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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Contents
Click on a section title to navigate contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent journal articles</td>
<td>3</td>
</tr>
<tr>
<td>Books</td>
<td>49</td>
</tr>
<tr>
<td>UpToDate / BMJ Best Practice</td>
<td>50</td>
</tr>
<tr>
<td>Reports, publications and resources</td>
<td>51</td>
</tr>
<tr>
<td>Literature search service</td>
<td>52</td>
</tr>
<tr>
<td>Training and Athens</td>
<td>52</td>
</tr>
</tbody>
</table>

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Please note that abstracts are not always available for articles.

### FALLS

**Long-term effect of community-based continence promotion on urinary symptoms, falls and healthy active life expectancy among older women: cluster randomised trial.**

**Author(s):** Tannenbaum, Cara; Fritel, Xavier; Halme, Alex; van den Heuvel, Eleanor; Jutai, Jeffrey; Wagg, Adrian

**Source:** Age & Ageing; Jul 2019; vol. 48 (no. 4); p. 526-532

Available at [Age & Ageing](https://www.ageageing.org) - from Unpaywall

**Abstract:** The article presents a pragmatic cluster randomised trial which examined the long-term effect of community-based continence promotion on falls, healthy active life expectancy and urinary symptoms in older women. The subjects were recruited from community organisations in Canada, France and Great Britain. Also cited is the key role played by community organisations in improving health education among older women.

**Database:** CINAHL

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### The prevalence and impact of falls in elderly dialysis patients: Frail elderly Patient Outcomes on Dialysis (FEPOD) study.

**Author(s):** van Loon, Ismay N.; Joosten, Hanneke; Iyasere, Osasuyi; Johansson, Lina; Hamaker, Marije E.; Brown, Edwina A.

**Source:** Archives of Gerontology & Geriatrics; Jul 2019; vol. 83 ; p. 285-291

**Abstract:** In the frail elderly dialysis population falls are frequently encountered. Fall incidence is comparable between elderly hemodialysis and assisted peritoneal dialysis patients. Diabetes and previous falls are associated with new falls in frail elderly patients. Literature shows frailty is related to falling and falling increases the risk of mortality and hospitalization. Falls negatively impact QoL, as fallers have a higher prevalence of fear of falling and perform limited activities. As the numbers of older patients on dialysis rise, geriatric problems such as falling become more prevalent. We aimed to assess the prevalence of falls and the impact on mortality and quality of life in frail elderly patients on assisted PD (aPD) and hemodialysis (HD) from the FEPOD Study. Data on falls and quality of life were collected with questionnaires at baseline and every six months during 2-year follow-up. Multiple regression analysis was used to evaluate factors associated with falls. Additionally, we performed a review of literature concerning the relation between falls and poor outcome. Baseline fall data were available for 203 patients and follow-up data for 114 patients. Dialysis modality was equally distributed (49% HD and 51% aPD). Mean (SD) age was 75 ± 7 years. Fall rate was 1.00 falls/patient year, comparable in HD and aPD. Falls led to fear of falling, resulting in less activities in 68% vs 42% (p < 0.01) and leaving the house less in 59% vs 31% (p < 0.01) of patients. Patients with diabetes mellitus were twice as likely to report falls at baseline (OR 1.91
and falls at baseline were associated with falls during follow-up (OR 2.53 [95%CI 1.06–6.04] p = 0.03). Literature revealed frailty was a strong risk factor for falling and falling results in a higher mortality and hospitalization rate. Falls were frequent in older dialysis patients and have a negative impact on quality of life. Fall incidence is comparable between aPD and HD.

**Database:** CINAHL

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**Drug Treatment, Postural Control, and Falls: An Observational Cohort Study of 504 Patients With Acute Stroke, the Fall Study of Gothenburg.**

**Author(s):** Westerlind, Ellen K.; Lernfelt, Bodil; Hansson, Per-Olof; Persson, Carina U.

**Source:** Archives of Physical Medicine & Rehabilitation; Jul 2019; vol. 100 (no. 7); p. 1267-1273

**Abstract:** To identify whether, and to what extent, treatment with cardiovascular drugs and neurotropic drugs are associated with postural control and falls in patients with acute stroke. Observational cohort study. A stroke unit at a university hospital. A consecutive sample of patients (N=504) with acute stroke. Not applicable. Postural control was assessed using the modified version of the Postural Assessment Scale for Stroke Patients. Data including baseline characteristics, all drug treatments, and falls were derived from medical records. Univariable and multivariable logistic regression models were used to analyze the association of drug treatment and baseline characteristics with postural control and with falls. In the multivariable logistic regression analysis, factors significantly associated with impaired postural control were treatment with neurotropic drugs (eg, opioids, sedatives, hypnotics, antidepressants) with an odds ratio (OR) of 1.73 (95% confidence interval [CI], 1.01-2.97, P = .046); treatment with opioids (OR 9.23, 95% CI, 1.58-54.00, P =.014); age (OR 1.09, 95% CI, 1.07-1.12, P <.0001), stroke severity, which had a high National Institutes of Health Stroke Scale score (OR 1.29, 95% CI, 1.15-1.45, P <.0001), and sedentary life style (OR 4.32, 95% CI, 1.32-14.17, P =.016). No association was found between neurotropic drugs or cardiovascular drugs and falls. Treatment with neurotropic drugs, particularly opioids, in the acute phase after stroke, is associated with impaired postural control. Since impaired postural control is the major cause of falls in patients with acute stroke, these results suggest opioids should be used with caution in these patients.

**Database:** CINAHL

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**Knee Osteoarthritis and the Risk of Medically Treated Injurious Falls Among Older Adults: A Community-Based US Cohort Study.**

**Author(s):** Barbour, Kamil E.; Sagawa, Naoko; Boudreau, Robert M.; Winger, Mary E.; Cauley, Jane A.; Nevitt, Michael C.; Fujii, Tomoko; Patel, Kushang V.; Strotmeyer, Elsa S.

**Source:** Arthritis Care & Research; Jul 2019; vol. 71 (no. 7); p. 865-874

Available at Arthritis Care & Research - from Wiley Online Library

**Database:** CINAHL

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**Associations of Sarcopenia and Its Components with Bone Structure and Incident Falls in Swedish Older Adults.**

**Author(s):** Scott, David; Johansson, Jonas; McMillan, Lachlan B.; Ebeling, Peter R.; Nordstrom, Peter; Nordstrom, Anna

**Source:** Calcified Tissue International; Jul 2019; vol. 105 (no. 1); p. 26-36
Abstract: The aim of this study was to compare bone structure parameters and likelihood of falls across European Working Group on Sarcopenia in Older People (EWGSOP2) sarcopenia categories. 3334 Swedish 70-year olds had appendicular lean mass (normalized to height; ALMHt), lumbar spine and total hip areal BMD (aBMD) estimated by dual-energy X-ray absorptiometry. Volumetric BMD (vBMD) and structure at the distal and proximal tibia and radius were estimated by peripheral quantitative computed tomography. Hand grip strength and timed up-and-go were assessed, and sarcopenia was defined according to EWGSOP2 criteria. Incident falls were self-reported 6 and 12 months after baseline. Only 0.8% and 1.0% of participants had probable and confirmed sarcopenia, respectively. Almost one-third of participants with confirmed sarcopenia reported incident falls, compared with 20% for probable sarcopenia and 14% without sarcopenia (P = 0.025). Participants with confirmed sarcopenia had poorer bone parameters (all P < 0.05) except endosteal circumference at the proximal radius and tibia, while those with probable sarcopenia had lower cortical area at the proximal radius (B = - 5.9; 95% CI - 11.7, - 0.1 mm2) and periosteal and endosteal circumferences at the proximal tibia (- 3.3; - 6.4, - 0.3 and - 3.8; - 7.5, - 0.1 mm2, respectively), compared with those without sarcopenia. Compared with probable sarcopenia, confirmed sarcopenic participants had significantly lower lumbar spine and total hip aBMD, distal radius and tibia total vBMD, and proximal radius and tibia cortical vBMD, area and thickness (all P < 0.05).

Swedish 70-year olds with confirmed sarcopenia demonstrate poorer BMD and bone architecture than those with probable and no sarcopenia, and have increased likelihood of incident falls.

Database: CINAHL

Intervention to Prevent Falls: Community-Based Clinics.

Author(s): Baker, Dorothy I.; Leo-Summers, Linda; Murphy, Terrence E.; Katz, Barbara; Capobianco, Beth A.

Source: Journal of Applied Gerontology; Jul 2019; vol. 38 (no. 7); p. 999-1010

Abstract: Purpose: The purpose of this study was to document results of State funded fall prevention clinics on rates of self-reported falls and fall-related use of health services. Methods: Older adults participated in community-based fall prevention clinics providing individual assessments, interventions, and referrals to collaborating community providers. A pre–post design compares self-reported 6-month fall history and fall-related use of health care before and after clinic attendance. Results: Participants (N = 751) were predominantly female (82%) averaging 81 years of age reporting vision (75%) and mobility (57%) difficulties. Assessments revealed polypharmacy (54%), moderate-to high-risk mobility issues (39%), and postural hypotension (10%). Self-reported preclinic fall rates were 256/751(34%) and postclinic rates were 81/751 (10.8%), (p = .0001). Reported use of fall-related health services, including hospitalization, was also significantly lower after intervention. Implications: Evidence-based assessments, risk-reducing recommendations, and referrals that include convenient exercise opportunities may reduce falls and utilization of health care services. Estimates regarding health care spending and policy are presented.

Database: CINAHL

The Effects of Exercise on Falls in Older People With Dementia Living in Nursing Homes: A Randomized Controlled Trial.

Author(s): Toots, Annika; Wiklund, Robert; Littbrand, Håkan; Nordin, Ellinor; Nordström, Peter; Lundin-Olsson, Lillemor; Gustafson, Yngve; Rosendahl, Erik

Source: Journal of the American Medical Directors Association; Jul 2019; vol. 20 (no. 7); p. 835-835

Available at Journal of the American Medical Directors Association - from Unpaywall
Abstract: To investigate exercise effects on falls in people with dementia living in nursing homes, and whether effects were dependent on sex, dementia type, or improvement in balance. A further aim was to describe the occurrence of fall-related injuries. A cluster-randomized controlled trial. The Umeå Dementia and Exercise study was set in 16 nursing homes in Umeå, Sweden and included 141 women and 45 men, a mean age of 85 years, and with a mean Mini-Mental State Examination score of 15. Participants were randomized to the high-intensity functional exercise program or a seated attention control activity; each conducted 2-3 times per week for 4 months. Falls and fall-related injuries were followed for 12 months (after intervention completion) by blinded review of medical records. Injuries were classified according to severity. During follow-up, 118 (67%) of the participants fell 473 times in total. At the interim 6-month follow-up, the incidence rate was 2.7 and 2.8 falls per person-year in exercise and control group, respectively, and at 12-month follow-up 3.0 and 3.2 falls per person-year, respectively. Negative binomial regression analyses indicated no difference in fall rate between groups at 6 or 12 months (incidence rate ratio 0.9, 95% confidence interval (CI) 0.5–1.7, P = .838 and incidence rate ratio 0.9, 95% CI 0.5–1.6, P = .782, respectively). No differences in exercise effects were found according to sex, dementia type, or improvement in balance. Participants in the exercise group were less likely to sustain moderate/serious fall-related injuries at 12-month follow-up (odds ratio 0.31, 95% CI 0.10–0.94, P = .039). In older people with dementia living in nursing homes, a high-intensity functional exercise program alone did not prevent falls when compared with an attention control group. In high-risk populations, in which multimorbidity and polypharmacy are common, a multifactorial fall-prevention approach may be required. Encouraging effects on fall-related injuries were observed, which merits future investigations.

Database: CINAHL

Risk factors for falls in patients with total hip arthroplasty and total knee arthroplasty: a systematic review and meta-analysis.


Source: Osteoarthritis & Cartilage; Jul 2019; vol. 27 (no. 7); p. 979-993

Available at Osteoarthritis & Cartilage - from Unpaywall

Abstract: Objective: Falls are common after total hip arthroplasty (THA) and total knee arthroplasty (TKA). While previous studies have investigated various risk factors for falls in patients following THA and TKA, no systematic reviews have summarized these risk factors. Therefore, the current systematic review aimed to summarize evidence regarding risk factors for falls in patients after THA and/or TKA. Methods: MEDLINE, EMBASE, CINAHL, SPORTDiscus, and Physiotherapy Evidence Database (from inception to June 30, 2018) were searched. The methodological quality and quality of evidence of the included studies were assessed by two independent reviewers. Relevant data regarding participants’ characteristics, study design, follow-up time points, and identified risk factors were extracted. Meta-analyses and narrative syntheses were performed. Results: Twelve studies with a total of 1,292,689 participants were included. Twenty-nine identified risk factors for post-THA/TKA falls were classified into either inpatient or post-discharge risk factors. Key risk factors for both post-THA and/or post-TKA inpatient falls that showed moderate level of evidence included: postoperative complications or comorbidities and revision THA/TKA. Likewise, risk factors for post-discharge falls after THA and/or TKA that demonstrated moderate level of evidence included: medications, psychiatric diseases, living alone, prior history of TKA, falls history and female gender. The quality of the included studies varied and sample sizes were not justified. Conclusions: This review summarized both non-modifiable and modifiable risk factors for post-THA/TKA falls. Our findings highlight the importance of developing strategies to lower the falls risk among patients following THA/TKA. Database: CINAHL
Policies and strategies to prevent patient falls in hospital.
Author(s): Glasper, Alan
Source: British Journal of Nursing; Jun 2019; vol. 28 (no. 12); p. 806-807
Abstract: Emeritus Professor Alan Glasper, University of Southampton, discusses policies and strategies used by nurses to minimise patient falls in hospital
Database: CINAHL

Falls in Older Adults: Prevention, Mortality, and Costs.
Author(s): Pahor, Marco
Source: JAMA: Journal of the American Medical Association; Jun 2019; vol. 321 (no. 21); p. 2080-2081
Abstract: The article discusses a study on the ability of a home-based exercise program to prevent falls in older persons presenting for treatment after a prior fall. Topics discussed include effectiveness of physical activity programs for prevention of falls among older persons, another study that analyzed the Medicare and Medicaid claims for acute hospitalization from 2008 through 2014 for persons aged 65 years or older, and efficacious fall prevention strategies.
Database: CINAHL

Effect of a Home-Based Exercise Program on Subsequent Falls Among Community-Dwelling High-Risk Older Adults After a Fall: A Randomized Clinical Trial.
Author(s): Liu-Ambrose, Teresa; Davis, Jennifer C.; Best, John R.; Dian, Larry; Madden, Kenneth; Cook, Wendy; Hsu, Chun Liang; Khan, Karim M.
Source: JAMA: Journal of the American Medical Association; Jun 2019; vol. 321 (no. 21); p. 2092-2100
Abstract: Importance: Whether exercise reduces subsequent falls in high-risk older adults who have already experienced a fall is unknown. Objective: To assess the effect of a home-based exercise program as a fall prevention strategy in older adults who were referred to a fall prevention clinic after an index fall. Design, Setting, and Participants: A 12-month, single-blind, randomized clinical trial conducted from April 22, 2009, to June 5, 2018, among adults aged at least 70 years who had a fall within the past 12 months and were recruited from a fall prevention clinic. Interventions: Participants were randomized to receive usual care plus a home-based strength and balance retraining exercise program delivered by a physical therapist (intervention group; n = 173) or usual care, consisting of fall prevention care provided by a geriatrician (usual care group; n = 172). Both were provided for 12 months. Main Outcomes and Measures: The primary outcome was self-reported number of falls over 12 months. Adverse event data were collected in the exercise group only and consisted of falls, injuries, or muscle soreness related to the exercise intervention. Results: Among 345 randomized patients (mean age, 81.6 [SD, 6.1] years; 67% women), 296 (86%) completed the trial. During a mean follow-up of 338 (SD, 81) days, a total of 236 falls occurred among 172 participants in the exercise group vs 366 falls among 172 participants in the usual care group. Estimated incidence rates of falls per person-year were 1.4 (95% CI, 0.1-2.0) vs 2.1 (95% CI, 0.1-3.2), respectively. The absolute difference in fall incidence was 0.74 (95% CI, 0.04-1.78; P = .006) falls per person-year and the incident rate ratio was 0.64 (95% CI, 0.46-0.90; P = .009). No adverse events related to the intervention were reported. Conclusions and Relevance: Among older adults receiving care at a fall prevention clinic after a fall, a home-based strength and balance retraining exercise program significantly reduced the rate of subsequent falls compared with usual care.
provided by a geriatrician. These findings support the use of this home-based exercise program for secondary fall prevention but require replication in other clinical settings. Trial Registration: ClinicalTrials.gov Identifiers: NCT01029171; NCT00323596.

