Clinical Effectiveness Bulletin for NHS Primary Care in North Staffordshire

Issue No: 117 March 2017

About this Bulletin:

It is produced for NHS staff and partners of the Health Library and aims to draw attention to some of the key documents and reviews on clinical effectiveness that have been published in the previous month.

Where possible, links to the full text documents are included. Staff from SSOTP, North Staffs Combined Healthcare, UHN M, Stoke on Trent Public Health and CCG and practice staff in North Staffordshire can have help in finding full text from our Outreach Service.

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Sources for Clinical Effectiveness Bulletin

Please suggest further sites that should be monitored in the production of this bulletin

Websites

Cochrane Library  http://www.thecochranelibrary.com/
Health Technology Assessment (HTA) Database  http://www.journalslibrary.nihr.ac.uk/hta
HTTPS://discover.dc.nihr.ac.uk/portal/home
Department of Health  http://www.gov.uk/dh
King's Fund  http://www.kingsfund.org.uk/
Nice Guidance  http://www.guidance.nice.org.uk/Date
Social Care Institute for Excellence  http://www.scie.org.uk/
NICE  http://www.nice.org.uk/
SIGN  http://www.sign.ac.uk/new.html
Primary Care Commissioning  www.pcc-cic.org.uk
Chartered Society of Physiotherapy  www.csp.org.uk
Health Social Care Information Centre  www.hscic.gov.uk
Queen's Nursing Institute:  http://www.qni.org.uk/
NMC  www.nmc.org.uk
RCN  https://www.rcn.org.uk/
Campbell Collaboration  http://www.campbellcollaboration.org/
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Payment methods for outpatient care facilities

Cochrane Library

Our review found that if policymakers intend to apply P4P incentives to pay health facilities providing outpatient services, this intervention will probably lead to a slight improvement in health professionals' use of tests or treatments, particularly for chronic diseases. However, it may lead to little or no improvement in patients' utilisation of health services or health outcomes.

Availability of gluten-free foods on NHS prescription

DH

This is an open consultation on the future of prescriptions for gluten free foods. Gluten free food is now easier to come by from high street shops and supermarkets, prompting some to question the need for gluten free items on prescription. The consultation ends on the 22nd June.

NHS-funded nursing care rate for 2017 to 2018

DH

The NHS-funded nursing care standard rate is being reduced to £155.05 from 1 April 2017. The government has announced this new rate, following a review of costs by Mazars LLP.

Sending shockwaves through the NHS?

King’s Fund

Blog in which Ben Collins reflects on the implications of the concept of accountable care organisations, which may alter the traditional provider/purchaser split in healthcare.

How health care is funded

King’s Fund

The way that health care is funded varies between different countries. Here the King’s Fund explains the main models used to finance health care: taxation, private health insurance and social health insurance.

Public Health and Lifestyle Services

Return on investment of public health interventions: a systematic review

BMJ

Background: Public sector austerity measures in many high-income countries mean that public health budgets are reducing year on year. To help inform the potential impact of these proposed disinvestments in public health, we set out to determine the return on investment (ROI) from a range of existing public health interventions.
Method: We conducted systematic searches on all relevant databases (including MEDLINE; EMBASE; CINAHL; AMED; PubMed, Cochrane and Scopus) to identify studies that calculated a ROI or cost-benefit ratio (CBR) for public health interventions in high-income countries.

Results: We identified 2957 titles, and included 52 studies. The median ROI for public health interventions was 14.3 to 1, and median CBR was 8.3. The median ROI for all 29 local public health interventions was 4.1 to 1, and median CBR was 10.3. Even larger benefits were reported in 28 studies analysing nationwide public health interventions; the median ROI was 27.2, and median CBR was 17.5.

Conclusions: This systematic review suggests that local and national public health interventions are highly cost-saving. Cuts to public health budgets in high income countries therefore represent a false economy, and are likely to generate billions of pounds of additional costs to health services and the wider economy.

