Current Awareness

Sign Up To Safety

This monthly Current Awareness Bulletin is produced by the Library Team, Musgrove Park Hospital to provide staff with a range of resources to support Sign Up To Safety. It includes recently published guidelines and research articles, news and policy items.

This guide provides a selection of relevant resources and is not intended to be a comprehensive list. All websites have been evaluated and details are correct at the time of publications.

Details correct at time of going to print. Please note that resources are continuously updated.

For further help or guidance, please contact a member of library staff.

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Please note that abstracts are not always available for articles.

**FALLS**

Effectiveness of Environment-Based Interventions That Address Behavior, Perception, and Falls in People With Alzheimer’s Disease and Related Major Neurocognitive Disorders: A Systematic Review

**Author(s):** Jensen, Lou; Padilla, René  
**Source:** The American Journal of Occupational Therapy; 2017; vol. 71 (no. 5); p. 1-10  
Available in full text at American Journal of Occupational Therapy - from EBSCOhost  
Available in full text at American Journal of Occupational Therapy, The - from ProQuest  
Available in full text at American Journal of Occupational Therapy - from EBSCOhost  
Available in full text at American Journal of Occupational Therapy, The - from National Library of Medicine

**Abstract:** [...] bright-light therapy coupled with melatonin did have some effect in decreasing agitation (Riemersma-van der Lek et al., 2008, Level I). [...] personalized bathing protocols that included person-centered environmental modifications were found to decrease agitation in a Level I study (Zimmerman et al., 2013, Level I SR). [...] a decrease in the number of falls and fallers in a residential facility appeared more directly related to the removal of bed exit and chair alarms (Bressler, Redfern, & Brown, 2011, Level III). [...] limited or insufficient evidence exists for aromatherapy, proprioceptive input, and wander gardens to improve behavior in people with AD and related major NCDs.

**Database:** BNI

Predicting falls in older adults using the four square step test.

**Author(s):** Cleary, Kimberly; Skornyakov, Elena  
**Source:** Physiotherapy Theory & Practice; Oct 2017; vol. 33 (no. 10); p. 766-771

**Abstract:** The Four Square Step Test (FSST) is a performance-based balance tool involving stepping over four single-point canes placed on the floor in a cross configuration. The purpose of this study was to evaluate properties of the FSST in older adults who lived independently. Forty-five community dwelling older adults provided fall history and completed the FSST, Berg Balance Scale (BBS), Timed Up and Go (TUG), and Tinetti in random order. Future falls were recorded for 12 months following testing. The FSST accurately distinguished between non-fallers and multiple fallers, and the 15-second threshold score accurately distinguished multiple fallers from non-multiple fallers based on fall history. The FSST predicted future falls, and performance on the FSST was significantly correlated with performance on the BBS, TUG, and Tinetti. However, the test is not appropriate for older adults who use walkers. Overall, the FSST is a valid yet underutilized measure of balance performance and fall prediction tool that physical therapists should consider using in ambulatory community dwelling older adults. **Database:** CINAHL
The role of the environment in falls among stroke survivors.

**Author(s):** Wing, Jeffrey J.; Burke, James F.; Clarke, Philippa J.; Feng, Chunyang; Skolarus, Lesli E.

**Source:** Archives of Gerontology & Geriatrics; Sep 2017; vol. 72; p. 1-5

**Abstract:** Background Stroke survivors’ risk of falls may be particularly sensitive to the environment due to deficits such as visuospatial neglect or homonymous hemianopia. We sought to identify the prevalence of falls among stroke survivors and investigate the possible role of the environment in falling. Materials and methods Data from the National Health and Aging Trends Study (NHATS), a nationally representative population of community-dwelling adults over 65, were used. We compared the prevalence of falling in the past month between stroke survivors and demographic and comorbidity matched controls using sequential Poisson regression models. Results The proportion of stroke survivors reporting a fall in the previous month was 18.8% compared to 10.8% among matched controls (PR: 1.74; 95% CI: 1.36–2.25). These differences were attenuated after adjusting for known confounders, mediators and aspects of the environment (PR: 1.17; 95% CI: 0.86–1.60). Indoor tripping hazards were associated with falls (PR: 1.24; 95% CI: 1.01–1.53). The association between stroke and falls was modified by neighborhood social disorder, such that in areas of low social disorder, falls in the previous month were more common in stroke survivors compared to non-stroke controls. Conclusions The difference in falls among stroke survivors and matched controls is largely explained by known risk factors and physical capacity. Indoor tripping hazards were associated with falls among stroke survivors and matched controls. Explanations of why the association between stroke and falls was protective in areas of high social disorder are unclear, but may warrant additional research.

**Database:** CINAHL

Predicting falls in community dwelling older adults using the Activities-specific Balance Confidence Scale.

**Author(s):** Cleary, Kimberly; Skornyakov, Elena

**Source:** Archives of Gerontology & Geriatrics; Sep 2017; vol. 72; p. 142-145

**Abstract:** Objectives Falls are a significant problem associated with aging, and can lead to serious consequences including injury and death. The purpose of this study was to determine whether balance confidence differed between future fallers and non-fallers, and whether the construct prospectively predicted falls. Methods Forty-five community dwelling older adults aged 65 or older completed the Activities-specific Balance Confidence scale (ABC) and reported falls experienced during the next 6 months. Results Eleven (24.4%) subjects were fallers, and had significantly poorer ABC scores (x̄ = 50.6%) than their non-faller counterparts (x̄ = 76.3%). The regression model was significant, where the ABC score predicted falls at 6 months. Discussion Our findings suggest that balance confidence differs between fallers and non-fallers, and that ABC scores can predict future falls in community dwelling older adults. Conclusion Balance confidence is a fall risk predictor, and thus a critical component of fall risk assessment. Balance confidence should be measured regularly in community dwelling older adults using the ABC.

**Database:** CINAHL

An examination of patient characteristics that contribute to falls in the inpatient traumatic brain injury rehabilitation setting.

**Author(s):** McKechnie, Duncan; Pryor, Julie; Fisher, Murray J.

**Source:** Disability & Rehabilitation; Sep 2017; vol. 39 (no. 18); p. 1864-1871
Abstract: Purpose: To examine patient characteristics that contribute to falls in the inpatient traumatic brain injury (TBI) rehabilitation setting. Method: A three-round modified Delphi technique that engaged a multidisciplinary panel of 11 health experts was used. Group median score and disagreement index were used to measure agreement between participants about patient characteristics that contribute to falls. Results: All panel members participated in each questionnaire round. Several factors (such as, a fall since admission to hospital, cognitive impairment and motor impairment) were interpreted as contributing to falls in the TBI rehabilitation setting; but others were not (such as, antecedent falls and medication class). Some salient themes identified in participants’ comments include: (1) the need to differentiate between what is an activity (e.g., mobility) and impairment (e.g., ataxic gait)-based falls risk factor; (2) over the course of a 24-h day and inpatient rehabilitation stay, a patient’s risk of falling is not linear; and (3) Functional Independence Measure and predictors of TBI severity have varied sensitivity in predicting falls. Conclusions: In the TBI rehabilitation setting, falls result from a combination of many patient factors. Some factors are believed to be more relevant at different time points over a 24-h day and, at particular times during the course of a patient’s rehabilitation. The utility and statistical significance of risk factor of falls are both important concepts when determining their clinical relevance. Implications for Rehabilitation: Clinicians should be mindful that the rehabilitation context can present unique falls risk factors, some of which emerge at different times during a patient’s rehabilitation. Over the course of a patient’s rehabilitation their risk of falling is not linear; therefore, rehabilitation clinicians should undertake periodic falls risk screening. The utility value and statistical significance of falls risk factors are both important aspects to consider when determining their clinical utility.

Database: CINAHL

Do subjective memory complaints predict falls, fractures and healthcare utilization? A two-year prospective study based on a cohort of older women recruited from primary care.

Author(s): Al-Sari, Usama A.; Tobias, Jon H.; Archer, Hilary; Clark, Emma M.

Source: International Journal of Geriatric Psychiatry; Sep 2017; vol. 32 (no. 9); p. 968-976

Abstract: Objective: A proportion of older individuals report subjective memory complaints (SMCs), which can predict the development of cognitive impairment and dementia. Previous studies based on secondary care suggest that SMC is also associated with other adverse health consequences, including falls, fractures and increased healthcare utilization. In this study, we aimed to establish whether similar findings are observed in the wider population. Methods: Prospective analysis of the Cohort for Skeletal Health in Bristol and Avon, a population-based cohort recruited from primary care, was carried out. Data were collected by self-completion questionnaire at baseline and 2 years. SMC was assessed at baseline. Fractures, measures of falls, mobility and healthcare utilization were assessed 2 years later. A random 5% subsample of data was validated against electronic general practitioner records. Logistic regression was used to identify independent associations, following adjustment for a range of confounders assessed at baseline. Results: Data were available on 3184 women. Three hundred and fifty participants (11.0%) reported SMC. They were older (73.3 ± 4.5 vs 72.0 ± 4.2 years) and less mobile compared with those not reporting SMC. SMCs at baseline were associated with an increased risk of upper limb fractures over the following 2 years (OR 1.72, 95% CI 1.02-2.90). SMCs were also associated with an increased risk of falls (OR 1.83, 95% CI 1.41-2.38) and increased healthcare utilization (OR for hospital appointments 2.20, 95% CI 1.26-3.86). No association was observed with bone mineral density at any site. Conclusions: Subjective memory complaints are important markers of adverse health outcomes and should prompt interventions to reduce fractures such as physiotherapy-led fall reduction programmes. Copyright © 2016 John Wiley & Sons, Ltd. Database: CINAHL
A Multicomponent Fall Prevention Strategy Reduces Falls at an Academic Medical Center.

**Author(s):** France, Dan; Slayton, Jenny; Moore, Sonya; Domenico, Henry; Matthews, Julia; Steaban, Robin L.; Choma, Neesha

**Source:** Joint Commission Journal on Quality & Patient Safety; Sep 2017; vol. 43 (no. 9); p. 460-470

**Abstract:** Background While the reduction in fall rates has not kept pace with the reduction of other hospital-acquired conditions, patient safety research and quality improvement (QI) initiatives at the system and hospital levels have achieved positive results and provide insights into potentially effective risk reduction strategies. An academic medical center developed a QI-based multicomponent strategy for fall prevention and pilot tested it for six months in three high-risk units—the Neuroscience Acute Care Unit, the Myelosuppression/Stem Cell Transplant Unit, and the Acute Care for the Elderly Unit—before implementing and evaluating the strategy hospitalwide. Methods The multicomponent fall strategy was evaluated using a pre-post study design. The main outcome measures were falls and falls with harm measured in events per 1,000 patient-days. Fall rates were monitored and compared for three classes of falls: (1) accidental, (2) anticipated physiologic, and (3) unanticipated physiologic. Results Statistical process control charts showed that the pilot units had achieved significant reductions in falls with harm during the last five months of data collection. Wald test and segmented regression analyses revealed significant improvements in pooled postintervention fall rates, stratified by fall type. The hospitalwide implementation of the program resulted in a 47% overall reduction in falls in the postintervention period. Conclusion A fall prevention strategy that targeted the spectrum of risk factors produced measurable improvement in fall rates and rates of patient harm. Hospitals must continue developing, rigorously testing, and sharing their results and experiences in implementing and sustaining multicomponent fall prevention strategies.

