LITRATURE SURVEY

DOMAIN: CLOUD ASSISTANT DEVELOPMENT

TOPIC : NUTRITION ASSISTANT APPLICATION

1.Orthogeriatric care for the elderly with hip fractures: where are we?

AUTHOR : Giulio Pioli 1, Andrea Giusti, Antonella Barone

ABSTRACT :

Hip fracture (HF) is a major health care problem in the Western world, associated with significant morbidity, mortality and loss of function. Its incidence is expected to increase as the population ages. The authors discuss the role of a coordinated multidisciplinary team in the management of patients during hospital stay, at discharge and during rehabilitation. Orthogeriatric care should not just be viewed as a multidisciplinary activity, but as a radical alternative to the traditional model of care, an alternative based on all those strategies in which evidence shows an improvement in outcomes in the fractured elderly. Therefore, key points of the care are early surgery, immediate mobilization, prevention and management of delirium, pain and malnutrition, as well as an integrated and multidisciplinary approach. Comprehensive geriatric assessment is useful in identifying frail elderly and in providing information that is essential in formulating clinical recommendations and making care plans. In each hospital, the orthogeriatric unit should

represent a center of excellence for treating elderly patients with major fractures. However, when an orthogeriatric project is implemented, it is essential that detailed data about the case-mix of patients, process of care and outcomes are collected, to compare the results with historical data and to be able to participate in audit processes

REFERLINK
:https://pubmed.ncbi.nlm.nih.gov/18431078/

2.Rationale and developmental methodology for the SIMPLE approach: A Systematised, Interdisciplinary Malnutrition Pathway for impLementation and Evaluation in hospitals

AUTHOR : Jack J Bell 1 2, Adrienne Young 3 4, Jan Hill 5, Merrilyn Banks 3 4, Tracy Comans 6, Rhiannon Barnes 7, Heather H Keller 8 9

ABSTRACT :

Changing population demographics, service demands, and healthcare provider expectations suggest that a shift is required regarding how malnutrition care is managed in hospitals. The present study aims to build the reason for required change, and to describe the process used to develop a model for managing malnutrition for implementation across six Queensland hospitals. A cross-sectional survey of approaches to managing malnutrition in Queensland public hospitals, and development of a new model of care (guided by Knowledge-to-Action Framework and qualitative interviews) for testing within a broader implementation program.Twenty-three surveys were distributed

with 21 completed by metropolitan (n = 11), regional (n = 8), and rural/remote (n = 2) settings. Substantial within and across site variance was observed, with care processes focused towards highly individualised, dietitian delivered care. Some early adopter sites demonstrated systematic, interdisciplinary or delegated malnutrition care processes; however, the latter was rarely or never undertaken in eight sites. A model for the Systematised, Interdisciplinary Malnutrition Pathway for impLementation and Evaluation (SIMPLE) in hospitals was drafted based on identified contemporary models and supporting literature. A mixed-methods approach combined survey data with structured interviews conducted in six sites, purposively sampled for maximal variation to iteratively refine the model. Consensus for implementation of the final model was achieved across site clinicians, leaders, and governance structures. Systematised, delegated, and interdisciplinary nutrition care activities are realistic in at least some settings. A model is now available to provide interdisciplinary care. Next steps including testing implementation will determine if this interdisciplinary model improves malnutrition care delivered in hospitals.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/29436107/

3.Recognizing malnutrition in adults: definitions and characteristics, screening, assessment, and team approach

AUTHOR : Gordon L Jensen 1, Charlene Compher, Dennis H Sullivan, Gerard E Mullin

ABSTRACT :

