant

—reduction in the use of physical restraints to prevent

falls in older adults who are institutionalized because of the developing awareness of the physical and psychological problems associated with them. The purpose of this ex post facto descriptive study was to determine if there is a difference in falls when physical restraints are allowed or prohibited in one older adult population. Data from incident reports from a purposive sample of 97 older adults in one long-term care facility were analyzed before and after the implementation of a restraint-free policy. The results indicated no significant difference in the number of falls before and after the policy change. However, there was a significantly lower number of falls with injuries and a significantly higher number of falls without injuries. These findings suggest older adults will continue to fall with or without the use of physical restraints because of changes associated with the aging process and risk factors. Removing physical barriers from older adults and allowing freedom of movement may decrease the severity of injury sustained in a fall.

REF ID: 2672

Level VI: Opinion

Topic 4: Management

Eckberg, L. A., Hamm, L. J., & Soltis, J. A. (2002). Breaking free of restraints. *Provider (Washington, D.C.)*, 28(7), 57-60, 62.

Journal Article; H

REF ID: 3048

Level VI: Opinion

Topic 2: Prevention

Edelberg, H. K. (2001). Falls and function: How to prevent falls and injuries in patients with impaired mobility. *Geriatrics*, 56(3), 41-5, 49.

Journal Article, CEU, Exam Questions

REF ID: 2725

Level I: Systematic review

Topic 1: Risks

Evans, D., & Fitzgerald, M. (2002). The experience of physical restraint: A systematic review of qualitative research. *Contemporary Nurse : A Journal for the Australian Nursing Profession*, 13(2-3), 126-135.

Journal Article; Review; N

The objective of this review was to summarise the experience of physical restraint from the perspectives of the person subject to restraint and of their family. A review of interpretive and descriptive research was undertaken that entailed a comprehensive literature search. Studies were included in the review if they provided qualitative data on this experience. An interpretive data synthesis was undertaken to generate a composite description of the experience of restraint. Findings highlight the predominantly negative impact of physical restraint on the person restrained and their family. These findings support minimal use of restraint in health care and give voice to a relatively powerless and vulnerable group of people.

REF ID: 2737

Level I: Systematic Review

Topic 4: Management

Evans, D., & FitzGerald, M. (2002). Reasons for physically restraining patients and residents: A systematic review and content analysis. *International Journal of Nursing Studies*, 39(7), 735-743.

Journal Article; Review; IM; N

OBJECTIVE: The purpose of this systematic review was to determine why people are physically restrained in the acute and residential care settings. **METHOD:** A comprehensive search was undertaken of electronic databases to identify

—studies addressing the reasons for using physical

restraint. Findings were synthesised using content analysis. RESULTS: Twenty-three studies were identified. The most common reason for using restraints related to patient-oriented issues such as ensuring the safety of people. However, they are also commonly used to facilitate treatment, maintain the social environment and because of issues such as understaffing.

REF ID: 2733

Level I: Systematic Review

Topic 1: Risks

Evans, D., Wood, J., & Lambert, L. (2003). Patient injury and physical restraint devices: A systematic review. *Journal of Advanced Nursing*, 41(3), 274-282.

Journal Article; Review; IM; N

OBJECTIVE: To investigate physical restraint-related injuries. Areas of interest were the prevalence of injury, types of injuries, risk of sustaining an injury and specific restraint devices associated with injury. DEFINITIONS: Injury in the context of this review was considered to be either direct injury, such as lacerations and strangulation, or indirect injury considered to be an adverse outcome such as increased mortality rates or duration of hospitalization. METHOD: A comprehensive search was undertaken that involved all major databases and the reference list of all relevant papers. To be included in the review studies had to involve people in acute or residential care settings and report data related to injury caused by restraint devices. A number of different types of research designs were included in the review. The findings of studies were pooled using odds ratio and narrative discussion. RESULTS: The search identified 11 papers reporting the findings of 12 observational studies. These studies were supplemented with the findings of a number of other types of studies that reported restraint-related data. The review highlights the potential danger of using physical restraint in acute and residential health care facilities. Observational studies suggest that physical restraint may increase the risk of death, falls, serious injury and increased duration of hospitalization. However, there is little information to enable the magnitude of the problem to be determined. DISCUSSIONS: Many of the findings highlight the urgent need for further investigation into the use of physical restraint in health care facilities. Further research should investigate the magnitude of the problem and specific restraint devices associated with injury. However, given the limited nature of the evidence, this association should be investigated further using rigorous research methods.

REF ID: 2736

Level I: Systematic Review

Topic 4: Management

Evans, D., Wood, J., & Lambert, L. (2002). A review of physical restraint minimization in the acute and residential care settings. *Journal of Advanced Nursing*, 40(6), 616-625.

Journal Article; Meta-Analysis; Review; IM; N

OBJECTIVES: The objective of this review was to investigate physical restraint minimization in acute and residential care settings. The first aim was to determine the effectiveness of attempts to minimize the use of physical restraint, and the second was to generate a description of the characteristics of restraint minimization programmes. METHOD: A comprehensive search was undertaken involving all major databases and the reference lists of all relevant papers. To be included in the review studies had to be an evaluation of restraint minimization in an acute or residential care setting. As only a single randomized controlled trial (RCT) was identified, it was not possible statistically to pool the findings of different studies on the effectiveness of restraint minimization. To generate a description of the characteristics of restraint minimization programmes, the reported components of these programmes were identified and categorized. RESULTS: A total of 16 studies evaluating restraint minimization were identified: three in acute care and 13 in residential care. Of these, only one was an RCT, with the most common approach being the before and after study design. —Based on the findings of the single RCT, education

supported by expert consultation effectively reduced the use of restraint in residential care. There has been little evaluation of restraint minimization in acute care settings. The common approach to restraint minimization has involved a programme of multiple activities, with restraint education being the characteristic common to most programmes. **DISCUSSION:** Evidence suggests that physical restraint can be safely reduced in residential care settings through a combination of education and expert clinical consultation. There is little information on restraint minimization in acute care settings. The major finding of this review is the need for further investigation into all aspects of restraint minimization.

REF ID: 2976

QM: Quality Measures

Topic 5: Evaluation/follow-up

Fitzpatrick, J. J., Salinas, T. K., O'Connor, L. J., Stier, L., Callahan, B., & Smith, T. et al. (2004). Nursing care quality initiative for care of hospitalized elders and their families. *Journal of Nursing Care Quality*, 19(2), 156-161.

Journal Article, Research, Tables/Charts

REF ID: 2658

Level VI: Opinion

Topic 4: Management

Flaherty, J. H. (2004). Zero tolerance for physical restraints: Difficult but not impossible. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, 59(9), M919-20.

Comment; Editorial; AIM; IM

REF ID: 2711

Level V: Literature review

Topic 1: Risks

Flannery, R. B., Jr. (2003). Restraint procedures and dementia sufferers with psychological trauma. *American Journal of Alzheimer's Disease and Other Dementias*, 18(4), 227-230.

Journal Article; Review; IM

Restraint is an extreme response to an emergency situation in which there is imminent harm to self or others. Although some restrained patients become calm, others may become even more behaviorally disorganized. In some of these latter cases, the restrained patients may be victims of violence for whom the restraint procedure acts as a symbolic reminder of the past victimization. Elderly dementia sufferers may also be among these victims of violence. This paper provides a brief review of psychological trauma, research findings on psychological trauma in the elderly, and an approach to modifying restraint procedures that may be needed for dementia sufferers with a past history of victimization to minimize the disquiet associated with the needed restraint.

REF ID: 2997

Level IV: Non-experimental study

Topic 4: Management

Foley, K. L., Sudha, S., Sloane, P. D., & Gold, D. T. (2003). Staff perceptions of successful management of severe behavioral problems in dementia special care units. *Dementia*, 2(1), 105-124.

Journal Article, Research, Tables/Charts

Factors that promote successful management of persons with severe behavioral problems in special care units (SCUs) for dementia were evaluated. Using qualitative data from staff interviews conducted in 36 nursing home SCUs, the study examined the relationships among demographic and behavioral characteristics of 70 residents, management techniques of the staff, and family participation in the management of persons with severe behavioral problems. Problem behaviors were often managed successfully in SCUs, although unpredictable —aggression was particularly difficult to control and was

a common reason for discharge. Use of multiple non-pharmacological techniques was associated with a greater likelihood of successful management, and physical restraints were used as a last resort. SCU staff members also reported that large, physically aggressive men and residents with real or suspected psychiatric comorbidity were especially difficult to manage. Finally, family involvement and support were critical to resident success and often buffered against resident discharge.

Freeman, F. P. J. (2002). The relationship of senior nursing students' knowledge and attitudes of physical restraints and alternatives to physical restraints with older adults. (Doctoral dissertation, Rush University, College of Nursing). , 142. (UMI Order #AAI3065542.)

REF ID: 2978

Level V: Case report

Topic 4: Management

Freeman, M. A. (2004). Innovation in geriatric nursing. motion device: An alternative to physical restraints. *Geriatric Nursing*, 25(3), 175.

Journal Article, Case Study

REF ID: 2661

Level VI: Opinion

Topic 4.4: Management-Products

Freeman, M. A. (2004). Motion device: An alternative to physical restraints. *Geriatric Nursing (New York, N.Y.)*, 25(3), 175.

Journal Article; N

REF ID: 3034

Level IV: Non-experimental study

Topic 3: Assessment

Gallinagh, R., Nevin, R., Campbell, L., Mitchell, F., & Ludwick, R. (2001). Clinical. relatives' perceptions of side rail use on the older person in hospital. *British Journal of Nursing*, 10(6), 391-2, 394, 396-9.

Journal Article, Research

With an increasing emphasis on improving standards in the care of older people, the use of physical restraints has received growing attention in the nursing literature. Physical restraint use has been likened to abuse as it impedes the movement of a person, encourages dependence on staff and denies autonomy. Side rails (cot sides, bed rails) can be considered as a physical restraint device. The therapeutic use of restraint has not previously been adequately explained. Furthermore, there is a dearth of literature examining the personal experience of physical restraint use. The Family Interview Guide (Strumpf and Evans, 1988) was used to explore perceptions of nine relatives whose family had side rails used during their care in an older person ward. The findings of the study suggest that while families place value on the perceived safety function of side rails, they nonetheless have worries about their use. These pertain to the risk of patient entrapment and possible injury. Patients' relatives associate side rails with ritualized practice in gerontology and make suggestions for the re-design of side rails. The study also highlights the potential for increased family participation in the decision to use side rails.

REF ID: 2675

Level IV: Non-experimental study

Topic 4: Management

Gallinagh, R., Nevin, R., Campbell, L., Mitchell, F., & Ludwick, R. (2001). Relatives' perceptions of side rail use on the older person in hospital. *British Journal of Nursing (Mark Allen Publishing)*, 10(6), 391-2, 394, 396-9.

Journal Article; N

With an increasing emphasis on improving

—standards in the care of older people, the use of

physical restraints has received growing attention in the nursing literature. Physical restraint use has been likened to abuse as it impedes the movement of a person, encourages dependence on staff and denies autonomy. Side rails (cot sides, bed rails) can be considered as a physical restraint device. The therapeutic use of restraint has not previously been adequately explained. Furthermore, there is a dearth of literature examining the personal experience of physical restraint use. The Family Interview Guide (Strumpf and Evans, 1988) was used to explore perceptions of nine relatives whose family had side rails used during their care in an older person ward. The findings of the study suggest that while families place value on the perceived safety function of side rails, they nonetheless have worries about their use. These pertain to the risk of patient entrapment and possible injury. Patients' relatives associated side rails with ritualized practice in gerontology and make suggestions for the re-design of side rails. The study also highlights the potential for increased family participation in the decision to use side rails.

REF ID: 2688

Level IV: Non-experimental study

Topic 4: Management

Gallinagh, R., Nevin, R., Mc Ilroy, D., Mitchell, F., Campbell, L., & Ludwick, R. et al. (2002). The use of physical restraints as a safety measure in the care of older people in four rehabilitation wards: Findings from an exploratory study. *International Journal of Nursing Studies*, 39(2), 147-156.

Journal Article; IM; N

We investigated the prevalence and type of physical restraint used with older persons on four rehabilitation wards in Northern Ireland. A longitudinal observational approach was used. One hundred and two patients were observed on four occasions over a three-day period. Most of the patients (68%) were subjected to some form of physical restraint, side-rails being the most commonly observed method. Those who were restrained were dependent on nursing care to meet their needs and received more drugs than those whose mobility was not restricted. No association was found between restraint use and nursing staffing levels, nor was there any association with the incidence of falls. Nurses rationalised their use of restraint as being linked to wandering and patient protection in cases of confusional type behaviours. An association was found between stroke and the maintenance of positional support through the use of restraints (side-rails and screw-on tabletops). Approximately, one-third of those restrained had this noted in their care plans, with concomitant evidence of patient/family involvement in the restraining decision.

REF ID: 2680

Level IV: Non-experimental study

Topic 3: Assessment

Gallinagh, R., Nevin, R., McAleese, L., & Campbell, L. (2001). Perceptions of older people who have experienced physical restraint. *British Journal of Nursing (Mark Allen Publishing)*, 10(13), 852-859.

Journal Article; N

It is well documented that the use of physical restraints on older people has been linked to negative clinical outcomes. However, less is known about the personal perspective of those who have been restrained. This study examines the perceptions of older people who have experienced physical restraints in a rehabilitation ward. A purposive sample was used of 17 male and female patients who were restrained. The patients were interviewed using the Subjective Experience of Being Restrained instrument (Strumpf and Evans, 1988) which is a semi-structured interview schedule. The most commonly used restraint devices included side rails, screw-on tabletops and reclining chairs. The data were analysed using content analysis. The results indicate mixed feelings regarding physical restraints. Patients' impressions of physical restraints included indifference of the devices to their perceived safety value. Overall, a minority of patients (n = 4) had positive feelings about physical restraints as they provided a sense of security to them. However, the negative comments of the patients were more prevalent and their responses were categorized in

terms of institutional control, ritualised care, entrapment and discomfort, and possible alternatives.

REF ID: 2671

Level VI: Opinion

Topic 6: Comprehensive

Gallinagh, R., Slevin, E., & McCormack, B. (2002). Side rails as physical restraints in the care of older people: A management issue. *Journal of Nursing Management*, 10(5), 299-306.

Journal Article; N

This article explores the use of side rails within the context of physical restraint in gerontological practice. It is debated that side rails can be considered as a form of physical restraint if the individual cannot voluntarily remove/lower the device if he/she wishes to do so. The value of side rails as a protective medium is debated with regard to their association with injuries sustained as a result. Side rails should be used with caution and within a risk management context. Frailty should not be an indicator for the use of side rails, an individualized approach to determine patient's suitability to side rails is advocated.

REF ID: 3036

Level V: Literature Review

Topic 3: Assessment

Gallinagh, R., Slevin, E., & McCormack, B. (2001). Continuing professional development: Side rails as physical restraints. side rails as physical restraints: The need for appropriate assessment. *Nursing Older People*, 13(7), 22-28.