**Database:** CINAHL

New 7-Step Video Aims to Reduce Falls in Older Adults.

**Author(s):**

**Source:** Journal of Gerontological Nursing; Sep 2017; vol. 43 (no. 9); p. 7-8

Available in full text at Journal of Gerontological Nursing - from ProQuest

**Database:** CINAHL

A Prospective Study of Back Pain and Risk of Falls Among Older Community-dwelling Men.

**Author(s):** Marshall, Lynn M.; Litwack-Harrison, Stephanie; Makris, Una E.; Kado, Deborah M.; Cawthon, Peggy M.; Deyo, Richard A.; Carlson, Nels L.; Nevitt, Michael C.

**Source:** Journals of Gerontology Series A: Biological Sciences & Medical Sciences; Sep 2017; vol. 72 (no. 9); p. 1264-1269

**Database:** CINAHL

The Association Between Anxiety and Falls: A Meta-Analysis.

**Author(s):** Hallford, David John; Nicholson, Geoff; Sanders, Kerrie; McCabe, Marita P.

**Source:** Journals of Gerontology Series B: Psychological Sciences & Social Sciences; Sep 2017; vol. 72 (no. 5); p. 729-741
Abstract: Objectives: Falls occur frequently among older adults and can lead to a range of adverse and debilitating outcomes. Although symptoms of clinical anxiety have been implicated as risk factors for falls, there is no current consensus on the empirical association between anxiety and falls. The current study aimed to address this gap in the literature by conducting a quantitative, meta-analytic review of findings from previous studies. Method: A systematic literature search of bibliographic databases was conducted, yielding 18 studies that fit the criteria for inclusion in the meta-analysis. Results: A random-effects model of all 18 studies showed a significant overall odds ratio of 1.53 (95% CI 1.28-1.83, p < .001), indicating that elevated levels of anxiety were associated with a 53% increased likelihood of falls. A high amount of variance among effect sizes was observed. Only age was identified as a moderator of this relationship in a subgroup of the samples. Conclusions: Clinical anxiety is associated with falls, however, further research is required to elucidate the factors that might moderate or mediate this relationship, the casual pathways through which they are related, and the associations between different types of anxiety and falls.

Database: CINAHL

Falls simulation room: Do you see what your patient sees?
Author(s): Hollenback, Robert
Source: Nursing; Sep 2017; vol. 47 (no. 9); p. 65-67
Abstract: The article describes a fall simulation room which teaches nursing staff to visualize their role in fall prevention. Topics covered include the factors contributing to the risk of a fall, the goal of raising awareness of the fall interventions that are either in place or missing and the fall scenarios presented to clinical and non-clinical staff. Also mentioned is the importance of the fall prevention sign to nursing staff.

Database: CINAHL

Preventing Falls in Older Persons.
Author(s): VAN VOAST MONCADA, LAINIE; MIRE, L. GLEN
Source: American Family Physician; Aug 2017; vol. 96 (no. 4); p. 240-249
Database: CINAHL

Author(s): Jumani, Kiran; Powell, Jason
Source: Annals of Otology, Rhinology & Laryngology; Aug 2017; vol. 126 (no. 8); p. 602-605
Abstract: Introduction: Benign paroxysmal positional vertigo (BPPV) is the most common cause of dizziness in the elderly. This has been identified as a risk factor in falls. Falls are the leading cause of disability and the leading cause of death from injury among people over 75 in the UK. Methods: We assessed the effect of BPPV treatment on falls in an elderly population by retrospectively reviewing one unit’s experience of BPPV management over an 8-year period from June 2008 to June 2016. We specifically assessed patients who were referred for the primary reason of falls and were aged over 65 years. These patients were evaluated and treated with particle repositioning maneuvers if their positional tests were positive. The frequency of falls prior to their visit and at 6-month clinic follow-up were reviewed. Results: The total number of falls in the cohort reduced significantly (P < .0001) after the procedure, from 128 to 46 falls (64% reduction). Associated comorbidities were also
evaluated in this group. Conclusion: A prompt and effective treatment of BPPV is prudent to prevent devastating falls in older people in our communities.

**Database:** CINAHL

**Falls risk assessments: Too much, too little or just right?**

**Author(s):** Su, Grace

**Source:** Applied Nursing Research; Aug 2017; vol. 36 ; p. 135-136

**Database:** CINAHL

**Falls in the Aging Population.**

**Author(s):** Khow, Kareeann S F; Visvanathan, Renuka

**Source:** Clinics in Geriatric Medicine; Aug 2017; vol. 33 (no. 3); p. 357-368

**Abstract:** The number of people living beyond 65 years of age is increasing rapidly, and they are at increased risk of falls. Falls-related injuries and hospitalizations are steadily increasing. Falls can lead to fear of falling, loss of independence, institutionalization, and death, inevitably posing a significant burden to the health care system. Therefore, screening of people at risk of falls and comprehensive assessment of older people at high risk of falls are critical steps toward prevention. This review evaluates the current knowledge relating to falls, with particular focus on rapid screening, assessment, and strategies to prevent falls in the community.

**Database:** CINAHL

**Lessons Learned From Implementing CDC's STEADI Falls Prevention Algorithm in Primary Care.**

**Author(s):** Casey, Colleen M.

**Source:** Gerontologist; Aug 2017; vol. 57 (no. 4); p. 787-796

**Abstract:** Background: Falls lead to a disproportionate burden of death and disability among older adults despite evidence-based recommendations to screen regularly for fall risk and clinical trials demonstrating the effectiveness of multifactorial interventions to reduce falls. The Centers for Disease Control and Prevention developed STEADI (Stopping Elderly Accidents, Deaths, and Injuries) to assist primary care teams to screen for fall risk and reduce risk of falling in older adults. Purpose of the Study: This paper describes a practical application of STEADI in a large academic internal medicine clinic utilizing the Kotter framework, a tool used to guide clinical practice change. Design and Methods: We describe key steps and decision points in the implementation of STEADI as they relate to the recommended strategies of the Kotter framework. Strategies include: creating a sense of urgency, building a guiding coalition, forming a strategic vision and initiative, enlisting volunteers, enabling success by removing barriers, generating short-term wins, sustaining change, and instituting change. Results: Fifty-six patients were screened during pilot testing; 360 patients were screened during the first 3 months of implementation. Key to successful implementation was (a) the development of electronic health record (EHR) tools and workflow to guide clinical practice and (b) the proactive leadership of clinical champions within the practice to identify and respond to barriers. Implications: Implementing falls prevention in a clinical setting required support and effort across multiple stakeholders. We highlight challenges, successes, and lessons learned that offer guidance for other clinical practices in their falls prevention efforts.

**Database:** CINAHL
Evaluation of Sensor Technology to Detect Fall Risk and Prevent Falls in Acute Care.

**Author(s):** Potter, Patricia; Allen, Kelly; Costantinou, Eileen; Klinkenberg, William Dean; Malen, Jill; Norris, Traci; O’Connor, Elizabeth; Roney, Wilhemina; Tymkew, Heidi Hahn; Wolf, Laurie

**Source:** Joint Commission Journal on Quality & Patient Safety; Aug 2017; vol. 43 (no. 8); p. 414-421

**Database:** CINAHL

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The evaluation of a strength and balance exercise program for falls prevention in community primary care.

**Author(s):** Hawley-Hague, Helen; Roden, Amy; Abbott, Jo

**Source:** Physiotherapy Theory & Practice; Aug 2017; vol. 33 (no. 8); p. 611-621

**Abstract:** We aimed to evaluate a strength and balance program delivered in the community. There is little evidence of implementation of evidence-based exercise in practice. The program was a step-down model, designed to encourage long-term exercise in community classes. The program consisted of a fully funded referral only evidence-based 12-week strength and balance (Community Otago) class, followed by an evidence-based continuous open-access community strength and balance class (Active Always). The program was offered to patients: 1) after formal falls rehabilitation (falls and fracture service); 2) after falls rehabilitation in intermediate care; and 3) referred by a GP who were not eligible for rehabilitation (preventative measure). Outcome evaluation used descriptive statistics to report changes in function, confidence in balance, hospital attendance/admission for falls/fractures and transition to community classes. Focus groups established participant experience/satisfaction. Seventy-nine participants were included, aged 56–96, and 53 (67%) were women. About 63.3% of patients transitioned to Active Always classes, demonstrating improvement in maintenance. Follow-up scores from baseline attendance at falls and fracture service to 12-weeks follow-up (24 weeks) in Community Otago showed the majority of patients improved their function (Timed up and Go), confidence (ConfBal) and lowered their falls risk (Tinetti). Follow-up of participants from Community Otago baseline to the end of 12-weeks showed improvement in function and confidence, but only a third of participants lowered their falls risk. Focus groups data suggest that continuity of delivery, the role of the instructor, health professional, and social and physical outcomes were essential for maintenance. A supportive environment can be created which encourages older adults’ continued participation in group-based strength and balance, helping the delivery of evidence-based practice.

**Database:** CINAHL

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Effectiveness of an Ambient Intelligent Geriatric Management system (AmbiGeM) to prevent falls in older people in hospitals: protocol for the AmbiGeM stepped wedge pragmatic trial.

**Author(s):** Visvanathan, Renuka; Ranasinghe, Damith C; Wilson, Anne; Lange, Kylie; Dollard, Joanne; Boyle, Eileen; Karnon, Jonathan; Raygan, Erfan; Maher, Sean; Ingram, Kate; Pazhvoor, Shibu; Hoskins, Stephen; Hill, Keith

**Source:** Injury prevention : journal of the International Society for Child and Adolescent Injury Prevention; Aug 2017

Available in full text at [Injury Prevention](http://www.injury-prevention.org) - from BMJ Journals The NHS Collection

**Abstract:** BACKGROUND Although current best practice recommendations contribute to falls prevention in hospital, falls and injury rates remain high. There is a need to explore new interventions to reduce falls rates, especially in geriatric and general medical wards where older patients and those with cognitive impairment are managed. DESIGN AND METHODSA three-cluster
stepped wedge pragmatic trial, with an embedded qualitative process, of the Ambient Intelligent Geriatric Management (AmbIGeM) system (wearable sensor device to alert staff of patients undertaking at-risk activities), for preventing falls in older patients compared with standard care. The trial will occur on three acute/subacute wards in two hospitals in Adelaide and Perth, Australia.

PARTICIPANTS Patients aged >65 years admitted to study wards. A waiver (Perth) and opt-out of consent (Adelaide) was obtained for this study. Patients requiring palliative care will be excluded.

OUTCOMES The primary outcome is falls rate; secondary outcome measures are: (1) proportion of participants falling; (2) rate of injurious inpatient falls/1000 participant bed-days; (3) acceptability and safety of the interventions from patients and clinical staff perspectives; and (4) hospital costs, mortality and use of residential care to 3 months postdischarge.