Appropriate recognition of malnutrition in adults requires knowledge of screening and assessment methodologies. An appreciation for the contributions of inflammation has resulted in a new etiology-based approach to defining malnutrition syndromes. The Academy of Nutrition and Dietetics and the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) have published a consensus document that extends this approach to describe characteristics for the identification and documentation of malnutrition in adults. Nutrition screening tools are used to identify patients at nutrition risk and those who are likely to benefit from further assessment and intervention. Nutrition assessment serves to guide appropriate intervention. A systematic approach to nutrition assessment that supports the new diagnostic scheme and criteria from the Academy and A.S.P.E.N. has recently been presented. Since screening delays and failures in the diagnosis and management of malnutrition are all too common, a multidisciplinary team approach is recommended to promote improved communication

REFERLINK : https://pubmed.ncbi.nlm.nih.gov/23969411/

4.Update on the Integrated Nutrition Pathway for Acute Care (INPAC): post implementation tailoring and toolkit to support practice improvements

AUTHOR : Heather Keller, Celia Laur, Marlis Atkins, Paule Bernier, Donna Butterworth, Bridget Davidson, Brenda Hotson, Roseann Nasser, Manon Laporte, Chelsa Marcell, Sumantra Ray & Jack Bell

ABSTRACT :

The Integrated Nutrition Pathway for Acute Care (INPAC) is an evidence and consensus based pathway developed to guide

health care professionals in the prevention, detection, and treatment of malnutrition in medical and surgical patients. From 2015 to 2017, the More-2-Eat implementation project (M2E) used a participatory action research approach to determine the feasibility, and evaluate the implementation of INPAC in 5 hospital units across Canada. Based on the findings of M2E and consensus with M2E stakeholders, updates have been made to INPAC to enhance feasibility in Canadian hospitals. The learnings from M2E have been converted into an online toolkit that outlines how to implement the key steps within INPAC. The aim of this short report is to highlight the updated version of INPAC, and introduce the implementation toolkit that was used to support practice improvements towards this standard.

REFERLINK :
https://nutritionj.biomedcentral.com/articles/10.1186/s12937-017-0310-1

5.Multidisciplinary, multi-modal nutritional care in acute hip fracture inpatients - results of a pragmatic intervention

AUTHOR : Jack J Bell 1, Judith D Bauer 2, Sandra Capra 3, Ranjeev Chrys Pulle 4

ABSTRACT :

Malnutrition is highly prevalent and resistant to intervention following hip fracture. This study investigated the impact of individualised versus multidisciplinary nutritional care on nutrition intake and outcomes in patients admitted to a metropolitan hospital acute hip fracture unit. A prospective, controlled before and after comparative interventional study

aligning to the CONSORT guidelines for pragmatic clinical trials. Randomly selected patients receiving individualised nutritional care (baseline) were compared with post-interventional patients receiving a new model of nutritional care promoting nutrition as a medicine, multidisciplinary nutritional care, foodservice enhancements, and improved nutrition knowledge and awareness. Malnutrition was diagnosed using the Academy of Nutrition and Dietetics criteria. Fifty-eight weighed food records were available for each group across a total of 82 patients (n = 44, n = 38). Group demographics were not significantly different with predominantly community dwelling (72%), elderly (82.2 years), female (70%), malnourished (51.0%) patients prone to co-morbidities (median 5) receiving early surgical intervention (median D1). Multidisciplinary nutritional care reduced intake barriers and increased total 24-h energy (6224 vs. 2957 kJ; p < 0.001) and protein (69.0 vs. 33.8 g; p < 0.001) intakes, reduced nutritional deterioration over admission (5.4 vs. 20.5%; p = 0.049), and increased discharge directly back to the community setting (48.0 vs. 17.6%; p = 0.012). Trends suggested a reduction in median length of stay (D13 vs. D14). Inpatient mortality remained low across groups (5.2%, 2.3%). Multidisciplinary nutritional care improves nutrition intake and outcomes in acute hip fracture inpatients. Similar pragmatic study designs should be considered in other elderly inpatient populations perceived resistant to nutritional intervention.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/24388594/

6.Lost in knowledge translation: time for a map?