Journal Article, CEU, Review

Side rails are commonly used in the care of the older person. They can be classified as a physical restraint if they restrict the movement of an individual and also if the individual has an inability to have them removed/lowered at will. Advanced age should not be an indicator for side rail use and an individualised approach in patient assessment is advised.

REF ID: 2678

Level VI: Opinion

Topic 3: Assessment

Gallinagh, R., Slevin, E., & McCormack, B. (2001). Side rails as physical restraints: The need for appropriate assessment. *Nurs. Older People*, 13(7), 22-7; quiz 28.

Journal Article; N

Side rails are commonly used in the care of the older person. They can be classified as a physical restraint if they restrict the movement of an individual and also if the individual has an inability to have them removed/lowered at will. Advanced age should not be an indicator for side rail use and an individualized approach in patient assessment is advised.

REF ID: 2718

Level V: Literature review

Topic 4: Management

Gerolamo, A. M. (2006). The conceptualization of physical restraint as a nursing-sensitive adverse outcome in acute care psychiatric treatment settings. *Archives of Psychiatric Nursing*, 20(4), 175-185.

Journal Article; IM; N

The occurrence of physical restraint episodes in psychiatric settings is a major public health issue because the therapeutic utility of this form of behavior control has not been substantiated empirically. The purpose of this article was to examine the extant literature to determine if evidence supports the conceptualization of a physical restraint episode as an adverse client outcome that is sensitive to the organization of nursing care in psychiatric settings. An adapted version of the Quality Health Outcomes Model (Mitchell, P. H., Ferketich, S., & Jennings, B. M. (1998). Quality —Health Outcomes Model. *Image Journal of Nursing*

Scholarship, 30, 43-46) was used as the conceptual model to guide this inquiry. The databases Cumulative Index to Nursing and Allied Health Literature, Health and Psychosocial Instruments, HealthSTAR/Ovid and Healthstar, Medline, and psychINFO were searched from 1990 to 2005. There are 101 sources in this review. Evidence strongly suggests that a physical restraint episode is an adverse outcome that is sensitive to the organization of nursing care. A systematic exploration of the specific structures and processes of the organization that affect adverse outcomes, such as physical restraint episodes, is lacking in the United States.

REF ID: 2709

Level V: Literature review

Topic 6: Comprehensive

Hamers, J. P., & Huizing, A. R. (2005). Why do we use physical restraints in the elderly? *Zeitschrift Fur Gerontologie Und Geriatrie : Organ Der Deutschen Gesellschaft Fur Gerontologie Und Geriatrie*, 38(1), 19-25.

Journal Article; Review; IM

The use of physical restraints in the elderly is a common practice in many countries. This paper summarizes the current knowledge on the use of restraints in home care, hospitals and nursing homes. Between 1999-2004 the reported prevalence numbers range from 41-64% in nursing homes and 33-68% in hospitals; numbers of restraint use in home care are unknown. Bed rails and belts have been reported as the most frequently used restraints in bed; chairs with a table and belts are the most frequently reported restraints in a chair. It is evident that physical restraints in most cases are used as safety measures; the main reason is the prevention of falls. In the hospital setting, the safe use of medical devices is also an important reason for restraint use. Predictors for the use of physical restraints are poor mobility, impaired cognitive status and high dependency of the elderly patient and the risk of falls in the nurses' opinion. Furthermore, there are indications that restraint use is related to organizational characteristics. Finally, many adverse effects of restraint use have been reported in the literature, like falls, pressure sores, depression, aggression, and death. Because of the adverse effects of restraints and the growing evidence that physical restraints are no adequate measure for the prevention of falls, measures for the reduction of physical restraints are discussed and recommendations are made for future research.

REF ID: 2993

Level IV: Non-experimental study

Topic 4: Management

Hamers, J. P. H., Gulpers, M. J. M., & Strik, W. (2004). Use of physical restraints with cognitively impaired nursing home residents. *Journal of Advanced Nursing*, 45(3), 246-251.

Journal Article, Research, Tables/Charts

AIM: The aim of the study was to examine the prevalence of physical restraint use in cognitively impaired nursing home residents, the manner in which restraints are used, reasons for using them, and relationships between residents' characteristics and use of physical restraints. **METHODS:** A point prevalence study was conducted on the use of physical restraints among all residents cared for in two Dutch nursing homes and one nursing home unit (n = 265). Data about the nursing home residents and the use of restraints were collected by means of a questionnaire, which was filled in by the nurses. The response rate was 98%. The mean age of residents was 81 years (sd = 8.6), 74% of whom were female. **RESULTS:** One or more restraints were used with 49% of the residents. The most frequently used physical restraints were bed rails, a waist belt, and a chair with a table. In almost all situations (90%), residents were continuously restrained and restraints were used for longer than 3 months. The most common reason (90%) for use of restraints was to prevent falls. Logistic regression analysis revealed that use of restraints was highly associated with poor mobility, care dependency and risk of —falling in the opinion of nursing staff.

CONCLUSIONS: The results of this study are comparable with those of other studies. However, since recent studies have reported that physical restraints are inadequate to prevent falls, recommendations are made to re-evaluate critically the use of restraints and to conduct future research into a responsible and safe way of decreasing the use of physical restraints.

REF ID: 2697

Level V: Case report

Topic 4: Management

Hancock, C. K., Buster, P. A., Oliver, M. S., Fox, S. W., Morrison, E., & Burger, S. L. (2001). Restraint reduction in acute care: An interdisciplinary approach. *The Journal of Nursing Administration, 31*(2), 74-77.

Case Reports; Journal Article; AIM; IM; N

The authors discuss an interdisciplinary project to reduce the use of restraints in an acute care setting. They describe the process, beginning with initial planning and then working and evaluation phases. Common patient problems often requiring restraint are identified, with suggested solutions. Outcomes of the project were that fall rates did not increase and the use of restraints decreased by 83%.

REF ID: 3043

Level IV: Non-experimental study

Topic 3: Assessment

Hantikainen, V. (2001). Nursing staff perceptions of the behaviour of older nursing home residents and decision making on restraint use: A qualitative and interpretative study. *Journal of Clinical Nursing, 10*(2), 246-256.

Journal Article, Research, Tables/Charts

* This study examined staff perceptions of the behaviour of older nursing home residents and how these perceptions govern their decision making on restraint use. * Data were collected in unstructured interviews with 20 trained and untrained nursing staff from two Swiss nursing homes. * Data analysis was based on Colaizzi's phenomenological method. * Two main themes were extracted from the data: (i) situations in which behaviour is perceived in terms of a problem that needs to be controlled and consequently leads to restraint use; and (ii) situations in which behaviour is perceived in terms of something one has to learn to live with and consequently leads to avoidance of restraint. * Staff members' choices to perceive resident's behaviour from the angle they did were clearly associated with the rights and responsibilities of both nursing staff and older people. * It is concluded that the primary source of change towards the avoidance of restraint use does not necessarily lie in external factors, but in staff members themselves.

REF ID: 2691

Level VI: Opinion

Topic 1: Risks

Happ, M. B., Kagan, S. H., Strumpf, N. E., Evans, L. K., & Sullivan-Marx, E. (2001). Elderly patients memories of physical restraint use in the intensive care unit (ICU). *American Journal of Critical Care : An Official Publication, American Association of Critical-Care Nurses, 10*(5), 367-369.

Comment; Letter; IM; N

REF ID: 3041

Level VI: Opinion

Topic 1: Risks

Happ, M. B., Kagan, S. H., Strumpf, N. E., Evans, L. K., SullivanMarx, E., & Minnick, A. et al. (2001). To the editors... "elderly patients' reports of physical restraint experiences in intensive care units" (may 2001:168-171). *American Journal of Critical Care, 10*(5), 367-369.

Journal Article, Commentary, Letter,

—Response

REF ID: 2957

Level I: Systematic Review

Topic 4: Management

Harding, G., & King, L. (2005). Adhering to the principles of restraint free environments in residential aged care: A literature review. *Geriatrics*, 23(2), 13-21.

Journal Article, Research, Systematic Review

The objective of this literature review was to summarise the reasons behind the continued use of physical restraints in residential aged care. Fifteen Australian and international research studies published in the last 10 years were reviewed. The findings indicate that continued physical restraint use is based on the often poorly preconceived attitudes of nursing staff towards the elderly, restraint use, and staffing. It will also show that staff education is closely associated with successful restraint reduction and that restraint reduction is financially viable.

REF ID: 2741

Level V: Case report

Topic 1: Risks

Hem, E., Steen, O., & Opjordsmoen, S. (2001). Thrombosis associated with physical restraints. *Acta Psychiatrica Scandinavica*, 103(1), 73-5; discussion 75-6.

Case Reports; Journal Article; IM

OBJECTIVE: Physical restraint is controversial, but still frequently used in psychiatric units. We describe two cases of thromboembolic phenomena, one with a fatal outcome, in association with physical restraint. METHOD: The world literature on physical restraint and thrombosis was reviewed by undertaking a search of electronic databases. RESULTS: To our knowledge, we are the first to report thrombosis associated with physical restraint. CONCLUSION: Immobilization and trauma to the legs while restraining a patient are adequate explanations for the occurrence of thrombosis. Special attention should be paid to thrombosis when employing restraints in psychiatric wards. Further systematic research into physical restraints in psychiatry is clearly needed.

REF ID: 2987

Level IV: Non-experimental study

Topic 1: Risks

Hendel, T., Fradkin, M., & Kidron, D. (2004). Multicultural aging. physical restraint use in health care settings: Public attitudes in israel. *Journal of Gerontological Nursing*, 30(2), 12-19.

Journal Article, Research, Tables/Charts

REF ID: 2730

Level VI: Practice guideline

Topic 6: Comprehensive

Hospital Bed Safety Workgroup. (2003). Clinical guidance for the assessment and implementation of bed rails in hospitals, long term care facilities, and home care settings. *Critical Care Nursing Quarterly*, 26(3), 244-262.

Guideline; Journal Article; Practice Guideline; N

REF ID: 2949

Level VI: Opinion

Topic 2: Prevention

Huckshorn, K. A. (2004). Reducing seclusion & restraint use in mental health settings: Core strategies for prevention. *Journal of Psychosocial Nursing and Mental Health Services*, 42(9), 22-33, 54-5.

Tables/Charts

—The use of seclusion and restraint (S/R) is

traumatizing to consumers and staff, interrupts the therapeutic process, and is not conducive to recovery. Six effective strategies to reduce S/R use have been identified and are low cost, easily replicable, and publicly available. Organizations that wish to reduce S/R use need to embrace a prevention approach, follow the tenets of continuous quality improvement, and develop a reduction plan individualized for that facility. Highly visible, consistent, and effective organizational leadership appears to be the most significant and critical component in any successful S/R reduction initiative.

REF ID: 3016

Level VI: Opinion

Topic 4: Management

Hughes, J. C., & Louw, S. J. (2002). Electronic tagging of people with dementia who wander: Ethical considerations are possibly more important than practical benefits. *BMJ*, 325(7369), 847-848.

Journal Article, Editorial

REF ID: 2968

Level V: Case report

Topic 4: Management

Inventor, B. R. E., Henricks, J., Rodman, L., Imel, J., Holemon, L., & Hernandez, F. (2005). The impact of medical issues in inpatient geriatric psychiatry. *Issues in Mental Health Nursing*, 26(1), 23-46.

Journal Article

At an advanced age, serious medical and psychiatric illnesses frequently coalesce. Often, the need for admission to inpatient geriatric psychiatric care arises from coexisting medical problems. While cognitive and behavioral interventions are important, the complexity of physical comorbidities usually becomes the focus of hospitalization and requires intensive medical treatments. This paper describes adaptations made in one metropolitan geriatric psychiatry unit in order to better treat complex patients who experience both medical and psychiatric illness. The need for all members of the interdisciplinary team to expand their practice and the importance of complementary approaches of psychiatry and medicine are emphasized.

REF ID: 2982

Level IV: Non-experimental study

Topic 1: Risks

Irving, K. (2004). Inappropriate restraint practices in Australian teaching hospitals. *Australian Journal of Advanced Nursing*, 21(4), 23-27.

Journal Article, Research, Tables/Charts

The use of restraints in contemporary healthcare represents an ethical problem to nurses and nursing. This paper describes a point prevalence study undertaken to examine the patterns of restraint use in an Australian teaching hospital. The objectives were: to clearly define restraint; establish its prevalence; the reasons for its use; and, to describe staffing levels in relation to restraint rates. Of the 256 patients who were observed, 9.4% were restrained. A third of the patients aged 85 years and over were restrained. The results support a previous Australian study that reported restraint rates of between 8.5% and 18.5% in acute hospitals.

REF ID: 2668

Level V: Case report

Topic 4: Management

Irving, K. (2002). Governing the conduct of conduct: Are restraints inevitable? *Journal of Advanced Nursing*, 40(4), 405-412.

Case Reports; Journal Article; IM; N

BACKGROUND: The purpose of this article is to provide an interpretation of how restraint use is maintained and legitimized despite negative —reports on its efficacy and questions about its

ethically. My research examined the use of restraint on a patient requiring care in an acute teaching hospital in Australia. This article examines one case study that was part of a PhD research project. The literature reveals evidence of the harm that restraints cause, as well as their ineffectiveness as a safety measure. In addition, it indicates that the prevalence of restraint use is high. **METHODS:** The study is framed by a Foucauldian approach to discourse analysis. This report is an in-depth case study including observations of the patient, interviews with members of the multidisciplinary team and analysis of medical, physiotherapy and nursing notation. **FINDINGS:** Discourses from the health care team are identified by which restraint use is justified, and legitimized by staff. An important discursive practice is 'constituting the patient's inability to self govern' and their resulting marginalization from the services provided by the team. **LIMITATIONS:** There are certain philosophical limitations including classical arguments about the position of postmodernism and specifically the ideas of Michel Foucault as opposed to other philosophy's ability to make sense of a phenomenon. The study was carried out in Australia and thus the discursive practices may be dissimilar in other countries. **CONCLUSIONS:** Through these discursive practices we can understand how staff maintain a monopoly over the truth and perpetuate claims about the inevitability of restraint use.

REF ID: 2706

Level II: Individual experimental study

Topic 4: Management

Janelli, L. M., Kanski, G. W., & Wu, Y. W. (2004). The influence of individualized music on patients in physical restraints: A pilot study. *The Journal of the New York State Nurses' Association*, 35(2), 22-27.

Clinical Trial; Journal Article; Randomized Controlled Trial; N

This pilot study explored the relationship between listening to preferred music and the behavioral responses of patients who are physically restrained. Thirty patients, ranging in age from 65 to 93, participated in one of three groups. The first group included patients who were out of restraining devices while listening to preferred music. Patients in the second group were out of restraining devices and not exposed to music. The third group comprised patients who were in restraining devices while listening to preferred music. Listening to preferred music had no significant effect on decreasing patients' negative behaviors or on increasing positive behaviors observed during the intervention phase of the study. The higher mean scores for positive behaviors and lower mean scores for negative behaviors for the first group may indicate some benefits to patients who are out of restraints and listening to preferred music.