DISCUSSION This study investigates a novel technological approach to preventing falls in hospitalised older people. We hypothesise that the AmbIGeM intervention will reduce falls and injury rates, with an economic benefit attributable to the intervention. If successful, the AmbIGeM system will be a useful addition to falls prevention in hospital wards with high proportions of older people and people with cognitive impairment.

TRIAL REGISTRATION NUMBER Australian and New Zealand Clinical Trial Registry: ACTRN 12617000981325; Pre-results.

Database: Medline

Risk factors for falls in community stroke survivors: A systematic review and meta-analysis.

Author(s): Xu, Tianma; Clemson, Lindy; O’Loughlin, Kate; Lannin, Natasha A; Dean, Catherine; Koh, Gerald

Source: Archives of physical medicine and rehabilitation; Aug 2017

Abstract: OBJECTIVE To identify the risk factors for falls in community stroke survivors.

DATA SOURCE A comprehensive search for articles indexed on MEDLINE, EMBASE, CINAHL, PsychINFO, Cochrane Library, and Web of Science databases was conducted.

STUDY SELECTION Prospective studies investigating fall risk factors in community stroke survivors were included. Reviewers in pair independently screened the articles and determined inclusion through consensus. Studies meeting acceptable quality rating using the Q-Coh were included in the meta-analysis.

DATA EXTRACTION Data extraction was done in duplicate by four reviewers using a standardized data extraction sheet, and confirmed by another independent reviewer for completeness and accuracy.

DATA SYNTHESIS Twenty-one articles met the minimum criteria for inclusion; risk factors investigated by three or more studies (n=16) were included in a meta-analysis. The following risk factors had strong association with all fallers: impaired mobility (OR 4.36, CI 2.68-7.10); reduced balance (OR 3.87, CI 2.39-6.26); use of sedative / psychotropic medications (OR 3.19, CI 1.36-7.48); disability in self-care (OR 2.30, CI 1.51-3.49); depression (OR 2.11, CI 1.18-3.75); cognitive impairment (OR 1.75, CI 1.02-2.99); and history of fall (OR 1.67, CI 1.03-2.72). A history of falling (OR 4.19, CI 2.05-7.01) had a stronger association with recurrent fallers.

CONCLUSION This study confirms that balance and mobility problems, assisted self-care, taking sedative or psychotropic medications, cognitive impairment, depression, and history of falling are associated with falls in community stroke survivors. We recommend that any future research into falls prevention programs should consider addressing these modifiable risk factors. As the risk factors for falls in community stroke survivors are multifactorial, interventions should be multi-dimensional.

Database: Medline
The Effects of the Pilates Training Method on Balance and Falls of Older Adults: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.

**Author(s):** Moreno-Segura, Noemi; Igual-Camacho, Celedonia; Ballester-Gil, Yéntel; Blasco-Igual, María Clara; Blasco, Jose María

**Source:** Journal of aging and physical activity; Aug 2017; p. 1-42

**Abstract:** Exercising with the Pilates method may be a beneficial treatment to improve balance and decrease the number of falls. To ascertain this, our search in 7 databases included 15 randomized controlled trials in which Pilates was the primary intervention. Participants were over 60 years of age; the outcomes were related to balance and falls. The Cochrane tool and PEDro scale were used to assess risk of bias and quality of individual studies. Current evidence supported the view that exercising with the Pilates method improves the balance of older adults with a high practical effect in terms of the dynamic (SMD=0.75[0.17;1.32]), static (SMD=1.33[0.53;2.13]) and overall balance (SMD=0.96[0.00;1.91]). Pilates also produced greater improvements with a moderate effect in terms of the dynamic (SMD=0.37[-0.36;1.11]) and overall balance (SMD=0.58[0.19;0.96]) compared to other training approaches oriented to the same end. Literature evaluating the effects on falls is scarce, and results were not conclusive.

**Database:** Medline

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**PRESSURE ULCERS**

Evaluation of a formal care worker educational intervention on pressure ulceration in the community

**Author(s):** Cross, Carol; Hindley, Jenny; Carey, Nicola

**Source:** Journal of Clinical Nursing; Sep 2017; vol. 26 (no. 17-18); p. 2614

**Abstract:** Aims and objectives To develop and evaluate an educational intervention for formal care workers on pressure ulceration in the community. Background Pressure ulcers are a major burden to health care and with an ageing population likely to increase. Formal care workers are ideally placed to identify high risk but lack standardised educational provision. Design An insider approach to action research in one provider organisation, November 2014-May 2015. Methods Number and categorisation of pressure ulcers, within three community nursing teams before and four months after intervention was delivered to a purposive sample (n = 250) of formal care workers, were assessed and the taught element evaluated using a questionnaire and verbal feedback. Results Total number of pressure ulcers reduced from 28-20, category II, 19-11, III unchanged at 6 and IV from 2-0 following the educational intervention. Key risk factors included impaired mobility (71%), urinary incontinence (61%) and previous pressure damage (25%), and 71% had formal care worker input. The intervention was highly rated 4.95/5 by 215 (86%) formal care workers in the evaluation questionnaire. Conclusions Formal care workers receive little, if any, education on pressure ulceration. An educational intervention can have a positive effect within community care, with the potential to reduce direct costs of care. However, a standardised approach to education is required; an urgent review of the education provision to formal care workers, in the UK and around the world, is therefore essential if the potential that formal care workers offer is to be realised. Relevance to clinical practice Formal care workers are ideally placed to help identify and alert healthcare professionals about patients at high risk of developing pressure ulcers. If this potential is to be realised, a standardised approach to education is required.

**Database:** BNI
Support surfaces in the prevention of pressure ulcers in surgical patients: An integrative review

Author(s): Oliveira, Karoline Faria; Nascimento, Kleiton Gonçalves; Nicolussi, Adriana Cristina; Chavaglia, Suzel Regina Ribeiro; Araujo, Cleudmar Amaral; Barbosa, Maria Helena

Source: International Journal of Nursing Practice; Aug 2017; vol. 23 (no. 4); p. n

Abstract: Aim To assess the scientific evidence about the types of support surfaces used in intraoperative surgical practice in the prevention of pressure ulcers due to surgical positioning. Method This is an integrative literature review. The electronic databases Cochrane, PubMed, Web of Science, Scopus, Lilacs, and CINAHL were used. The descriptors surgical patients, support surfaces, perioperative care, patient positioning, and pressure ulcer were used in the search strategy. Articles that addressed the use of support surfaces intraoperatively, published between 1990 and 2016, were selected. The PRISMA guidelines were used to structure the review. Results Of 18 evaluated studies, most were in English, followed by Portuguese and Spanish; most were performed by nurses. The most commonly cited support surfaces were viscoelastic polymer, micropulse mattresses, gel-based mattresses, and foam devices. Conclusion There are gaps in knowledge regarding the most efficient support surfaces and the specifications of the products used to prevent pressure ulcers due to surgical positioning. SUMMARY STATEMENT What is already known about this issue? There is an evidence of a high incidence of pressure ulcers related to surgical procedures, which entails losses for patients, health professionals, and institutions. Technologies such as support surfaces have been adopted as auxiliary equipment to prevent these injuries, aimed at redistributing pressure and controlling external forces. What does this paper add? The paper reports the themes addressed in the literature, the opportunities offered by support surfaces used in the intraoperative period, and recommendations for interventions in relation to the rigor of the scientific evidence. Considering the findings, viscoelastic polymer was most often recommended for reduction of interface pressure and cost benefit, followed by polyether and gel-based support surfaces. The need to standardize terms used for support surfaces was noted. The implications of this paper: The work provides greater knowledge about the use of technologies related to health care and its clinical evidence. Health professionals are afforded greater opportunities to make evidence-based choices for effective and safe practices for their patients. The research highlights the limitations of the studies and suggests that further research is required. Increased awareness of health professionals in relation to the evidence underpinning these practices may increase the uptake and use of support surfaces and decrease exposure of patients to predisposing factors for ulcers, resulting in reduced hospital stays and lower costs for institutions.

Database: BNI

CMS MDS 3.0 Section M Skin Conditions in Long-term Care: Pressure Ulcers, Skin Tears, and Moisture-Associated Skin Damage Data Update.

Author(s): Ayello, ElizabethA.

Source: Advances in Skin & Wound Care; Sep 2017; vol. 30 (no. 9); p. 415-430

Abstract: This manuscript reviews some of the key parts of the October 2016 revised Long-term Care Resident Assessment Instrument manual for Minimum Data Set (MDS) 3.0 Section M Skin Conditions. It also reports the Centers for Medicare & Medicaid’s publicly reported frequency data in long-term care for selected items on the MDS 3.0 Section M Skin Conditions. Percentages and trends of pressure ulcers/injuries, skin tears, and moisture-associated skin damage are assessed.

Database: CINAHL
**Identifying barriers and facilitators to participation in pressure ulcer prevention in allied healthcare professionals: a mixed methods evaluation.**

**Author(s):** Worsley, Peter R.; Clarkson, Paul; Bader, Dan L.; Schoonhoven, Lisette

**Source:** Physiotherapy; Sep 2017; vol. 103 (no. 3); p. 304-310

**Abstract:** Objectives To evaluate the barriers and facilitators for allied health professional's participation in pressure ulcer prevention. Design Mixed method cohort study. Setting Single centre study in an acute university hospital trust. Participants Five physiotherapists and four occupational therapists were recruited from the hospital trust. Therapists had been working in the National Health Service (NHS) for a minimum of one year. Main outcome measures Therapist views and experiences were collated using an audio recorded focus group. This recording was analysed using constant comparison analysis. Secondary outcomes included assessment of attitudes and knowledge of pressure ulcer prevention using questionnaires. Results Key themes surrounding barriers to participation in pressure ulcer prevention included resources (staffing and equipment), education and professional boundaries. Fewer facilitators were described, with new training opportunities and communication being highlighted. Results from the questionnaires showed the therapists had a positive attitude towards pressure ulcer prevention with a median score of 81% (range 50 to 83%). However, there were gaps in knowledge with a median score of 69% (range 50 to 77%). Conclusions The therapist reported several barriers to pressure ulcer prevention and few facilitators. The primary barriers were resources, equipment and education. Attitudes and knowledge in AHPs were comparable to data previously reported from experienced nursing staff.

**Database:** CINAHL

**Time to challenge the continued use of the term ‘pressure ulcer’?**

**Author(s):** Gefen, Amit

**Source:** British Journal of Nursing; Aug 2017; vol. 26 (no. 15)

**Abstract:** The author argues that the term "pressure ulcer" is part of the reason preventing effecting understanding of the causes and preventative measures of actual pressure ulcers. He suggests that misconceptions surrounding the use of "pressure ulcer" to describe certain tissue breakdown include the idea that they are only caused by pressure, always ulcers, and that friction is not involved in pressure ulcer formation. He goes on to suggest the term "deformation injury" be used as a replacement.