Database: CINAHL

Occupational therapist led environmental assessment and modification to prevent falls: Review of current practice in an Australian rural health service.

Author(s): Pighills, Alison; Tynan, Anna; Furness, Linda; Rawle, Marnie

Source: Australian Occupational Therapy Journal; Jun 2019; vol. 66 (no. 3); p. 347-361

Abstract: Introduction: Environmental assessment and modification is an effective approach to reducing falls, particularly when provided by occupational therapists to high risk populations. Environmental assessment and modification has been incorporated into many national and international falls prevention guidelines, however, evidence suggests that it is not being implemented in practice. The aim of this study is to identify factors that support the local adoption of best practice environmental assessment for falls prevention within a rural health service.

Methods: A concurrent mixed methods study using the Integrated Promoting Action on Research Implementation in Health Services framework was employed. The setting was a health service in Queensland, encompassing rural and regional populations. An audit, based on best practice, was conducted on eligible medical charts. An online survey of occupational therapists' knowledge, attitudes, confidence and experience of environmental assessment and modification was completed. Focus group discussions were also carried out. Quantitative data were presented using descriptive statistics and discussions were thematically analysed. Results: Twenty-four occupational therapists were identified as meeting the inclusion criteria. Fourteen participated in the survey and 12 of those surveyed also participated in the focus groups. Fifty-eight patients' medical charts were audited, which included entries from occupational therapists who completed the survey and focus groups and some who did not. Survey results identified that most occupational therapists were aware of, confident, and experienced in environmental assessment and modification for falls prevention. Chart audits, however, revealed that none of the patients received this intervention. Thematic analysis of focus group discussions identified three key themes which influenced uptake of environmental assessment and modification: confidence in, and awareness of evidence; key stakeholders' support and knowledge of occupational therapy; and, perceived impact of time and resources required for implementation. Results also suggested that several contextual issues unique to rural and regional service delivery influenced uptake, including: geographical and sociocultural diversities of communities being served; differing organisational structures which result in occupational therapists being line managed by other professions; and, limited access to professional development. Availability of local peer support, and engagement of multiple stakeholders from various professions were highlighted as key facilitators to support change. Conclusion: Occupational therapists reported that they carried out best practice environmental assessment and modification for falls prevention but the medical chart audit provided no evidence of this happening in practice. This discrepancy requires further investigation. This study provided an understanding of factors that influence whether occupational therapists implement best practice environmental assessment and modification in a rural health service. Findings could be used to guide the translation of evidence into practice across similar settings.

Database: CINAHL
Exploring purpose-designed audio-visual falls prevention messages on older people's capability and motivation to prevent falls

**Author(s):** de Jong, Lex D; Lavender, Andrew P; Wortham, Chris; Skelton, Dawn A; Haines, Terry P; Anne-Marie Hill

**Source:** Health & Social Care in the Community; Jul 2019; vol. 27 (no. 4); p. e471

Available at [Health & Social Care in the Community](#) from Wiley Online Library Medicine and Nursing Collection 2019

**Abstract:** The number of falls and fall-associated injury rates among older people continues to rise worldwide. Increased efforts to influence older people's falls prevention behaviour are needed. A two-phase exploratory community-based participatory study was conducted in Western Australia. First, three prototype audio-visual (AV) falls prevention messages were designed collaboratively with six older people. Second, the messages' effect on community-dwelling older people's knowledge, awareness and motivation to take action regarding falls prevention was explored using focus groups. Data were analysed using thematic analysis to explore participants’ responses to the messages. The participants' (n = 54) perspectives on the AV messages varied widely and stereotypes of ageing appeared to influence these. The presented falls facts (including falls epidemiology statistics) increased some participants’ falls risk awareness and falls prevention knowledge. Other participants felt ready-to-use falls prevention information was lacking. Some expressed positive emotions or a personal connection to the messages and suggested the messages helped reduce ageing-related stigma. Strongly opposing viewpoints suggested that other participants identified implicit negative messages about ageing, which reduced their motivation with the messages. Suggestions to improve the message persuasiveness included adding more drama and tailoring messages to appeal to multiple age groups. Overall, the AV falls prevention messages designed in collaboration with older people elicited a divergent range of positive and negative perspectives from their peers, which was conceptualised by the overarching theme ‘we all look at things different ways’. Opinions differed regarding whether the messages would appeal to older people. Public campaigns targeting falls prevention should be designed and tailored towards older peoples’ differing perspectives about ageing.

**Database:** BNI

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Low-income homebound older adults receiving home-delivered meals: Physical and mental health conditions, incidence of falls and hospitalisations

**Author(s):** Choi, Namkee G; Sullivan, John E; Marti, C Nathan

**Source:** Health & Social Care in the Community; Jul 2019; vol. 27 (no. 4); p. e406

Available at [Health & Social Care in the Community](#) from Wiley Online Library Medicine and Nursing Collection 2019

**Abstract:** Significant differences in health across racial/ethnic and socioeconomic groups in the US signal increasing numbers of low-income homebound older adults in a rapidly ageing society. The purpose of this study was to examine physical and psychiatric conditions and their association with incidence of self-reported falls and hospitalisations among largely low-income and racial/ethnic minority adults age 50+ (N = 2,224), clients from a home-delivered meals programme in Central Texas. Data came from comprehensive, in-home assessments done in 2017 by these older adults’ case managers. We used bivariate analyses to compare those with and without incidence of self-reported past-year falls and those with and without a hospitalisation episode with respect to their sociodemographic and clinical characteristics. We used multivariable logistic regression analysis to examine sociodemographic and clinical correlates of any incidence of falls and negative binomial regression analysis to examine these correlates of the number of hospitalisations in the preceding
12 months. The rates of chronic physical illnesses, including cardiovascular disease, diabetes, gastrointestinal disease, lung disease and renal failure, were extremely high. The 41% of reported falls among the study sample was also higher than the rate among US older adults in general. More diagnosed physical illnesses, depression, chewing/swallowing problems, chronic/severe pain, activities and instrumental activities of daily living (ADL/IADL) impairments and ambulation assistive device use were associated with greater odds of falling. The rate of past-year hospitalisation was 26%, and more diagnosed physical illnesses, ADL/IADL impairments, ambulation assistive device use and any fall incidence were positively associated with the number of hospitalisations. These findings indicate the need for fall prevention programmes for frail homebound older adults as well as health and social care services that help older adults better manage physical/mental health problems and reduce preventable health crises and hospitalisations.

Database: BNI

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**PRESSURE ULCERS**

**Effectiveness on hospital-acquired pressure ulcers prevention: a systematic review.**

**Author(s):** Gaspar, Susana; Peralta, Miguel; Marques, Adilson; Budri, Aglécia; Gaspar de Matos, Margarida

**Source:** International wound journal; Jul 2019

Available at International wound journal - from Wiley Online Library Medicine and Nursing Collection 2019

**Abstract:** The effective approach on pressure ulcer (PU) prevention regarding patient safety in the hospital context was evaluated. Studies were identified from searches in EBSCO host, PubMed, and WebofScience databases from 2009 up to December 2018. Studies were selected if they were published in English, French, Portuguese, or Spanish; incidence of PUs was the primary outcome; participants were adults (≥18 years) admitted in hospital wards and/or units. The review included 26 studies. Studies related to prophylactic dressings applied in the sacrum, trochanters, and/or heels, education for health care professionals, and preventive skin care and system reminders on-screen inpatient care plan were effective in decreasing PUs. Most of the studies related to multiple intervention programmes were effective in decreasing PU occurrence. Single interventions, namely support surfaces and repositioning, were not always effective in preventing PUs. Repositioning only was effective when supported by technological pressure-mapping feedback or by a patient positioning system. Risk-assessment tools are not effective in preventing PUs. PUs in the hospital context are still a worldwide issue related to patient safety. Multiple intervention programmes were more effective in decreasing PU occurrence than single interventions in isolation. Single interventions (prophylactic dressings, support surfaces, repositioning, preventive skin care, system reminders, and education for health care professionals) were effective in decreasing PUs, which was always in compliance with other preventive measures. These results provide an overview of effective approaches that should be considered when establishing evidence-based guidelines to hospital health care professionals and administrators for clinical practice effective in preventing PUs.

**Database:** Medline
Cohort study to determine the risk of pressure ulcers and developing a care bundle within a paediatric intensive care unit setting

Author(s): Smith, Hazel A; Moore, Zena; Tan, Mong Hoi

Source: Intensive & Critical Care Nursing; Aug 2019; vol. 53; p. 68

Abstract: Objective Determine the incidence and risk factors for pressure ulcers in a paediatric intensive care unit. Use the information gathered to develop preventive pressure ulcer care bundles. Research methodology Prospective cohort study using Braden Q Scale for Predicting Pressure Sore Risk and European Pressure Ulcer Advisory Panel Pressure Ulcer Staging tool. Setting General paediatric intensive care unit in a tertiary level hospital between May and October 2017. Results Seventy-seven children were recruited. Most children were male (n = 42, 54.5%) and all nine children (11.7%) that developed a pressure ulcer were male. The main risk factor for developing a pressure ulcer was lack of physical activity. None of the children assessed as high or severe risk developed a pressure ulcer. Eight (89%) pressure ulcers were assessed as grade one. Seven pressure ulcers (77.8%) were on the facial and scalp area and all seven children were receiving airway support at the time the pressure ulcers developed. Conclusion Incidence of pressure ulcers was 11.7%, with the facial and scalp area the most common anatomical areas affected. Medical devices appeared to be the prime causative factor. Based on our data we have modified and launched the SSKIN care bundle for the paediatric intensive care unit setting.

Database: BNI

Preventive interventions for pressure ulcers in long-term older people care facilities: A systematic review

Author(s): Sirpa Mäki-Turja-Rostedt; Stolt, Minna; Helena Leino-Kilpi; Haavisto, Elina

Source: Journal of Clinical Nursing; Jul 2019; vol. 28 (no. 13-14); p. 2420

Available at Journal of Clinical Nursing - from Wiley Online Library Medicine and Nursing Collection 2019

Abstract: Aims and objectives To explore the effectiveness of interventions aimed at pressure ulcer (PU) prevention in long-term older people care facilities (LOPC). Background Pressure ulcers cause suffering for patients and constitute a major financial burden. Although most PUs could be prevented, their number has remained high. To avoid unnecessary suffering and costs, PU prevention must be effective. Design A systematic review. Methods A systematic search was conducted in six electronic databases PubMed (MEDLINE), CINAHL, Web of Science Core Collection, Scopus, Cochrane Wounds Group Specialized Register and Cochrane Central Register of Controlled Trials. The inclusion criteria were: (a) study published in 2005–2017, (b) intervention with pre- and post-tests, focusing on PU prevention, (c) implemented in LOPC facilities, (d) persons >65 years as study population, and (e) outcomes reported as PU incidence or prevalence or healing time. The PRISMA guidelines were followed. The methodological quality of the studies was evaluated using the Joanna Briggs Institute’s MASTARI critical appraisal checklist. The data were analysed with narrative synthesis. Results The review included eighteen studies. The study designs were RCTs (n = 10), comparable cohort or case–control studies (n = 3), and descriptive or case series (n = 5). PU incidence in LOPC facilities decreased by using computerised decision-making support systems, PU prevention programmes, repositioning or advanced cushions. PU prevalence decreased with PU prevention programmes, by using advanced mattresses and overlays, or by adding protein and energy supplements to diet. Conclusions There are many ways to prevent PUs in LOPC facilities; no single effective way can be identified. One-third of the preventive interventions in LOPC facilities were effective. However, systematic evidence from randomised trials on preventive interventions of PUs in LOPC settings is still lacking. Relevance to clinical practice The findings can be used in practice
for selecting and in research for developing effective preventive interventions of PUs in LOPC facilities.

**Database:** BNI

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**Preventing pressure ulcers in nursing homes using a care bundle: A feasibility study**

**Author(s):** Lavallée, Jacqueline F; Gray, Trish A; Dumville, Jo; Cullum, Nicky

**Source:** Health & Social Care in the Community; Jul 2019; vol. 27 (no. 4); p. e417

**Abstract:** Pressure ulcers can be painful and negatively affect health-related quality of life and healthcare costs. Many people living in nursing homes are at risk of developing a pressure ulcer. Nursing home staff, tissue viability nurses and researchers have co-designed the first theory and evidence-informed care bundle specifically for nursing homes, which consists of three prevention practices (skin inspection, support surfaces, repositioning) and a range of behaviour change techniques to promote these practices. We conducted a mixed methods feasibility study of the use of this care bundle in one nursing home in the North of England using an uncontrolled, before-and-after study design. We collected quantitative data on pressure ulcer prevention behaviours of the nursing home staff and pressure ulcer incidence rates for 5 weeks prior to implementing the bundle. Data collection continued for a further 9 weeks during the bundle implementation phase. We explored adherence to the bundle and participants' experiences of using it. The Conceptual Framework for Implementation Fidelity and the Theoretical Domains Framework informed the semi-structured interviews. Quantitative and qualitative data were analysed using descriptive statistics and deductive framework analysis respectively. We collected data for 462 resident bed days prior to implementing the bundle; five new pressure ulcers were recorded and repositioning was the only documented pressure ulcer prevention behaviour. We collected data for 1,181 resident bed days during the intervention phase; no new pressure ulcers developed and the documented prevention behaviours included repositioning, skin inspection and checking support surfaces. Participants reported that the bundle enhanced the care they delivered and offered suggestions for future improvements. Our findings have highlighted a number of feasibility issues surrounding recruitment and retention, collecting data and implementation fidelity. A pressure ulcer prevention bundle specifically designed for nursing homes was acceptable. The feasibility work has highlighted the potential for the intervention and the areas that require development and refinement.