AUTHOR : Ian D Graham 1, Jo Logan, Margaret B Harrison, Sharon E Straus, Jacqueline Tetroe, Wenda Caswell, Nicole Robinson

ABSTRACT :

There is confusion and misunderstanding about the concepts of knowledge translation, knowledge transfer, knowledge exchange, research utilization, implementation, diffusion, and dissemination. We review the terms and definitions used to describe the concept of moving knowledge into action. We also offer a conceptual framework for thinking about the process and integrate the roles of knowledge creation and knowledge application. The implications of knowledge translation for continuing education in the health professions include the need to base continuing education on the best available knowledge, the use of educational and other transfer strategies that are known to be effective, and the value of learning about planned-action theories to be better able to understand and influence change in practice settings.

REFERLINK : https://pubmed.ncbi.nlm.nih.gov/16557505/

7.Changing nutrition care practices in hospital: a thematic analysis of hospital staff perspectives

AUTHOR : Celia Laur 1, Renata Valaitis 1, Jack Bell 2, Heather Keller 3 4

ABSTRACT :

Many patients are admitted to hospital and are already malnourished. Gaps in practice have identified that care processes for these patients can be improved. Hospital staff, including management, needs to work towards optimizing nutrition care in

hospitals to improve the prevention, detection and treatment of malnutrition. The objective of this study was to understand how staff members perceived and described the necessary ingredients to support change efforts required to improve nutrition care in their hospital. A qualitative study was conducted using purposive sampling techniques to recruit participants for focus groups (FG) (n = 11) and key informant interviews (n = 40) with a variety of hospital staff and management. Discussions based on a semi-structured schedule were conducted at five diverse hospitals from four provinces in Canada as part of the More-2-Eat implementation project. One researcher conducted 2-day site visits over a two-month period to complete all interviews and FGs. Interviews were transcribed verbatim while key points and quotes were taken from FGs. Transcripts were coded line-by-line with initial thematic analysis completed by the primary author. Other authors (n = 3) confirmed the themes by reviewing a subset of transcripts and the draft themes. Themes were then refined and further detailed. Member checking of site summaries was completed with site champions. Participants (n = 133) included nurses, physicians, food service workers, dietitians, and hospital management, among others. Discussion regarding ways to improve nutrition care in each specific site facilitated the thought process during FG and interviews. Five main themes were identified: building a reason to change; involving relevant people in the change process; embedding change into current practice; accounting for climate; and building strong relationships within the hospital team. Hospital staff need a reason to change their nutrition care practices and a significant change driver is perceived and experienced benefit to the patient. Participants described key ingredients to support successful change and

specifically engaging the interdisciplinary team to effect sustainable improvements in nutrition care.

REFERLINK : https://pubmed.ncbi.nlm.nih.gov/28724373/

8.The Sustain and Spread Framework: strategies for sustaining and spreading nutrition care improvements in acute care based on thematic analysis from the More-2-Eat study

AUTHOR : Celia Laur 1, Jack Bell 2, Renata Valaitis 1, Sumantra Ray 3, Heather Keller 4 5

ABSTRACT :

Successful improvements in health care practice need to be sustained and spread to have maximum benefit. The rationale for embedding sustainability from the beginning of implementation is well recognized; however, strategies to sustain and spread successful initiatives are less clearly described. The aim of this study is to identify strategies used by hospital staff and management to sustain and spread successful nutrition care improvements in Canadian hospitals. The More-2-Eat project used participatory action research to improve nutrition care practices. Five hospital units in four Canadian provinces had one year to improve the detection, treatment, and monitoring of malnourished patients. Each hospital had a champion and interdisciplinary site implementation team to drive changes. After the year (2016) of implementing new practices, site visits were completed at each hospital to conduct key informant interviews (n = 45), small group discussions (4 groups; n = 10), and focus groups (FG) (11 FG; n = 71) (total n = 126) with staff and management to identify enablers