Enabling breastfeeding for mothers and babies; Special Collection
Cochrane Library
The reviews in this collection have been prepared by the authors and editors of the Cochrane Pregnancy and Childbirth Group and the Cochrane Neonatal Group. They include support for breastfeeding, advice for mums of twins and triplets, as well as strategies to support women who are unable to fully breastfeed.

Vitamin C supplementation for the primary prevention of cardiovascular disease
Cochrane Library
Currently, there is no evidence to suggest that vitamin C supplementation reduces the risk of CVD in healthy participants and those at increased risk of CVD, but current evidence is limited to one trial of middle-aged and older male physicians from the USA.

Alcohol industry updating the health information on its labels
DH
The alcohol industry is updating the health information on its labels, to reflect the latest scientific evidence.

Does obesity cause chronic inflammation? The association between complete blood parameters with body mass index and fasting glucose
Pakistan Journal of Medical Sciences

Objective: This study aimed to determine the relationship of complete blood count (CBC) parameters and derivates with fasting blood sugar and the body mass index.

Methods: This was a prospective, observational clinical study. Hospitalized patients who received a physiotherapy program in the Physical Medicine and Rehabilitation Clinic between March and June 2016 were included. The age, height, weight, body mass index (BMI), fasting blood glucose,
erythrocyte sedimentation (ESR), C-reactive protein, and CBC parameters (leukocytes, platelets, neutrophil, lymphocytes, and monocytes) and red cell distribution width, platelet distribution width, neutrophil-lymphocyte ratio (NLR), and platelet-lymphocyte ratio of the patients were recorded. The relationship between the BMI, fasting glucose, and CBC parameters and derivates were investigated. Patients were divided into groups based on BMI: BMI<25 kg/m², normal; BMI=26-30 kg/m², overweight; and BMI>30 kg/m², obese. A P value>0.005 was considered statistically significant.

Results: A significant difference in the lymphocyte count, ESR, and NLR values was observed among the three groups (P=0.011; P=0.021; P=0.04). A significant difference in NLR was found between groups 1 and 3 (P=0.04). Between groups 1 and 3, a significant difference in platelet count was noted (P=0.013). On dividing the patients into two groups: normal and overweight/obese, a significant difference in lymphocyte count, glucose, and ESR values was observed (P=0.038; P=0.05; P=0.013). The lymphocyte count, ESR, and glucose values were found to be higher in the overweight group.

According to Spearman's correlation analysis, the BMI and NLR values were found to be negatively correlated (P=0.029; r=.145); however, the lymphocyte count and ESR values were positively correlated (P=0.009; r=.173); (P=0.013; r=.182).

Conclusion: This study found a negative correlation between the NLR and BMI values and a lower NLR value in the obese group compared with the normal group. The overweight group showed a higher lymphocyte count, thereby confirming the positive correlation of lymphocyte count with BMI. A comprehensive clarification of the mechanisms underlying the relationship between obesity and inflammation may allow developing treatment strategies to reduce the negative effects of obesity.

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**General Practice**

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**Oral anticoagulants for primary prevention, treatment and secondary prevention of venous thromboembolic disease, and for prevention of stroke in atrial fibrillation: systematic review, network meta-analysis and cost-effectiveness analysis**

National Institute for Health Research

NOACs (Novel oral anticoagulants) have advantages over warfarin in patients with AF, but the authors found no strong evidence that they should replace warfarin or LMWH in primary prevention, treatment or secondary prevention of VTE. There were some limitations in the study data, namely shortfalls in the primary data. In particular, there were no head-to-head comparisons between different NOAC drugs.

**Rehabilitation and Occupational Health**

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Physiotherapy

Clinical course and prognosis of musculoskeletal pain in patients referred for physiotherapy: does pain site matter?
BMC Musculoskeletal Disorders

Background: Danish patients with musculoskeletal disorders are commonly referred for primary care physiotherapy treatment but little is known about their general health status, pain diagnoses, clinical course and prognosis. The objectives of this study were to 1) describe the clinical course of patients with musculoskeletal disorders referred to physiotherapy, 2) identify predictors associated with a satisfactory outcome, and 3) determine the influence of the primary pain site diagnosis relative to those predictors.