REF ID: 2713

Level II: Individual experimental study

Topic 4: Management

Janelli, L. M., Kanski, G. W., & Wu, Y. W. (2002). Individualized music--a different approach to the restraint issue. *Rehabilitation Nursing : The Official Journal of the Association of Rehabilitation Nurses*, 27(6), 221-226.

Clinical Trial; Journal Article; Randomized Controlled Trial; N

Rehabilitation nurses who work with geriatric patients are concerned about reliance on physical restraints, as are all nurses. Controversy exists as to the benefits and risks, as well as the ethical and legal consequences, of their use. Nurses are ambivalent about using restraints, believing that they affect patients' freedom, self-respect, and self-reliance; they also often believe that there are no appropriate alternatives. This pilot study explored the use of music as a potential alternative to using physical restraints with hospitalized patients. The research question was: Will patients have more positive behaviors, as measured by the Restraint Music Response Instrument (RMRI), while out of restraints and listening to preferred music compared with the —patients not listening to music who are out of restraints

while being observed? Forty medical-surgical patients participated in the study and were randomized into either the experimental group (music) or the control group (no music). The mean age of the 21 males and 19 females was 76.6 years (range 56-94). A t test for equality of means was used to determine if there were differences in the number of positive and negative behaviors in the preintervention, intervention, and postintervention phases between the two groups. There was a significant difference ($p < .01$) in behaviors during the intervention phase. Patients who listened to preferred music had more positive behaviors while out of restraints than patients who were out of restraints but not exposed to music.

REF ID: 2652

Level VI: Opinion

Topic 4: Management

Janelli, L. M., Stamps, D., & Delles, L. (2006). Physical restraint use: A nursing perspective. *MedSurg Nursing : Official Journal of the Academy of Medical-Surgical Nurses*, 15(3), 163-167.

Journal Article; N

REF ID: 3040

Level VI: Opinion

Topic 1: Risks

Jech, A. O. (2001). Continuing education. of human bondage: Alternatives to restraints help reduce risks to patients. *NurseWeek California*, 14(7), 17-19.

Journal Article, CEU, Exam Questions, Website

REF ID: 2738

Level VI: Opinion

Topic 4: Management

Joint Commission on Accreditation of Healthcare Organizations. (2002). Delegation of restraint and seclusion orders allowed in behavioral health care. *Joint Commission Perspectives. Joint Commission on Accreditation of Healthcare Organizations*, 22(7), 4.

Guideline; Journal Article; H

REF ID: 2685

Level IV: Non-experimental study

Topic 1: Risks

Karlsson, S., Bucht, G., Eriksson, S., & Sandman, P. O. (2001). Factors relating to the use of physical restraints in geriatric care settings. *Journal of the American Geriatrics Society*, 49(12), 1722-1728.

Journal Article; E; IM

Physical restraints are commonly used on older persons living in geriatric care settings. The aim of this study was to investigate the influence of environmental and organizational variations and resident and staff characteristics on restraint prevalence. In this cross-sectional study of 33 nursing home wards and 12 group living units for old persons with dementia in two municipalities in northern Sweden, 540 residents (mean age 82) and 529 staff members were evaluated for resident and staff characteristics and organizational and environmental variables. The proportion of residents with impaired mobility function, the number of behavioral disturbances, and nursing staff's attitudes towards use of restraints were the strongest discriminators between restraint-free wards and wards that used restraints. A classification function analysis showed that these three variables could correctly classify the wards as restraint-free, low-use, and high-use wards in 63.6% of the cases, with the highest figures for restraint-free wards (91%). This study has shown that the use of physical restraints is strongly connected with residents' functional status and nursing staffs' attitudes toward their use.

REF ID: 2972

Topic 6: Comprehensive

Level V: Case report

—Kasper, J. (2004). Aging matters: Strategies for

optimal care of the elderly. behavioral symptoms in alzheimer dementia: A guide to evaluation and management. *Consultant*, 44(9), 1265-1268.

Journal Article, Case Study, Tables/Charts

REF ID: 2710

Level V: Literature Review

Topic 2: Prevention

Kelly, A., & Dowling, M. (2004). Reducing the likelihood of falls in older people. *Nursing Standard (Royal College of Nursing (Great Britain) : 1987)*, 18(49), 33-40.

Journal Article; Review; N

BACKGROUND: Falls are a serious health concern for older people and an important issue for nurses. Many factors contribute to the causes of falls. Various combinations of these factors have been incorporated in the fall assessment tools developed so far, but no single tool has been adopted universally. Institutions tend to develop their own assessment tools, which are investigated in these institutions only, and thus have not been independently evaluated for validity and reliability. CONCLUSION: A thorough patient assessment is a vital measure in fall prevention. Nurses, particularly those based in hospitals, have a pivotal role in developing fall prevention strategies, either individually or as part of an interdisciplinary team. Fall prevention strategies have the potential to improve the quality of life for at-risk older patients and their families, as well as provide economic benefits to society.

REF ID: 3002

Level V: Literature Review

Topic 1: Risks

Klein, J. (2002). Iatrogenesis within long term care facilities. *Occupational Therapy in Health Care*, 16(2/3), 91-104.

Journal Article, Review

Seniors living within long term care facilities have higher incidences of frailness, chronic disease, and deterioration as compared with seniors living in the community. There is increasing evidence within the literature that some of this deterioration is caused by the very facilities they are living in. This article discusses the iatrogenic factors associated with living in long term care facilities and the consequences of such factors on older adults. Following this, an exploration of the relevancy of this issue for occupational therapists will take place. Occupational therapists must be particularly alert to the dangers of iatrogenic effects and be concerned with making changes within the long term care system to prevent further harm to older adults and work on promoting an environment that promotes optimal health.

REF ID: 2973

Level VI: Opinion

Topic 1: Risks

Kleinpell, R. M. (2001). Area researchers hold new view on restraints in the ICU. *Nursing Spectrum (New York/New Jersey Metro Edition)*, 13A(13), 3.

Journal Article

REF ID: 2969

Level IV: Non-experimental study

Topic 4: Management

Knight, M. M. (2005). Quality improvement initiatives to minimize seclusion and restraint. *Journal for Healthcare Quality*, 27(2), 20-25.

Journal Article, CEU, Research, Tables/Charts
Much literature exists detailing adverse outcomes associated with the use of seclusion and restraint (S&R). Recognizing the negative effects of this intervention, one organization began a quality —improvement project to reduce the use of this

behavioral management strategy. A retrospective study using the medical record and the S&R database was initiated to examine clinical symptoms at the point of admission of those individuals who later experienced an S&R and to evaluate S&R practices across treatment areas. This initial project identified the admission processes, early treatment initiatives, and individuals experiencing multiple episodes of S&R as critical foci.

REF ID: 2687

Level V: Case report

Topic 4: Management

Koch, S., Lyon, C., & Lyon, K. S. (2001). Case study approach to removing physical restraint. *International Journal of Nursing Practice*, 7(3), 156-161.

Case Reports; Journal Article; N

The pathway to discarding the use of restraints on older people with a dementing illness is cluttered with misinformation. While exploring the reasons restraints are used as an intervention on an older person with a dementing illness, we find duty of care is an important aspect. This paper presents the process that occurred when an aged care facility used an education and consultation approach in an attempt to remove the need for physical and chemical restraint. This case involved the family of an older person with a dementing illness and staff of the aged care facility.

REF ID: 2724

Level V: Literature review

Topic 3: Assessment

Kong, E. H. (2005). Agitation in dementia: Concept clarification. *Journal of Advanced Nursing*, 52(5), 526-536.

Journal Article; Review; IM; N

AIM: The aim of this paper is to clarify the concept of agitation in dementia through analysing definitions, critical attributes, components, boundaries, antecedents and consequences of agitation. BACKGROUND: The concept of agitation is not well defined. In addition, there exists much confusion about the characteristics and boundaries of agitation, as well as the distinction between agitation and related concepts. Recently developed theoretical models for agitation in dementia require new interpretation and conceptualization of agitation. METHODS: Morse's method of critical appraisal of the literature was used. In addition, some parts of Rodgers' evolutionary method were employed. Data were selected using six electronic databases and the key words 'agitation', 'agitated', 'dementia', 'demented' and 'Alzheimer'. The analysis included 86 empirical or theoretical papers and one book. RESULTS: A transition from the observer's perspective to the patient's perspective in the interpretation of agitation was found. Five critical attributes of agitation in dementia were identified: excessive, inappropriate, repetitive, non-specific and observable. Patient factors, interpersonal factors, environmental factors and restraint were identified as precipitating antecedents. Mediating antecedents included discomfort, unmet need and misinterpretation. Consequences of agitation were identified at the levels of patient, caregiver and others. CONCLUSIONS: This transition in perspectives has important implications as it can change health providers' attitudes and responses to agitation and lead to patient-focused and individualized care. Researchers and clinicians are encouraged to avoid labelling agitated behaviour as 'disturbing behaviour'.

REF ID: 2700

Level II: Individual experimental study

Topic 2: Prevention

Kwok, T., Mok, F., Chien, W. T., & Tam, E. (2006). Does access to bed-chair pressure sensors reduce physical restraint use in the *Nursing*, 15(5), 581-587.

(2006). Does access to bed-chair pressure sensors rehabilitative care setting? *Journal of Clinical Nursing*, 15(5), 581-587. —Journal Article; Randomized Controlled Trial; N

BACKGROUND: The common use of physical restraints in older people in hospitals and nursing homes has been associated with injurious falls, decreased mobility and disorientation. By offering access to bed-chair pressure sensors in hospitalized patients with perceived fall risk, nurses may be less inclined to resort to physical restraints, thereby improving clinical outcomes. **AIMS AND OBJECTIVES:** To investigate whether the access of bed-chair pressure sensors reduces physical restraint use in geriatric rehabilitation wards. **DESIGN:** Randomized controlled trial. **METHODS:** Consecutively, patients admitted to two geriatric wards specialized in stroke rehabilitation in a convalescent hospital in Hong Kong, and who were perceived by nurses to be at risk of falls were randomly assigned to intervention and control groups. For the intervention group subjects, nurses were given access to bed-chair pressure sensors. These sensors were not available to control group subjects, as in usual practice. The trial continued until discharge. The primary outcomes were the proportion of subjects restrained by trunk restraint, bedrails or chair-board and the proportion of trial days in which each type of physical restraint was applied. The secondary outcomes were the proportions of those who improved in the mobility and transfer domains of modified Barthel index on discharge and of those who fell. **RESULTS:** One hundred and eighty subjects were randomized. Fifty (55.6%) out of the 90 intervention group subjects received the intervention. There was no significant difference between the intervention and control groups in the proportions and duration of having the three types of physical restraints. There was also no group difference in the chance of improving in mobility and transfer ability, and of having a fall. **CONCLUSION:** Access to bed-chair pressure sensor device neither reduced the use of physical restraints nor improved the clinical outcomes of older patients with perceived fall risk. **RELEVANCE TO CLINICAL PRACTICE:** The provision of bed-chair pressure sensors may only be effective in reducing physical restraints when it is combined with an organized physical restraint reduction programme.

REF ID: 2991

Level III: Quasi-experimental study

Topic 4: Management

Lai, C. K. Y., Kong, S. K. F., Chow, S. K. Y., Lee, J. C. S., & Lok, C. K. W. (2003). A restraint reduction program in a local old age home. *Asian Journal of Nursing Studies*, 6(2), 1-10.

Journal Article, Research, Tables/Charts

The aim of this pilot study was to investigate whether a staff educational program and the establishment of a restraint review committee would be effective in reducing restraint use in a private old age home (Home). A single group quasiexperimental design was adopted. An in-service education program on the use of restraints and restraint alternatives was provided to nurses and other unregulated health workers. The Restraint Review Committee (RRC) comprised the Home's manager and physiotherapist, three unit leaders/nurses, and members of the research team. They met weekly to develop a restraint reduction policy and to review each resident who needed restraints. Of 106 residents, 90 subjects were recruited into the study. Thirteen residents in the sample had restraints used on them. This number was not reduced in the post-intervention period, however the form of restraint and its duration were reduced in some cases. Both the statistical findings and RRC observations demonstrated that the use of physical restraints was not widespread in the Home and that its use had been, for the most part, appropriate. Contrary to what is commonly found in the literature, the status of being a faller in the Home did not render the resident more likely to be restrained. Findings also highlighted the importance of family involvement in restraint reduction.

REF ID: 2648

QM: Quality Measures

Laine, J., Finne-Soveri, U. H., Bjorkgren, M.,
association between quality of care and

Topic 5: Evaluation/follow-up

Linna, M., Noro, A., & Hakkinen, U. (2005). The
—technical efficiency in long-term care. *International*

Journal for Quality in Health Care : Journal of the International Society for Quality in Health Care / ISQua, 17(3), 259-267.

Journal Article; IM

OBJECTIVE: To analyse the association between quality of care and technical (productive) efficiency in institutional long-term care wards for the elderly. **SETTING:** One hundred and fourteen public health centre hospitals and residential homes in Finland. **STUDY DESIGN:** Wards were divided into two categories according to their rank in the quality distribution, considering 41 quality variables separately. The technical efficiency scores of the good- and poor-quality groups were compared using cross-sectional data. **METHODS:** Data envelopment analysis was used for calculating technical efficiency. The Mann-Whitney test and correlation coefficients were used to explore the association between quality and efficiency. **RESULTS:** The wards where quality indicators indicated less pro-active (passive) nursing practice and more dependent patients—for instance, in terms of very high prevalence of bedfast residents or very high prevalence of daily physical restraints—performed more efficiently than the comparison group. **CONCLUSION:** The results suggest that an association may exist between technical efficiency and unwanted dimensions of quality. Hence, the efficiency and quality of care are essential aspects of management and performance measurement in elderly care.

REF ID: 2698

Level V: Case report

Topic 1: Risks

Landi, F., Bernabei, R., Trecca, A., Marzi, D., Russo, A., & Carosella, L. et al. (2001). Physical restraint and subcutaneous hematoma in an anticoagulated patient. *Southern Medical Journal, 94(2), 254-255.*

Case Reports; Journal Article; AIM; IM

A large subcutaneous hematoma extending from the breastbone region to the left axillary region and left flank developed in a 86-year-old anticoagulated man because of repeated microtrauma from a physical restraint used to prevent his rising from a chair. Physicians, nurses, and physiotherapists should recognize that physical restraints causing pressure on the skin increase hemorrhagic risk in patients who take low molecular weight heparin. Accordingly, they should systematically check for hemorrhagic complications and attempt to limit the use of such devices.