**Database:** CINAHL

**Pressure ulcers: an overview of risk.**

**Author(s):** Lumbers, Melanie

**Source:** British Journal of Nursing; Aug 2017; vol. 26 (no. 15)

**Abstract:** The article provides information on the risk factors and healing processes associated with pressure ulcers. Details are included on the causes and categories of pressure ulcers before the authors discuss the influence of fecal or urinary incontinence on the development of such ulcers. Particular attention is given to research on moisture lesions. **Database:** CINAHL
Perioperative registered nurses knowledge, attitudes, behaviors, and barriers regarding pressure ulcer prevention in perioperative patients.

**Author(s):** Tallier, Peggy C.; Reineke, Patricia R.; Asadoorian, Kathy; Choonoo, John G.; Campo, Marc; Malmgren-Wallen, Christine

**Source:** Applied Nursing Research; Aug 2017; vol. 36 ; p. 106-110

**Abstract:** Background Hospital acquired pressure ulcers have a detrimental effect on patient quality of life, morbidity, mortality, and cost to the healthcare industry. Little is known about pressure ulcer prevention in perioperative services. Objectives The objectives of this study were to describe perioperative registered nurses (RNs) knowledge, attitudes, behaviors, and barriers about pressure ulcer prevention and to determine if knowledge and the availability of a pressure ulcer staging tool are predictors of pressure ulcer prevention behavior. Methods A cross-sectional descriptive pilot study was conducted. Sixty-two perioperative RNs from 10 acute care hospitals participated. Results Perioperative nurses believed carrying out pressure ulcer prevention strategies is essential to nursing practice but only two-thirds reported conducting pressure ulcer risk assessment on all patients and daily assessment on at risk patients. Results indicated a knowledge deficit regarding assessment and prevention of pressure ulcers as performance on the PUKT (72%) fell below the recommended score of 90%. Results of binary logistic regression indicated that knowledge as measured by the PUKT and availability of a pressure ulcer staging tool were statistically significant (p = 0.03) predictors of pressure ulcer prevention behavior. The initial model without the predictor variables, indicated an overall success rate of correct predictions of 64% which increase to 73% when the predictor variables were added to the initial model. Conclusions Although perioperative nurses believe that pressure ulcer prevention is important, a knowledge deficit exists and there is a need for pressure ulcer prevention education.

**Database:** CINAHL

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Applying the PDSA Framework to Examine the Use of the Clinical Nurse Leader to Evaluate Pressure Ulcer Reporting.

**Author(s):** Polancich, Shea; Coiner, Sarah; Barber, Rebekah; Poe, Terri; Roussel, Linda; Williams, Kelley; Cumbest, Heather; Noles, Kristen; Herrero, Ashlea; Graham, Shannon; Miltner, Rebecca

**Source:** Journal of nursing care quality; ; vol. 32 (no. 4); p. 293-300

Available in full text at Journal of Nursing Care Quality - from EBSCOhost

Abstract: The clinical nurse leader (CNL) role has been cited as an effective strategy for improving care at the microsystem level. The purpose of this article is to describe the use of the CNL role in an academic medical center for evaluating pressure ulcer reporting. The Plan-Do-Study-Act cycle was used as the methodological framework for the study. The CNL assessment of pressure ulcers resulted in a 21% to 50% decrease in the number of hospital-acquired pressure ulcers reported in a 3-month time period. The CNL role has potential for improving the validity and reliability of pressure ulcer reporting.

**Database:** Medline

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Clinical Evaluation of a New Pressure Ulcer Risk Assessment Instrument, the Pressure Ulcer Risk Primary or Secondary Evaluation Tool (PURPOSE T).

**Author(s):** Coleman, Susanne; Smith, Isabelle L; McGinnis, Elizabeth; Keen, Justin; Muir, Delia; Wilson, Lyn; Stubbs, Nikki; Dealey, Carol; Brown, Sarah; Nelson, E Andrea; Nixon, Jane
Abstract: Aims To test the psychometric properties and clinical usability of a new Pressure Ulcer Risk Assessment Instrument including inter-rater and test-retest reliability, convergent validity and data completeness. Background Methodological and practical limitations associated with traditional Pressure Ulcer Risk Assessment Instruments, prompted a programme to work to develop a new instrument, as part of the National Institute for Health Research funded, Pressure Ulcer Programme Of reSearch (RP-PG-0407-10056). Design: Observational field test. Method For this clinical evaluation 230 patients were purposefully sampled across four broad levels of pressure ulcer risk with representation from 4 secondary care and 4 community NHS Trusts in England. Blinded and simultaneous paired (ward/community nurse and expert nurse) purpose-T assessments were undertaken. Follow-up retest was undertaken by the expert nurse. Field notes of purpose-T use were collected. Data were collected October 2012-Jan 2013. Results The clinical evaluation demonstrated 'very good' (kappa) inter-rater and test-retest agreement for purpose-T assessment decision overall. The percentage agreement for 'problem/no problem' was over 75% for the main risk factors. Convergent validity demonstrated moderate to high associations with other measures of similar constructs. Conclusion The purpose-T evaluation facilitated the initial validation and clinical usability of the instrument and demonstrated that purpose-T is suitable of use in clinical practice. Further study is needed to evaluate the impact of using the instrument on care processes and outcomes.

Database: Medline

SEPSIS

Systematic review of gender-dependent outcomes in sepsis

Author(s): Papathanassoglou, Elizabeth; Middleton, Nicos; Benbenishty, Julie; Williams, Ged; Christofi, Maria-Dolores; Hegadoren, Kathleen

Source: Nursing in Critical Care; Sep 2017; vol. 22 (no. 5); p. 284

Abstract: Background Men and women appear to exhibit different susceptibilities to sepsis and possibly divergent outcomes. However, the effect of sex and gender in critical illness outcomes is still controversial and the underlying mechanisms appear to be complex. Objectives We aimed to systematically review and synthesize evidence on the influence of sex on outcomes in critically ill adult patients with sepsis, as reported in published studies specifically including investigation of the effect of sex among their aims. Primary outcome measures include in-hospital mortality, intensive care unit (ICU) mortality and length of stay (LOS) in the ICU. Search strategy The review was based on focused literature searches (CINAHL, PUBMED, EMBASE and COCHRANE). Methodological quality was assessed through the STROBE checklist and the Cochrane Tool for Bias in Cohort Studies. Meta-analysis was performed using STATA. Published observational studies addressing outcomes of sepsis among their primary aims and having included gender comparisons among primary outcomes in critically ill adult patients were included. Results A total of eight eligible studies were included. With the exception of mortality, it was not possible to perform meta-analysis for other outcomes. Included studies reported data on 25,619 patients with sepsis (14309 male/11310 female). There is a paucity of well-designed studies addressing the effect of sex on mortality among patients with sepsis, and absence of studies addressing the effects of sex on multiple organ dysfunction of non-infectious origin. There was significant heterogeneity among study estimates (p=0·001; I²=78·1%). Conclusions Although results of data syntheses appear to point towards a small disadvantage for survival among women, our results suggest that data on the impact of sex on sepsis outcomes remain equivocal. Implications for future research include approaches to adjustment for...
confounders and prospective designs. Relevance to clinical practice Clarifying sex-related differences in sepsis, if any, is crucial for informing evidence-based care.

**Database:** BNI

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**Sepsis 3 from the perspective of clinicians and quality improvement initiatives**

**Author(s):** Machado, Flavia R; Nsutebu, Emmanuel; Salman Abdulaziz; Daniels, Ron; Finfer, Simon; Kissoon, Niranjan; Lander, Harvey; Malik, Imran; Papanthanassoglou, Elizabeth; Reinhart, Konrad; Rooney, Kevin; Rüddel, Hendrik; Toccafondi, Giulio; Tulli, Giorgio; Hamilton, Vida

**Source:** Journal of Critical Care; Aug 2017; vol. 40 ; p. 315

**Abstract:** The publication of the Sepsis-3 definitions resulted in a number of concerns related to its impact on the work of QI initiatives that focus on early identification and treatment of sepsis and prompted statements by the GSA, www.global-sepsis-alliance.org and the Surviving Sepsis campaign (SSC), www.survivingsepsis.org. In this document we aim to assess the new sepsis definitions [1] in the context of quality improvement initiatives. The current proposition adds burden to the data collection as well as for the bedside healthcare workers, since the complexity of calculating variations in six different organ dysfunction systems is high. Having SOFA variation as a definition also reduces its usefulness in the measurement burden, one of the relevant domains used to define usefulness of disease definitions. The broad definition of sepsis, the presence of a life threatening organ dysfunction, should remain the basis of all QI initiatives. Screening for early identification and treatment of patients with sepsis (formerly called severe sepsis) should continue essentially as previously recommended by SSC and seek the presence of any organ dysfunction. Their statements were not sufficient to clarify how the new definitions can be used at bedside. Our proposal is that an additional statement by the Sepsis 3 authors be issued in order to clarify some of these points as stated below.

**Database:** BNI

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**Sepsis-associated in-hospital cardiac arrest: Epidemiology, pathophysiology, and potential therapies**

**Author(s):** Morgan, Ryan W; Fitzgerald, Julie C; Weiss, Scott L; Nadkarni, Vinay M; Sutton, Robert M; Berg, Robert A

**Source:** Journal of Critical Care; Aug 2017; vol. 40 ; p. 128

**Abstract:** Sepsis-associated cardiac arrest is a relatively common occurrence with especially poor outcomes. Of the greater than 200,000 in-hospital cardiac arrests that occur in the United States annually, between 30,000 and 60,000 occur in patients with underlying sepsis. These patients are less likely to survive than cardiac arrest victims without sepsis. In this review, we discuss the epidemiology of sepsis-associated in-hospital cardiac arrest in adults and children, the relevant physiology responsible for its pathogenesis and poor outcomes, and potential therapeutic interventions based on this pathophysiology. We postulate that persistence of sepsis pathophysiology during and after cardiac arrest is responsible for these poor outcomes. This includes derangements of vascular tone and intravascular volume status; myocardial dysfunction; hypoxemia, acidemia, and other metabolic derangements; and pulmonary hypertension. Potential interventions that specifically target this pathophysiology before, during, and after cardiac arrest may augment standard cardiopulmonary resuscitation and post-resuscitation care for patients with sepsis and septic shock.