**Database:** BNI

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**How consistent and effective are current repositioning strategies for pressure ulcer prevention?**

**Author(s):** Woodhouse, Marjolein; Worsley, Peter R.; Voegeli, David; Schoonhoven, Lisette; Bader, Dan L.

**Source:** Applied Nursing Research; Aug 2019; vol. 48 ; p. 58-62

**Abstract:** To examine the inter-practitioner variability of repositioning for pressure ulcer prevention, the effectiveness of the intervention, and whether the provision of written guidance influenced the repositioning technique. A pre-test post-test study design was utilised. Descriptive data regarding the work history of participants was collected. Participants were invited to reposition a healthy volunteer before and after reviewing guidance detailing the 30° side-lying technique. The researchers measured the resulting turn angles and assessed offloading of bony prominences. The
repositioning technique varied considerably in the sample of nurse participants. Turn angles decreased following the guidance, but offloading of body sites vulnerable to pressure damage remained sporadic. Pressure ulcer prevention training should include practical demonstrations of repositioning. Clear guidance regarding the optimal repositioning technique for pressure ulcer prevention is needed.  
**Database:** CINAHL

**Reliability of the Bates-Jensen wound assessment tool for pressure injury assessment: The pressure ulcer detection study.**

**Author(s):** Bates-Jensen, Barbara M.; McCreath, Heather E.; Harputlu, Deniz; Patlan, Anabel  
**Source:** Wound Repair & Regeneration; Jul 2019; vol. 27 (no. 4); p. 386-395  
**Abstract:** The Bates-Jensen Wound Assessment Tool (BWAT) is used to assess wound healing in clinical practice. The purpose of this study was to evaluate BWAT use among nursing home residents with pressure injury. Findings and reliability estimates from the BWAT related to pressure injury characteristics (stage, anatomic location) and natural history (resolved, persisted) among 142 ethnically and racially diverse residents are reported. In this prospective 16-week study, 305 pressure injuries among 142 participants (34% prevalence) are described by stage, anatomic location, and BWAT scores. Visual and subepidermal moisture assessments were obtained from sacrum, buttock, ischial, and heel ulcers weekly. Participants were 14% Asian, 28% Black, 18% Hispanic, 40% White with a mean age of 78 ± 14 years, and were 62% female; 80% functionally dependent (bed mobility extensive/total assistance) and at risk (Braden Scale score 14 ± 2.7). The reliability coefficient for BWAT score (all participants, all anatomic locations) was high (r = 0.90; p < 0.0001; n = 1,161 observations). Weighted Kappas for characteristics ranging from 0.46 (skin color surrounding wound) to 0.79 (undermining) were consistent for all participants. BWAT scores showed strongest agreement coefficients for stage 4 pressure injury (r = 0.69), pressure injuries among Asian and White ethnicity/racial groups (r = 0.89, and r = 0.91, respectively), and sacrum anatomic location (r = 0.92) indicating scores are better correlated to fair skin tones. Lower agreement coefficients were demonstrated for stage 2 pressure injury (r = 0.38) and pressure injuries among African American and Hispanic ethnicity/racial groups (r = 0.88 and 0.87, respectively). BWAT scores were significantly different by pressure injury stage (F = 496.7, df = 6, p < 0.001) and anatomic location (F = 33.76, df = 8, p < 0.001). BWAT score correlated with pressure injury natural history (ulcer resolved 18.4 ± 7.4, ulcer persisted 24.9 ± 10.0; F = 70.11, df = 2, p < 0.001), but not with comorbidities. The BWAT provides reliable, objective data for assessing pressure injury healing progress.  
**Database:** CINAHL

**Comparison of generic and disease-specific measures in their ability to detect differences in pressure ulcer clinical groups.**

**Author(s):** Rutherford, Claudia; Campbell, Rachel; Brown, Julia M.; Smith, Isabelle; Costa, Daniel S. J.; McGinnis, Elizabeth; Wilson, Lyn; Gilberts, Rachael; Brown, Sarah; Coleman, Susanne; Collier, Howard; Nixon, Jane E.  
**Source:** Wound Repair & Regeneration; Jul 2019; vol. 27 (no. 4); p. 396-405
Available at Wound Repair & Regeneration - from Wiley Online Library Medicine and Nursing Collection 2019

**Abstract:** Patient-reported outcomes can be included as end points in pressure ulcer (PU) intervention trials to provide information to inform decision-making and improve the lives of patients. However, the challenge for researchers and clinicians is identifying and choosing an appropriate instrument for each particular application that suits their research questions and clinical context. To provide researchers and clinicians with the information needed to inform choice of patient-reported outcome measures, we compared a generic and disease-specific measures' ability to discriminate between clinical groups known to differ, and determined their responsiveness to change. We performed analyses on a subset of patients recruited to the PRESSURE 2 trial that completed the pressure ulcer quality of life instrument—prevention version (PU-QOL-P) and Short Form 12 Questionnaire (SF12) measures at baseline and 30-day posttreatment. Known-group validity and responsiveness-to-change analyses were conducted. The analysis sample consisted of 617 patients that completed both measures at baseline. Known-group validity revealed that some PU-QOL-P symptoms and function scales differentiated between people with category 2 PUs and those without PUs. A less meaningful pattern of results was observed for the SF12 scales, suggesting that the PU-QOL-P is more sensitive to differences between PU and non-PU populations. Responsiveness analysis revealed that the PU-QOL-P was more responsive in detecting disease severity than the SF12. The PU-QOL-P provides a standardized method for assessing PU-specific symptoms and functioning outcomes and is suitable for quantifying the benefits of PU interventions from the patient's perspective. Generic measures are useful for group comparisons of global quality of life domains. Choice of measure for each particular application should be determined by the purpose of the measurement and the information required. **Database:** CINAHL

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**Pressure Injuries at Intensive Care Unit Admission as a Prognostic Indicator of Patient Outcomes.**

**Author(s):** McGee, William T.; Nathanson, Brian H.; Lederman, Elizabeth; Higgins, Thomas L.

**Source:** Critical Care Nurse; Jun 2019; vol. 39 (no. 3); p. 44-50

**Abstract:** Background Pressure injuries, also known as pressure ulcers, are a serious complication of immobility. Patients should be thoroughly examined for pressure injuries when admitted to the intensive care unit to optimize treatment. Whether community-acquired pressure injuries correlate with poor hospital outcomes among critically ill patients is understudied. Objectives To determine whether pressure injuries present upon admission to the intensive care unit can serve as a predictive marker for longer hospitalization and increased mortality. Methods This study retrospectively analyzed admissions of adult patients to a 24-bed medical-surgical intensive care unit in a large level I trauma center in the northeast United States from 2010 to 2012. The association of pressure injuries with mortality and length of stay was assessed, using multivariable logistic regression and generalized linear models, adjusted for age, comorbidities, Acute Physiology and Chronic Health Evaluation III score, and other patient characteristics. Results Among 2723 patients, 180 (6.6%) had a pressure injury at admission. Patients with a pressure injury had longer mean unadjusted stay (15.6 vs 10.5 days; P <.001) and higher in-hospital mortality rate (32.2% vs 18.3%; P <.001) than did patients without a pressure injury at admission. After multivariable adjustment, pressure injuries were associated with a mean increase in length of stay of 3.1 days (95% CI 1.5–4.7; P <.001). Pressure injuries were not associated with mortality after adjusting for the Acute Physiology and Chronic Health Evaluation III score, but they may serve as a marker for increased risk of mortality if an Acute Physiology and Chronic Health Evaluation III score is unavailable. Conclusion Pressure injuries present at admission to the intensive care unit are an objective, easy-to-identify finding associated with longer stays. Pressure injuries might have a modest association with higher risk of mortality.
Transcriptome profiling and fast microbiology in sepsis diagnosis: A potential synergy we cannot neglect

**Author(s):** Mangioni, Davide; Bandera, Alessandra; Peri, Anna Maria; Muscatello, Antonio; Gori, Andrea

**Source:** Journal of Critical Care; Aug 2019; vol. 52 ; p. 267

**Abstract:** Besides omics technologies, there is another research area within the field of sepsis diagnosis literally moving at a fast pace, which is microbiology. [...] fast microbiology represents the cornerstone of diagnostic stewardship for sepsis, especially in the ICU setting [7]. [...] we do agree with Maslove and colleagues on the promising role of transcriptome profiling in treatment selection and monitoring of septic patients.

**Database:** BNI

The search for the holy grail continues: The difficult journey towards the ideal fluid!

**Author(s):** Manu LNG Malbrain; Jacobs, Rita; Perner, Anders

**Source:** Journal of Critical Care; Aug 2019; vol. 52 ; p. 254

**Abstract:** According to the Surviving Sepsis Campaign guidelines crystalloids are advocated for initial resuscitation, followed by albumin for additional volume replacement [15]. Assessment consist of clinical parameters, imaging techniques, POCUS (point-of-care ultrasound), biomarkers, hemodilution parameters (hemoglobin, albumin), blood volume assessment, transpulmonary thermodilution with volumetric preload indices, etc... [...] fluid DE-resuscitation may even be of more importance than the initial resuscitation [24-27] (Fig. 1).5 Variable volume effect The amount of fluid administered was significantly higher with crystalloids than with albumin and hemodynamic endpoints were significantly lower in the crystalloid group [6]. [...] an early detection and prevention of inappropriate fluid prescription and administration is necessary to avoid possible adverse events and complications (e.g. renal failure or fluid overload). [...] although more relevant when it comes to avoidance of unnecessary expensive antibiotic use, cost effectiveness and savings should be achieved by implementing preventive quality improvement measures and follow up of KPI's like the amount of fluids used per patient, the avoidance of inappropriate fluid administration, the ratio between buffered and unbuffered crystalloids, the ratio between colloids and crystalloids, etc.9 Take home message In conclusion, the study performed by Martin et al. on hemodynamic response to crystalloids vs. colloids for fluid resuscitation in critically ill adults is noteworthy.

**Database:** BNI

Sepsis early warning scoring systems: The ideal tool remains elusive!

**Author(s):** Postelnicu, Radu; Pastores, Stephen M; Chong, David H; Evans, Laura

**Source:** Journal of Critical Care; Aug 2019; vol. 52 ; p. 251

**Abstract:** Unfortunately, sepsis remains a complex syndrome with no gold standard for its detection.1 Scoring systems The Sepsis-3 Definitions task force of the Society of Critical Care Medicine and European Society of Intensive Care Medicine used multivariable logistic regression to develop qSOFA - a quick Sequential Organ Failure Assessment (SOFA) score to assist clinicians identify, among patients with suspected infection, those who are at risk of death and morbidity from sepsis. Screening should ideally be performed longitudinally over time. [...] recently, majority of EWS studies have focused on mortality prediction in patients with sepsis, rather than on identifying
a process which should be reversed rapidly and to recognize a patient with a suspected infection who requires immediate attention. [...] Sepsis can be present in patients without a qSOFA score ≥2, as demonstrated by the limited sensitivity of qSOFA to detect organ dysfunction [15]. [...] a qSOFA of ≥2 can also be present in infected patients who are not septic. Additionally, SIRS and qSOFA revealed similar discrimination for organ dysfunction (AUROC 0.72 vs 0.73, respectively). qSOFA was specific but poorly sensitive for organ dysfunction (96.1% vs 29.7%, respectively). [...] although a qSOFA ≥2 shows high specificity, it has very poor sensitivity, thereby limiting its utility as a bedside screening tool and a potential trigger for intervention.

**Database:** BNI

**Application of dynamic pulse pressure and vasopressor tools for predicting outcomes in patients with sepsis in intensive care units**

**Author(s):** Wen-Feng, Fang; Chi-Han, Huang; Yu-Mu, Chen; Kai-Yin, Hung; Ya-Chun, Chang; Chiang-Yu, Lin; Ying-Tang, Fang; Ya-Ting, Chang; Hung-Cheng, Chen; Kuo-Tung, Huang; Huang-Chih, Chang; Yun-Che, Chen; Yi-Hsi, Wang; Chin-Chou, Wang; Meng-Chih Lin

**Source:** Journal of Critical Care; Aug 2019; vol. 52; p. 156

Available at [Journal of Critical Care](https://www.journals.aps.org/jcc/article/52/2/156)

**Abstract:** Purpose We aimed to determine whether the combination of dynamic pulse pressure and vasopressor (DPV) use is applicable for mortality risk stratification in patients with severe sepsis. We proposed the use of the DPV tool and compared it with traditional sepsis severity indices.

**Materials and methods** All adult patients who met the sepsis criteria of the Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) between August 2013 and January 2017 were eligible for the study. Patients who expired within 3 days of admission to the intensive care unit (ICU) were excluded. The primary outcomes were 7-day and 28-day mortality.

**Results** The study participants included 757 consecutive adult patients. A subpopulation of 155 patients underwent immune profiling assays on days 1, 3, and 7 of ICU admission. The DPV tool had a better performance for predicting 7-day mortality (area under curve, AUC: 0.70), followed by the Sequential Organ Failure Assessment (SOFA) (AUC: 0.64), the plus pulse pressure (AUC: 0.64). For predicting 28-day mortality, the DPV tool was not inferior to the SOFA (AUC: 0.61), DPV tool (AUC: 0.59).

**Conclusions** The DPV tool can be applied for 7-day and 28-day mortality risk prediction in patients with sepsis.

**Database:** BNI

**Glucocorticosteroids for sepsis in children. A protocol for a systematic review.**

**Author(s):** Korang, Steven Kwasi; Gluud, Christian; Jakobsen, Janus C.

**Source:** Acta Anaesthesiologica Scandinavica; Jul 2019; vol. 63 (no. 6); p. 819-826

Available at [Acta Anaesthesiologica Scandinavica](https://www.sciencedirect.com/journal/acta-anesthesiologica-scandinavica)

**Abstract:** Background: Sepsis is the primary diagnosis in more than 8% of all critically ill children and sepsis is among the ten leading causes of death in children <10 years. Glucocorticosteroids are currently recommended in septic children with fluid or catecholamine resistant refractory shock. Glucocorticosteroids are widely used for severe sepsis in paediatric intensive care units worldwide. However, the evidence on the clinical effects of glucocorticosteroids for sepsis in children is unclear.