REF ID: 2998

Level IV: Non-experimental study

Topic 1: Risks

Landi, F., Cesari, M., Russo, A., Onder, G., Lattanzio, F., & Bernabei, R. et al. (2003). Potentially reversible risk factors and urinary incontinence in frail older people living in community. *Age and Ageing, 32(2), 194-199.*

Journal Article, Research, Tables/Charts

BACKGROUND: urinary incontinence is a common problem among older people living in different community settings. The multifactorial origin of urinary incontinence has been largely addressed and many previous studies have identified several reversible factors associated with incontinence. However, few data exist concerning the potentially reversible causes of this condition among frail community-dwelling older individuals. **OBJECTIVE:** the aim of the present study is to estimate, in a large population of frail elderly people living in the community, the prevalence of urinary incontinence and to determine physical, social, and psychological factors associated with it. **DESIGN:** observational study. **Subjects and methods:** we analysed data from a large collaborative observational study group, the Italian Silver Network Home Care project, that collected data on patients admitted to home care programmes (n=5418). A total of 22 Home Health Agencies participated in this —project evaluating the implementation of the Minimum

Data Set for Home Care instrument. The main outcome measures were the prevalence and factors associated with urinary incontinence. RESULTS: urinary incontinence was recorded in 51% of patients, and it was more common in women than men (52% versus 49%, respectively; P=0.01). After adjustment for each of the variables considered in this study, three potentially reversible factors were strongly associated with urinary incontinence: urinary tract infection (adjusted odds ratio, 3.46; 95% confidence interval, 2.65-4.51), use of physical restraints (adjusted odds ratio, 3.20; 95% confidence interval, 2.19-4.68), environmental barriers (adjusted odds ratio, 1.53; 95% confidence interval, 1.15-2.02). These associations were consistent in both men and women. CONCLUSIONS: the major finding of our study is that potentially reversible factors were strongly and independently associated with urinary incontinence. Failure to make all reasonable efforts to assess and to treat all these factors among frail elderly people should be considered one of the most important indicators of poor quality of care.

REF ID: 2696

Level V: Case report

Topic 1: Risks

Lazarus, A. (2001). Physical restraints, thromboembolism, and death in 2 patients. *The Journal of Clinical Psychiatry*, 62(3), 207-208.

Case Reports; Letter; IM

REF ID: 2986

Level IV: Non-experimental study

Topic 3: Assessment

Leggett, J., & Silvester, J. (2003). Care staff attributions for violent incidents involving male and female patients: A field study. *British Journal of Clinical Psychology*, 42(Part 4), 393-406.

Journal Article, Research, Tables/Charts

OBJECTIVES: This article presents a study of naturally occurring attributions recorded by care staff following incidents of restraint in a psychiatric secure unit. The relationship between control for patient, control for staff and behavioural outcomes including use of medication, seclusion and duration of restraint were explored for male and female patients. DESIGN AND METHODS: In all, 557 forms documenting incidents of control and restraint, and completed over a four-year period by nurses in a UK psychiatric hospital, were content analysed using the Leeds Attributional Coding System (LACS; Munton, Silvester, & Hanks, 1999). Additional information concerning duration of restraint, severity of injuries sustained by patient and care staff, use of medication and seclusion, and patient was also gathered. It was hypothesized that perceived patient control over causes of the restraint incident would be associated with duration of restraint, use of seclusion and medication. It was also predicted that male patients would be perceived as having more control over incidents, and thus be more likely to be secluded and less likely to be prescribed medication, than female patients. RESULTS: Seclusion was associated with controllable attributions for patient and uncontrollable attributions for care staff. Use of medication was associated with uncontrollable attributions for patient, but only for male patients. Contrary to prediction, female patients were more likely to be secluded than males and less likely to receive medication. Staff were also more likely to state that they had 'no explanation' for restraint incidents involving female patients. CONCLUSIONS: The investigation of naturally occurring attributions raises important questions regarding the relationship between patient gender and attributional models of helping behaviour. The results are discussed in terms of their potential implications for future research and health care practice.

REF ID: 3027

Level VI: Opinion

Leonard, J. (2002). Reflections: Practice assessment. *Nursing Older People*, 14(3), 37.

Topic 3: Assessment

profile. side rails: The need for appropriate
—Journal Article, Commentary

REF ID: 2992

Level VI: Opinion

Topic 4: Management

Levenson, D. (2003). Delirium treatment model departs from conventional practices. *Report on Medical Guidelines & Outcomes Research, 14(15), 9-10, 12.*

Journal Article

REF ID: 2971

Level V: Case report

Topic 2: Prevention

Lin, J. T., & Lane, J. M. (2005). Falls in the elderly population. *Physical Medicine and Rehabilitation Clinics of North America, 16(1), 109-128.*

Journal Article, Case Study, Review, Tables/Charts

Falls in the elderly population represent a serious problem with potentially devastating consequences. Etiologies of falls can be complex with few easy solutions. A systematic approach involving the identification of all contributing factors with resulting appropriate treatment can best minimize the risk of falls. An interdisciplinary approach involving the treatment of reversible medical conditions, medication management, exercise programs including Tai Chi and physical therapy, hip protectors, and environmental modifications represent some of the most effective interventions in the prevention and treatment of falls. Copyright (C) 2004 by Elsevier Science (USA).

REF ID: 2960

Level V: Literature review

Topic 1: Risks

MarcyEdwards, D. (2005). The down-side of bed rails... originally titled "bed rails: Is there an up side," has been reproduced from canadian nurse, vol. 101, no. 1, 2005. *Canadian Nursing Home, 16(2), 16-20.*

Journal Article, Tables/Charts

This article examines the historical development that led to health care facilities embracing the belief that bed rail use was safe and benevolent, and examines current research that challenges these beliefs. It also addresses alternatives to bed rails and emphasizes the need for accurate assessment, documentation and moral and ethical reflection in relation to the development of an understanding of what is appropriate application of bed rails.

REF ID: 2996

Level II: Individual experimental study

Topic 1: Risks

Martin, H., Slyk, M. P., Deymann, S., & Cornacchione, M. J. (2003). Safety profile assessment of risperidone and olanzapine in long-term care patients with dementia. *Journal of the American Medical Directors Association, 4(4), 183-188.*

Journal Article, Research, Tables/Charts

OBJECTIVE: To assess the adverse events associated with the appropriate use of oral risperidone and oral olanzapine in long-term care patients with behavioral and psychotic disturbances associated with dementia. DESIGN: Observational analysis. SETTING: Analysis was performed at five consulting pharmacist sites across the United States. Participants were recruited at 89 skilled nursing facilities by consultant pharmacists who provided services at each site. PATIENTS: A total of 730 men and women with dementia who had been residents of a skilled nursing facility for at least 90 days were included in the study. Alzheimer's disease was the primary diagnosis in 47% of patients. INTERVENTION: Patients were treated with risperidone < or =2 mg/day or —olanzapine < or =10 mg/day for at least 90 days.

MEASUREMENTS: Targets for antipsychotic use included nonaggressive symptoms of psychosis and verbally and physically aggressive behaviors. The effects of risperidone and olanzapine were determined from progress notes, psychotropic monitoring forms, and physicians' order forms after 91 days of treatment. Adverse events of particular significance in the elderly population, including agitation/anxiety, laxative use, dry eyes, and falls, were collected from audited medical records. The evaluation period extended from 3 months before to 3 months after initiation of treatment with risperidone or olanzapine. **RESULTS:** There were 474 patients in the risperidone group and 256 patients in the olanzapine group. Mean dosages of risperidone at Days 1 and 91 (0.7 +/- 0.3 mg/day and 1.0 +/- 0.5 mg/day, respectively) and olanzapine (3.3 +/- 1.4 mg/day and 4.7 +/- 2.1 mg/day, respectively) were at least 50% lower than the maximum dosages recommended by the Center for Medicare and Medicaid Services for elderly patients with psychosis or behavioral symptoms of dementia. The need for eye lubrication was minimal in both groups and did not differ significantly between them. Anxiolytic use decreased in the risperidone group and remained constant in the olanzapine group, with no significant difference between groups. In the olanzapine and risperidone groups, the number of patients with orders for laxatives increased 10.2% and 1.8%, respectively ($P = 0.003$), the mean number of days of laxative administration increased 19.1% and 4.3%, respectively ($P < 0.001$), and the mean number of doses of laxative administered increased 14.2% and 4.1%, respectively ($P = 0.001$). Among patients qualifying for analysis, falls were recorded for 17.9% of patients receiving olanzapine and 6.9% receiving risperidone ($P = 0.001$). **CONCLUSION:** Among long-term care residents with dementia who received low doses of risperidone or olanzapine, the incidence of adverse events was low. When considering adverse events of particular concern in the elderly, specifically falls and laxative use, risperidone may be preferred over olanzapine in this population.

REF ID: 2683

Level IV: Non-experimental study

Topic 3: Assessment

McCusker, J., Cole, M., Abrahamowicz, M., Han, L., Podoba, J. E., & Ramman-Haddad, L. (2001). Environmental risk factors for delirium in hospitalized older people. *Journal of the American Geriatrics Society, 49(10), 1327-1334.*

Journal Article; IM

OBJECTIVES: To evaluate the relationship of environmental risk factors in hospitals to changes over time in delirium symptom severity scores. **DESIGN:** Observational prospective clinical study with repeated measurements, several times during the first week of hospitalization and then weekly during hospitalization. **SETTING:** University-affiliated general community hospital. **PARTICIPANTS:** Four hundred forty-four patients age 65 and older admitted to the medical wards: 326 with delirium and 118 without delirium. Patients with prior cognitive impairment were oversampled. **MEASUREMENTS:** The severity of delirium symptoms was measured with the Delirium Index, a scale developed and validated by our group, based on the Confusion Assessment Method. Potential environmental risk factors assessed included isolation, hospital unit, room changes, levels of sensory stimulation, aids to orientation, and presence of medical (e.g., intravenous) or physical restraints. **RESULTS:** Controlling for initial severity of delirium and patient characteristics, variables significantly related to an increase in delirium severity scores included hospital unit (intensive care or long-term care unit), number of room changes, absence of a clock or watch, absence of reading glasses, presence of a family member, and presence of medical or physical restraints. **CONCLUSION:** The associations of intensive care and medical and physical restraints with severity of delirium symptoms may be due to uncontrolled confounding by indication. However, the other factors identified suggest potentially modifiable risk factors for symptoms of delirium in hospitalized older people.

REF ID: 2654

—Level IV: Non-experimental study

Topic 3: Assessment

Micek, S. T., Anand, N. J., Laible, B. R., Shannon, W. D., & Kollef, M. H. (2005). Delirium as detected by the CAM-ICU predicts restraint use among mechanically ventilated medical patients. *Critical Care Medicine*, 33(6), 1260-1265.

Journal Article; AIM; IM

OBJECTIVE: The first goal of this investigation was to identify individuals with delirium defined by the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) among medical patients with respiratory failure. Our second goal was to compare clinical interventions including use of continuous sedation infusions, the number of ventilator-free days, ICU length of stay, hospital mortality, and use of physical restraints in mechanically ventilated patients with and without delirium. DESIGN: A prospective, single-center, observational cohort study. SETTING: The medical intensive care unit (19 beds) of an urban teaching hospital. PATIENTS: Adult, intubated, and mechanically ventilated patients. INTERVENTIONS: Daily evaluation with the CAM-ICU, outcomes assessment, and prospective data collection.

MEASUREMENTS AND MAIN RESULTS: Among 93 patients evaluated using the CAM-ICU, 44 patients (47%) developed delirium (CAM-ICU+) for ≥ 1 day while in the intensive care unit. Twenty-two patients (24%) had no episodes of delirium recorded (CAM-ICU-), and 27 (29%) remained comatose until extubation or death. A statistically greater number of patients with delirium (CAM-ICU+) received continuous infusions of midazolam (59% vs. 32%, $p < .05$) or fentanyl (57% vs. 32%, $p < .05$) and physical soft-limb restraints (77% vs. 50%, $p < .05$) compared with patients without delirium (CAM-ICU-).

CONCLUSIONS: The identification of delirium using the CAM-ICU was associated with greater use of continuous sedation infusions and physical restraints. Additional studies are required to determine how the use of these specific interventions influences the occurrence and the natural history of delirium among critically ill patients.

REF ID: 2664

Level VI: Opinion

Topic 1: Risks

Mildner, R., Snell, A., Arora, A., Sims, D., & Wales, E. (2003). The prevalence of bedrail use in british hospitals. *Age and Ageing*, 32(5), 555-556.

Comment; Letter; IM

REF ID: 3004

Level VI: Opinion

Topic 4: Management

Minnick, A. (2003). Nursing counts. nurse management and physical restraint. *American Journal of Nursing*, 103(5), 116.

Journal Article, Brief Item

REF ID: 2716

Level IV: Non-experimental study

Topic 1: Risks

Minnick, A., Leipzig, R. M., & Johnson, M. E. (2001). Elderly patients' reports of physical restraint experiences in intensive care units. *American Journal of Critical Care : An Official Publication, American Association of Critical-Care Nurses*, 10(3), 168-171.

Journal Article; Multicenter Study; IM; N

BACKGROUND: Use of physical restraints has undesirable sequelae. As they weigh the risks and benefits of protocols for reducing the use of restraints, staff members in intensive care units, where restraints are most used in hospitals, need to know how well elderly patients remember being restrained and how patients perceive the use of restraints. —OBJECTIVES: To estimate the proportion of patients

who remember being restrained, describe the experience from the patients' perspectives, and describe any distress caused by use of restraints within the overall experience of being in the intensive care unit. **METHODS:** Transcripts of semistructured, audiotaped interviews of patients who had been in the medical or surgical intensive care unit in any of 3 eastern and midwestern medical centers were analyzed by question and for overall themes. **RESULTS:** Six patients (40%) remembered some aspect of being restrained but did not report great distress. Patients accepted restraints as needed because of the lack of alternatives. Patients reported remembering that they should not perform certain behaviors but being unable to stop themselves. Patients cited hallucinations and intubation as major stressors in the intensive care unit. Patients' continuing health problems after discharge from the intensive care unit severely limited recruitment of subjects. **CONCLUSIONS:** Patients do not remember great distress specifically related to the use of restraints, but the overall situation leading to use of restraints is disturbing if remembered. The discovery of methods to reduce the distress of intubation and hallucinations could decrease use of restraints.

REF ID: 2689

Level V: Case report

Topic 4: Management

Mion, L. C., Fogel, J., Sandhu, S., Palmer, R. M., Minnick, A. F., & Cranston, T. et al. (2001).

Outcomes following physical restraint reduction programs in two acute care hospitals. *The Joint Commission Journal on Quality Improvement*, 27(11), 605-618.

Case Reports; Journal Article; IM

BACKGROUND: Physical restraint rates can be reduced safely in long term care settings, but the strategies used to prevent wandering, falls, and patient aggression have not been tested for their effectiveness in preventing therapy disruption. A restraint reduction program (RRP) consisting of four core components (administrative, educational, consultative, and feedback) was implemented in 1998-1999 in 14 units at two acute care hospitals in geographically distant cities. **METHODS:** The RRP was targeted at units with prevalence rates of $> \text{ or } = 4\%$ for non-intensive care units (non-ICUs) and $> \text{ or } = 25\%$ for ICUs, as well as two additional units. The RRP was implemented by an interdisciplinary team consisting of geriatricians and nurse specialists. **RESULTS:** Of the 16,605 admissions to the RRP units, 2,772 cases received RRP consultations. Only six units (four of seven general units and two of six ICUs) demonstrated a relative reduction of $> \text{ or } = 20\%$ in the physical restraint use rate. No increase in secondary outcomes of patient falls and therapy disruptions (patient-initiated discontinuation or dislodgment of therapeutic devices) occurred, injury rates were low, and no deaths occurred as a direct result of either a fall or therapy disruption event. **DISCUSSION:** Given the minimal success in the ICU settings, further studies are needed to determine effective nonrestraint strategies for critical care patients. ICU clinicians need to be persuaded of the favorable risk-to-benefit ratio of alternatives to physical restraint before they will change their practice patterns. **SUMMARY:** Efforts to identify more effective interventions that match patient needs and to identify non-clinician factors that affect physical restraint use are needed.