and barriers to implementing and sustaining the initiative. A year after project completion (early 2018) another round of interviews (n = 12) were conducted to further understand sustaining and spreading the initiative to other units or hospitals. Verbatim transcription was completed for interviews. Thematic analysis of interview transcripts, FG notes, and context memos was completed. After implementation, sites described a culture change with respect to nutrition care, where new activities were viewed as the expected norm and best practice. Strategies to sustain changes included: maintaining the new routine; building intrinsic motivation; continuing to collect and report data; and engaging new staff and management. Strategies to spread included: being responsive to opportunities; considering local context and readiness; and making it easy to spread. Strategies that supported both sustaining and spreading included: being and staying visible; and maintaining roles and supporting new champions. The More-2-Eat project led to a culture of nutrition care that encouraged lasting positive impact on patient care. Strategies to spread and sustain these improvements are summarized in the Sustain and Spread Framework, which has potential for use in other settings.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/30509262/

9.Quick and easy is not without cost: implications of poorly performing nutrition screening tools in hip fracture

AUTHOR : Jack J Bell 1, Judith D Bauer, Sandra Capra, Ranjeev C Pulle

ABSTRACT :

To evaluate the performance of commonly applied nutrition screening tools and measures and to consider the potential costs of undiagnosed malnutrition in a case-based reimbursement funding environment. A diagnostic accuracy study to compare a variety of nutrition screening techniques against primary, secondary, and comparative measures of nutritional status. Public metropolitan hospital orthogeriatric unit. Individuals with acute hip fracture admitted to the orthogeriatric unit; 150 prospective, consecutively admitted individuals were considered, with eight exclusions, yielding a sample size of 142 participants. Screens included the Mini Nutritional Assessment-Short Form, Malnutrition Screening Tool, Malnutrition Universal Screening Tool, Nutrition Risk Screen 2002, anthropometric measures, and albumin. Malnutrition was diagnosed using International Statistical Classification of Diseases and Health Related Problems, Tenth Edition, Australian Modification (ICD-10-AM) criteria. Healthcare coders costed malnutrition-related diagnostic related groups and cost-weight changes for individual participants. Malnutrition prevalence was 48%. Screening tools had only slight to moderate agreement with ICD-10-AM diagnosis of malnutrition, and none of the screening tools tested met the a priori requirement of 80% sensitivity and 60% specificity. The estimated cost effect of poor screening tool sensitivity on a 16-bed hip fracture unit ranged from AUS$46,506 to AUS$228,896 per year. Poor screening tool sensitivity leads to undiagnosed malnutrition; tools that are quick and easy to apply are not without cost. Routine nutrition assessment should replace nutrition risk screening in hip fracture settings with a high prevalence of malnutrition reliant on case-mix funding. Further pragmatic studies are urgently required to determine whether

findings apply to other elderly inpatient populations with endemic malnutrition, comorbidities, and cognitive impairment.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/24428255/

10.Barriers to nutritional intake in patients with acute hip fracture: time to treat malnutrition as a disease and food as a medicine?

AUTHOR : Jack Bell 1, Judith Bauer, Sandra Capra, Chrys Ranjeev Pulle

ABSTRACT :

Inadequate energy and protein intake leads to malnutrition; a clinical disease not without consequence post acute hip fracture. Data detailing malnutrition prevalence, incidence, and intake adequacy varies widely in this patient population. The limited success of reported interventional strategies may result from poorly defined diagnostic criteria, failure to address root causes of inadequate intake, or errors associated with selection bias. This pragmatic study used a sequential, explanatory mixed methods design to identify malnutrition aetiology, prevalence, incidence, intake adequacy, and barriers to intake in a representative sample of 44 acute hip fracture patients (73% female; mean age, 81.7 ± 10.8 years). On admission, malnutrition prevalence was 52.2%. Energy and protein requirements were only met twice in 58 weighed 24 h food records. Mean daily patient energy intake was 2957 kJ (50.9 ± 36.1 kJ·kg(-1)) and mean protein intake was 22.8 g (0.6 ± 0.46 g·kg(-1)). This contributed to a further in-patient malnutrition incidence of 11%. Barriers to intake included patient perceptions that malnutrition and (or) inadequate intake were not a problem, as well as patient and clinician perceptions that

treatment for malnutrition was not a priority. Malnutrition needs to be treated as a disease not without consequence, and food should be considered as a medicine after acute hip fracture.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/23746263/