**Methods:** We will perform a systematic review with meta-analysis and Trial Sequential
Analysis of randomised clinical trials. We will include randomised clinical trials assessing the effects of glucocorticosteroids vs placebo or no intervention as an add-on therapy to standard care for sepsis in children. For the assessment of harms, we will also include quasi-randomised studies and observational studies identified during our searches for randomised clinical trials. Discussion: This review will seek to assess whether glucocorticosteroids indeed have their therapeutic place in the standard treatment for sepsis in children.

**Database:** CINAHL

**Maternal sepsis is an evolving challenge.**

**Author(s):** Turner, Michael J.

**Source:** International Journal of Gynecology & Obstetrics; Jul 2019; vol. 146 (no. 1); p. 39-42


**Abstract:** Despite major advances in the last century, particularly in high resource settings, maternal sepsis remains a common and potentially preventable cause of direct maternal death globally. A barrier to further progress has been the lack of consensus on the definition of maternal sepsis. Publications from two recent multidisciplinary consensus conferences, one on sepsis in the non-pregnant adult and the other on sepsis in the pregnant woman, concluded that the criteria for diagnosing sepsis should be clinically-based, applicable at the bedside, and should not be laboratory-based. Informed by reviews of the evidence, in 2017 WHO published a new definition of maternal sepsis based on the presence of suspected or confirmed infection. It also announced a Global Maternal and Neonatal Sepsis Initiative to identify the diagnostic criteria for the early identification, epidemiology, and disease classification of maternal sepsis. Standardizing the criteria for maternal sepsis optimizes clinical audit and research. It may facilitate the evaluation of the role of different clinical parameters and biomarkers in the diagnosis, earlier recognition and management of maternal infection and sepsis. Further work is required to develop an international consensus on the criteria for diagnosing maternal sepsis and any associated organ dysfunction.

**Database:** CINAHL

**Strategies for preventing early-onset sepsis and for managing neonates at-risk: wide variability across six Western countries.**

**Author(s):** Berardi, Alberto; Rossi, Cecilia; Spada, Caterina; Vellani, Giulia; Guidotti, Isotta; Lanzoni, Angela; Azzalli, Milena; Papa, Irene; Giugno, Chiara; Lucaccioni, Laura; GBS Prevention Working Group of Emilia-Romagna

**Source:** The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians; Sep 2019; vol. 32 (no. 18); p. 3102-3108

**Abstract:** Objective: Group B streptococcus (GBS) early-onset sepsis (EOS) has declined after widespread intrapartum antibiotic prophylaxis. However, strategies for preventing EOS may differ across countries. The analysis of their strategies allows to compare the effectiveness of prevention in different countries and suggests opportunities for improvement. Methods: We compared six western countries. Prevention strategies, incidence rates of EOS and approaches for managing neonates at-risk were analysed. Countries were selected because of availability of recommendations for prevention and sufficient epidemiological data for comparison. Results: Five of six countries
recommend antenatal vagino-rectal screening. The decline of GBS cases is relevant in most countries, particularly in those with a screening-based strategy, which have reached incidence rates from 0.1 to 0.3/1000 live births and zero or close to zero mortality in full-term newborns. The recommendation for managing asymptomatic neonates at risk for EOS varies according to gestational age and ranges from observation only to laboratory testing plus empirical antibiotics. Chorioamnionitis (suspected or confirmed) is the main indication for carry out laboratory testing and for administering empirical antibiotics. Conclusions: Wide variations exists in preventing EOS. They depend on national epidemiology of GBS infections, compliance, cost, and feasibility of the strategy. The extreme variability of approaches for managing neonates at risk for EOS reflects the even greater uncertainty regarding this issue, and may explain the persisting, great use of resources to prevent a disease that has become very rare nowadays.

**Database:** Medline

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**Rapid antimicrobial susceptibility tests for sepsis; the road ahead.**

**Author(s):** Inglis, Timothy J J; Ekelund, Oskar

**Source:** Journal of medical microbiology; Jul 2019; vol. 68 (no. 7); p. 973-977

**Abstract:** Current methods for antimicrobial susceptibility testing (AST) are too slow to affect initial treatment decisions in the early stages of sepsis, when the prescriber is most concerned to select effective therapy immediately, rather than finding out what will not work 1 or 2 days later. There is a clear need for much faster differentiation between viral and bacterial infection, and AST, linked to earlier aetiological diagnosis, without sacrificing either the accuracy of quantitative AST or the low cost of qualitative AST. Truly rapid AST methods are eagerly awaited, and there are several candidate technologies that aim to improve the targeting of our limited stock of effective antimicrobial agents. However, none of these technologies are approaching the point of care and nor can they be described as truly culture-independent diagnostic tests. Rapid chemical and genomic methods of resistance detection are not yet reliable predictors of antimicrobial susceptibility and often rely on prior bacterial isolation. In order to resolve the trade-off between diagnostic confidence and therapeutic efficacy in increasingly antimicrobial-resistant sepsis, we propose a series of three linked decision milestones: initial clinical assessment (e.g. qSOFA score) within 10 min, initial laboratory tests and presumptive antimicrobial therapy within 1 h, and definitive AST with corresponding antimicrobial amendment within an 8 h window (i.e. the same working day). Truly rapid AST methods therefore must be integrated into the clinical laboratory workflow to ensure maximum impact on clinical outcomes of sepsis, and diagnostic and antimicrobial stewardship. The requisite series of development stages come with a substantial regulatory burden that hinders the translation of innovation into practice. The regulatory hurdles for the adoption of rapid AST technology emphasize technical accuracy, but progress will also rely on the effect rapid AST has on prescribing behaviour by physicians managing the care of patients with sepsis. Early adopters in well-equipped teaching centres in close proximity to large clinical laboratories are likely to be early beneficiaries of rapid AST, while simplified and lower-cost technology is needed to support poorly resourced hospitals in developing countries, with their higher burden of AMR. If we really want the clinical laboratory to deliver a specific, same-day diagnosis underpinned by definitive AST results, we are going to have to advocate more effectively for the clinical benefits of bacterial detection and susceptibility testing at critical decision points in the sepsis management pathway.

**Database:** Medline

**Author(s):** Simonetto, Douglas A; Piccolo Serafim, Laura; Gallo de Moraes, Alice; Gajic, Ognjen; Kamath, Patrick S

**Source:** Hepatology (Baltimore, Md.); Jul 2019; vol. 70 (no. 1); p. 418-428

Available at Hepatology (Baltimore, Md.) - from Wiley Online Library

**Abstract:** Sepsis in patients with cirrhosis is associated with high mortality. An impaired immune response accounts for the increased infection risk observed in these patients. Hemodynamic and systemic changes suggestive of sepsis may be observed in patients with cirrhosis in the absence of infection; therefore, diagnosis and treatment of sepsis may be delayed. The optimal management of the critically ill patient with sepsis and cirrhosis has not been well established and is generally extrapolated from consensus guidelines and expert recommendations made for management of patients without cirrhosis with sepsis. Despite the lack of strong evidence, we propose a contemporary pragmatic approach to sepsis management in patients with cirrhosis, including the choice of fluids, vasopressors, and antibiotics.

**Database:** Medline

The Restrictive IV Fluid Trial in Severe Sepsis and Septic Shock (RIFTS): A Randomized Pilot Study.

**Author(s):** Corl, Keith A; Prodromou, Michael; Merchant, Roland C; Gareen, Ilana; Marks, Sarah; Banerjee, Debasree; Amass, Timothy; Abbasi, Adeel; Delcompare, Cesar; Palmisciano, Amy; Aliotta, Jason; Jay, Gregory; Levy, Mitchell M

**Source:** Critical care medicine; Jul 2019; vol. 47 (no. 7); p. 951-959

**Abstract:** OBJECTIVES It is unclear if a low- or high-volume IV fluid resuscitation strategy is better for patients with severe sepsis and septic shock. DESIGN Prospective randomized controlled trial. SETTING Two adult acute care hospitals within a single academic system. PATIENTS Patients with severe sepsis and septic shock admitted from the emergency department to the ICU from November 2016 to February 2018. INTERVENTIONS Patients were randomly assigned to a restrictive IV fluid resuscitation strategy (≤ 60 mL/kg of IV fluid) or usual care for the first 72 hours of care. MEASUREMENTS AND MAIN RESULTS We enrolled 109 patients, of whom 55 were assigned to the restrictive resuscitation group and 54 to the usual care group. The restrictive group received significantly less resuscitative IV fluid than the usual care group (47.1 vs 61.1 mL/kg; p = 0.01) over 72 hours. By 30 days, there were 12 deaths (21.8%) in the restrictive group and 12 deaths (22.2%) in the usual care group (odds ratio, 1.02; 95% CI, 0.41-2.53). There were no differences between groups in the rate of new organ failure, hospital or ICU length of stay, or serious adverse events. CONCLUSION This pilot study demonstrates that a restrictive resuscitation strategy can successfully reduce the amount of IV fluid administered to patients with severe sepsis and septic shock compared with usual care. Although limited by the sample size, we observed no increase in mortality, organ failure, or adverse events. These findings further support that a restrictive IV fluid strategy should be explored in a larger multicenter trial.

**Database:** Medline

Improving 3-Hour Sepsis Bundled Care Outcomes: Implementation of a Nurse-Driven Sepsis Protocol in the Emergency Department.

**Author(s):** Moore, Wendy R; Vermuelen, Alicia; Taylor, Rachelle; Kihara, David; Wahome, Erik

**Source:** Journal of emergency nursing: JEN : official publication of the Emergency Department Nurses Association; Jun 2019
Abstract: PROBLEM Sepsis, a life-threatening condition, can rapidly progress to death. The Hospital Inpatient Quality Reporting (IQR) program has implemented bundled care metrics for sepsis care, but timely completion of these interventions is challenging. Best-practice interventions could improve patient outcomes and reimbursement. The purpose of this project was to improve the timeliness of sepsis recognition and implementation of bundled care interventions in the emergency department. METHODS This evidence-based practice improvement project implemented a Detect, Act, Reassess, Titrate (DART)-based nursing protocol embedded within a checklist communication tool in the emergency department of a tertiary level-2 trauma center. Data comparisons between preintervention and post-DART protocol/checklist implementation included compliance with the individual IQR 3-hour bundled elements, number of hospital days, and time to screen. Staff also completed a survey designed to assess their satisfaction with the DART algorithm/checklist. The Pearson $\chi^2$ test was used to assess bundled-care intervention variables. Wilcoxon rank sum tests were used to explore hospitalization outcomes. Staff satisfaction survey results were summarized. RESULTS Improvement was statistically significant for lactate levels, blood cultures, and early antibiotic administration in the intervention period compared with baseline. Time to screen, ED length of stay, and number of hospital days improved between baseline and the intervention period, with an average number of hospital days decreasing by 2.5 days. Compliance with all IQR metrics increased from 30% to 80%. DISCUSSION When the nurse-driven protocol and communication tool were implemented, compliance with time-sensitive sepsis bundled interventions improved significantly. The outcomes suggest nurse-driven protocols can improve sepsis outcomes.

Database: Medline

HUMAN FACTORS

Catastrophic drug errors involving tranexamic acid administered during spinal anaesthesia.

Author(s): Patel, S.; Robertson, B.; McConachie, I.

Source: Anaesthesia; Jul 2019; vol. 74 (no. 7); p. 904-914

Available at Anaesthesia - from Wiley Online Library

Abstract: We have reviewed accidental spinal administration of tranexamic acid. We performed a MEDLINE search of cases of administration of tranexamic acid during epidural or spinal anaesthesia between 1960 and 2018. No reports of epidural administration were identified. We identified 21 cases of spinal tranexamic acid administration. Life-threatening neurological and/or cardiac complications, requiring resuscitation and/or intensive care, occurred in 20 patients; 10 patients died. We used a Human Factors Analysis Classification System model to analyse any contributing factors, and the reports were also assessed using four published recommendations for the reduction in neuraxial drug error. In 20 cases, ampoule error was the cause; in the last case a spinal catheter was mistaken for an intravenous catheter. All were classified as skill-based errors. Several human factors related to organisational policy; dispensing and storage of drugs and preparation for spinal anaesthesia tasks were present. All errors could have been prevented by implementing the four published recommendations.

Database: CINAHL
Author(s): Call, R. Christopher; Ruskin, Keith J.; Thomas, Donna-Ann; O'Connor, Michael F.
Source: International Anesthesiology Clinics; Jul 2019; vol. 57 (no. 3); p. 25-34
Database: CINAHL

Perceptual and Interpretive Error in Diagnostic Radiology-Causes and Potential Solutions.
Author(s): Degnan, Andrew J.; Ghobadi, Emily H.; Hardy, Peter; Krupinski, Elizabeth; Scali, Elena P.; Stratchko, Lindsay; Ulano, Adam; Walker, Eric; Wasnik, Ashish P.; Auffermann, William F.
Source: Academic Radiology; Jun 2019; vol. 26 (no. 6); p. 833-845
Abstract: Interpretation of increasingly complex imaging studies involves multiple intricate tasks requiring visual evaluation, cognitive processing, and decision-making. At each stage of this process, there are opportunities for error due to human factors including perceptual and ergonomic conditions. Investigation into the root causes of interpretive error in radiology first began over a century ago. In more recent work, there has been increasing recognition of the limits of human image perception and other human factors and greater acknowledgement of the role of the radiologist's environment in increasing the risk of error. This article reviews the state of research on perceptual and interpretive error in radiology. This article focuses on avenues for further error examination, and strategies for mitigating these errors are discussed. The relationship between artificial intelligence and interpretive error is also considered.
Database: CINAHL

Measuring situation awareness and team effectiveness in pediatric acute care by using the situation global assessment technique.
Author(s): Coolen, Ester; Draaisma, Jos; Loeffen, Jan
Source: European Journal of Pediatrics; Jun 2019; vol. 178 (no. 6); p. 837-850
Available at European Journal of Pediatrics - from Unpaywall
Abstract: Situation awareness (SA) is an important human factor and necessary for effective teamwork and patient safety. Human patient simulation (HPS) with video feedback allows for a safe environment where health care professionals can develop both technical and teamwork skills. It is, however, very difficult to observe and measure SA directly. The Situation Global Assessment Technique (SAGAT) was developed by Endsley to measure SA during real-time simulation. Our objective was to measure SA among team members during simulation of acute pediatric care scenarios on the medical ward and its relationship with team effectiveness. Twenty-four pediatric teams, consisting of two nurses, one resident, and one consultant, participated in three acute care scenarios, using high-fidelity simulation. Individual SAGAT scores contained shared and complimentary knowledge questions on different levels of SA. Within each scenario, two "freezes" were incorporated to assess SA of each team members' clinical assessment and decision-making. SA overlap within the team (team SA) was computed and compared to indicators of team effectiveness (time to goal achievement, consensus on primary problem, diagnosis, task prioritization, leadership, and teamwork satisfaction). In 13 scenarios (18%), the team failed to reach the primary goals within the prescribed time of 1200 s. There was no significant difference in failure of goal completion between the scripted scenarios; however, there was a significant difference between scenario 3 and the other scenarios in time to goal completion. In all three scenarios, SA overlap level 2 (consensus on primary problem during the first freeze and consensus on diagnosis during the second freeze) leads to significantly faster achievement of the predefined goals. There was a strong relationship...
between team SA on the primary problem and diagnosis and team SA on task prioritization. Consensus on leadership within the team was low. Teamwork satisfaction was more influenced by knowledge about the importance of the assigned task than outcome of the scenario.