REF ID: 2707

Level V: Literature review

Topic 1: Risks

Mott, S., Poole, J., & Kenrick, M. (2005). Physical and chemical restraints in acute care: Their potential impact on the rehabilitation of older people. *International Journal of Nursing Practice*, 11(3), 95-101.

Journal Article; Review; N

present in over half of the hospitalizations for authors, results indicated that nursing actions

Agitation is a major problem for older people and is present in over half of the hospitalizations for people > 65 years of age. In a previous study by the authors, results indicated that nursing actions —often did not meet best-practice standards in the care

of older, agitated patients. This paper builds on these results by reviewing the literature pertaining to the use of restraints and contributes to the body of knowledge surrounding the impact of the acute-care experience on rehabilitation outcomes. Successful rehabilitation relies on the improvement of functional health outcomes and, for this to happen, physical and emotional well-being are important. The sequelae of restraint use in acute care have the potential to alter peoples' ability to participate fully in a rehabilitation programme, thereby placing their future placement at risk. This paper explores the outcomes of restraint use in the acute-care setting and presents the argument that their effects are likely to be detrimental to rehabilitation outcomes.

REF ID: 2980

Level IV: Non-experimental study

Topic 5: Evaluation/follow-up

Mullette, B., & Zulkowski, K. (2004). Bedrails: Restraints or enablers? *Ostomy/wound Management*, 50(8), 64-69.

Journal Article, Research, Tables/Charts

Bedrails presently are used as both mobility restraints and enablers in long-term care facilities. As enablers, bedrails facilitate movement and may reduce the risk of pressure ulcer development. As restraints, they impede movement and may increase risk of ulcer development. Omnibus Budget Reconciliation Act regulations on restraint use have led to confusion for state Medicare surveyors and facilities regarding the definition of appropriate bedrail use and need for supportive documentation. Consequently, some facilities receive deficiency citations for inappropriate use or documentation while others do not. The purpose of this survey was to compare responses of Directors of Nursing in long-term care facilities and Medicare state surveyors to determine how each interprets the Omnibus Budget Reconciliation Act bedrail language for use and documentation. Questionnaires on bedrail use and documentation were sent to state surveyors and Directors of Nursing. One hundred, three (103) Directors of Nursing in 45 states and 65 surveyors from 39 states participated in the survey (response rate 61%). Study results demonstrated general acceptance of bedrail use as an enabler but not as a restraint by both Directors of Nursing and state surveyors. Four percent (4%) of Directors of Nursing reported receiving a citation for bedrail use and 59% of surveyors reported issuing citations for bedrail use. Significant differences were noted between the two groups regarding appropriate bedrail use and necessary documentation. The intent of Medicare guidelines and the Centers for Medicare and Medicaid Services is to standardize care for nursing home residents in the United States; yet, current regulations are open to individual interpretation by state surveyors and confusion exists between the intent of the Omnibus Budget Reconciliation Act and the daily operations of nursing homes. Educating clinicians about the risks and benefits of bedrail use, either as restraint or enabler, and developing interventions and policies for appropriate use would be an important first step in resolving this issue.

REF ID: 2684

Level IV: Non-experimental study

Topic 4: Management

Myers, H., Nikoletti, S., & Hill, A. (2001). Nurses' use of restraints and their attitudes toward restraint use and the elderly in an acute care setting. *Nursing & Health Sciences*, 3(1), 29-34.

Journal Article; N

A descriptive correlation study was conducted in an acute-care hospital to explore the relationship between nurses' use of restraints and their attitudes toward restraint use and the elderly. A total of 201 nurses returned a questionnaire that collected demographic information and included two research instruments: (i) Perceptions of Restraint Use Semantic Differential. Results showed slightly positive attitudes towards the elderly and toward the

use of restraints, although there was no correlation between scores on the two scales. Furthermore, nurses' attitudes did not predict their self-reported use of restraints.

REF ID: 2655

Level VI: Opinion

Topic 3: Assessment

Nakasato, Y., Servat, J., Amador, F., & Teasdale, T. A. (2005). Delirium in the older hospitalized patient. *Journal - Oklahoma State Medical Association*, 98(3), 113-116.

Journal Article; IM

REF ID: 2667

Level VI: Opinion

Topic 3: Assessment

Napierkowski, D. (2002). Using restraints with restraint. *Nursing*, 32(11 Pt 1), 58-62; quiz N212.

Journal Article; N

REF ID: 2721

Level IV: Non-experimental study

Topic 4: Management

Nay, R., & Koch, S. (2006). Overcoming restraint use: Examining barriers in Australian aged care facilities. *Journal of Gerontological Nursing*, 32(1), 33-38.

Journal Article; N

The purpose of this article is to discuss the outcomes of a project that sought to identify alternatives to restraint use in aged care facilities. (In Australia, the term aged care facility refers to those facilities previously known as hostels and nursing homes.) A literature review was conducted and discussion forums and individual interviews were held with interested stakeholders in Australian capital cities, as well as in a rural city in each state. Site visits were conducted at 16 aged care facilities. Participants identified legal concerns, existing organizational culture, and lack of alternatives as barriers to implementing restraint-minimization practices. Recommendations to facilitate minimal restraint are implementing national policy guidelines, adopting a best practice philosophy in relation to restraint minimization, continuing staff education related to alternatives, and maintaining constant communication with families.

REF ID: 3010

Level VI: Opinion

Topic 2: Prevention

Oliver, D. (2002). Hobby horse. bed falls and bedrails -- what should we do? *Age and Ageing*, 31(5), 415-418.

Journal Article

REF ID: 2735

Level IV: Non-experimental study

Topic 1: Risks

Paterson, B., Bradley, P., Stark, C., Saddler, D., Leadbetter, D., & Allen, D. (2003). Deaths associated with restraint use in health and social care in the UK. the results of a preliminary survey. *Journal of Psychiatric and Mental Health Nursing*, 10(1), 3-15.

Journal Article; N

Many aspects of the management of acutely disturbed behaviour have only relatively recently come under systematic scrutiny. Perhaps regrettably one of the last amongst the range of strategies that may be employed to be subjected to rigorous examination has been physical restraint. Considerable debate has recently taken place around what represents good practice in this sensitive and controversial area but the continuing dearth of research in some aspects of —this area of practice has meant that this discussion has

arguably been over reliant on 'expert' opinion. Questions continue regarding some fundamental issues of restraint, including the relative risks involved in alternative approaches, and anxieties have been expressed about the potential for injuries and death to result from restraint. This article outlines the results of a survey that sought to explore the incidence of deaths associated with restraint in health and social care settings in the UK. The outcome of an initial analysis of the cases identified is then discussed, with reference to the literature on restraint-related deaths, in order to identify the implications for practice.

REF ID: 3051

Level IV: Non-experimental study

Topic 5: Evaluation/follow-up

Phillips, C. D., Spry, K. M., Sloane, P. D., & Hawes, C. (2000). Use of physical restraints and psychotropic medications in alzheimer special care units in nursing homes. *American Journal of Public Health, 90*(1), 92-96.

Journal Article, Research, Tables/Charts

OBJECTIVES: This study analyzed the use of mechanical restraints and psychotropic medication in Alzheimer special care units (SCUs) in nursing homes. **METHODS:** We analyzed 1993 data for more than 71,000 nursing home residents in 4 states, including more than 1,100 residents in 48 SCUs. The dependent variable in multinomial logistic regression was use of physical restraints or psychotropic medication. Models contained covariates representing facility and resident characteristics, and multivariate matching strategies were used to protect against selection bias. **RESULTS:** Residents in SCUs did not differ from similar residents in traditional units in their likelihood of being physically restrained. Residents in SCUs were more likely to receive psychotropic medication. **CONCLUSIONS:** With regard to the measures used in this research, the findings indicate that residents in the SCUs in the 4 study states did not receive quality of care superior to that provided to similar residents in traditional units. In fact, the results related to drug use raise the question of whether some may have received poorer care.

REF ID: 2662

Level VI: Opinion

Topic 4: Management

Phillips, E. (2004). Managing risk with patient restraints. *The Canadian Nurse, 100*(1), 10-11.

Journal Article; N

REF ID: 2953

Level V: Case report

Topic 3: Assessment

Phrampus, P., & Walker, L. (2005). Sorting through confusion: Prehospital identification & treatment of dementia & delirium. *JEMS: Journal of Emergency Medical Services, 30*(12), 56-60, 62-7, 70-1.

Journal Article, Case Study, CEU, Exam Questions, Glossary, Pictorial, Questionnaire/Scale, Tables/Charts

REF ID: 3052

Level I: Systematic review

Topic 4: Management

Price, J. D., Hermans, D. G., & Grimley Evans, J. (2006). Subjective barriers to prevent wandering of cognitively impaired people. *Cochrane Database of Systematic Reviews, 3*

Systematic Review

Background People with dementia often wander, at times putting themselves at risk and presenting challenges to carers and institutional staff. Traditional interventions to prevent wandering include restraint, drugs and locked doors. Cognitively —impaired people may respond to environmental stimuli

(sounds, images, smells) in ways distinct from healthy people. This has led to trials of visual and other selective barriers (such as mirrors, camouflage, grids/stripes of tape) that may reduce wandering.

Objectives We assess the effect of subjective exit modifications on the wandering behaviour of cognitively impaired people. The second objective is to inform the direction and methods of future research.

Search strategy The CDCIG Specialized Register was searched on 26 April 2005 with the aim to update the review. No new studies were found. The search terms used were: exit*, wander*, camouflage, bars, stripe*, grid*, floor*, door*, barrier*, elopement, ambulat* Selection criteria Randomized controlled trials (RCTs) and controlled trials provide the highest quality evidence, but interrupted time series are also considered as they may contribute useful information. Participants are people with dementia or cognitive impairment who wander, of any age, and in any care environment - hospital, other institution, or their own home.

Interventions comprise exit modifications that aim to function as subjective barriers to prevent the wandering of cognitively impaired people. Locks, physical restraints, electronic tagging and other types of barrier are not included.

Data collection and analysis The criteria for inclusion or exclusion of studies are applied independently by two reviewers. All outcomes that are meaningful to people making decisions about the care of wanderers are recorded. These include the number of exits or carer interventions, resource use, acceptability of the intervention and the effects on carer and wanderer (anxiety or distress).

Heterogeneity of clinical area, of study design and of intervention was substantial.

Main results No RCTs or controlled trials were found. The other experimental studies that we identified were unsatisfactory. Most were vulnerable to bias, particularly performance bias; most did not classify patients according to type or severity of dementia; in all studies, outcomes were measured only in terms of wandering frequency rather than more broadly in terms of quality of life, resource use, anxiety and distress; no studies included patients with delirium; no studies were based in patients' homes.

Authors' conclusions There is no evidence that subjective barriers prevent wandering in cognitively impaired people.

REF ID: 2950

Level II: Individual experimental study

Topic 4: Management

RalphsThibodeau, S., Knoefel, F., Benjamin, K., Leclerc, A., Pisterman, S., & Sohmer, J. et al. (2006). Patient choice: An influencing factor on policy-related research to decrease bedrail use as physical restraint. *Worldviews on Evidence-Based Nursing*, 3(1), 31-39.

Journal Article, Research, Tables/Charts

Background: This paper shows patients' enactment of choice in mixed methods, multidisciplinary study on the use of bedrails as restraints. **Approach:** Under the pressure of the implementation of impending legislation, patients from a Canadian elderly care rehabilitation unit were recruited to be part of this study and assigned to either a study or control group. Study group patients were exposed to a new facility policy on restraints in which bedrails were not to be used on a patient's bed except under specified conditions. Patients in the control group continued to have bedrails on a routine basis according to the facility's old policy. Following group assignments, patients could choose to crossover to either the control or study group based on their opinions about bedrails. **Findings:** After patients crossed over into either the study or control group, findings for the new groups differed significantly. Participants in the rails-up group had lower admission Functional Independence Measure scores ($p = .001$) and higher admission Cumulative Illness Rating scores ($p = .000$) compared to those in the rails-down group. **Conclusions:** Patients have specific concerns related to the use of bedrails that might affect implementing bedrail minimization policies. Additionally, the authors conclude that patients' input into research design may increase patients' support of the protocol and help maintain study integrity.

REF ID: 2717

Topic 4: Management

Level I: Systematic Review

—Robinson, L., Hutchings, D., Corner, L., Beyer, F.,

Dickinson, H., & Vanoli, A. et al. (2006). A systematic literature review of the effectiveness of non-pharmacological interventions to prevent wandering in dementia and evaluation of the ethical implications and acceptability of their use. *Health Technology Assessment (Winchester, England), 10(26), iii, ix-108.*

Journal Article; IM

OBJECTIVES: To determine the effectiveness and cost-effectiveness of non-pharmacological interventions (excluding subjective barriers) in the prevention of wandering in people with dementia, in comparison with usual care, and to evaluate through the review and a qualitative study the acceptability to stakeholders of such interventions and identify ethical issues associated with their use. **DATA SOURCES:** Major electronic databases were searched up until 31 March 2005. **Specialists in the field.** **REVIEW METHODS:** Selected studies were assessed and analysed. The results of two of the efficacy studies that used similar interventions, designs and outcome measures were pooled in a meta-analysis; results for other studies which reported standard deviations were presented in a forest plot. Owing to a lack of cost-effectiveness data, a modelling exercise could not be performed. Four focus groups were carried out with relevant stakeholders (n = 19) including people with dementia and formal and lay carers to explore ethical and acceptability issues in greater depth. Transcripts were coded independently by two reviewers to develop a coding frame. Analysis was via a thematic framework approach. **RESULTS:** Ten studies met the inclusion criteria (multi-sensory environment, three; music therapy, one; exercise, one; special care units, two; aromatherapy, two; behavioural intervention, one). There was no robust evidence to recommend any non-pharmacological intervention to reduce wandering in dementia. There was some evidence, albeit of poor quality, for the effectiveness of exercise and multi-sensory environment. There were no relevant studies to determine the cost-effectiveness of the interventions. Findings from the narrative review and focus groups on acceptability and ethical issues were comparable. Exercise and distraction therapies were the most acceptable interventions and raised no ethical concerns. All other interventions were considered acceptable except for physical restraints, which were considered unacceptable. Considerable ethical concerns exist with the use of electronic tagging and tracking devices and physical barriers. Existing literature ignores the perspectives of people with dementia. The small number of participants with dementia expressed caution regarding the use of unfamiliar technology. Balancing risk and risk assessment was an important theme for all carers in the management of wandering. **CONCLUSIONS:** There is no robust evidence so far to recommend the use of any non-pharmacological intervention to reduce or prevent wandering in people with dementia. High-quality studies, preferably randomised controlled trials, are needed to determine the clinical and cost-effectiveness of non-pharmacological interventions that allow safe wandering and are considered practically and ethically acceptable by carers and people with dementia. Large-scale, long-term cohort studies are needed to evaluate the morbidity and mortality associated with wandering in dementia for people both in the community and in residential care. Such data would inform future long-term cost-effectiveness studies.