**Database:** BNI
"Determining fluid responsiveness in sepsis: The quest continues".
**Author(s):** Varon, Daryelle S.; Varon, Joseph
**Source:** American Journal of Emergency Medicine; Sep 2017; vol. 35 (no. 9); p. 1330-1331
**Database:** CINAHL

**The Impact of the Sepsis-3 Septic Shock Definition on Previously Defined Septic Shock Patients.**
**Author(s):** Sterling, Sarah A.; Puskarich, Michael A.; Glass, Andrew F.; Guirgis, Faheem; Jones, Alan E.
**Source:** Critical Care Medicine; Sep 2017; vol. 45 (no. 9); p. 1436-1442
Available in full text at Critical Care Medicine - from Ovid fulltext collection

**Abstract:** Objective: The Third International Consensus Definitions Task Force (Sepsis-3) recently recommended changes to the definitions of sepsis. The impact of these changes remains unclear. Our objective was to determine the outcomes of patients meeting Sepsis-3 septic shock criteria versus patients meeting the "old" (1991) criteria of septic shock only.
**Design:** Secondary analysis of two clinical trials of early septic shock resuscitation.
**Setting:** Large academic emergency departments in the United States.
**Patients:** Patients with suspected infection, more than or equal to two systemic inflammatory response syndrome criteria, and systolic blood pressure less than 90 mm Hg after fluid resuscitation.
**Interventions:** Patients were further categorized as Sepsis-3 septic shock if they demonstrated hypotension, received vasopressors, and exhibited a lactate greater than 2 mmol/L.
**Measurements and Main Results:** Four hundred seventy patients were included in the present analysis. Two hundred (42.5%) met Sepsis-3 criteria, whereas 270 (57.4%) met only the old definition. Patients meeting Sepsis-3 criteria demonstrated higher severity of illness by Sequential Organ Failure Assessment score (9 vs 5; p < 0.001) and mortality (29% vs 14%; p < 0.001).
**Subgroup analysis of 127 patients meeting only the old definition demonstrated significant mortality benefit following implementation of a quantitative resuscitation protocol (35% vs 10%; p = 0.006).**
**Conclusion:** In this analysis, 57% of patients meeting old definition for septic shock did not meet Sepsis-3 criteria. Although Sepsis-3 criteria identified a group of patients with increased organ failure and higher mortality, those patients who met the old criteria and not Sepsis-3 criteria still demonstrated significant organ failure and 14% mortality rate.
**Database:** CINAHL

**What Definition Should We Use for Sepsis and Septic Shock?**
**Author(s):** Sprung, Charles L.; Trahtemberg, Uriel
**Source:** Critical Care Medicine; Sep 2017; vol. 45 (no. 9); p. 1564-1567
Available in full text at Critical Care Medicine - from Ovid fulltext collection
**Database:** CINAHL

**Sepsis-3: Seeing the Entire Picture.**
**Author(s):** Deutschman, Clifford S.
**Source:** Critical Care Medicine; Sep 2017; vol. 45 (no. 9); p. 1567-1569
Available in full text at Critical Care Medicine - from Ovid fulltext collection
**Database:** CINAHL
Antimicrobials and Progression to Septic Shock in Severe Sepsis Patients: Is Delay the Only Thing That Matters?

**Author(s):** Agarossi, Andrea; Pintaudi, Gabriele

**Source:** Critical Care Medicine; Sep 2017; vol. 45 (no. 9)

Available in full text at [Critical Care Medicine](https://criticalcaremedicine.com) - from Ovid fulltext collection

**Database:** CINAHL

A Role for Antimicrobial Stewardship in Clinical Sepsis Pathways: a Prospective Interventional Study.

**Author(s):** Burston, John; Adhikari, Suman; Hayen, Andrew; Doolan, Heather; Kelly, Melissa L.; Fu, Kathy; Jensen, Tomas O.; Konecny, Pamela

**Source:** Infection Control & Hospital Epidemiology; Sep 2017; vol. 38 (no. 9); p. 1032-1038

**Abstract:** OBJECTIVE To evaluate the impact of early infectious diseases (ID) antimicrobial stewardship (AMS) intervention on inpatient sepsis antibiotic management. DESIGN Interventional, nonrandomized, controlled study. SETTING Tertiary-care referral hospital, Sydney, Australia. PATIENTS Consecutive, adult, non-intensive care unit (non-ICU) inpatients triggering an institutional clinical sepsis pathway from May to August 2015. INTERVENTION All patients reviewed by an ID Fellow within 24 hours of sepsis pathway trigger underwent case review and clinic file documentation of recommendations. Those not reviewed by an ID Fellow were considered controls and received standard sepsis pathway care. The primary outcome was antibiotic appropriateness 48 hours after sepsis trigger. RESULTS In total, 164 patients triggered the sepsis pathway: 6 patients were excluded (previous sepsis trigger); 158 patients were eligible; 106 had ID intervention; and 52 were control cases. Of these 158 patients, 91 (58%) had sepsis, and 15 of these 158 (9.5%) had severe sepsis. Initial antibiotic appropriateness, assessable in 152 of 158 patients, was appropriate in 80 (53%) of these 152 patients and inappropriate in 72 (47%) of these patients. In the intervention arm, 93% of ID Fellow recommendations were followed or partially followed, including 53% of cases in which antibiotics were de-escalated. ID Fellow intervention improved antibiotic appropriateness at 48 hours by 24% (adjusted risk ratio, 1.24; 95% confidence interval, 1.04–1.47; P=.035). The appropriateness agreement among 3 blinded ID staff opinions was 95%. Differences in intervention and control group mortality (13% vs 17%) and median length of stay (13 vs 17.5 days) were not statistically significant. CONCLUSION Sepsis overdiagnosis and delayed antibiotic optimization may reduce sepsis pathway effectiveness. Early ID AMS improved antibiotic management of non-ICU inpatients with suspected sepsis, predominantly by de-escalation. Further studies are needed to evaluate clinical outcomes. Infect Control Hosp Epidemiol 2017;38:1032–1038

**Database:** CINAHL


**Author(s):** Motzkus, Christine A.; Luckmann, Roger

**Source:** Journal of Intensive Care Medicine (Sage Publications Inc.); Sep 2017; vol. 32 (no. 8); p. 473-479

**Abstract:** Purpose: Sepsis treatment protocols emphasize source control with empiric antibiotics and fluid resuscitation. Previous reviews have examined the impact of infection site and specific pathogens on mortality from sepsis; however, no recent review has addressed the infection site. This review focuses on the impact of infection site on hospital mortality among patients with sepsis. Methods: The PubMed database was searched for articles from 2001 to 2014. Studies were eligible if
they included (1) one or more statistical models with hospital mortality as the outcome and considered infection site for inclusion in the model and (2) adult patients with sepsis, severe sepsis, or septic shock. Data abstracted included stage of sepsis, infection site, and raw and adjusted effect estimates. Nineteen studies were included. Infection sites most studied included respiratory (n = 19), abdominal (n = 19), genitourinary (n = 18), and skin and soft tissue infections (n = 11). Several studies found a statistically significant lower mortality risk for genitourinary infections on hospital mortality when compared to respiratory infections. Conclusion: Based on studies included in this review, the impact of infection site in patients with sepsis on hospital mortality could not be reliably estimated. Misclassification among infections and disease states remains a serious possibility in studies on this topic.

**Database:** CINAHL

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**Sepsis: keeping up to date.**

**Author(s):** Cutting, Keith

**Source:** British Journal of Nursing; Aug 2017; vol. 26 (no. 15)

Available in full text at British Journal of Nursing - from EBSCOhost

**Abstract:** The author comments on the state of research and treatment related to sepsis, an organ dysfunction caused by infection. He discusses the challenges associated with identifying the risk of sepsis, particularly for those in nursing. Other topics covered include wound care, education, and symptoms such as altered mental state, hyperthermia, and increase heart rate.

**Database:** CINAHL

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**In Treating Sepsis, Questions About Timing and Mandates.**

**Author(s):** Abbasi, Jennifer

**Source:** JAMA: Journal of the American Medical Association; Aug 2017; vol. 318 (no. 6); p. 506-508

**Abstract:** The article discusses the treatment and management of sepsis. Topics include the 2013 passage of Rory’s Regulations in New York state requiring hospitals to have evidence-based protocols for the early recognition and treatment of sepsis, the positive impact of rapid antibiotic administration and completing a 3-hour bundle of care on the mortality of sepsis patients, and the need for further studies on the association between the timing of completion of fluid bolus and in-hospital mortality.

**Database:** CINAHL

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**Recognizing Sepsis as a Global Health Priority - A WHO Resolution.**

**Author(s):** Reinhart, Konrad; Daniels, Ron; Kissoon, Niranjan; Machado, Flavia R.; Schachter, Raymond D.; Finfer, Simon

**Source:** New England Journal of Medicine; Aug 2017; vol. 377 (no. 5); p. 414-417

Available in full text at New England Journal of Medicine - from Ovid fulltext collection

**Abstract:** The article focuses on World Health Organization’s (WHO) resolution on improving the prevention, diagnosis, and management of sepsis. It presents views of Liam Donaldson, WHO envoy for patient safety, on sepsis that has been defined as life-threatening organ dysfunction resulting
from infection. It mentions that the resolution urges member countries to improve infection prevention through access to clean water, vaccination and clean child birth.

**Database:** CINAHL

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**Is Early Goal-Directed Therapy Harmful to Patients With Sepsis and High Disease Severity?**

**Author(s):** Kalil, Andre C.; Kellum, John A.

**Source:** Critical Care Medicine; Aug 2017; vol. 45 (no. 8); p. 1265-1267

Available in full text at [Critical Care Medicine](http://www.ovid.com) - from Ovid fulltext collection

**Abstract:** An introduction is presented in which the editor discusses the topics discussed within the issue including the treatment effect of early goal-directed therapy (EGDT) and evaluation of survival outcomes in patients enrolled in the Protocolized Care for Early Septic Shock (ProCESS) trial.

**Database:** CINAHL

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**Title:** Procalcitonin-guided decision making for duration of antibiotic therapy in neonates with suspected early-onset sepsis: a multicentre, randomised controlled trial (NeoPIns)

**Abstract**: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31444-7/fulltext?elsca1=etc](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31444-7/fulltext?elsca1=etc)

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**PATIENT SAFETY**

Post-operative mortality, missed care and nurse staffing in nine countries: A cross-sectional study

International Journal of Nursing Studies

**Abstract**

**Background**

Variation in post-operative mortality rates has been associated with differences in registered nurse staffing levels. When nurse staffing levels are lower there is also a higher incidence of necessary but missed nursing care. Missed nursing care may be a significant predictor of patient mortality following surgery.

**Aim**

Examine if missed nursing care mediates the observed association between nurse staffing levels and mortality.

**Method**

Data from the RN4CAST study (2009–2011) combined routinely collected data on 422,730 surgical patients from 300 general acute hospitals in 9 countries, with survey data from 26,516 registered nurses, to examine associations between nurses’ staffing, missed care and 30-day in-patient mortality. Staffing and missed care measures were derived from the nurse survey. A generalized estimation approach was used to examine the relationship between first staffing, and then missed care, on mortality. Bayesian methods were used to test for mediation.

**Results**

Nurse staffing and missed nursing care were significantly associated with 30-day case-mix adjusted mortality. An increase in a nurse’s workload by one patient and a 10% increase in the percent of missed nursing care were associated with a 7% (OR 1.068, 95% CI 1.031–1.106) and 16% (OR 1.159 95% CI 1.039–1.294) increase in the odds of a patient dying within 30 days of admission respectively. Mediational analysis shows an association between nurse staffing and missed care and a subsequent association between missed care and mortality.

**Conclusion**
Missed nursing care, which is highly related to nurse staffing, is associated with increased odds of patients dying in hospital following common surgical procedures. The analyses support the hypothesis that missed nursing care mediates the relationship between registered nurse staffing and risk of patient mortality. Measuring missed care may provide an ‘early warning’ indicator of higher risk for poor patient outcomes.