Conclusion: The use of SAGAT enables us to measure SA of team members during real-time simulation of acute care scenarios. Although there is no direct connection between team SA and goal achievement, SAGAT provides insight in differences in SA among team members, and the process of shared mental model formation. By measuring SA, issues that may improve team effectiveness (prioritizing tasks, enhancing shared mental models, and providing leadership) can be trained and assessed during medical team simulation, enhancing teamwork in health care settings. What is known? • Teamwork skills such as communication, leadership, and situational awareness have become increasingly recognized as essential for good performance in pediatric resuscitation. However, the assessment of pediatric team performance in these clinical situations has been traditionally difficult. • The Situation Awareness Global Assessment Technique (SAGAT) is a method of objectively and directly measuring SA during a team simulation using "freezes" at predetermined points in time with participants reporting on "what is going on" from their perspective on the situation. What is new? • We assessed SA, and its relationship with team effectiveness, in multidisciplinary pediatric teams performing simulated critical events in critically ill children on the medical ward using the SAGAT model, outside the emergency room setting. • In all three scenarios, consensus on the primary problem (shared mental model) leads to faster achievement of predefined goals. Consensus on leadership was overall low, without a significant impact on goal achievement.

Database: CINAHL

Human factors and safe prescribing.

**Author(s):** Greenwood, Sarah

**Source:** Journal of Prescribing Practice; Jun 2019; vol. 1 (no. 6); p. 290-295

**Abstract:** The aim of this article is to discuss the professional issues and complex factors that can contribute to prescribing errors. It will review the need for a focus on pharmacovigilance and human factors in order to reduce the risk of errors and develop safe prescribing practices in newly qualified non-medical prescribers. The article will also highlight the professional elements that require recognition, not only for the prescriber, but also from an organisational perspective.

Database: CINAHL

**RESTRANT**

Minimising the use of physical restraint in acute mental health services: The outcome of a restraint reduction programme ('REsTRAIN YOURSELF').

**Author(s):** Duxbury, Joy; Baker, John; Downe, Soo; Jones, Fiona; Greenwood, Paul; Thygesen, Helene; McKeown, Mick; Price, Owen; Scholes, Amy; Thomson, Gill; Whittington, Richard

**Source:** International Journal of Nursing Studies; Jul 2019; vol. 95 ; p. 40-48

**Abstract:** Physical restraint is a coercive intervention used to prevent individuals from harming themselves or others. However, serious adverse effects have been reported. Minimising the use of restraint requires a multimodal approach to target both organisational and individual factors. The 'Six Core Strategies' developed in America, underpinned by prevention and trauma informed principles, is one such approach. An adapted version of the Six Core Strategies was developed and its
impact upon physical restraint usage in mental health Trusts in the United Kingdom evaluated. This became known as REsTRAIN YOURSELF. The hypothesis was that restraint would be reduced by 40% on the implementation wards over a six-month period. A non-randomised controlled trial design was employed. Fourteen, adult, mental health wards from seven mental health hospitals in the North West of England took part in the study. Two acute care wards were targeted from all eligible acute wards within each site in negotiation with each Trust. The intervention wards (total n = 144 beds, mean = 20.1 beds per ward) and control wards (total n = 147 beds, mean = 21.0 beds per ward) were primarily mixed gender but included single sex wards also (2 female-only and 1 male-only in each group). All wards offered pharmacological and psychosocial interventions over short admission durations (circa 15 days) for patients with a mixture of enduring mental health problems. As part of a pre and post-test method, physical restraint figures were collected using prospective, routine hospital records before and 6 months after the intervention. Restraint rates on seven wards receiving the REsTRAIN YOURSELF intervention were compared with those on seven control wards over three study phases (baseline, implementation and adoption). In total, 1680 restraint incidents were logged over the study period. The restraint rate was significantly lower on the intervention wards in the adoption phase (6.62 events/1000 bed-days, 95% CI 5.53–7.72) compared to the baseline phase (9.38, 95% CI 8.19–10.55). Across all implementation wards there was an average reduction of restraint by 22%, with some wards showing a reduction of 60% and others less so (8%). The association between ward type and study phase was statistically significant. In conclusion, it is possible that reductions in the use of physical restraint are achievable using a model such as the Six Core Strategies. This approach can be adapted for global settings and changes can be sustained over time with continued support.

Database: CINAHL


Author(s): Nielsen, Lea Deichmann; Bech, Per; Hounsgaard, Lise; Gildberg, Frederik Alkier

Source: Nordic journal of psychiatry; Jul 2019; p. 1-9

Abstract: Background: A new short-term risk assessment instrument, the Mechanical Restraint - Confounders, Risk, Alliance Score (MR-CRAS) checklist, including three subscales with altogether 18 items, has been developed in close collaboration with forensic mental health nurses, psychiatrists' etc., and shows evidence of being comprehensible, relevant, comprehensive and easy to use for assessing the patient’s readiness to be released from mechanical restraint. Aim: The aim of this study was to investigate whether the subscales: confounders, risk and parameters of alliance constituted separate subscales and needed further revisions. Materials and methods: MR-CRAS was field-study tested among nurses, nurse assistants and social and health care assistants in 13 Danish closed forensic mental health inpatient units, and a Mokken analysis of scalability and a Spearman correlation analysis were performed. Results: MR-CRAS was completed by clinicians in 143 episodes of mechanical restraint, representing 88 patients, with a mean duration of 63.25 hours. Most patients were younger men, diagnosed within the schizophrenia spectrum. One-third of the patients had repeated mechanical restraint episodes ranging between 2 and 8 episodes. MR-CRAS and especially the parameters of alliance were perceived as usable for assessment of the patient’s readiness to be released from mechanical restraint. The psychometric analyses showed that the three subscales were unidimensional. Conclusions: The study shows evidence of the construct validity of MR-CRAS among clinicians at closed forensic mental health inpatient units. MR-CRAS contributes with a common language and structured, systematic and transparent observations and assessments on an hour by hour basis during mechanical restraint.

Database: Medline
Predicting Mechanical Restraint of Psychiatric Inpatients by Applying Machine Learning on Electronic Health Data.

Author(s): Danielsen, Andreas A; Fenger, Morten H J; Østergaard, Søren D; Nielbo, Kristoffer L; Mors, Ole

Source: Acta psychiatrica Scandinavica; Jun 2019

Available at Acta psychiatrica Scandinavica - from Wiley Online Library Medicine and Nursing Collection 2019

Abstract: OBJECTIVE: Mechanical restraint (MR) is used to prevent patients from harming themselves or others during inpatient treatment. The objective of this study was to investigate whether incident MR occurring in the first three days following admission could be predicted based on analysis of electronic health data available after the first hour of admission. METHOD: The dataset consisted of clinical notes from Electronic Health Records from the Central Denmark Region and data from the Danish Health Registers from patients admitted to a psychiatric department in the period from 2011 to 2015. Supervised machine learning algorithms were trained on a randomly selected subset of the data and validated using an independent test dataset. RESULT: A total of 5,050 patients with 8,869 admissions were included in the study. One-hundred patients were mechanically restrained in the period between one hour and three days after the admission. A Random Forest algorithm predicted MR with an area under the curve of 0.87 (95% CI 0.79-0.93). At 94% specificity, the sensitivity was 56%. Among the ten strongest predictors, nine were derived from the clinical notes. CONCLUSION: These findings open for the development of an early warning system that may guide interventions to reduce the use of MR. This article is protected by copyright. All rights reserved.

Database: Medline

A Matter of Trust and Distrust: A Qualitative Investigation of Parents' Perceptions About the Use of Mechanical Restraint on Their Adult Children in a Forensic Psychiatric Setting.

Author(s): Tingleff, Ellen Boldrup; Hounsgaard, Lise; Bradley, Stephen K; Wilson, Rhonda L; Gildberg, Frederik A

Source: Journal of forensic nursing; Jun 2019; vol. 15 (no. 2); p. 120-130

Abstract: INTRODUCTION: Increased knowledge about forensic psychiatric patients' relatives' perceptions in regard to the use of mechanical restraint (MR) is necessary, if clinical practice is to be improved and to achieve a reduction in the use and frequency of MR. However, a specific knowledge deficit about relatives' perspectives on the use of MR limits the evidence base considerably. AIM: The aim of this study was to investigate the perceptions of MR held by relatives of forensic psychiatric patients' including factors impacting its use and duration. METHOD: Qualitative interviews were conducted with 15 parents of patients within a forensic psychiatry setting and thematically analyzed. FINDINGS: Two main themes were identified, namely, "care and protection" and "inclusion and involvement," and one subtheme, "information." These themes revealed the framework used by parents to construct a sense of "trust or distrust" about the ability of staff to provide adequate and safe care for their adult children in the forensic psychiatric setting. CONCLUSION: Some parents in this study considered that forensic psychiatric staff used MR as a necessary protection. However, most parents held strong negative perceptions regarding the use of MR and the quality and safety of care provision. It is apparent that parents in this study believed they should be included and involved in the care in situations associated with the use of MR, because they considered that this could reduce its use. Further research is required to target interventions to reduce the use and duration of MR episodes and to improve clinical practice in forensic psychiatry. Database: Medline
PATIENT SAFETY

Clinical Instructors' Experience of Managing Students' Errors: A Qualitative Study

Author(s): Shahoei, Ronak; Fathi, Mohammad; Valiee, Sina
Source: Nursing Education Perspectives; 2019; vol. 40 (no. 4); p. 231
Abstract: Given the importance of patient safety, this study aimed to explore clinical instructors' experience of managing students' errors. A qualitative approach was adopted to conduct semistructured interviews with 12 clinical nursing and midwifery instructors. Three main categories emerged: prevention (orienting, review of the knowledge, repeating procedure by instructor, checking steps prior to performing procedure, and reminding), action (correcting, monitoring and follow-up, and informing), and feedback (cause analysis, notifying, and affecting assessment). Patient safety and error management programs should be included in the nursing curriculum and nursing education.
Database: BNI

Patient safety culture in obstetrics and gynecology and neonatology units: the nurses' and the midwives' opinion.

Author(s): Ribeliene, Janina; Blazeviciene, Aurelija; Nadisauskiene, Ruta Jolanta; Tameliene, Rasa; Kudreviciene, Ausrele; Nedzelskiene, Irena; Macijauskiene, Jurate
Source: Journal of Maternal-Fetal & Neonatal Medicine; Oct 2019; vol. 32 (no. 19); p. 3244-3250
Database: CINAHL

"I’m Trying to Stop Things Before They Happen": Carers’ Contributions to Patient Safety in Hospitals

Author(s): Merner Bronwen; Hill, Sophie; Taylor, Michael
Source: Qualitative Health Research; Aug 2019; vol. 29 (no. 10); p. 1508
Available at Qualitative Health Research - from Unpaywall
Abstract: Patient safety policies increasingly encourage carer (i.e., family or friends) involvement in reducing health care–associated harm in hospital. Despite this, carer involvement in patient safety in practice is not well understood—especially from the carers’ perspective. The purpose of this article is to understand how carers of adult patients perceived and experienced their patient safety contributions in hospital. Constructivist grounded theory informed the data collection and analysis of in-depth interviews with 32 carers who had patient safety concerns in Australian hospitals. Results demonstrated carers engaged in the process of “patient-safety caring." Patient-safety caring included three levels of intensity: low ("contributing without concern"), moderate ("being proactive about safety"), and high ("wrestling for control"). Carers who engaged at high intensity provided the patient with greater protection, but typically experienced negative consequences for themselves. Carers’ experiences of negative consequences from safety involvement need to be mitigated by practice approaches that value their contributions.
Database: BNI
Enhancing interprofessional education through patient safety and quality improvement team-training: A pre-post evaluation.

**Author(s):** Quatrara, Beth; Brashers, Valentina; Baernholdt, Marianne; Novicoff, Wendy; Schlag, Katherine; Haizlip, Julie; Plews-Ogan, Margaret; Kennedy, Christine

**Source:** Nurse Education Today; Aug 2019; vol. 79 ; p. 105-110

**Database:** CINAHL

Effects of a patient safety course using a flipped classroom approach among undergraduate nursing students: A quasi-experimental study.

**Author(s):** Kim, Young Man; Yoon, Yea Seul; Hong, Hye Chong; Min, Ari

**Source:** Nurse Education Today; Aug 2019; vol. 79 ; p. 180-187

**Abstract:** The nursing education system has changed with the increased emphasis on patient safety in healthcare settings. Early education in patient safety is crucial to preparing nurses to be competent in patient care. Therefore, providing undergraduate patient safety education courses using an innovative approach is essential to enhancing patient safety and quality in nursing care. This study aimed to examine the effects of a patient safety course using a flipped classroom approach on patient safety competency among undergraduate nursing students in South Korea. A pre- and post-test quasi-experimental design with a non-equivalent control group was adopted. This study was conducted in the college of nursing at a university in Seoul, South Korea. A total of 75 undergraduate nursing students participated. All students enrolled in the patient safety course comprised the experimental group (n = 32); those with similar characteristics to the experimental group (age, gender, and year) but did not take the course comprised the control group (n = 43). A total of 14 sessions (28 h) addressing the topics from the World Health Organization patient safety curriculum guide were delivered using a flipped classroom approach. The teaching methods included online learning and quizzes, case studies, small and large discussions, incident report tasks, and group projects including the development of strategies for patient safety. A survey including a demographic questionnaire and the Patient Safety Competency Self-Evaluation tool was administered at the beginning and end of the fall semester. Pre- and post-test results demonstrated a significant increase in students’ patient safety competency including attitude, skills, and knowledge. Mean scores of patient safety competency in the experimental group were significantly higher than in the control group. The flipped-classroom patient safety course was shown to be effective in improving patient safety competency in terms of attitude, skills, and knowledge among undergraduate nursing students.