REF ID: 2701

Level V: Case report

Topic 4: Management

Rollins, M. O. (2006). Safety issues surrounding the use of bedrails. *Nurs.Older People, 17(10), 20-21.*

Case Reports; Journal Article; Review; N

A spot-check on a general medical ward suggested that the use of bedrails was excessive and triggered an exploration of best practice

REF ID: 3021

Topic 4: Management

Nursing Accent, 74(5), 17-26.

Level 5: Case report

**Romosz, R. (2002). Please release me! *Minnesota*
—Journal Article, Case Study, CEU, Exam**

Questions, Glossary, Tables/Charts

REF ID: 2999

Level I: Systematic Review

Topic 6: Comprehensive

Rutledge, D. N., Donaldson, N. E., & Pravikoff, D. S. (2003). Use of restraints. part 1. acute nonpsychiatric care. *Online Journal of Clinical Innovations*, 6(2), 1-69.

Journal Article, Protocol, Research, Standards, Systematic Review, Tables/Charts

Health care workers often encounter patient care situations in which the use of restraints may be indicated for what appears to be the patient's benefit and safety. Restraint use itself, however, is not without both physical and psychological risk. This manuscript, the first of three on the topic, focuses on the use of restraints in patients in acute and critical care settings, both adult and pediatric, and describes effective strategies that have been evaluated in research studies or systematically implemented and evaluated in clinical practice to reduce restraint use.

REF ID: 3053

Level I: Systematic Review

Topic 2: Prevention

Sailas, E., & Fenton, M. (2006). Seclusion and restraint for people with serious mental illnesses. *Cochrane Database of Systematic Reviews*, 3

Systematic Review

Background Seclusion and restraint are interventions used in the treatment and management of disruptive and violent behaviours in psychiatry. The use of seclusion varies widely across institutions. The literature does offer numerous suggestions for interventions to reduce or prevent aggression. Objectives 1. To estimate the effects of seclusion and restraint compared to the alternatives for those with serious mental illnesses. 2. To estimate the effects of strategies to prevent seclusion and restraint in those with serious mental illnesses. Search strategy Electronic searches of The Cochrane Controlled Trials Register (Issue 1, 1999) and The Cochrane Schizophrenia Group's Register (January 1999) were supplemented with additional searches of Biological Abstracts (1989-1999), CINAHL (1982-1999), EMBASE (1980-1999), MEDLINE (1966-1999), MEDIC (1979-1999), PsycLIT (1974-1999), Sociofile (1974-1999), SPRI & SWEMED (1982-1999), Social Sciences Citation Index (1996-1999), and WILP (1983-1999). In addition, trials were sought by hand searching the reference lists of all identified studies and conference abstracts and contacting the first author of each relevant study. Selection criteria Randomised controlled trials were included if they focused on the use (i) of restraint or seclusion; or (ii) of strategies designed to reduce the need for restraint or seclusion in the treatment of serious mental illness. Data collection and analysis Studies were reliably selected, quality rated and data extracted. For dichotomous data relative risks (RR) with 95% confidence intervals (CI) were estimated. Normal continuous data were summated using the weighted mean difference (WMD). Main results 1. Effect of seclusion and restraint The search strategy yielded 2155 citations. Of these, the full articles for 35 studies were obtained. No studies met minimum inclusion criteria and no data were synthesised. Most of the 24 excluded studies focused upon the restraint of elderly, confused people and preventing them from wandering or falling. 2. Prevention of seclusion and restraint Work ongoing. Authors' conclusions No controlled studies exist that evaluate the value of seclusion or restraint in those with serious mental illness. There are reports of serious adverse effects for these techniques in qualitative reviews. Alternative ways of dealing with unwanted or harmful behaviours need to be developed. Continuing use of seclusion or restraint must therefore be questioned from within well-designed and reported randomised trials that are generalisable to routine practice.

REF ID: 2719

Topic 1: Risks

Level V: Literature review

—Sanap, M. N., & Worthley, L. I. (2002). Neurologic

complications of critical illness: Part I. altered states of consciousness and metabolic encephalopathies. *Crit.Care.Resusc.*, 4(2), 119-132.

Journal Article

OBJECTIVE: To review the metabolic encephalopathies and neuromuscular abnormalities commonly found in the critically ill patient in a two-part presentation. DATA SOURCES: A review of articles reported from 1980 to 2002 and identified through a MEDLINE search on metabolic encephalopathy, polyneuropathy and myopathy in critical illness. SUMMARY OF REVIEW: An alteration in the conscious state can be caused by space occupying lesions or infections of the central nervous system. However, in the critically ill patient a metabolic encephalopathy is often the cause of an acute confusional state or a reduced state of consciousness. There is no specific treatment for the metabolic encephalopathies as they commonly resolve when the underlying disorders (e.g. sepsis, renal failure, hepatic failure, electrolyte disturbance) are corrected. Management may also require judicious pharmacological and/or physical restraint in the case of the acute confusional states and ensuring an adequate airway, ventilation and circulation in the case of a reduced state of consciousness, while the underlying disorder is corrected and the encephalopathy resolves. CONCLUSIONS: In the critically ill patient a metabolic encephalopathy is commonly the cause of confusion, disorientation, agitation, drowsiness or coma. Sedative agents and tranquilisers may be required as well as management of the airway, ventilation and circulation while the underlying disorder is corrected to allow the encephalopathy to resolve.

REF ID: 3020

Level VI: Opinion

Topic 1: Risks

Santoyo, E., Miller, L., & Kovach, C. R. (2002). Improving care for patients with dementia... "pacing of activity as a predictor of agitation for persons with dementia in acute care," in *January 2002* (vol. 28, no. 1, pp. 28-35). *Journal of Gerontological Nursing*, 28(10), 52-54.

Journal Article, Commentary, Letter, Response

REF ID: 2708

Level V: Literature review

Topic 4: Management

Saufl, N. M. (2004). Restraints use and falls prevention. *Journal of Perianesthesia Nursing : Official Journal of the American Society of PeriAnesthesia Nurses / American Society of PeriAnesthesia Nurses*, 19(6), 433-436.

Journal Article; Review; N

The Health Care Financing Administration defines physical restraints as "any manual method or physical or mechanical device, material, or equipment attached or adjacent to the patient that the individual cannot remove easily which restricts freedom of movement or normal access to one's body. Restraints have the potential to produce serious outcomes, including physical or psychological harm, loss of dignity, violation of a patient's rights, and possibly death. Health care providers need to identify opportunities to decrease the risks associated with the use of restraints through preventive strategies, innovative alternatives, and process improvements to help focus on the patient's overall well-being, health, and safety.

REF ID: 2650

QM: Quality Measures

Topic 5: Evaluation/follow-up

Schnelle, J. F., Bates-Jensen, B. M., Levy-Storms, L., Grbic, V., Yoshii, J., & Cadogan, M. et al. (2004). The minimum data set prevalence of restraint quality indicator: Does it reflect differences in care? *The Gerontologist*, 44(2), 245-255.

Journal Article; IM

—PURPOSE: This study investigated whether the use of

restraining devices and related measures of care quality are different in nursing homes that score in the upper and lower quartiles on the Minimum Data Set (MDS) "prevalence of restraint" quality indicator, which assesses daily use of restraining devices when residents are out of bed. DESIGN AND METHODS: The study was a cross-sectional study, with 413 residents in 14 nursing facilities. Eight homes scored in the lower quartile (25th percentile; low prevalence, 0-5%) on the MDS restraint prevalence quality indicator, and six homes scored in the upper quartile (75th percentile; high prevalence, 28-48%). Eight care processes related to the management of restraints and gait and balance problems were defined and operationalized into clinical indicators. Research staff conducted direct observations during three 12-hr days (7 a.m.-7 p.m.) to determine the prevalence of restraining devices and identify resident and staff behaviors that may be affected by restraint use. RESULTS: Residents in high-restraint homes were in bed during the day on more observations than residents in low-restraint homes (44% vs. 33%; $p < .001$), were more frequently observed with bed rails in use (74% of residents vs. 64% of residents; $p < .03$), and received less feeding assistance during meals (2.7 min vs. 4.1 min; $p < .001$). There were no differences between homes in the use of out-of-bed restraints, nor were there any differences on any care process measure related to the management of restraints, gait and balance problems, or measures of physical or social activity. IMPLICATIONS: A home's score on the MDS-generated prevalence of restraint quality indicator was not associated with differences in the use of restraints, physical activity, or any care process measure when residents were out of bed. However, there were differences in the use of in-bed restraining devices, and residents in high-restraint homes were in bed more often during the day. These differences were associated with poor feeding assistance and reflect important differences in quality of care between homes, even though these differences are not what the restraint prevalence quality indicator purports to measure. Methods to monitor and improve the quality of care related to exercise, in-bed times, and resident freedom of movement are discussed.

REF ID: 2677

Level VI: Opinion

Topic 4: Management

Segatore, M., & Adams, D. (2001). Managing delirium and agitation in elderly hospitalized orthopaedic patients: Part 2--interventions. *Orthopaedic Nursing / National Association of Orthopaedic Nurses*, 20(2), 61-73; quiz 73-5.

Journal Article; N

Delirium, a disorder of consciousness that may afflict over one-half of elderly surgical orthopaedic patients is a common sequela of surgery in the elderly. Agitation, either as an element of the delirium or dimension of a preexisting dementia, is another common behavioral problem that can confront the orthopaedic nurse in acute care. It is time now to tear down the barriers to intelligent and compassionate care of patients with agitation and delirium, including late or missed recognition and diagnosis, biases about what is "normal" and acceptable behavior in the elderly, and lack of familiarity with pharmacologic strategies. In Part 1 (Jan/Feb issue), current thinking about the phenomena was presented, including hypotheses about causation and pathophysiology. That foundation is intended to serve as the basis for the current discussion. The triad of interventions available to manage disorganized behavior in elderly orthopaedic patients is presented in Part 2. They include an extensive selection of pharmacologic options, a discussion of therapeutic use of self and environmental-organizational issues to address and consider on a case-by-case basis. Though it may be impossible to prevent behavioral decompensation during an acute orthopaedic admission, it is certainly possible to improve our performance to date, using a compassionate, intelligent, and inclusive approach with every patient.

REF ID: 3024

Topic 4: Management

Level VI: Opinion

—SeidmanCarlson, R. (2002). From the editor's desk.

restraining patients and the practice of the profession: Congruent or dissonant. *Perspectives*, 26(2), 2-3.

Journal Article, Editorial

REF ID: 2679

Level III: Quasi-experimental study

Topic 2: Prevention

Shorr, R. I., Guillen, M. K., Rosenblatt, L. C., Walker, K., Caudle, C. E., & Kritchevsky, S. B. (2002). Restraint use, restraint orders, and the risk of falls in hospitalized patients. *Journal of the American Geriatrics Society*, 50(3), 526-529.

Journal Article; IM

OBJECTIVES: To determine the relationship between physical restraints and falls in the acute hospital setting. **DESIGN:** Matched case-control study. **SETTING:** Inpatients at a 528-bed, urban, community based, acute care hospital. **PARTICIPANTS:** Two hundred twenty-eight patients who fell during hospitalization and 228 controls matched to cases by nursing unit and length of stay. **MEASUREMENTS:** Persons who fell were systematically evaluated at the time of fall by trained fall evaluators. For the cases, we sought to validate "orders for restraints" using "observed restraint use," defined as the use of restraints at the time of fall as determined through direct observation or interviews with nursing staff. **RESULTS:** Patients with orders for restraints were more likely to fall than patients without orders for restraints (multivariate relative risk = 6.3, 95% confidence interval (CI) = 1.8-22.3). However, in the cases, there was poor correlation between "orders for restraints" and "observed restraint use" at the time of fall (kappa = 0.15, 95% CI-0.4-0.34). **CONCLUSION:** Because orders for restraint use may not reflect actual restraint use at the time of a fall, observational studies relating use of restraints to the risk of falls should be interpreted with caution. Despite this caveat, we could find no evidence that restraints protect hospitalized patients from falling.

REF ID: 3014

Level IV: Non-experimental study

Topic 1: Risks

Sirin, S. R., Castle, N. G., & Smyer, M. (2002). Risk factors for physical restraint use in nursing homes: The impact of the nursing home reform act. *Research on Aging*, 24(5), 513-527.

Journal Article, Research, Tables/Charts

This study examined the impact of the Nursing Home Reform Act of 1987 on resident-and-facility-level risk factors for physical restraint use in nursing homes. Data on the 1990 and 1993 cohorts were obtained from 268 facilities in 10 states, and data on a 1996 cohort were obtained from the Medical Expenditure Panel Survey, which sampled more than 800 nursing homes nationwide. Multivariate logistic regression models were generated for each cohort to identify the impact of resident- and facility-level risk factors for restraint use. The results indicate that the use of physical restraints continues to decline. Thirty-six percent of the 1990 cohort, 26 percent of the 1993 cohort, and 17 percent of the 1996 cohort were physically restrained. Although there was a reduced rate of restraint use from 1990 to 1996, similar resident-level factors but different facility-level factors were associated with restraint use at different points in time.

REF ID: 2970

Level IV: Non-experimental study

Topic 4: Management

Slettebo, A., & Bunch, E. H. (2004). Solving ethically difficult care situations in nursing homes. *Nursing Ethics*, 11(6), 543-552.

Patients in nursing homes sometimes give and/or self-respect are violated as a result of the

Journal Article, Research, Tables/Charts

accounts of episodes in which they feel their autonomy —care they receive from nursing staff. In these ethically

difficult care situations nurses use strategies such as negotiation, explanation and, in some cases, restraint. This study investigates how nurses apply these strategies to resolve ethical dilemmas in such a way that patients experience respect rather than violation. Critical issues that will be discussed include the definition of ethically difficult care situations in nursing homes and the identification of strategies for resolving such situations. Examples of the use of three strategies are presented. The use of negotiation, restraint and explanation are discussed in order to ensure respect for patients' autonomy and thus to optimize health care outcomes.

REF ID: 2694

Level IV: Non-experimental study

Topic 3: Assessment

Sourial, R., McCusker, J., Cole, M., & Abrahamowicz, M. (2001). Agitation in demented patients in an acute care hospital: Prevalence, disruptiveness, and staff burden. *International Psychogeriatrics / IPA*, 13(2), 183-197.