11.Concurrent and predictive evaluation of malnutrition diagnostic measures in hip fracture inpatients: a diagnostic accuracy study

AUTHOR : J J Bell 1, J D Bauer 2, S Capra 2, R C Pulle 3

ABSTRACT :

Differences in malnutrition diagnostic measures impact malnutrition prevalence and outcomes data in hip fracture. This study investigated the concurrent and predictive validity of commonly reported malnutrition diagnostic measures in patients admitted to a metropolitan hospital acute hip fracture unit. A prospective, consecutive level II diagnostic accuracy study (n=142; 8 exclusions) including the International Classification of Disease, 10th Revision, Australian Modification (ICD10-AM) protein-energy malnutrition criteria, a body mass index (BMI) <18.5 kg/m(2), the Mini-Nutrition Assessment Short-Form (MNA-SF), pre-operative albumin and geriatrician individualised assessment. Patients were predominantly elderly (median age 83.5, range 50-100 years), female (68%), multimorbid (median five comorbidities), with 15% 4-month mortality. Malnutrition prevalence was lowest when assessed by BMI (13%), followed by MNA-SF (27%), ICD10-AM (48%), albumin (53%) and geriatrician assessment (55%). Agreement between measures was highest between ICD10-AM and geriatrician assessment (κ=0.61)

followed by ICD10-AM and MNA-SF measures (κ=0.34). ICD10-AM diagnosed malnutrition was the only measure associated with 48-h mobilisation (35.0 vs 55.3%; P=0.018). Reduced likelihood of home discharge was predicted by ICD-10-AM (20.6 vs 57.1%; P=0.001) and MNA-SF (18.8 vs 47.8%; P=0.035). Bivariate analysis demonstrated ICD10-AM (relative risk (RR)1.2; 1.05-1.42) and MNA-SF (RR1.2; 1.0-1.5) predicted 4-month mortality. When adjusted for age, usual place of residency, comorbidities and time to surgery only ICD-10AM criteria predicted mortality (odds ratio 3.59; 1.10-11.77). Albumin, BMI and geriatrician assessment demonstrated limited concurrent and predictive validity. Malnutrition prevalence in hip fracture varies substantially depending on the diagnostic measure applied. ICD-10AM criteria or the MNA-SF should be considered for the diagnosis of protein-energy malnutrition in frail, multi-morbid hip fracture inpatients.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/24398643/

12.Considerations for screening tool selection and role of predictive and concurrent validity

AUTHOR : Marinos Elia 1, Rebecca J Stratton

ABSTRACT :

Nutrition screening tool selection can be difficult. This review critically examines the relevance of validity, specifically concurrent (agreement between tools) and predictive validity (prediction of outcomes), which have been the focus of several recent studies. An operational framework for screening tool selection is provided to contextualise the findings. Studies of predictive and concurrent validity involving screening tools

comprising a variable number of nutritional and non-nutritional items (some nonmodifiable) have yielded inconsistent results. The use of one tool as a gold standard to judge the relative merits of other tools can be misleading because there is no agreed gold standard and different tools were designed for diagnostic, prognostic or other purposes. The use of observed outcomes (without nutritional intervention) as the gold standard may not adequately reflect the value of tools designed to assess nutritional status and need for nutritional intervention. Over-reliance on concurrent and predictive validity can be confusing and even counter-productive if used inappropriately. A proposed framework for screening tool selection indicates many factors should be considered so that there is purpose and harmony between the screening tool and the screening programme.

REFERLINK :https://pubmed.ncbi.nlm.nih.gov/21832898/