**Database:** CINAHL

Improving patient safety: we need to reduce hierarchy and empower junior doctors to speak up

**Author(s):** Brennan, Peter A; Davidson, Mike

**Source:** BMJ : British Medical Journal (Online); Jul 2019; vol. 366

Available at BMJ : British Medical Journal (Online) - from BMJ Journals - NHS

**Abstract:** Empowering doctors to speak up when they have concerns is essential to making our NHS safer, say Peter Brennan and Mike Davidson

**Database:** BNI
**Teaching Nurses to Make Clinical Judgments That Ensure Patient Safety**

**Author(s):** Billings, Diane M  
**Source:** The Journal of Continuing Education in Nursing; Jul 2019; vol. 50 (no. 7); p. 300  
Available at The Journal of Continuing Education in Nursing - from ProQuest (Health Research Premium) - NHS Version  
**Abstract:** Many newly employed nurses do not have the necessary skill or experience to make sound nursing clinical judgments. Thus, their actions can pose a risk to patient safety. Professional development educators, clinical educators, and preceptors can use a clinical judgment task model when teaching nurses to make accurate clinical judgments. Strategies such as using prompts with deliberate practice facilitate learning this skill. [J Contin Educ Nurs. 2019;50(7):300–302]  
**Database:** BNI

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**Prerequisites for safe intraoperative nursing care and teamwork—Operating theatre nurses’ perspectives: A qualitative interview study**

**Author(s):** Sandelin, Annika; Kalman, Sigridur; Gustafsson, Birgitta Åkesdotter  
**Source:** Journal of Clinical Nursing; Jul 2019; vol. 28 (no. 13–14); p. 2635  
Available at Journal of Clinical Nursing - from Wiley Online Library Medicine and Nursing Collection 2019  
Available at Journal of Clinical Nursing - from Unpaywall  
**Abstract:** AimTo describe operating theatre nurses’ experience of preconditions for safe intraoperative nursing care and teamwork. BackgroundSurgical interventions are often needed for patients’ well-being and survival from health problems. Adequate information to professionals responsible within the surgical organisation is of importance for patient safety in connection to the surgery. The members in the surgical team need correct information about the patients’ health and planned care. The information is mainly transferred by computerised systems that do not necessarily provide all information needed. MethodA qualitative descriptive design was chosen. Narrative interviews were carried out with 16 experienced operating theatre nurses in four different hospitals in rural and urban areas in Sweden. The data were analysed using qualitative content analysis. The study complied with criteria to Consolidated Criteria for Reporting Qualitative Research (COREQ). ResultOperating theatre nurses strived to get adequate information about the patients’ care, the surgical intervention and the equipment to be well prepared for intraoperative nursing care. The information from the computerised systems was described as fragmented and obliged the operating theatre nurses to demand a preoperative dialogue between the members of the surgical team. Professional collegial teamwork and committed leadership were considered to enhance patient safety. ConclusionFrom the operating theatre nurses’ perspective, prerequisites for intraoperative safe nursing care and teamwork depend upon a preoperative dialogue between the members in the surgical team for collegial teamwork, obtaining a reliable preoperative overall picture based on adequate information transfer, and the support of a committed first-line manager. Relevance to clinical practiceThe operating theatre nurses need a reliable preoperative overall picture in advance, to be able to be well prepared for the patients’ surgery. The overall picture should be based on adequate data about the patients’ health status and needs, details about the surgical intervention and prescriptions.  
**Database:** BNI
New graduate nurses’ understanding and attitudes about patient safety upon transition to practice

Author(s): Murray, Melanie; Sundin, Deborah; Cope, Vicki

Source: Journal of Clinical Nursing; Jul 2019; vol. 28 (no. 13-14); p. 2543

Publication Date: Jul 2019

Publication Type(s): Journal Article

Available at Journal of Clinical Nursing - from Wiley Online Library Medicine and Nursing Collection 2019

Abstract:AimsTo explore the transition experiences of newly graduated registered nurses with particular attention to patient safety.

BackgroundNew graduate registered nurses’ transition is accompanied by a degree of shock which may be in tune with the described theory–practice gap. The limited exposure to clinical settings and experiences leaves these nurses at risk of making errors and not recognising deterioration, prioritising time management and task completion over patient safety and care.

DesignQualitative descriptive approach using semi-structured interviews.

MethodsData were collected during 2017–18 from 11 participants consenting to face-to-face or telephone semi-structured interviews. Interviews were transcribed verbatim, and data were analysed using thematic analysis techniques assisted by Nvivo coding software. The study follows the COREQ guidelines for qualitative studies (see Supplementary File 1).

ResultsKey themes isolated from the interview transcripts were as follows: patient safety and insights; time management; making a mistake; experiential learning; and transition. Medication administration was a significant cause of stress that adds to time management anguish. Although the new graduate registered nurses’ clinical acumen was improving, they still felt they were moving two steps forward, one step back with regards to their understanding of patient care and safety.

ConclusionTransition shock leaves new graduate registered nurses’ focused on time management and task completion over patient safety and holistic care. Encouragement and support needed to foster a safety culture that foster safe practices in our new nurses.

Relevance to practiceHaving an understanding of the new graduate registered nurses’ experiences and understanding of practice will assist Graduate Nurse Program coordinators, and senior nurses, to plan and provide the relevant information and education during these initial months of transition to help mitigate the risk of errors occurring during this time.

Database: BNI


Author(s): Call, R. Christopher; Ruskin, Keith J.; Thomas, Donna-Ann; O’Connor, Michael F.

Source: International Anesthesiology Clinics; Jul 2019; vol. 57 (no. 3); p. 25-34

Database: CINAHL

Workplace Violence Against Anesthesiologists: We are not Immune to this Patient Safety Threat.

Author(s): Udoji, Mercy A.; Ifeanyi-Pillette, Ifeyinwa C.; Miller, Thomas R.; Lin, Della M.

Source: International Anesthesiology Clinics; Jul 2019; vol. 57 (no. 3); p. 123-137

Database: CINAHL
The wicked problem of patient misidentification: How could the technological revolution help address patient safety?

**Author(s):** Ferguson, Caleb; Hickman, Louise; Macbean, Claire; Jackson, Debra

**Source:** Journal of Clinical Nursing (John Wiley & Sons, Inc.); Jul 2019; vol. 28 (no. 13/14); p. 2365-2368


**Abstract:** An editorial is presented on the need for technological revolution in order to address patient misidentification error. It expresses the patient’s care trajectory, patient-level factors leading to increase in the risk of patient misidentification, and the widely accepted standard of plastic hospital identification wristbands.

**Database:** CINAHL

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Developing an Intervention to Reduce Harm in Hospitalized Patients: Patients and Families in Research.

**Author(s):** Schenk, Elizabeth C.; Bryant, Ruth A.; Van Son, Catherine R.; Odom-Maryon, Tamara

**Source:** Journal of Nursing Care Quality; Jul 2019; vol. 34 (no. 3); p. 273-278

**Abstract:** Background: Patient safety-focused research may be strengthened by the inclusion of patients and family members in research design; yet, published methodologies for doing so are scarce. Purpose: This study engaged patients and families in research design of an intervention to increase patient/family engagement, with reduction of harm in hospitalized patients. Methods: The study design team convened a Patient Safety Advisory Panel to explore potential testable interventions to increase patient/family engagement with safety. They explored the preferred intervention, Speak Up-My Advocate for Patient Safety (MAPS), through multistakeholder focus groups. Results: Participants emphasized the importance of including patient/family when designing interventions. Regarding the Speak Up-MAPS intervention, perceptions from stakeholders were mixed, including the value and potential complexity, role confusion, and cost of the proposed advocate role. Conclusion: Intentional inclusion of the patient/family in research is important and practical. Both strengths and challenges of the proposed intervention were identified, indicating the need for further study.

**Database:** CINAHL

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Reducing avoidable medication-related harm: What will it take?

**Author(s):** Tetteh, Ebenezer Kwabena

**Source:** Research in Social & Administrative Pharmacy; Jul 2019; vol. 15 (no. 7); p. 827-840

**Abstract:** Consumption of quality-assured medicines is expected to maintain or improve population health. Yet in a number of situations, what is realized is lower health benefits or magnified safety risks. Recognizing the public health implications of safety risks or medication-related harm, and that some types of harm are avoidable, the World Health Organization has initiated the third Global Patient Safety challenge on Medication Safety. Under the term "Medication Without Harm", this Challenge aims to assess the scope and nature of avoidable medication-related harm, create a framework for intervention and develop national guidance and tools to support safer medication use. The global target under the Challenge is to reduce the level of severe avoidable medication-
related harm by 50% over a five-year period or within the next five years. Given a higher morbidity and mortality due to medication-related harm in low-income countries, this paper evaluates what needs to be done in low-income countries in order to achieve the global target. The ideal solution advocated requires that health planners in each low-income country determine what fraction of safety risks or harm can be prevented; and the relationship between number or frequency of avoidable harm or safety risks and the resource costs of treatment or prevention. In the absence of such information, this paper discusses a number of prevention strategies that might help; arguing that the period over which avoidable medication-related harm can be reduced by 50% will depend on whether significant continuous investments in health-system strengthening are made prior to and within that period.

Database: CINAHL

Strategies for improving medication safety in hospitals: Evolution of clinical pharmacy services.

Author(s): Lotta, Schepel; Kirsi, Aronpuro; Kirsi, Kvarnström; Anna-Riia, Holmström; Lasse, Lehtonen; Outi, Lapatto-Reiniluoto; Raisa, Laaksonen; Kerstin, Carlsson; Marja, Airaksinen

Source: Research in Social & Administrative Pharmacy; Jul 2019; vol. 15 (no. 7); p. 873-882

Abstract: Background: Medication safety risks are the most important preventable factors jeopardizing patient safety. To manage these risks, extending pharmacists’ involvement in patient care and patient safety work has been systematically addressed in patient safety initiatives since the early 2000s. Objective: To explore the extent and range of clinical pharmacy services in Finnish hospitals to promote medication safety: 1) in 2011, when the first National Patient Safety Strategy, the new Health Care Act and the Medicines Policy 2020 had been recently enacted; and 2) five years later in 2016. Methods: The study was conducted in 2011 and 2016 as a national online survey targeted to hospital pharmacies (n = 24) and medical dispensaries (n = 131 in 2011; n = 28 in 2016). The questions were analyzed using descriptive statistics and qualitative content analysis. Results: Overall response rate was 60% in 2011 and 52% in 2016. Clinical pharmacy services were provided by 51% of the responding units in 2011, whereas by 85% in 2016. The reported number of clinical pharmacists had increased during the five years. The most notable increase in reported tasks occurred in conducting medication reconciliations (+63% increase in the number of providing units). By 2016 pharmacists had extended their tasks particularly towards system-based medication safety work: e.g. developing instructions for medication-use (91% of the responding units), creating and updating medication safety plans (87%) and using medication error reports in developing the process of medication use safer (78%). Pharmacists’ participation in long-term continuing education became more common in 2016, which was perceived as helpful in extending their responsibilities to improve medication safety. Conclusion: Pharmacists’ involvement in patient care and system-based medication safety work was reported to become more common in Finnish hospitals during 2011-2016. This development is in line with patient safety policy initiatives and its impact on patient care outcomes should be followed up.

Database: CINAHL

Student nurses’ lived experience of patient safety and raising concerns

Author(s): Fisher, Melanie; Kiernan, Matthew

Source: Nurse Education Today; Jun 2019; vol. 77 ; p. 1

Abstract: Introduction: Following the investigation into the Mid Staffordshire Hospital (United Kingdom) and the subsequent Francis reports (2013 and 2015), all healthcare staff, including students, are called upon to raise concerns if they are concerned about patient safety. Despite this
advice, it is evident that some individuals are reluctant to do so and the reasons for this are not always well understood. Study aim: This research study provides an insight into the factors that influence student nurses to speak up or remain silent when witnessing sub-optimal care. Design: An interpretive phenomenological study using the principles of hermeneutics. The study took place in one university in the North of England and the sample consisted of twelve adult nursing students. Methods: Following ethical approval and informed consent, each participant took part in individual semi-structured interviews over a three-year period. Data was transcribed and analysed using ‘Framework for Applied Policy Research’. Findings: Four key themes were identified: context of exposure, fear of punitive action, team culture and hierarchy. On the one hand, students recognised there was a professional obligation bestowed upon them to raise concerns if they witnessed sub-optimal practice, however, their willingness to do so was influenced by intrinsic and extrinsic factors. Students have to navigate their moral compass, taking cognisance of their own social identity and the identity of the organisations in which they are placed.

**Database:** BNI

**Running to stand still with patient safety in the NHS?**

**Author(s):** Tingle, John

**Source:** British Journal of Nursing; Jun 2019; vol. 28 (no. 12); p. 808-809

**Abstract:** John Tingle discusses some major inquiry reports into patient safety crises in the NHS and asks whether any lessons have been learnt from events.

**Database:** CINAHL

**Advancing the status of nursing: reconstructing professional nursing identity through patient safety work.**

**Author(s):** Heldal, Frode; Kongsvik, Trond; Håland, Erna

**Source:** BMC Health Services Research; Jun 2019; vol. 19 (no. 1)

**Available at BMC health services research** - from BioMed Central

**Available at BMC health services research** - from Europe PubMed Central - Open Access

**Available at BMC health services research** - from ProQuest (Health Research Premium) - NHS Version

**Available at BMC health services research** - from Unpaywall

**Database:** CINAHL

**SIMULATION**

**Wearable Simulated Maternity Model: Making Simulation Encounters Real in Midwifery.**

**Author(s):** Andersen, Patrea; Downer, Terri; O'Brien, Suzy; Cox, Kristine

**Source:** Clinical Simulation in Nursing; Aug 2019; vol. 33 ; p. 1-6

**Abstract:** Vulnerable groups, such as pregnant women, are not used in immersive simulation. This can limit opportunities for students to practice real-life clinical examinations. Nonpregnant simulated patient involvement is of limited value if realistic physiological presentations that reflect body changes in pregnancy are unavailable to perform examinations. The authors present an
innovative and cost-effective high-fidelity method to create a wearable simulated maternity model that can be worn by nonpregnant actors to simulate pregnancy in immersive simulations in midwifery. In this article, we provide step-by-step instructions for constructing a wearable model simulating pregnancy. This enables students to palpate fetal position, listen to the fetal heart, and assess cervical dilation. This simulation resource is cost-effective, is simple to implement, and is a highly effective means for simulating pregnancy and teaching skills and critical thinking in higher fidelity complex immersive scenarios. • The Wearable Simulated Maternity Model allows inclusion of nonpregnant simulated patients in simulation scenarios. • Clinical assessment skills are enhanced with the use of the Wearable Simulated Maternity Model. • The Wearable Simulated Maternity Model is cost-effective, simple device allowing for different fetal presentations.

Database: CINAHL

Simulation Observers Learn the Same as Participants: The Evidence.

Author(s): Johnson, Brandon Kyle
Source: Clinical Simulation in Nursing; Aug 2019; vol. 33 ; p. 26-34

Abstract: Confusion continues regarding the value of the observer in simulation and whether they engage in the active and experiential learning environment that underpins simulation. Despite studies demonstrating no differences in knowledge between the participant and observer, it is still unknown how observers learn in simulation and how they apply that learning to a contextually similar situation, a critical aspect of debriefing. An experimental, pretest-multiple posttest, repeated-measures study was used to describe the knowledge demonstration, knowledge retention, and knowledge application of participants and observers after a simulation and debriefing. There was no significant difference between participant and observer in any of the measures. There was significant knowledge gain regardless of role and significant knowledge decay in both groups four weeks later. The observer appears to construct knowledge similarly to participants. Educators must consider the value of assigning learners to both participant and observer roles. • The participant and observer are common role assignments in simulation. • Observers mirror the gains and decays in knowledge of those in participant roles. • Observers apply knowledge to parallel situations similarly to participants. • Debriefing and sequencing simulations promote deliberate thinking practice.