Journal Article; IM

BACKGROUND/LITERATURE REVIEW: The prevalence of agitated behaviors in different populations with dementia is between 24% and 98%. Although agitated behaviors are potentially disruptive, little research attention has been focused on the effects of these behaviors upon nursing staff. The objectives of this study of demented patients in long-term-care beds at an acute care community hospital were to determine the frequency and disruptiveness of agitated behaviors; to investigate the associations of patient characteristics and interventions with the level of agitation; and to explore the burden of these agitated behaviors on nursing staff. **METHOD:** The study sample comprised 56 demented patients in the long-term-care unit during the study period. Twenty-seven staff who cared for these patients during three shifts over a 2-week period were interviewed to rate the frequency and disruptiveness of agitated behaviors using the Cohen-Mansfield Agitation Inventory, and the burden of care using a modified version of the Zarit Burden Interview. Data on patient characteristics and interventions extracted from the hospital chart included scores on the Barthel Index and Mini-Mental State Examination, the use of psychotropic medication, and the use of physical restraints. **RESULTS:** Ninety-five percent of the patients with dementia were reported to have at least one agitated behavior; 75% had at least one moderately disruptive behavior. A small group of six patients (11%) had 17 or more disruptive behaviors. The frequency of most behaviors did not vary significantly by shift. Length of stay on long-term care, Barthel Index score, and the use of psychotropic medications were significantly associated with the number of agitated behaviors. The number of behaviors, their mean frequency, and their mean disruptiveness were all significantly correlated with staff burden. **DISCUSSION:** The prevalence of agitated behaviors in patients with dementia in long-term-care beds at an acute care hospital is similar to that reported in long-term-care facilities. These behaviors are associated with staff burden.

REF ID: 2702

Level III: Quasi-experimental study

Topic 4: Management

Stanley, K. M., Worrall, C. L., Lunsford, S. L., Simpson, K. N., Miller, J. G., & Spencer, A. P. et al. (2005). Experience with an adult alcohol withdrawal syndrome practice guideline in internal medicine patients. *Pharmacotherapy*, 25(8), 1073-1083.

Guideline; Journal Article; IM

STUDY OBJECTIVE: To standardize treatment of alcohol withdrawal syndrome (AWS) in internal medicine patients using an adult AWS practice guideline with a symptom-triggered management approach. **DESIGN:** Prospective interventional (pilot group) and retrospective (control group). **SETTING:** University teaching hospital. **—PATIENTS:** Thirty-two internal medicine patients

identified as being at risk for AWS and treated according to the AWS practice guideline who were compared with 49 internal medicine patients managed with nonstandardized approaches.

INTERVENTION: Patients in the pilot group were assessed using the AWS type indicator. They received lorazepam, clonidine, or haloperidol, based on AWS type indicator assessment and adult AWS practice guideline criteria. **MEASUREMENTS AND MAIN RESULTS:** Data collected and analyzed were drugs administered to control AWS symptoms, use of sitters and physical restraints, length of hospital stay, and discharge from hospital receiving tapered drug therapy. Pilot patients received 46.6% less benzodiazepine ($p=0.001$), 20% more clonidine ($p=0.01$), and 18.2% more haloperidol ($p=0.002$) than control patients. No drug therapy was required in 19% of pilot patients compared with 2% of controls ($p=0.01$). Significantly more control (71.4%) than pilot patients (18.8%) were discharged with tapered benzodiazepine therapy ($p<0.01$). No significant differences were found between groups for sitters, restraints, or hospital length of stay. **CONCLUSION:** This pilot project suggests that internal medicine patients at risk for AWS can be managed with a standardized, symptom-triggered approach using decreased amounts of benzodiazepine in combination with adjunctive agents to treat adrenergic hyperactivity and delirium. Further data are necessary to determine the impact of the practice guideline on patient outcome measurements.

REF ID: 3001

Level VI: Opinion

Topic 4: Management

Strugnell, B. (2002). Restraint. *Whitireia Nursing Journal*, (9), 43-45.

Journal Article

REF ID: 2682

Level IV: Non-experimental study

Topic 6: Comprehensive

Sullivan-Marx, E. M. (2001). Achieving restraint-free care of acutely confused older adults. *Journal of Gerontological Nursing*, 27(4), 56-61.

Journal Article; N

Restraint-free care has emerged as an indicator of quality care for older adults in all settings. The most difficult challenges to achieving this goal are care of hospitalized older adults who are functionally dependent and cognitively impaired. The purpose of this article is to report findings from a descriptive study of restrained hip fracture patients, and discuss approaches to achieving restraint-free care. Rate of restraint use was 33.2% among hospitalized hip fracture patients during an 11-year period in 20 metropolitan teaching hospitals. Restrained patients were older men who resided in nursing homes prior to hospitalization. Clinically, restrained patients had a diagnosis of dementia, were noted to be confused or disoriented by nursing staff, and were dependent in activities of daily living. An individualized approach to care is the best method to avoid use of physical restraints for patients with acute confusion and cognitive impairment.

REF ID: 3025

Level IV: Non-experimental study

Topic 1: Risks

SullivanMarx, E. M., Kurlowicz, L. H., Maislin, G., & Carson, J. L. (2001). Physical restraint among hospitalized nursing home residents: Predictors and outcomes. *Clinical Gerontologist*, 24(1/2), 85-101.

Journal Article, Research, Tables/Charts

We examined physical restraint use among 1856 nursing home residents hospitalized with hip fracture using a data set of hip fracture patients in 20 U. S. hospitals from 1983-1993. Mean age of patients was 85.2 years, 81.7% were women, and 91.3% were white. Rate of physical restraint use was 59.4%. Pre-operative physical restraint use was predicted by —younger age, confusion, dementia, and needing

assistance or dependency in activities of daily living (ADL). Physical restraint use following surgery was predicted by pre-operative physical restraint use, confusion, dementia, and lower comorbidity of illness. At hospital discharge, restrained patients were more likely to be dependent in ADL and continence. The reduction of physical restraints among hospitalized nursing home to a multiplicity of factors that contribute to restraint use.

REF ID: 2699

Level V: Case report

Topic 1: Risks

Swartz, C., & Galang, R. L. (2001). Adverse outcome with delay in identification of catatonia in elderly patients. *The American Journal of Geriatric Psychiatry : Official Journal of the American Association for Geriatric Psychiatry*, 9(1), 78-80.

Case Reports; Journal Article; IM

All three patients to show catatonia at a teaching veterans' hospital over a 1-year period were over 60 years old. Each experienced delays of 2-5 months in identification of catatonia and adverse events attributable to the delay (e.g., pulmonary embolus, physical restraint, pneumonia, mislabeling as "advanced dementia," Do Not Resuscitate orders, and death). These outcomes suggest that geriatric patients with unrecognized catatonia are at high risk for major adverse events.

REF ID: 2674

Level V: Case report

Topic V: Evaluation/follow-up

Swauger, K., & Tomlin, C. (2002). Best care for the elderly at forsyth medical center. *Geriatric Nursing (New York, N.Y.)*, 23(3), 145-150.

Journal Article; N

Health care organizations are very interested in the unique needs and resource utilization the aging population will create. This article describes the commitment of a large acute-care hospital to create a senior-friendly environment. The care of hospitalized elders has become a central focus to identify and prioritize improvement opportunities. An interdisciplinary team of professionals passionate about the care of the elder population was developed to champion the efforts, and the NICHE project was their starting point. This article describes the team and the methods they used to modify models and design processes to meet the needs of the organization and this patient population. Successes and opportunities for continued improvement also are identified.

REF ID: 2653

Level IV: Non-experimental study

Topic 1: Risks

Tan, K. M., Austin, B., Shaughnassy, M., Higgins, C., McDonald, M., & Mulkerrin, E. C. et al. (2005). Falls in an acute hospital and their relationship to restraint use. *Irish Journal of Medical Science*, 174(3), 28-31.

Journal Article; IM

BACKGROUND: Patient falls are a common complication of hospitalisation. Use of restraints in patients who are perceived to be at risk for falling may lead to injury and even death. **AIMS:** To determine the frequency of falls and fall-related injuries and the contribution of restraints in a hospital population. **METHODS:** We analysed incident reports of falls for a single year from a large teaching hospital. Results The fall rate per 10,000 patient days was 13.2 (95%CI 11.6-14.8). Fall rate increased dramatically with increased age. Eighty-two (30.7%) falls resulted in injury, of which 6 (7.3%) were serious. Injuries occurred in 71/247 (29%) unrestrained falls and in 11/20 (55%) falls in patients who were restrained. Injuries were more severe in falls with restraints —in place ($p < 0.0001$). **CONCLUSIONS:** Restraint use

is associated with increased severity of injury in hospital patients who fall.

REF ID: 2705

Level II: Individual experimental study

Topic 4: Management

Testad, I., Aasland, A. M., & Aarsland, D. (2005). The effect of staff training on the use of restraint in dementia: A single-blind randomised controlled trial. *International Journal of Geriatric Psychiatry*, 20(6), 587-590.

Clinical Trial; Journal Article; Multicenter Study; Randomized Controlled Trial; IM

BACKGROUND: Use of restraint amongst institutionalised elderly with dementia and problem behaviour not only remains widespread, but also appears to be accepted as inevitable. **OBJECTIVE:** The aim of this study was to reduce problem behaviour and the use of restraint in demented patients using a staff training program as intervention. **METHODS:** The study was a randomised single-blind controlled trial and took place in Stavanger, Norway. Four nursing homes were randomised to a control or an intervention group after stratification for size. The intervention consisted of a full day seminar, followed by a one-hour session of guidance per month over six months. The content of the educational program focused on the decision making process in the use of restraint and alternatives to restraint consistent with professional practice and quality care. The primary outcome measures were number of restraints per patient in the nursing homes in one week and agitation as measured with the Brief Agitation Rating Scale (BARS). These were rated before and immediately after the intervention was completed. The assessments were performed blind to design and randomisation group. **RESULTS:** Clinical and demographic variables did not differ between the intervention and control groups at baseline. After the intervention period, the number of restraints had declined by 54% in the treatment group, and increased by 18% in the control group. The difference between the two groups was statistically significant ($p = 0.013$). There was a trend towards higher BARS score in the intervention compared to the control group at follow up ($p = 0.052$). **CONCLUSION:** Although the level of agitated behaviour remained unchanged or increased slightly, the educational program led to a significant reduction of the use of restraint in institutionalised elderly with dementia. These results suggest that educational programs can improve the quality of care of people with dementia.

REF ID: 2651

QM: Quality Measures

Topic 5: Evaluation/follow-up

Turner, J. T., Lee, V., Fletcher, K., Hudson, K., & Barton, D. (2001). Measuring quality of care with an inpatient elderly population. the geriatric resource nurse model. *Journal of Gerontological Nursing*, 27(3), 8-18.

Journal Article; N

Nurses provide health services to an increasing number of older adults in acute care settings. Acute care nurses are committed to giving patients the highest quality care while recognizing the importance of delivering care in a cost-effective manner. In this study, a unit-based, nurse-centered geriatric program is evaluated. The program is designed to enhance the knowledge and skill of staff nurses in providing care to elderly patients. Both quantitative and qualitative methods are used to assess geriatric resource nurses' (GRNs) influence on quality and cost outcomes of the elderly participants. Patients age 65 years and older were randomly selected from two general medical units of a major academic tertiary care center in the southeastern United States. Data were collected during an 18-month period in 1996 and 1997. A total of 129 participants provided data for quantitative analysis. A subset of 34 participants (17 from the unit where GRNs were on staff and 17 from a control unit) was interviewed about their experience during hospitalization. This information was analyzed for common themes and trends using appropriate qualitative techniques. Demographic variables —and common measures of illness severity and

complexity showed comparable patient populations on the two units. However, results of quantitative analyses indicated significant differences between groups on admission for several of the health status measures. Participants on the unit without GRNs were found to have more problems with pain, incontinence, and mobility. Administrative measures showed the number of patients readmitted to the hospital within 31 days of discharge and the length of stay associated with this initial readmission were significantly lower on the unit with GRNs. The use of vest-type physical restraints was also less frequent on this unit. Elderly patients in both groups indicated they have special needs related to normal aging changes and chronic illnesses, resulting in higher levels of fragility and decreased energy reserves. They identified specific functional areas for which help was needed. These include assistance with bathing, eating, sleeping, mobility, and elimination. Fewer participants on the intervention unit reported decline in activities of daily living (ADL) function during hospitalization than did control participants. Participants in both groups stressed the importance of nurses' demonstrating understanding and caring when working with older individuals.

REF ID: 3035

Level IV: Non-experimental study

Topic 2: Prevention

van Leeuwen, M., Bennett, L., West, S., Wiles, V., & Grasso, J. (2002). Patient falls from bed and the role of bedrails in the acute care setting. *Australian Journal of Advanced Nursing*.2001 Dec-, 19(2), 8-13.

Journal Article, Research, Tables/Charts

The use of bedrails in preventing patient falls from bed remains highly controversial and has received only limited research attention throughout the last decade. The present study questioned the relationship between bedrail use and patient falls from bed particularly in terms of age-gender characteristics, mental status and the severity of injuries sustained. A retrospective, cross-sectional analysis was conducted of 419 patient falls occurring in an urban, acute care hospital from 1993-2000. This audit identified 136 falls from bed. It was found that for all age-gender groups the incidence of falls from bed with bedrails elevated was equal to or higher than when bedrails were not elevated. Patients in a 'non rational' state at the time of falling were significantly more likely to have fallen with the bedrails elevated (chi square=19.463, p<0.001). Whilst there was no statistically significant relationship between the position of bedrails and the severity of injuries sustained (chi square=1.088, p=0.780) the fact that there was a patient death resulting from a fall from bed over elevated bedrails was considered to be of particular clinical significance. Thus the role of bedrails as protective or safety devices was challenged and an urgent re-evaluation of current practices recommended.

REF ID: 2734

Level IV: Non-experimental study

Topic 3: Assessment

Vance, D. L. (2003). Effect of a treatment interference protocol on clinical decision making for restraint use in the intensive care unit: A pilot study. *AACN Clinical Issues*, 14(1), 82-91.

Evaluation Studies; Journal Article; N

The literature is replete with articles describing restraint reduction strategies used in long-term care settings, geriatric specialty units, and medical/surgical units in the acute care setting. The feasibility, effectiveness, and appropriateness of such strategies cannot be capriciously applied to the intensive care setting. This article provides an overview of the implementation and outcomes of a pilot study using an algorithmic approach that is clinically appropriate and justifiable for restraint use in the intensive care environment. It provides the critical care nurse with a standardized method for decision analysis when managing patients at risk for treatment —interference.

REF ID: 2660

Level IV: Non-experimental study

Topic 2: Prevention

Vassallo, M., Stockdale, R., Wilkinson, C., Malik, N., Sharma, J., & Baker, R. et al. (2004).

Acceptability of fall prevention measures for hospital inpatients. *Age and Ageing*, 33(4), 400-401.

Letter; IM

REF ID: 2948

Level VI: Opinion

Topic 4: Management

Voyer, P., & Martin, L. S. (2003). Improving geriatric mental health nursing care: Making a case for going beyond psychotropic medications. *International Journal of Mental Health Nursing*, 12(1), 11-21.