Full text @ http://www.journalofnursingstudies.com/article/S0020-7489(17)30176-1/fulltext

Biases Can Get in the Way of Important Shared Safety Lessons

Author(s): Paparella, Susan F

Source: Journal of Emergency Nursing; Sep 2017; vol. 43 (no. 5); p. 469

Abstract: When practitioners overestimate the role of personal factors and overlook the impact of external conditions or situations in others’ behaviors, it becomes difficult to learn from their own mistakes because they wrongly conclude that these events are caused by internal, personal flaws that exist in others but not in themselves. This tendency to assign blame to individual flaws increases as the outcome becomes more severe—a bias called defensive attribution—which makes it especially hard to learn from the most severe and fatal events. Although it is important to demonstrate a high degree of skill and ability in the emergency department, with an added measure of confidence in situations that would be unnerving to many, some experienced professionals can be too optimistic and overconfident in their abilities and systems, particularly when assessing their own vulnerability to potentially serious or fatal events. The Centers for Medicare & Medicaid Services (CMS) Interpretive Guidelines for Hospitals (§482.25 [a]), Condition of Participation: Pharmaceutical Services requires hospitals to take steps to prevent, identify, and minimize medication errors and for hospital pharmacies to “be aware of external alerts to real or potential pharmacy-related problems in hospitals.” Organizational learning requires adaptability and a supportive learning environment in which practitioners are not belittled or marginalized when they express an idea that represents an unpopular point of view. Practitioners need to be aware of the natural human tendency toward biases, and they must dispel the assumption that systems are safe until proven dangerous by a tragic event. Learning from the mistakes of others is imperative.


Database: BNI

Role of effective nurse-patient relationships in enhancing patient safety

Author(s): Conroy, Tiffany; Feo, Rebecca; Boucaut, Rose; Alderman, Jan; Kitson, Alison

Source: Nursing Standard; Aug 2017; vol. 31 (no. 49); p. 53-63

Available in print at Library MPH - from NURSING STANDARD
Abstract: Ensuring and maintaining patient safety is an essential aspect of care provision. Safety is a multidimensional concept, which incorporates interrelated elements such as physical and psychosocial safety. An effective nurse-patient relationship should ensure that these elements are considered when planning and providing care. This article discusses the importance of an effective nurse-patient relationship, as well as healthcare environments and working practices that promote safety, thus ensuring optimal patient care. [Continuing Professional Development, NS905] [MEDIUM]

Database: BNI

Sources of unsafe primary care for older adults: a mixed-methods analysis of patient safety incident reports.

Author(s): COOPER, ALISON; EDWARDS, ADRIAN; WILLIAMS, HUW; EVANS, HUW P.; AVERY, ANTHONY; HIBBERT, PETER; MAKEHAM, MEREDITH; SHEIKH, AZIZ; DONALDSON, LIAM J.; CARSON-STEVENS, ANDREW

Source: Age & Ageing; Sep 2017; vol. 46 (no. 5); p. 833-839

Abstract: Background: older adults are frequent users of primary healthcare services, but are at increased risk of healthcare-related harm in this setting. Objectives: to describe the factors associated with actual or potential harm to patients aged 65 years and older, treated in primary care, to identify action to produce safer care. Design and Setting: a cross-sectional mixed-methods analysis of a national (England and Wales) database of patient safety incident reports from 2005 to 2013. Subjects: 1,591 primary care patient safety incident reports regarding patients aged 65 years and older. Methods: we developed a classification system for the analysis of patient safety incident reports to describe: the incident and preceding chain of incidents; other contributory factors; and patient harm outcome. We combined findings from exploratory descriptive and thematic analyses to identify key sources of unsafe care. Results: the main sources of unsafe care in our weighted sample were due to: medication-related incidents e.g. prescribing, dispensing and administering (n = 486, 31%; 15% serious patient harm); communication-related incidents e.g. incomplete or non-transfer of information across care boundaries (n = 390, 25%; 12% serious patient harm); and clinical decision-making incidents which led to the most serious patient harm outcomes (n = 203, 13%; 41% serious patient harm). Conclusion: priority areas for further research to determine the burden and preventability of unsafe primary care for older adults, include: the timely electronic tools for prescribing, dispensing and administering medication in the community; electronic transfer of information between healthcare settings; and, better clinical decision-making support and guidance.

Database: CINAHL

Need for in-hospital simulation-based educational facilitation for practical patient safety improvement.

Author(s): Komasawa, Nobuyasu; Berg, Benjamin W.; Minami, Toshiaki

Source: American Journal of Emergency Medicine; Aug 2017; vol. 35 (no. 8); p. 1198-1198

Database: CINAHL
Exploring the Influence of Nurse Work Environment and Patient Safety Culture on Attitudes Toward Incident Reporting.

**Author(s):** Yoo, Moon Sook; Kim, Kyoung Ja

**Source:** The Journal of nursing administration; Sep 2017; vol. 47 (no. 9); p. 434-440

**Abstract:** OBJECTIVE The aim of this study was to explore the influence of nurse work environments and patient safety culture on attitudes toward incident reporting. BACKGROUND Patient safety culture had been known as a factor of incident reporting by nurses. Positive work environment could be an important influencing factor for the safety behavior of nurses. METHODS A cross-sectional survey design was used. The structured questionnaire was administered to 191 nurses working at a tertiary university hospital in South Korea. RESULTS Nurses' perception of work environment and patient safety culture were positively correlated with attitudes toward incident reporting. A regression model with clinical career, work area, and nurse work environment, and patient safety culture against attitudes toward incident reporting was statistically significant. The model explained approximately 50.7% of attitudes toward incident reporting. CONCLUSION Improving nurses' attitudes toward incident reporting can be achieved with a broad approach that includes improvements in work environment and patient safety culture.

**Database:** Medline

A systematic review of the effectiveness of interruptive medication prescribing alerts in hospital CPOE systems to change prescriber behavior and improve patient safety.

**Author(s):** Page, N; Baysari, M T; Westbrook, J I

**Source:** International journal of medical informatics; Sep 2017; vol. 105 ; p. 22-30

**Abstract:** OBJECTIVES To assess the evidence of the effectiveness of different categories of interruptive medication prescribing alerts to change prescriber behavior and/or improve patient outcomes in hospital computerized provider order entry (CPOE) systems. METHODS PubMed, Embase, CINAHL and the Cochrane Library were searched for relevant articles published between January 2000 and February 2016. Studies were included if they compared the outcomes of automatic, interruptive medication prescribing alert/s to a control/comparison group to determine alert effectiveness. RESULTS Twenty-three studies describing 32 alerts classified into 11 alert categories were identified. The most common alert categories studied were drug-condition interaction (n=6), drug-drug interaction alerts (n=6) and corollary order alerts (n=6). All 23 papers investigated the effect of the intervention alert on at least one outcome measure of prescriber behavior. Just over half of the studies (53%, n=17) reported a statistically significant beneficial effect from the intervention alert; 34% (n=11) reported no statistically significant effect, and 6% (n=2) reported a significant detrimental effect. Two studies also evaluated the effect of alerts on patient outcome measures; neither finding that patient outcomes significantly improved following alert implementation (6%, n=2). The greatest volume of evidence relates to three alert categories: drug-condition, drug-drug, and corollary order alerts. Of these, drug-condition alerts had the greatest number of studies reporting positive effects (five out of six studies). Only two of six studies of drug-drug interaction and one of six of corollary alerts reported positive benefits. DISCUSSION AND CONCLUSION The current evidence-base does not show a clear indication that particular categories of alerts are more effective than others. While the majority of alert categories were shown to improve outcomes in some studies, there were also many cases where outcomes did not improve. This lack of evidence hinders decisions about the amount and type of decision support that should be integrated into CPOE systems to increase safety while reducing the risk of alert fatigue. Virtually no studies have sought to investigate the impact on changes to prescriber behavior and outcomes overall when alerts from multiple categories are incorporated within the same system.
Understanding middle managers' influence in implementing patient safety culture.

**Author(s):** Gutberg, Jennifer; Berta, Whitney

**Source:** BMC health services research; Aug 2017; vol. 17 (no. 1); p. 582

Available in full text at [BMC Health Services Research](https://www.biomedcentral.com) - from National Library of Medicine

Abstract: BACKGROUND The past fifteen years have been marked by large-scale change efforts undertaken by healthcare organizations to improve patient safety and patient-centered care. Despite substantial investment of effort and resources, many of these large-scale or "radical change" initiatives, like those in other industries, have enjoyed limited success - with practice and behavioural changes neither fully adopted nor ultimately sustained - which has in large part been ascribed to inadequate implementation efforts. Culture change to "patient safety culture" (PSC) is among these radical change initiatives, where results to date have been mixed at best.

DISCUSSION This paper responds to calls for research that focus on explicating factors that affect efforts to implement radical change in healthcare contexts, and focuses on PSC as the radical change implementation. Specifically, this paper offers a novel conceptual model based on Organizational Learning Theory to explain the ability of middle managers in healthcare organizations to influence patient safety culture change. We propose that middle managers can capitalize on their unique position between upper and lower levels in the organization and engage in 'ambidextrous' learning that is critical to implementing and sustaining radical change. This organizational learning perspective offers an innovative way of framing the mid-level managers' role, through both explorative and exploitative activities, which further considers the necessary organizational context in which they operate.

Systematic review of economic analyses in patient safety: a protocol designed to measure development in the scope and quality of evidence.

**Author(s):** Carter, Alexander W; Mandavia, Rishi; Mayer, Erik; Marti, Joachim; Mossialos, Elias; Darzi, Ara

**Source:** BMJ open; Aug 2017; vol. 7 (no. 8); p. e017089

Available in full text at [BMJ Open](https://bmjopen.bmj.com) - from National Library of Medicine

Abstract: INTRODUCTION Recent avoidable failures in patient care highlight the ongoing need for evidence to support improvements in patient safety. According to the most recent reviews, there is a dearth of economic evidence related to patient safety. These reviews characterise an evidence gap in terms of the scope and quality of evidence available to support resource allocation decisions. This protocol is designed to update and improve on the reviews previously conducted to determine the extent of methodological progress in economic analyses in patient safety.

METHODS AND ANALYSIS A broad search strategy with two core themes for original research (excluding opinion pieces and systematic reviews) in 'patient safety' and 'economic analyses' has been developed. Medline, Econlit and National Health Service Economic Evaluation Database bibliographic databases will be searched.
from January 2007 using a combination of medical subject headings terms and research-derived search terms (see table 1). The method is informed by previous reviews on this topic, published in 2012. Screening, risk of bias assessment (using the Cochrane collaboration tool) and economic evaluation quality assessment (using the Drummond checklist) will be conducted by two independent reviewers, with arbitration by a third reviewer as needed. Studies with a low risk of bias will be assessed using the Drummond checklist. High-quality economic evaluations are those that score >20/35. A qualitative synthesis of evidence will be performed using a data collection tool to capture the study design(s) employed, population(s), setting(s), disease area(s), intervention(s) and outcome(s) studied. Methodological quality scores will be compared with previous reviews where possible. Effect size(s) and estimate uncertainty will be captured and used in a quantitative synthesis of high-quality evidence, where possible.ETHICS AND DISSEMINATIONFormal ethical approval is not required as primary data will not be collected. The results will be disseminated through a peer-reviewed publication, presentations and social media.TRIAL REGISTRATION NUMBER CRD42017057853.

