determinants include homecare dependency, EMS arrival, hypoxia or dyspnea, IV bolus and weakness or altered mentation. Age, sex, acuity, vital signs and laboratory findings were weak predictors.
Keywords: emergency, geriatric, outcomes

LO17

Barriers and enablers that influence guideline-based care of geriatric falls patients presenting to the emergency department

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Introduction: Geriatric patients commonly present to the emergency department (ED) after a fall. Unfortunately, recent evidence suggests that ED physicians are poorly adherent to published ED-specific geriatric falls guidelines. This study applied a theoretical domains framework (TDF)-driven approach to systematically investigate barriers and enablers in the provision of guideline-based care to older patients presenting to the ED with a fall. **Methods**: From June to September 2017, semi-structured interviews of staff ED physicians practicing in Ontario, Canada were conducted and analyzed. An interview guide based on the TDF was used to capture 14 domains that may influence provision of guideline-based care. Interview transcripts were analyzed, and specific beliefs were generated by grouping similar responses. Relevant domains were identified based on frequencies of beliefs, existence of conflicting beliefs, and evidence of strong beliefs that would influence provision of guideline-based care. **Results**: Eleven interviews were conducted with practicing ED physicians. Thirty specific belief statements across 13 different TDF domains (all except Optimism) were identified as relevant. Overall, Ontario ED physicians are supportive of providing guideline-based care and believe it would lead to better outcomes for geriatric falls patients. Important barriers include knowledge, skills, time and workload constraints, and inconsistent allied health support. **Conclusion**: This study identified important barriers and enablers to provision of guideline-based care in geriatric ED falls patients. These results will help guide implementation of guidelines nationally and internationally, with a focus on improved knowledge dissemination, implementation of training interventions, and improvements in allied health coverage and supports.
Keywords: falls, geriatrics, guidelines

LO18

The effectiveness of parenteral agents to reduce relapse in patients with acute migraine in emergency settings: a systematic review

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Introduction: Although a variety of parenteral agents exist for the treatment of acute migraine, relapse after an emergency department (ED) visit is still a common occurrence. The objective of this systematic review was to update a previous review examining the effectiveness of parenteral agents for the treatment of acute migraine in the ED or equivalent acute care setting; our review focused on those studies aiming a reduction in relapse after an ED visit. **Methods**: A comprehensive search of 10 electronic databases and grey literature was conducted to identify comparative studies to supplement the previous systematic review. Two independent reviewers completed study selection, quality assessment, and data extraction. Any discrepancies were resolved by third party adjudication. Relative risks (RR) with 95% confidence intervals (CIs) were calculated using a random effects model and heterogeneity (I2) was reported. **Results**: Titles and abstracts of 5039 unique studies were reviewed, of which, 51 studies were included. Sixty-four studies from the original review were included, resulting in a total of 115 included studies. Relapse was reported in 44 (38%) included studies and occurred commonly in patients receiving placebo or no interventions (median = 39%; IQR: 14%, 47%). Overall, no differences in headache relapse were found between patients receiving sumatriptan or placebo (RR = 1.09; 95% CI: 0.55, 2.17; I2 = 93%; n = 8). Conversely, patients receiving neuroleptic agents experienced fewer relapses compared to placebo (RR = 0.27; 95% CI: 0.12, 0.58; I2 = 0%; n = 3); however, patients receiving neuroleptics reported an increase in adverse events (RR = 1.87; 95% CI: 1.17, 3.00; I2 = 0%; n = 3). Compared to placebo, patients receiving dexamethasone were less likely to experience a headache recurrence (RR = 0.71; 95% CI: 0.53, 0.95; I2 = 60%, n = 9); however, no differences were found in reported adverse events (RR = 1.09; 95% CI: 0.81, 1.47; I2 = 0%; n = 3). **Conclusion**: Relapse is a common occurrence for patients with migraine headaches. This review found patients receiving neuroleptics or dexamethasone experienced fewer headache recurrences. Conversely, triptan agents appear to have minimal effect on reducing the risk for headache recurrence following discharge from an acute care setting. Limited available data on adverse events is an important limitation to inform decision-making. Guidelines should be revised to reflect these results.
Keywords: migraine, parenteral agents, relapse

LO19

Should emergency physicians bother offering triptans to patients with acute migraine? A systematic review of parenteral agents

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Introduction: Acute migraine headaches are common causes of presentation to the emergency department (ED). There is great variability in the efficacy of the available parenteral agents to manage pain, though triptans are among the recommended treatments. The objective of this systematic review was to update a previous review examining the effectiveness of parenteral agents for the treatment of acute migraine in the ED or equivalent acute care setting; our review examined pain management in emergency settings and assessed the effectiveness of triptan agents. **Methods**: A comprehensive search of 10 electronic databases and grey literature was conducted to supplement the previous systematic review. Two independent reviewers completed study selection, quality assessment, and data extraction. Any discrepancies were resolved by third party adjudication. Pain scale scores were analyzed using standardized mean difference (SMD) with 95% confidence intervals (CIs) calculated using a random effects model; heterogeneity (I2) was reported. **Results**: Titles and abstracts of 5039 unique studies were reviewed, of which, 51 studies were included. Sixty-four studies from the original review were included, resulting in a total of 115 included studies. Pain was measured within the ED or equivalent acute care setting using a variety of pain scales, most commonly the 0-10 cm or 100 mm visual analog scale. Four studies compared pain scores between patients receiving sumatriptan vs. other agents, of which, patients receiving sumatriptan reported higher pain scale scores (SMD = 0.53; 95% CI: 0.04, 1.02; I2 = 80%). In particular, patients receiving sumatriptan reported higher

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