Database: CINAHL

Effect of a game-based virtual reality phone application on tracheostomy care education for nursing students: A randomized controlled trial.

Author(s): Bayram, Sule Biyik; Caliskan, Nurcan
Source: Nurse Education Today; Aug 2019; vol. 79 ; p. 25-31

Abstract: A game-based virtual reality phone application is used as a simulation to teach psychomotor skills in nursing education. This study aims at determining the effect of a game-based virtual reality phone application on tracheostomy care education for nursing students. Single-blind randomized controlled trial conducted from March–April 2017. Department of Nursing, Faculty of Health Sciences, Central Anatolia of Turkey. A total of 86 first-year nursing students registered in Fundamentals of Nursing-II were included in this study. The students were divided at random into two groups, control (n = 43) and experimental (n = 43). The data were collected with an informative features form, a tracheostomy care knowledge test and skill checklists, and a performance assessment form. The control group commenced the study first so that the students did not affect each other. After the students completed the theoretical class, laboratory class, and small group study, they had their knowledge test and skills evaluation. The application featured tracheostomy
care and was designed in support of formal education. It was uploaded to the mobile phones of the experimental group at a different phase of the study from the control group. After the experimental group made use of this application for seven days, their last knowledge test and skills evaluation were conducted. The results of this study determined that the suctioning a tracheostomy tube and peristomal skin care average final test scores of the students in the experiment group were higher than the average scores of the students in the control group; this was statistically significant (p = 0.017, p = 0.003). The game-based virtual reality phone application was effective in teaching the skill of suctioning a tracheostomy tube for nursing students in the short term, and it is recommended that this application be used in psychomotor skill training.

**Database:** CINAHL

**Evaluation of an unfolding obstetric experience simulation in an undergraduate nursing program.**

**Author(s):** Guimond, Mary Elizabeth; Foreman, Stephen E.; Werb, Mike

**Source:** Nurse Education Today; Aug 2019; vol. 79; p. 124-128

**Abstract:** Clinical practice for pre-licensure nurses in obstetrics widely varies and many sites do not consistently present opportunities to meet course objectives or manage complex obstetric nursing care. To address this problem at our institution, we designed a large-scale obstetric simulation using recommendations for best practice in simulation design criteria. We designed an unfolding, obstetric simulation that allowed students repeated opportunities for deliberate practice after micro-debriefing. A convenience sample of junior level nursing students (n = 53) participated in a pre/post design evaluation to measure achievement of communication skills based on student perception of obstetric nursing self-efficacy and their ability to transfer those skills to a similar scenario. Scores for obstetric self-efficacy were significantly improved. Pre-simulation (M = 40.78), Time 1 (M = 61.0) and Time 2 (M = 69.27), F (2, 159), =112.12, p =.00. A significant difference was found (t (52) = −7.839, p =.000) when comparing the mean pre and posttest clinical accuracy and completion scores for SBAR forms (n = 53). Our unfolding, obstetric simulation was effective in helping our students demonstrate the achievement of course objectives through improved obstetric self-efficacy scores and scores for shift to shift communication.

**Database:** CINAHL

**Effect of case study versus video simulation on nursing students' satisfaction, self-confidence, and knowledge: A quasi-experimental study.**

**Author(s):** Herron, Elizabeth K.; Powers, Kelly; Mullen, Lauren; Burkhart, Brandi

**Source:** Nurse Education Today; Aug 2019; vol. 79; p. 129-134

**Abstract:** Research on simulation in nursing education has demonstrated the positive impact active, experiential learning has on student satisfaction, self-confidence, and knowledge. As a result, simulation laboratories with high-fidelity human patient simulators have become a common adjunct to clinical teaching. It is important to also promote active learning in the classroom setting; however, there is limited evidence on using video simulations in large classrooms. This study sought to determine if using a video simulated unfolding case study as part of the didactic classroom, as compared to a traditional written case study, improved students' satisfaction, self-confidence, and knowledge. A two-group, quasi-experimental design was used. The study occurred at a University in the southeastern United States. A total of 165 baccalaureate nursing students participated. The control group received a written case study, while the intervention group received video simulation of the same case study and student satisfaction, self-confidence, and knowledge were measured upon completion. Data analysis used descriptive statistics and t-tests. Qualitative comments were
also provided by students and analyzed for themes. There were no statistically significant differences, with both groups reporting a high level of satisfaction and self-confidence. The percent of knowledge questions answered correctly was higher for the video simulation group for all seven questions. Four themes were identified from participant words: A better understanding, Able to apply learning to a patient scenario, Engaged in learning, and Visualizing it helps. Results suggest the use of video simulation in the classroom may deepen students' understanding of classroom content and provide an additional mode for learning to enhance classroom lecture. Use of video simulation to augment classroom teaching is suggested as a strategy for engaging learners.

Database: CINAHL

Nurse simulation facilitator experiences learning open dialogue techniques to encourage self-reflection in debriefing.

Author(s): Mulvogue, Jenni; Ryan, Colleen; Cesare, Paloma
Source: Nurse Education Today; Aug 2019; vol. 79 ; p. 142-146
Abstract: Simulation debriefing skills are inadequate. Barriers to effective debriefing include a lack of understanding of the meaning of debriefing and time to learn necessary skills. In nursing, students have reported simulation debriefs are used for assessment purposes, with little opportunity or time for reflection, affecting their learning. This study reports on an intervention to support nursing simulation facilitators to develop and learn self-reflective learning skills to use when facilitating simulation debriefs. The authors designed and developed a six-hour workshop. The published simulation literature and Open Dialogue techniques informed the skill set included in the workshop. Open Dialogue is a therapeutic approach used in mental health care. Twelve (N = 16, n = 12) female nurses who regularly facilitate simulations for nursing students were purposively recruited to the study. This evaluation study utilised a modified version of a previously validated self-reported reflective learning questionnaire for participants to rate their experiences of the workshop. The modified questionnaire comprised 17 items across four subsets and utilised a five point Likert scale. Open-ended questions were also included. Eight questionnaires were returned. High scores indicated the participant's positive evaluation of the workshop in developing a skill set to promote self-reflective learning, together with analysing emotions in everyday professional situations and in communication skills. Participants reported the intervention was beneficial to their professional development and in helping them to develop their own self-reflective learning skills. The skill set included in the workshop was helpful to nursing simulation facilitators and could be one way to enhance nursing simulation facilitators debriefing skill set.

Database: CINAHL

Learning procedural skills with a virtual reality simulator: An acceptability study.

Author(s): Bracq, Marie-Stéphanie; Michinov, Estelle; Arnaldi, Bruno; Caillaud, Benoît; Gibaud, Bernard; Gouranton, Valérie; Jannin, Pierre
Source: Nurse Education Today; Aug 2019; vol. 79 ; p. 153-160
Abstract: Virtual Reality (VR) simulation has recently been developed and has improved surgical training. Most VR simulators focus on learning technical skills and few on procedural skills. Studies that evaluated VR simulators focused on feasibility, reliability or easiness of use, but few of them used a specific acceptability measurement tool. The aim of the study was to assess acceptability and usability of a new VR simulator for procedural skill training among scrub nurses, based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model. The simulator training system was tested with a convenience sample of 16 non-expert users and 13 expert scrub nurses from the
The scenario was designed to train scrub nurses in the preparation of the instrumentation table for a craniotomy in the operating room (OR). Acceptability of the VR simulator was demonstrated with no significant difference between expert scrub nurses and non-experts. There was no effect of age, gender or expertise. Workload, immersion and simulator sickness were also rated equally by all participants. Most participants stressed its pedagogical interest, fun and realism, but some of them also regretted its lack of visual comfort. This VR simulator designed to teach surgical procedures can be widely used as a tool in initial or vocational training.

Database: CINAHL

Building Family Caregiver Skills Using a Simulation-Based Intervention: A Randomized Pilot Trial

Author(s): Mazanec, Susan R, PhD, RN, AOCN®; Sandstrom, Kate, RN, MSN, APRN-BC, AOCN®; Coletta, Darlene, RN, BSN-BC; Dorth, Jennifer, MD; Zender, Chad, MD; Alfes, Celeste M, DNP, MSN, RN, FAAN, CNE, CHSE-A; Daly, Barbara J, PhD, RN, FAAN

Source: Oncology Nursing Forum; Jul 2019; vol. 46 (no. 4); p. 419

Abstract: OBJECTIVES: To evaluate the feasibility, acceptability, safety, and fidelity of a psychoeducational intervention to improve family caregiver technical and communication skills using structured simulations. SAMPLE & SETTING: 18 family caregivers of adult patients receiving radiation therapy for head and neck cancer at University Hospitals Seidman Cancer Center in Cleveland, Ohio. METHODS & VARIABLES: A two-group, randomized pilot trial design was used. The intervention consisted of four one-on-one sessions between the caregiver and nurse interventionist during the patient’s first, second, fourth, and sixth week of radiation treatment. Participants completed measures of self-efficacy for caregiving, anxiety, depression, and health-related quality of life at baseline, during the fifth week of radiation therapy, and four weeks after radiation therapy. RESULTS: 4 of the 9 caregiver participants completed the intervention. Improvements in scores for the intervention group were noted for self-efficacy, global mental health, anxiety, depression, and health-related quality of life at baseline, during the fifth week of radiation therapy, and four weeks after radiation therapy. IMPLICATIONS FOR NURSING: Refinement of the intervention is needed to improve feasibility. Although a caregiver intervention that incorporates simulation for skills training is acceptable and safe, flexibility in protocol is needed.

Database: BNI

Telehealth in Mental Health Nursing Education: Health Care Simulation With Remote Presence Technology

Author(s): Danesh, Valerie; Rolin, Donna; Hudson, Scott V; White, Sean

Source: Journal of Psychosocial Nursing & Mental Health Services; Jul 2019; vol. 57 (no. 7); p. 23

Abstract: The feasibility of integrating remote presence technology within a simulation scenario for psychiatric–mental health nursing (PMHN) students to develop telehealth competencies was evaluated. A wireless, audiovisual robot from Double® Robotics, maneuverable by smartphone or tablet computer, was used to simulate the facilitation of students’ patient assessment and treatment decisions from a distant location for 32 weeks (total hours of robotic simulation = 32). Qualitative data were collected to assess student and faculty satisfaction, as well as for feasibility evaluations. Overall, students participating in the telehealth-enabled simulations reported moderate (9 of 36 students) to strong (25 of 36 students) value for the use of telemedicine within the simulation in a 3-
point Likert scale post-simulation survey. These results illustrate the feasibility of using a remote presence robot in an educational simulation environment. Remote presence in clinical simulations can contribute to workforce preparation to apply telehealth-enabled communication in PMHN settings. [Journal of Psychosocial Nursing and Mental Health Services, 57(7), 23–28.]

**Database:** BNI

Developing an undergraduate paediatric simulation workshop in a resource constrained setting: A practical ‘how to’ guide

**Author(s):** Ooi, Aaron; Hambidge, James; Wallace, Alexandra

**Source:** Journal of Paediatrics and Child Health; Jul 2019; vol. 55 (no. 7); p. 737

Available at Journal of Paediatrics and Child Health - from Wiley Online Library Medicine and Nursing Collection 2019

Available at Journal of Paediatrics and Child Health - from Unpaywall

**Abstract:** Simulation has been increasingly used in the delivery of undergraduate paediatric medical education in recent years, particularly in the context of managing acutely unwell children. We describe our methodology in delivering a simulation workshop within a resource-constrained setting, defined as a clinical environment limited by time, clinical duties and access to appropriate space and/or equipment. An outline for the workshop is provided, with examples of relevant resources, to facilitate the development of similar simulation teaching in other centres. Preliminary evaluation of student feedback is presented, exploring the learning points encountered and aspects of the workshop that students found useful.

**Database:** BNI

Mindful Moments—Enhancing Deliberate Practice in Simulation Learning

**Author(s):** McKendrick-Calder, Lisa; Pollard, Cheryl; Shumka, Christine; McDonald, Mandy; Carlson, Susan; Winton, Shelley

**Source:** Journal of Nursing Education; Jul 2019; vol. 58 (no. 7); p. 431

Available at Journal of Nursing Education - from ProQuest (Health Research Premium) - NHS Version

**Abstract:** Examples of improved performance included increased engagement in deliberate practice activities, improved critical thinking, and improved time management skills within a simulation learning environment. At the onset of each simulation learning experience, during the prebrief exercises, students were invited to participate in a guided mindfulness activity. In addition to the quantitative data from the NASA Taskload Index, faculty also were able to compare their observations of these students to those in previous classes who did not have a mindfulness activity as part of their simulation learning prebriefings.

**Database:** BNI

A Collaborative Partnership for Improving Newborn Safety: Using Simulation for Neonatal Resuscitation Training

**Author(s):** Palmer, Elizabeth; Labant, Amy L; Edwards, Taylor F; Boothby, Johanna

**Source:** The Journal of Continuing Education in Nursing; Jul 2019; vol. 50 (no. 7); p. 319
Abstract: Background: The latest Neonatal Resuscitation Program® (NRP) guidelines suggest the use of team-based training using simulation. Furthermore, psychometric testing of instruments appropriate to measure team performance in NRP is needed. This study evaluated the effects of simulation on the training and performance of the health care team attending deliveries at a rural community hospital. Method: Twenty-three nurses and nurse anesthetists comprised the sample. A pre- and postintervention repeated measures design was used. Data were collected using the Background/Experience Survey, Self-Assessment and Attitudes Survey, and two Agency for Healthcare Research and Quality TeamSTEPPS tools (the Teamwork Perceptions Questionnaire [T-TPQ] and the TeamSTEPPS Teamwork Attitudes Questionnaire [T-TAQ]), the Simulation Effectiveness Tool–Modified (SET-M), and the Individual and Team Performance Survey. Results: Data analysis revealed significant findings in team functioning, situation monitoring, and communication. Prebriefing and debriefing were valuable as measured by the SET-M. Conclusion: This project supports the use of simulation to enhance team-based training, performance, and communication. [J Contin Educ Nurs. 2019;50(7):319–324.]

Database: BNI

Consensus on technical procedures for simulation-based training in anaesthesiology: A Delphi-based general needs assessment.