Database: Medline

Patient safety on psychiatric wards: A cross-sectional, multilevel study of factors influencing nurses' willingness to share power and responsibility with patients.

Author(s): Vandewalle, Joeri; Malfait, Simon; Eeckloo, Kristof; Colman, Roos; Beeckman, Dimitri; Verhaeghe, Sofie; Van Hecke, Ann

Source: International journal of mental health nursing; Aug 2017

Abstract: The World Health Organization highlights the need for more patient participation in patient safety. In mental health care, psychiatric nurses are in a frontline position to support this evolution. The aim of the present study was to investigate the demographic and contextual factors that influence the willingness of psychiatric nurses to share power and responsibility with patients concerning patient safety. The patient participation culture tool for inpatient psychiatric wards was completed by 705 nurses employed in 173 psychiatric wards within 37 hospitals. Multilevel modelling was used to analyse the self-reported data. The acceptance of a role wherein nurses share power and responsibility with patients concerning patient safety is influenced by the nurses’ sex, age, perceived competence, perceived support, and type of ward. To support nurses in fulfilling their role in patient participation, patient participation-specific basic and continuing education should be provided. Managers and supervisors should recognize and fulfil their facilitating role in patient participation by offering support to nurses. Special attention is needed for young nurses and nurses on closed psychiatric wards, because these particular groups report being less willing to accept a new role. Ward characteristics that restrict patient participation should be challenged so that these become more patient participation stimulating. More research is needed to explore the willingness and ability of psychiatric nurses to engage in collaborative safety management with patients who have specific conditions, such as suicidal ideation and emotional harm.

Database: Medline
**HUMAN FACTORS**

*Using a Delphi Method to Identify Human Factors Contributing to Nursing Errors*

**Author(s):** Roth, Cheryl; Brewer, Melanie; Wieck, K Lynn  
**Source:** Nursing Forum; 2017; vol. 52 (no. 3); p. 173

**Abstract:** PURPOSE The purpose of this study was to identify human factors associated with nursing errors. DESIGN Using a Delphi technique, this study used feedback from a panel of nurse experts (n = 25) on an initial qualitative survey questionnaire followed by summarizing the results with feedback and confirmation. METHODS Synthesized factors regarding causes of errors were incorporated into a quantitative Likert-type scale, and the original expert panel participants were queried a second time to validate responses. FINDINGS The list identified 24 items as most common causes of nursing errors, including swamping and errors made by others that nurses are expected to recognize and fix. The responses provided a consensus top 10 errors list based on means with heavy workload and fatigue at the top of the list. CONCLUSIONS The use of the Delphi survey established consensus and developed a platform upon which future study of nursing errors can evolve as a link to future solutions. This list of human factors in nursing errors should serve to stimulate dialogue among nurses about how to prevent errors and improve outcomes. CLINICAL RELEVANCE Human and system failures have been the subject of an abundance of research, yet nursing errors continue to occur.

**Database:** BNI

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*User-centered design of discharge warnings tool for colorectal surgery patients.*

**Author(s):** Naik, Aanand D.; Horstman, Molly J.; Li, Linda T.; Paasche-Orlow, Michael K.; Campbell, Bryan; Mills, Whitney L.; Herman, Levi I.; Anaya, Daniel A.; Trautner, Barbara W.; Berger, David H.  
**Source:** Journal of the American Medical Informatics Association; Sep 2017; vol. 24 (no. 5); p. 975-980

Available in full text at [Journal of the American Medical Informatics Association](https://jamanetwork.com/journals/jamaiinformatics/issue) - from Highwire Press

**Abstract:** Objectives: Readmission following colorectal surgery, typically due to surgery-related complications, is common. Patient-centered discharge warnings may guide recognition of early complication signs after colorectal surgery. Materials and Methods: User-centered design of a discharge warnings tool consisted of iterative health literacy review and a heuristic evaluation with human factors and clinical experts as well as patient end users to establish content validity and usability. Results: Literacy evaluation of the prototype suggested >12th-grade reading level. Subsequent revisions reduced reading level to 8th grade or below. Contents were formatted during heuristic evaluation into 3 action-oriented zones (green, yellow, and red) with relevant warning lexicons. Usability testing demonstrated comprehension of this 3-level lexicon and recognition of appropriate patient actions to take for each level. Discussion: We developed a discharge warnings tool for colorectal surgery using staged user-centered design. The lexicon of surgical discharge warnings could structure communication among patients, caregivers, and clinicians to improve post-discharge care.

**Database:** CINAHL
Situational awareness - what it means for clinicians, its recognition and importance in patient safety.

**Author(s):** Green, B; Parry, D; Oeppen, RS; Plint, S; Dale, T; Brennan, PA

**Source:** Oral Diseases; Sep 2017; vol. 23 (no. 6); p. 721-725

**Abstract:** A thorough understanding of the role of human factors in error in health care for improving patient safety is paramount. One area particularly crucial for optimising clinical performance is recognising the importance of situational awareness. Loss of situational awareness can occur in many different settings, particularly during stressful and unexpected situations. Tunnel vision is a classic example where clinicians focus on one aspect of care, often to the detriment of overall patient management. Loss of situational awareness can result in serious compromise to patient safety if it is not recognised by either the individual or clinical team. We provide an introduction to situational awareness for those not familiar with it, including some important theory which explains how awareness can be lost, and discuss the important approaches we use in our day-to-day practice to safeguard both patients and clinicians in the workplace environment.

**Database:** CINAHL

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Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.

**Author(s):** Heiden, Siobhan M; Holden, Richard J; Alder, Catherine A; Bodke, Kunal; Boustani, Malaz

**Source:** Applied ergonomics; Oct 2017; vol. 64; p. 27-40

**Abstract:** Mental healthcare is a critical but largely unexplored application domain for human factors/ergonomics. This paper reports on a work system evaluation of a home-based dementia and depression care program for older adults, the Aging Brain Care program. The Workflow Elements Model was used to guide data collection and analysis of 59 h of observation, supplemented by key informant input. We identified four actors, 37 artifacts across seven types, ten action categories, and ten outcomes including improved health and safety. Five themes emerged regarding barriers and facilitators to care delivery in the program: the centrality of relationship building; the use of adaptive workarounds; performance of duplicate work; travel and scheduling challenges; and communication-related factors. Findings offer new insight into how mental healthcare services are delivered in a community-based program and key work-related factors shaping program outcomes.

**Database:** Medline

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**Author(s):** Dunagan, Pamela B

**Source:** Journal of clinical nursing; Aug 2017

**Abstract:** AIMs AND OBJECTIVESTo report the development of a tool to measure nurse's attitudes about quality improvement in their practice setting and to examine preliminary psychometric characteristics of the Quality Improvement Nursing Attitude Scale (QINAS). BACKGROUNDHuman factors such as nursing attitudes of complacency have been identified as root causes of sentinel events. Attitudes of nurses concerning use of Quality and Safety Education for nurse's (QSEN) competencies can be most challenging to teach and to change. No tool has been developed measuring attitudes of nurses concerning their role in quality improvement. DESIGNA descriptive study design with preliminary psychometric evaluation was used to examine the preliminary psychometric characteristics of the QINAS. Registered bedside clinical nurses comprised the sample.
for the study (n=57). METHODS Quantitative data were analyzed using descriptive statistics and Cronbach’s alpha reliability. Total score and individual item statistics were evaluated. Two open-ended items were used to collect statements about nurses’ feelings regarding their experience in quality improvement efforts. RESULTS Strong support for the internal consistency reliability and face validity of the QINAS was found. Total scale scores were high indicating nurse participants valued QSEN competencies in practice. However, item level statistics indicated nurses felt powerless when other nurses deviate from care standards. Additionally, the sample indicated they did not consistently report patient safety issues and did not have a feeling of value in efforts to improve care. CONCLUSIONS Findings suggested organizational culture fosters nurses’ reporting safety issues and feeling valued in efforts to improve care. Participants’ narrative comments and item analysis revealed the need to generate new items for the QINAS focused on nurses’ perception of their importance in quality and safety and their power to enact principles. This article is protected by copyright. All rights reserved.

Database: Medline

Drawing on human factors engineering to evaluate the effectiveness of health information technology.

Author(s): Cresswell, Kathrin M; Blandford, Ann; Sheikh, Aziz
Source: Journal of the Royal Society of Medicine; Aug 2017; vol. 110 (no. 8); p. 309-315
Available in full text at Journal of the Royal Society of Medicine - from National Library of Medicine
Database: Medline

DETERIORATING PATIENTS

Using Simulation to Improve Systems-Based Practices.

Author(s): Gardner, Aimee K.; Johnston, Maximilian; Korndorffer Jr., James R.; Haque, Imad; Paige, John T.
Source: Joint Commission Journal on Quality & Patient Safety; Sep 2017; vol. 43 (no. 9); p. 484-491
Abstract: Background Ensuring the safe, effective management of patients requires efficient processes of care within a smoothly operating system in which highly reliable teams of talented, skilled health care providers are able to use the vast array of high-technology resources and intensive care techniques available. Simulation can play a unique role in exploring and improving the complex perioperative system by proactively identifying latent safety threats and mitigating their damage to ensure that all those who work in this critical health care environment can provide optimal levels of patient care. Methods A panel of five experts from a wide range of institutions was brought together to discuss the added value of simulation-based training for improving systems-based aspects of the perioperative service line. Panelists shared the way in which simulation was demonstrated at their institutions. The themes discussed by each panel member were delineated into four avenues through which simulation-based techniques have been used. Results Simulation-based techniques are being used in (1) testing new clinical workspaces and facilities before they open to identify potential latent conditions; (2) practicing how to identify the deteriorating patient and escalate care in an effective manner; (3) performing prospective root cause analyses to address system weaknesses leading to sentinel events; and (4) evaluating the efficiency and effectiveness of the electronic health record in the perioperative setting. Conclusion This focused review of
simulation-based interventions to test and improve components of the perioperative microsystem, which includes literature that has emerged since the panel’s presentation, highlights the broad-based utility of simulation-based technologies in health care.

**Database:** CINAHL

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**An introduction to the Emergency Department Adult Clinical Escalation protocol: ED-ACE.**

**Author(s):** Coughlan, Eoin; Geary, Una; Wakai, Abel; O'Sullivan, Ronan; Browne, John; McAuliffe, Eilish; Ward, Marie; McDaid, Fiona; Deasy, Conor

**Source:** Emergency medicine journal : EMJ; Sep 2017; vol. 34 (no. 9); p. 608-612

Available in full text at Emergency Medicine Journal - from BMJ Journals The NHS Collection

**Abstract:** PURPOSE OF THE STUDYThis study demonstrates how a participatory action research approach was used to address the challenge of the early and effective detection of the deteriorating patient in the ED setting. The approach enabled a systematic approach to patient monitoring and escalation of care to be developed to address the wide-ranging spectrum of undifferentiated presentations and the phases of ED care from triage to patient admission. This paper presents a longitudinal patient monitoring system, which aims to provide monitoring and escalation of care, where necessary, of adult patients from triage to admission to hospital in a manner that is feasible in the unique ED environment.