Journal Article, Forms, Tables/Charts

Providing high-quality mental health nursing care should be an important and continuous preoccupation in the gerontological nursing field. As the proportion of elderly people in our society is growing, the emphasis on high-quality care will receive increasing attention from administrators, politicians, organized groups, researchers and clinical nurses. Recent findings illustrate unequivocally the important contribution of nurses to achieving the goal of high-quality geriatric care. However, the quality of care for the elderly with psychological difficulties has not been addressed. The objective of this article is to illustrate that while nurses can accomplish much to improve the well-being and mental health of the elderly, their skills are often underutilized. Psychotropic drugs are often the first-line interventions used by health-care professionals to treat mental health concerns of elderly persons. Alternative therapies that could be implemented and evaluated, such as psychological counselling, supportive counselling, education and life review, are infrequently used. Nevertheless, current scientific data suggest that it would be very advantageous if nurses were to play a dominant role in the care of elderly people who are depressed or experiencing sleep pattern disturbances. The same can be said about elderly chronic users of benzodiazepines, as well as those with cognitive impairment. Evidence for the use of psychotropic medications as a viable treatment option for the elderly both in the community and in the long-term care setting who are experiencing mental health challenges is examined. Alternative non-pharmacological approaches that nurses can use to augment care are also briefly discussed.

REF ID: 2962

Level IV: Non-experimental study

Topic 1: Risks

Voyer, P., Verreault, R., Mengue, P. N., Laurin, D., Rochette, L., & Martin, L. S. et al. (2005).

Determinants of neuroleptic drug use in long-term facilities for elderly persons. *Journal of Applied Gerontology*, 24(3), 179-195.

Journal Article, Research, Tables/Charts

Neuroleptics, also called antipsychotic drugs (e.g., haloperidol, risperidone) are the cornerstone drug therapy for psychiatric disorders. Despite the fact that they are widely used in nursing homes, little is known about their clinical determinants. The goal of this cross-sectional study was to determine the prevalence rate of neuroleptic administration and to identify their determinants among 2,332 elderly residents in nursing homes. Among the residents, 649 (27.8%) had taken at least one neuroleptic drug. According to the logistic regression, the factors associated with neuroleptic drug consumption were younger age, few hours of family visits, severe cognitive impairment, insomnia, physical restraint, and disruptive behavior. In conclusion, neuroleptic drugs are administered to more than a quarter of residents in nursing homes. Alternative solutions to sleep problems and disruptive behaviors of the elderly living in long-term-care facilities should be implemented in order to reduce unnecessary use of

neuroleptics.

REF ID: 2956

Level IV: Non-experimental study

Topic 1: Risks

Voyer, P., Verreault, R., Mengue, P. N., & Morin, C. M. (2006). Prevalence of insomnia and its associated factors in elderly long-term care residents. *Archives of Gerontology and Geriatrics*, 42(1), 1-20.

Journal Article, Research, Tables/Charts

Insomnia is a significant problem that may jeopardize elderly residents' quality of life in long-term care settings. However, there are only a few studies dealing with sleeping disturbances among nursing home residents. The goal of this study was to determine the prevalence of insomnia and its associated factors in nursing home residents. A cross-sectional study (n=2332) was conducted among seniors living in long-term care facilities. The findings indicate that 144 (6.2%) participants had an insomnia disorder according to DSM-IV criteria, 17% displayed at least one symptom of insomnia, and more than half of the subjects were benzodiazepine users. According to multivariate analysis, psychological distress (adjusted odds ratio=1.51) and disruptive behaviors (adjusted odds ratio=2.10) were the only factors associated with an insomnia disorder among this population. In conclusion, insomnia is a fairly important problem, as a symptom or a syndrome, among elderly people and deserves attention from caregivers. Alternative interventions to benzodiazepine drugs, which are suited to long-term care residents while tailored to these specific care settings, should be developed.

REF ID: 2720

Level V: Literature review

Topic 4: Management

Wang, W. W., & Moyle, W. (2005). Physical restraint use on people with dementia: A review of the literature. *The Australian Journal of Advanced Nursing : A Quarterly Publication of the Royal Australian Nursing Federation*, 22(4), 46-52.

Journal Article; Review; N

OBJECTIVE: To provide a critical review of contemporary literature published between 1992 and 2003 on the use of physical restraints on residents with dementia in long-term care. **DESIGN:** Forty-two manuscripts related to dementia (cognitive impairment) and physical restraint in long-term care settings were examined. **RESULTS:** Four dominant themes were identified in the literature: relationship between restraint use and cognitive decline; falls/related injuries and associated mortality; reduction/removal/alternatives to use; and, nurses' attitudes to restraints. It appears that despite nurses' desire to use physical restraint for protection there is no scientific evidence that physical restraint actually protects residents against injuries. A discussion of the methodological issues arising in the literature and recommendations for further research and implications for nursing practice are outlined. **CONCLUSION:** To curb the practice of restraint use the concentrated assistance of Australia federal and state governments and peak geriatric and dementia organisations may be required.

REF ID: 2714

Level V: Literature review

Topic 3: Assessment

Watson, R. (2002). Assessing the need for restraint in older people. *Nurs. Older People*, 14(4), 31-32.

Journal Article; Review; N

REF ID: 3047

Topic 4: Management

Watson, R. (2001). Restraint: Its use and misuse in the care of older people. *Nursing Older People*, —13(3), 21-26.

Level V: Literature review

Watson, R. (2001). Restraint: Its use and misuse in

Journal Article, CEU, Review, Tables/Charts

Restraint is an emotive issue, with legal and ethical dimensions, as well as psychological and physical effects on the person being restrained. Can its use ever be justified in the care of older people?

REF ID: 2990

Level IV: Non-experimental study

Topic 4: Management

Weiner, C., Tabak, N., & Bergman, R. (2003). The use of physical restraints for patients suffering from dementia. *Nursing Ethics*, 10(5), 512-525.

Journal Article, Research, Tables/Charts

This study reviews the ethical dilemmas of nursing staff about using restraints on patients suffering from dementia in two types of health care settings in Israel: internal medicine wards of three general hospitals; and psychogeriatric wards of three nursing homes. The nurses' level of knowledge about the Patient's Rights Law, the Israeli Code of Ethics, and the guidelines on restraints was analysed. The purposes of restraints were defined as beneficial to: (1) the patient; (2) other patients; or (3) the institution. The concept was evaluated in a realistic situation (expressing views of daily practice) and in an idealistic situation (expressing personal and professional beliefs and values). It was shown that nurses in internal medicine wards of general hospitals agreed more with the use of restraints than those in psychogeriatric wards in nursing homes. Differences were more pronounced when restraints were beneficial to the institution. In addition, nurses working in psychogeriatric wards of nursing homes had more knowledge about the guidelines on restraints and were less inclined than their counterparts to agree with the use of restraints for the benefit of other patients or the institution.

REF ID: 2994

Level IV: Non-experimental study

Topic 4: Management

Weiner, C., Tabak, N., & Bergman, R. (2003). Use of restraints on dementia patients: An ethical dilemma of a nursing staff in israel. *JONA's Healthcare Law, Ethics, and Regulation*, 5(4), 87-93.

Journal Article, Research, Tables/Charts

This quality improvement project investigates the ethical dilemmas faced by nursing staff (ie, registered nurses, practical nurses, and nurse aids) using restraints for dementia patients in "realistic" and "idealistic" situations. RATIONALE: There is a need to offer adequate care for a growing number of patients suffering from dementia and to ensure their safety. Restraints are a common practice for this purpose; however, they may inflict harm and contradict patient rights of freedom, autonomy, and respect. The issue becomes more complex in view of the multiple studies showing that the various justifications for using restraints are often based on caregiver interests and institutional considerations rather than on the patient's benefit. DESIGN: The project was conducted on a sample of 200 Israeli nursing staff members, half from internal medicine wards of 3 hospitals and the other half from 3 psychogeriatric nursing homes, all treating dementia patients. The project used a questionnaire composed of demographic data and an ethical preference questionnaire built on 18 situations concerning restraints. Situations were categorized into 3 purposes: (a) patient's benefit, (b) other patients' benefit, and (c) institutional benefit. These situations referred to realistic (ie, expressing views of daily practice) and idealistic (ie, expressing personal and professional beliefs and values) situations. RESULTS: The project exposes a discrepancy between the manner in which the nursing staff perceive use of restraints in an idealistic situation and in a realistic situation and the greater tendency to use restraints in the realistic situation than in the idealistic situation. The main contribution of the project is in revealing the conflict between the personal beliefs of the nursing staff and the nurses' perceptions of their institutional obligations. CONCLUSIONS: The project uncovered a discrepancy among the beliefs, the personal and —professional values of the nursing staff, and their

perception regarding the actual use of restraints in the daily work routine.

REF ID: 2673

Level IV: Non-experimental study

Topic 5: Evaluation/follow-up

Weintraub, D., & Spurlock, M. (2002). Change in the rate of restraint use and falls on a psychogeriatric inpatient unit: Impact of the health care financing administration's new restraint and seclusion standards for hospitals. *Journal of Geriatric Psychiatry and Neurology*, 15(2), 91-94.
Journal Article; IM

This chart review of 767 patients treated on a psychogeriatric inpatient unit over a 2-year period examined the impact of the Health Care Financing Administration's (HCFA) new restraint standards for hospitals on the rate of restraint use and falls. There was a marked decrease in the number of restraint episodes in the year after the introduction of the new standards compared with the year before (44 vs 212 restraint episodes per 1,000 patient-days). However, no notable differences were found in the number of total falls (18 vs 21 falls per 1,000 patient-days) or serious falls (2 vs 1 serious fall per 1,000 patient-days). If replicated, these findings of decreased restraint use without a concomitant increase in the number of falls demonstrate a change in practice patterns as a result of HCFA's action.

REF ID: 2681

Level IV: Non-experimental study

Topic 4: Management

Werner, P. (2002). Perceptions regarding the use of physical restraints with elderly persons: Comparison of Israeli health care nurses and social workers. *J.Interprof Care.*, 16(1), 59-68.
Journal Article; IM

In view of the difficulty involved in decision-making regarding the use or removal of physical restraints and the recent pattern encouraging the use of interdisciplinary teams for elder care issues, the present study compared the perceptions of Israeli nurses and social workers in health care settings regarding the use of physical restraints. Data were collected from a convenience sample of 50 nurses and 69 social workers working in long-term and acute care settings. The findings indicated that participants in all professions attributed moderate to low importance towards the use of physical restraints. Social workers' perceptions were similar to those of nurses in psychiatric hospitals and slightly more favourable to the use of physical restraints than those of nurses in nursing homes. Patients' safety (as reflected in the scores of the items related to protecting an older person from falling and protecting an older person from pulling out a catheter) was the most important reason for using physical restraints for both groups. Increased attention should be given to the role of social workers as team members in the process of decision-making regarding the use or removal of physical restraints, especially as mediators between the elderly person, family members and staff members.

REF ID: 3038

Level IV: Non-experimental study

Topic 4: Management

Werner, P., & Mendelsson, G. (2001). Nursing staff members' intentions to use physical restraints with older people: Testing the theory of reasoned action. *Journal of Advanced Nursing*, 35(5), 784-791.

Journal Article, Research, Tables/Charts

AIM OF THE STUDY: To examine nursing staff members' attitudes, subjective norms, moral obligations and intentions to use physical restraints, using the Theory of Reasoned Action (TRA). RATIONALE: During the last two decades an extensive body of research has examined nurses' attitudes as one of the main factors affecting the decision to use or not to use physical restraints with older persons. However,

no studies have examined empirically the antecedents to nurses' intentions to use physical restraints within a theoretically based framework. **METHOD:** A correlational design was used with 303 nursing staff members from an 800-bed elder care hospital in central Israel. Participants completed a questionnaire including questions based on the TRA as well as socio-demographic and professional characteristics. **RESULTS:** Regression analyses found attitudes, subjective norms and moral considerations to be significantly associated to intention to use physical restraints with older people. The TRA explained 48% of the variance in nurses' intentions. **CONCLUSIONS:** The TRA proved to be a useful framework for examining nurses' intentions to use physical restraints. Nurses' attitudes, beliefs and expectations of significant others should be examined before implementing educational programmes regarding the use of physical restraints.

REF ID: 2722

Level VI: Opinion

Topic 4: Management

Winship, G. (2006). Further thoughts on the process of restraint. *Journal of Psychiatric and Mental Health Nursing*, 13(1), 55-60.

Journal Article; Review; N

The physical restraint of a disturbed person is a subject constant of psychiatry and is a challenge that particularly faces nurses working in acute inpatient settings. While other approaches to psychiatric treatment have been discarded (e.g. punishment, blood letting, trepanation, deep insulin therapy and so on) or evolved into new treatments (the use of medication), the act of physical restraint has remained largely unmodified. Given the ubiquity of physical restraint in psychiatry, particularly as a nursing procedure, the absence of a sustained body of research is notable. This essay examines some of the historical underpinnings of the use of restraint in psychiatry brought into sharp focus by the David Bennett Inquiry Report (2003) and the National Institute of Clinical Effectiveness (NICE) guidelines (2005) on the management of violence.

REF ID: 2732

Level V: Literature Review

Topic 1: Risks

Wright, S. (2003). Control and restraint techniques in the management of violence in inpatient psychiatry: A critical review. *Medicine, Science, and the Law*, 43(1), 31-38.

Journal Article; Review; IM

Violence has long been a matter of concern in inpatient psychiatry. While research suggests that training in physical restraint techniques can reduce the number and severity of violent incidents and assault-related injuries, the recent Cochrane Review is critical of the methodological inadequacies which characterise these studies. This paper considers issues pertinent to understanding research in this controversial area, critically evaluates research on the effectiveness of the predominant approach to training in physical restraint in the UK, and examines some of the methodological problems inherent in this research.

REF ID: 2665

Level IV: Non-experimental study

Topic 1: Risks

Zun, L. S. (2003). A prospective study of the complication rate of use of patient restraint in the emergency department. *The Journal of Emergency Medicine*, 24(2), 119-124.

Journal Article; IM

Patients are frequently involuntarily, physically restrained in the emergency department (ED). The purpose of this study was to determine the type and rate of complications experienced by patients physically restrained in the ED. A prospective, —observational study was performed on consecutive

patients who were restrained in a community, inner-city teaching hospital ED for a 1-year period. The ED nurses or physicians completed a restraint study checklist. The checklist included the reasons for restraints, restraint duration, method and number of restraints, use of chemical restraint, and complications resulting from the use of restraints. The 298 patients were accumulated during a 1-year period. The mean age was 36.5 years (range 14-89). Sixty-eight percent were men; 73% were African-Americans, 16% Hispanic, and 11% Caucasian. One hundred six patients had more than one indication for patient restraint. Patients were restrained for a mean of 4.8 h (range 0.2-25.0 h), with psychosis being the most frequent discharge diagnosis (33%). Patients were most frequently restrained on a cart with two restraints (59%), in the supine position (86%), and 27.5% had chemical restraint added. There were 20 complications (7%); getting out of restraints was the most common (10) and the remainder included vomiting (3), injured others (2), spitting (2), injured self (1), increased agitation (1), and other (1). These complications were not correlated with age, gender, race, number of restraints, use of chemical restraint, diagnosis, or duration of restraint. This study demonstrates a low rate of minor complications. We found that male patients were most often restrained for violent and disruptive behavior. Most commonly, two restraints were used in combination with chemical restraints for a duration of almost 5 h.