Author(s): Bessmann, Ebbe L.; Østergaard, Helle T.; Nielsen, Bjørn U.; Russell, Lene; Paltved, Charlotte; Østergaard, Doris; Konge, Lars; Nayahangan, Leizl Joy

Source: Acta Anaesthesiologica Scandinavica; Jul 2019; vol. 63 (no. 6); p. 720-729

Abstract: Background: Anaesthesiologists are expected to master an increasing number of technical procedures. Simulation-based procedural training can supplement and, in some areas, replace the classical apprenticeship approach during patient care. However, simulation-based training is very resource-intensive and must be prioritised and optimised. Developing a curriculum for simulation-based procedural training should follow a systematic approach, eg the Six-Step Approach developed by Kern. The aim of this study was to conduct a national general needs assessment to identify and prioritise technical procedures for simulation-based training in anaesthesiology. Methods: A three-round Delphi process was completed with anaesthesiology key opinion leaders. In the first round, the participants suggested technical procedures relevant to simulation-based training. In the second round, a needs assessment formula was used to explore the procedures and produce a preliminary prioritised list. In the third round, participants evaluated the preliminary list by eliminating and re-prioritising the procedures. Results: All teaching departments in Denmark were represented with high response rates in all three rounds: 79%, 77%, and 75%, respectively. The Delphi process produced a prioritised list of 30 procedure groups suitable for simulation-based training from the initial 138 suggestions. Top-5 on the final list was cardiopulmonary resuscitation, direct- and video laryngoscopy, defibrillation, emergency cricothyrotomy, and fibreoptic intubation. The needs assessment formula predicted the final prioritisation to a great extent. Conclusion: The Delphi process produced a prioritised list of 30 procedure groups that could serve as a guide in future curriculum development for the simulation-based training of technical procedures in anaesthesiology.

Database: CINAHL
Use of simulation to improve management of perioperative anaphylaxis: a narrative review.

**Author(s):** Kolawole, Helen; Guttormsen, Anne Berit; Hepner, David L.; Kroigaard, Mogens; Marshall, Stuart

**Source:** BJA: The British Journal of Anaesthesia; Jul 2019; vol. 123 (no. 1)

**Abstract:** Simulation-based education is often highlighted as a method to prepare health personnel to handle clinical emergencies through repeated training and the design of supports. As one of the most common clinical emergencies in anaesthesia, anaphylaxis is often included in simulation scenarios at both graduate and postgraduate levels. Case reviews of anaphylaxis management continue to identify deficiencies in clinical responses. We evaluated the evidence to support the use of simulation to address these deficiencies. We undertook a comprehensive review of the MEDLINE and Embase databases with MESH terms 'Anaphylaxis', 'Anaesthesia', 'Simulation training', and variations of these terms. Articles were also searched from reference lists in the identified papers. A total of 39 articles on perioperative anaphylaxis simulation were identified, with most focusing on the clinical skills of individuals. However, anaphylaxis scenarios are also being used in assessment of teams and in the evaluation of broader system performance. Many countries mandate simulation training and competency assessment at graduate and postgraduate levels: despite this, none of the articles linked simulation training or assessment with improved patient management or outcomes. We found evidence that in situ simulation and use of cognitive aids lead to improved teamwork and task performance. Quantitative and qualitative evidence for simulation-based perioperative training is limited. Future studies should investigate whether simulation training in perioperative anaphylaxis, particularly in situ simulation, translates into improved patient management and outcomes.

**Database:** CINAHL

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**Can Simulation Improve Patient Outcomes?**

**Author(s):** Young, Steven; Dunipace, David; Pukenas, Erin; Pawlowski, John

**Source:** International Anesthesiology Clinics; Jul 2019; vol. 57 (no. 3); p. 68-77

**Database:** CINAHL

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**Simulation in surgical training: Prospective cohort study of access, attitudes and experiences of surgical trainees in the UK and Ireland.**

**Author(s):** Nicholas, R.; Humm, G.; MacLeod, K.E.; Bathla, S.; Horgan, A.; Nally, D.M.; Glasbey, J.; Clements, J.M.; Fleming, C.; Mohan, H.M.

**Source:** International Journal of Surgery; Jul 2019; vol. 67 ; p. 94-100

**Database:** CINAHL

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**DETERIORATING PATIENTS**

**Deteriorating Patient Status Requires Immediate Surgery.**

**Author(s):**

**Source:** AORN Journal; Jul 2019; vol. 110 (no. 1); p. 88-90

**Database:** CINAHL
Seeing the whole picture in enrolled and registered nurses' experiences in recognizing clinical deterioration in general ward patients: A qualitative study.

**Author(s):** Chua, Wei Ling; Legido-Quigley, Helena; Ng, Pei Yi; McKenna, Lisa; Hassan, Norasyikin Binte; Liaw, Sok Ying

**Source:** International Journal of Nursing Studies; Jul 2019; vol. 95 ; p. 56-64

**Abstract:** The implementation of early warning scoring systems and medical emergency teams that aim to reduce failure to rescue in general wards is only effective if frontline nurses can recognize and act on clinical deterioration in a timely manner. While much of the research to date has primarily focused on registered nurses as recognizers of clinical deterioration, little research has sought to explore the role of enrolled nurses in recognizing clinical deterioration and to provide a big picture of how enrolled and registered nurses recognize clinical deterioration in general ward patients. To conduct an exploration of the experiences of enrolled and registered nurses in recognizing clinically deteriorating patients in general wards. A qualitative, descriptive design. General wards at a 1,000-bed acute general hospital in Singapore. A purposive sample of 22 enrolled and registered nurses who had at least 6 months of nursing experience and who were working in the general wards. Individual semi-structured interviews were conducted between October 2016 and February 2017. Interviews were transcribed verbatim and analyzed using thematic analysis. Four salient themes emerged from the data analysis. The first, 'Having a sense of knowing', illustrates how knowing a patient and past experiences facilitated the early recognition of clinical deterioration before the patient turned haemodynamically unstable. The second, 'Patient assessment practices', depicts the physical assessment skills that nurses used to detect clinical deterioration. The third, 'Delegation of routine patient care and assessment to enrolled nurses', demonstrates that nursing activities were delegated to enrolled nurses with lesser directional and supervisory aspects that "delegation" implies, which can potentially compromise patient safety. The fourth, 'Missing the big picture', identifies overwhelming workload and fixation on specific parameters of a patient as reasons for both enrolled and registered nurses missing the big picture of the patient's deterioration. This study provides a snapshot of the recognition of clinical deterioration among enrolled and registered nurses in general wards. Our findings illuminate the need to support the roles of enrolled and registered nurses, with an emphasis on patient assessment and strengthening collaborative practices among nurses, to improve early recognition and timely treatment of clinically deteriorating ward patients.

**Database:** CINAHL

Effectiveness and experiences of mental health nurses in cases of medical emergency and severe physiological deterioration: A systematic review.

**Author(s):** Dickens, Geoffrey L.; Ramjan, Lucie; Endrawes, Gihane; Barlow, Emily May; Everett, Bronwyn

**Source:** International Journal of Nursing Studies; Jul 2019; vol. 95 ; p. 73-86

**Abstract:** From a baseline of near zero, there has in recent years been a growing number of empirical studies related to mental health nurses' delivery of healthcare for severely physically deteriorating patients or in medical emergency situations. To date, this evidence-base has not been systematically identified, appraised, and integrated. To systematically identify, appraise and synthesise the available empirical evidence about mental health nurses, medical emergencies, and the severely physiologically deteriorating patient. A systematic review in accordance with relevant points of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Multiple electronic databases (CINAHL; PubMed; MedLine; Scopus, ProQuest Dissertations and Theses) were searched using comprehensive terms. Inclusion criteria: English language papers describing empirical studies (any design) about i) the effectiveness of interventions to improve any outcome related to mental
health nurses' delivery of emergency medical care or care for the severely deteriorating patient; or
ii) mental health nurses' emergency medical care-related knowledge, skills, experience, attitudes, or
training needs. Further information was sought from study authors. Included studies were
independently assessed for quality. Effect sizes from intervention studies were extracted or
calculated where there was sufficient information. An integrative synthesis of study findings was
conducted. A total of 22 studies, all but one published since 2011, met inclusion criteria. Ten were
intervention studies and twelve were cross-sectional observational or qualitative studies.
Intervention studies were all of weak quality overall and utilised pre- post designs mostly with
limited post intervention follow-up time. Observational and qualitative studies were generally of
good quality but only parts of the evidence from these studies were relevant to emergency physical
care since most focused on mental health nurses and their routine physical healthcare practice.
There are currently no validated instruments to investigate mental health nurses' emergency
medical care-related attitudes. More rigorous controlled trials of interventions are needed to better
establish an evidence-base for educational interventions to improve this groups' emergency care-
related practice.

**Database:** CINAHL

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**The response to patient deterioration in the UK National Health Service - A survey of acute hospital policies.**

**Author(s):** Freathy, Simon; Smith, Gary B; Schoonhoven, Lisette; Westwood, Greta

**Source:** Resuscitation; Jun 2019; vol. 139 ; p. 152-158

**Abstract:** Background: The assessment of acute-illness severity in adult non-pregnant patients in the
United Kingdom is based on early warning score (EWS) values that determine the urgency and
nature of the response to patient deterioration. This study aimed to describe, and identify variations
in, the expected clinical response outlined in 'deteriorating patient' policies/guidelines in acute NHS
hospitals.
Methods: A copy of the local 'deteriorating patient' policy/guideline was requested from
152 hospitals. Each was analysed against pre-determined areas of interest, e.g., minimum expected
vital sign observations frequency, expected response and expected staff response times.
Results: In
the 55 responding hospitals (36.2%), the documented structure and process of the response to
deterioration varied considerably. All hospitals used a 12-hourly minimum vital signs measurement
frequency. Thereafter, for a low-risk patient, the minimum frequency varied from '6-12 hourly' to
'hourly'. Frequencies were higher for higher risk categories. Expected escalation responses were
highly individualised between hospitals. Other than repeat observations, only nine (16.4%)
documents described specific clinical actions for ward staff to consider/perform whilst awaiting
responding personnel. Maximum permitted response times for medium-risk and high-risk patients
varied widely, even when based on the same EWS. Only 33/55 documents (60%) gave clear
instructions regarding who to contact 'out of hours'.
Conclusions: The 'deteriorating patient' policies of the hospitals studied varied in their contents and often omitted precise instructions for staff. We recommend that individual hospitals review these documents, and that research and/or consensus are used to develop a national algorithm regarding the response to patient deterioration.

**Database:** CINAHL

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**The rapid response system: an integrative review.**

**Author(s):** Rihari-Thomas, John; DiGiacomo, Michelle; Newton, Phillip; Sibbritt, David; Davidson, Patricia M

**Source:** Contemporary nurse; Jun 2019 ; p. 1-17
Abstract: Background: Clinical deterioration and adverse events in hospitals is an increasing cause for concern. Rapid response systems have been widely implemented to identify deteriorating patients. Aim: We aimed to examine the literature highlighting major historical trends leading to the widespread adoption of rapid response systems, focussing on Australian issues and identifying future focus areas. Method: Integrative literature review including published and grey literature. Results: Seventy-eight sources including journal articles and Australian government materials resulted. Pertinent themes were the increasing acuity and aging of the population, importance of hospital cultures, the emerging role of the consumer, and proliferation, evolution and standardisation of rapid response systems. Discussion: Translating evidence to usual care practice is challenging and strongly driven by local factors and political imperatives. Conclusion: Rapid response systems are complex interventions requiring consideration of contextual factors at all levels. Appropriate resources, a skilled workforce and positive workplace cultures are needed for these systems to reach their full potential.

Database: Medline

Consumers’ perspectives on their involvement in recognizing and responding to patient deterioration—Developing a model for consumer reporting

Author(s): King, Lindy; Peacock, Guy; Crotty, Mikaila; Clark, Robyn

Source: Health Expectations; Jun 2019; vol. 22 (no. 3); p. 385

Available at Health Expectations - from Europe PubMed Central - Open Access

Abstract: Background: Adverse events occur in health care. Detection and reporting of deterioration therefore have a critical role to play. Patient and family member (consumer) involvement in patient safety has gained powerful support amongst global policymakers. Few studies, with none taking a rigorous qualitative approach, have drawn upon consumers’ experiences to establish their preferences in consumer reporting of patient deterioration programmes. Objective: To explore consumers’ experiences of previous reporting of patient deterioration; their preferred educational strategies on this role and recommended pathways in a consumer reporting of patient deterioration model. Design, setting and participants: An interpretive, qualitative research design was utilized. Nine focus group interviews were undertaken across Adelaide, capital city of South Australia. Interviews were audio-taped, transcribed and analysed thematically. Twenty-six adults described, then reflected, on previous experiences of reporting patient deterioration. Results: Overarching themes incorporated consumers’ experiences and patient/family education. Three themes emerged in relation to consumers’ experiences: feelings, thoughts and actions. Five themes arose on educating consumers: content, timing, format, information providers and information recipients. The consumers’ deep reflections on their past reporting experiences led to the development of a new model for consumer reporting of patient deterioration. Conclusions: Consumers’ views on ways to improve consumer reporting of patient deterioration processes emerged. These improvements include structured educational programmes for staff advocating open health-care professional/consumer communication, educational materials developed and tested with English-speaking and culturally and linguistically diverse consumers and a model with three consumer reporting pathways.

Database: BNI
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Compassion has become a prominent issue in health policy and practice and the recommendations of the Francis Report and the Berwick Review emphasised the need for compassion in care. This timely and important text book provides a valuable resource for practicing and student nurses which examines compassion in depth, but from a real world perspective. It appreciates and discusses the emotional labour of care and the realities of practice which can make ‘caring’ and ‘having compassion’ feel like a difficult and impossible task.
**UpToDate**

**Please note:** Access is now available to all Taunton and Somerset and Somerset Partnership staff and students on placement.

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**New Clinical Point of Care Tool: BMJ Best Practice**

As well as UpToDate staff now have access to a further clinical decision support tool, BMJ Best Practice. This resource is structured around the patient consultation and covers diagnosis, prognosis, treatment and prevention.

It is available for all Taunton and Somerset NHS Foundation Trust and Somerset Partnership NHS Foundation Trust staff to access via NHS OpenAthens. An instant access link to the website version of the tool will be made available shortly.

BMJ Best Practice provides:

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- PDF downloads of whole topics
- Procedural videos on essential clinical techniques
- Links to drug databases and Cochrane Clinical Answers
- Important Updates to alert you when evidence has changed
- Over 250 interactive medical calculators
- Award winning app with offline access
- Patient leaflets and patient discussion aids

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BBC health news
Sepsis: How good are hospitals at treating 'hidden killer'?
“Hospitals are meant to put patients on an antibiotic drip within an hour when sepsis is suspected - but research by BBC News suggests a quarter of patients in England wait longer.”

https://www.bbc.co.uk/news/health-48749985

Dr Mark Porter: Inside health
Episode on Deprescribing.
This episode had a really interesting discussion around the subject of medications with contributions from Bradford-Leeds Medicines Minimisation Research Team, University of Leeds looking at the evidence base.

English Deprescribing Network EDEN
https://www.sps.nhs.uk/networks/english-deprescribing-network/

Evidence review
http://eprints.whiterose.ac.uk/119552/3/Deprescribing%20models%20Marques%20et%20al..pdf

Deprescribing: the fightback against polypharmacy has begun

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