**METHODS**An action research approach was taken to designing a longitudinal patient monitoring system appropriate for the ED. While the first draft protocol for post-triage monitoring and escalation was designed by a core research group, six clinical sites were included in iterative cycles of planning, action, reviewing and further planning. Reasons for refining the system at each site were collated and the protocol was adjusted accordingly before commencing the process at the next site.

**RESULTS**The ED Adult Clinical Escalation longitudinal patient monitoring system (ED-ACE) evolved through iterative cycles of design and testing to include: (1) a monitoring chart for adult patients; (2) a standardised approach to the monitoring and reassessment of patients after triage until they are assessed by a clinician; (3) the ISBAR (I=Identify, S=Situation, B=Background, A=Assessment, R=Recommendation) tool for interprofessional communication relating to clinical escalation; (4) a template for prescribing a patient-specific monitoring plan to be used by treating clinicians to guide patient monitoring from the time the patient is assessed until when they leave the ED and (5) a protocol for clinical escalation prompted by single physiological triggers and clinical concern.

**CONCLUSIONS**This tool offers a link in the ‘Chain of Prevention’ between the Manchester Triage System and ward-based early warning scores taking account of the importance of standardisation, while being sufficiently adaptable for the unique working environment and patient population in the ED.

**Database:** Medline

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**Prioritising Responses Of Nurses To deteriorating patient Observations (PRONTO) protocol: testing the effectiveness of a facilitation intervention in a pragmatic, cluster-randomised trial with an embedded process evaluation and cost analysis.**

**Author(s):** Bucknall, Tracey K; Harvey, Gill; Considine, Julie; Mitchell, Imogen; Rycroft-Malone, Jo; Graham, Ian D; Mohebbi, Mohammadreza; Watts, Jennifer; Hutchinson, Alison M

**Source:** Implementation science : IS; Jul 2017; vol. 12 (no. 1); p. 85

Available in full text at Implementation Science : IS - from National Library of Medicine

Available in full text at Implementation Science - from BioMed Central

Available in full text at Implementation Science : IS - from National Library of Medicine
Abstract: BACKGROUND Vital signs are the primary indicator of physiological status and for determining the need for urgent clinical treatment. Yet, if physiological signs of deterioration are missed, misinterpreted or mismanaged, then critical illness, unplanned intensive care admissions, cardiac arrest and death may ensue. Although evidence demonstrates the benefit of early recognition and management of deteriorating patients, failure to escalate care and manage deteriorating patients remains a relatively frequent occurrence in hospitals. METHODS/DESIGN A pragmatic cluster-randomised controlled trial design will be used to measure clinical effectiveness and cost of a facilitation intervention to improve nurses’ vital sign measurement, interpretation, treatment and escalation of care for patients with abnormal vital signs. A cost consequence analysis will evaluate the intervention cost and effectiveness, and a process evaluation will determine how the implementation of the intervention contributes to outcomes. We will compare clinical outcomes and costs from standard implementation of clinical practice guidelines (CPGs) to facilitated implementation of CPGs. The primary outcome will be adherence to the CPGs by nurses, as measured by escalation of care as per organisational policy. The study will be conducted in four Australian major metropolitan teaching hospitals. In each hospital, eight to ten wards will be randomly allocated to intervention and control groups. Control wards will receive standard implementation of CPGs, while intervention wards will receive standard CPG implementation plus facilitation, using facilitation methods and processes tailored to the ward context. The intervention will be administered to all nursing staff at the ward level for 6 months. At each hospital, two types of facilitators will be provided: a hospital-level facilitator as the lead; and two ward-level facilitators for each ward. DISCUSSION This study uses an innovative, networked approach to facilitation to enable uptake of CPGs. Findings will inform the intervention utility and knowledge translation measurement approaches. If successful, the study methodology and intervention has potential for translation to other health care standards. TRIAL REGISTRATION Australian New Zealand Clinical Trials Registry (ANZCTR), ACTRN12616000544471p.

Database: Medline

RESTRAINT

Knowledge, attitude and practice of intensive care unit nurses about physical restraint

Author(s): Suliman, Mohammad; Aloush, Sami; Al-Awamreh, Khitam

Source: Nursing in Critical Care; Sep 2017; vol. 22 (no. 5); p. 264

Abstract: Background Physical restraint is mainly used in intensive care units (ICUs) to prevent delirious or agitated patients from removing tubes and lines connected to them. However, inappropriate use of physical restraint could have many detrimental physical effects on the patient, such as nerve damage, asphyxiation or even death. Aim The aim of the study is to investigate nurses’ knowledge, attitude and practice of physical restraint in ICUs in Jordanian hospitals, about which little is known. Design A descriptive and cross-sectional design was used. Methods A convenience sample of 400 nurses working in three public hospitals and one university-affiliated hospital from different geographical regions in Jordan was selected. An Arabic version of the Physical Restraint Questionnaire (PRQ) was used to collect the data. Results A total of 300 completed questionnaires were returned, with a response rate of 75%. Of the total sample, 51% were males, 65.7% were from public hospitals and 80.3% held a bachelor’s degree. The mean score in the knowledge section was 9.7 (SD=1.7) out of 15; in the attitude section, it was 24.7 (SD=4.8) out of 33; and in the practice section, it was 30.9 (SD=3.5) out of 42. Nurses who reported previous related education scored higher on the knowledge section (mean=10.7; SD=1.4) than nurses who reported no previous related education (mean=9.1; SD=1.6; p<.001). However, no significant differences between these
categories were found in relation to attitude and practice. Conclusions The study demonstrated some lack of knowledge and unsafe practices regarding physical restraint in ICUs in Jordan. It suggests improving nurses' knowledge, attitude and practices through in-service education on best practice for physical restraint, developing policies/guidelines and providing adequate staff and equipment to maintain patient safety and prevent complications. Relevance to clinical practice Conducting education programmes on physical restraint for ICU nurses and providing other preventive strategies are important in improving nurses' knowledge, attitude and practice.

**Database:** BNI

**Restraint Use in Older Adults Receiving Home Care.**

**Author(s):** Scheepmans, Kristien; Dierckx de Casterlé, Bernadette; Paquay, Louis; Van Gansbeke, Hendrik; Milisen, Koen

**Source:** Journal of the American Geriatrics Society; Aug 2017; vol. 65 (no. 8); p. 1769-1776

**Abstract:** Objectives To determine the prevalence, types, frequency, and duration of restraint use in older adults receiving home nursing care and to determine factors involved in the decision-making process for restraint use and application. Design Cross-sectional survey of restraint use in older adults receiving home care completed by primary care nurses. Setting Homes of older adults receiving care from a home nursing organization in Belgium. Participants Randomized sample of older adults receiving home care (N = 6,397; mean age 80.6; 66.8% female). Measurements For each participant, nurses completed an investigator-constructed and -validated questionnaire collecting information demographic, clinical, and behavioral characteristics and aspects of restraint use. A broad definition of restraint was used that includes a range of restrictive actions. Results Restraints were used in 24.7% of the participants, mostly on a daily basis (85%) and often for a long period (54.5%, 24 h/d). The most common reason for restraint use was safety (50.2%). Other reasons were that the individual wanted to remain at home longer, which necessitated the use of restraints (18.2%) and to provide respite for the informal caregiver (8.6%). The latter played an important role in the decision and application process. The physician was less involved in the process. In 64.5% of cases, there was no evaluation after restraint use was initiated. Conclusion Use of restraints is common in older adults receiving home care nursing in Belgium. These results contribute to a better understanding of the complexity of use of restraints in home care, a situation that may be even more complex than in nursing homes and acute hospital settings.

**Database:** CINAHL

**The NICE 10 minute physical restraint rule: A discussion of the relative risks.**

**Author(s):** Hollins, L

**Source:** Journal of psychiatric and mental health nursing; Aug 2017

**Database:** Medline
If you are unable to find a book, or require a book that is not on this list, please ask library staff who will be able to locate the book for you using interlibrary loan.

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Something a bit different this month.

**How to feel better /** Frances Goodhart and Lucy Atkins (2015)

HIGHLY COMMENDED (POPULAR MEDICINE) AT THE BRITISH MEDICAL ASSOCIATION'S BOOK AWARDS 2014

In days gone by, people understood that a knock to your health takes its toll on your emotions, your relationships, your morale, your 'spirit'. But these days, we think that if the doctor has waved you off, then you are 'better'. We neglect what scientific studies show is a vital element of recovery: the emotional side of getting better. As a result, many of us struggle with hidden issues such as depression, stress and anxiety long after a health crisis. This new book, from the authors of The Cancer Survivor's Companion (highly commended by the BMA and winner of the Guild of Health Writers' Best Health Book 2012) centres on the crucial, research-based (but widely overlooked) truth that 'getting better' is not just about the body - emotions play a huge part.

Often, a person's emotional state is the one thing stopping them from a full recovery
UpToDate

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- Falls in older persons: Risk factors and patient evaluation
- Falls: Prevention in nursing care facilities and the hospital setting
- Prevention of pressure ulcers
- Evaluation and management of severe sepsis and septic shock in adults
- Assessment and emergency management of the acutely agitated or violent adult
- Prevention of adverse drug events in hospitals

Please contact library staff for details on how to access this resource on a mobile device.
Colour me safe

Our Aim: To safely reduce falls risks in our inpatient physical health rehabilitation wards whilst also increasing patients independence.

What did we do: Staff working on Hawthorn and Hazel Wards have introduced an initiative called “Colour Me Safe” in which all patients receive a coloured wristband after their initial risk assessment and care plan.

Read more at:
https://fabnhsstuff.net/2017/08/28/colour-me-safe/

Patient Safety Resource Centre (Health Foundation)
http://patientsafety.health.org.uk/

This month’s feature is on culture and leadership.

This Resource Centre covers four main areas of Patient Safety in detail. Read more about:

- Safety Management
- Frail Older People
- Diabetes
- Maternity
Looking for the latest evidence-based research but haven’t got time to trawl the databases?
Do you need a literature search carried out?
Do you need to find evidence to support an improvement?
Do you want to know how something has been done elsewhere and whether it worked?

Library staff provide a literature search service for busy clinicians who are pressed for time.

To request a search please complete and return the attached form, providing as much information as possible. Alternatively if you would like an assisted search training session, where we will sit down with you and go through the steps of a literature search, then please contact the library.

Most electronic resources are available via an Athens password. You can register for this via the Library intranet page, or from home at www.swice.nhs.uk and following the link for Athens self-registration.
Please note that registering from home will take longer as it will need to be verified that you are NHS staff/student on placement.

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