Methods: This was a prospective cohort study of patients (n = 2,706) newly referred because of musculoskeletal pain to 30 physiotherapy practices from January 2012 to May 2012. Data were collected via a web-based questionnaire 1-2 days prior to the first physiotherapy consultation and at 6 weeks, 3 and 6 months, from clinical records (including primary musculoskeletal symptom diagnosis based on the ICPC-2 classification system), and from
The main outcome was the Patient Acceptable Symptom State. Potential predictors were analysed using backwards step-wise selection during longitudinal Generalised Estimating Equation regression modelling. To assess the influence of pain site on these associations, primary pain site diagnosis was added to the model.

Results: Of the patients included, 66% were female and the mean age was 48 (SD 15). The percentage of patients reporting their symptoms as acceptable was 32% at 6 weeks, 43% at 3 months and 52% at 6 months. A higher probability of satisfactory outcome was associated with place of residence, being retired, no compensation claim, less frequent pain, shorter duration of pain, lower levels of disability and fear avoidance, better mental health and being a non-smoker. Primary pain site diagnosis had little influence on these associations, and was not predictive of a satisfactory outcome.

Conclusion: Only half of the patients rated their symptoms as acceptable at 6 months. Although satisfactory outcome was difficult to predict at an individual patient level, there were a number of prognostic factors that were associated with this outcome. These factors should be considered when developing generic prediction tools to assess the probability of satisfactory outcome in musculoskeletal physiotherapy patients, because the site of pain did not affect that prognostic association. Copyright © 2017 The Author(s).

Reliability of specific physical examination tests for the diagnosis of shoulder pathologies: a systematic review and meta-analysis
British journal of sports medicine

This review identified a lack of high-quality studies evaluating inter-rater as well as intrarater reliability of specific physical examination tests for the diagnosis of shoulder pathologies. In addition, reliability measures differed between included studies hindering proper cross-study comparisons. Shoulder pain in the general population is common and to identify the aetiology of shoulder pain, history, motion and muscle testing, and physical examination tests are usually performed. The aim of this systematic review was to summarise and evaluate intrarater and inter-rater reliability of physical examination tests in the diagnosis of shoulder pathologies.

METHODS: A comprehensive systematic literature search was conducted using MEDLINE, EMBASE, Allied and Complementary Medicine Database (AMED) and Physiotherapy Evidence Database (PEDro) through 20 March 2015. Methodological quality was assessed using the Quality Appraisal of Reliability Studies (QAREL) tool by 2 independent reviewers.

RESULTS: The search strategy revealed 3259 articles, of which 18 finally met the inclusion criteria. These studies evaluated the reliability of 62 test and test variations used for the specific physical examination tests for the diagnosis of shoulder pathologies. Methodological quality ranged from 2 to 7 positive criteria of the 11 items of the QAREL tool. Athens password required, select OpenAthens login, then input your Athens username and password.
The effect of visual biofeedback on balance in elderly population: A systematic review
Clinical Interventions in Aging

Background: Balance is commonly affected by multiple factors, especially among the elderly population. Visual biofeedback (VBF) is an intervention tool that can be used in balance rehabilitation.

Aim: This study aimed to systematically review randomized controlled trials that examine whether VBF training is effective in improving balance in an elderly population.

Data sources: Three databases were searched: CIAHL, EMBASE, and MEDLINE. The searches were limited to the period from 2010 to 2016. Eligibility criteria: Healthy adults, aged >65 years, with no specific disorders were included. Interventions were any VBF intervention with the aim of improving balance and were compared to no intervention, traditional exercises, placebo, or standard care. The outcome measures were balance as measured by any validated outcome measure.

Studies appraisal method: The Physiotherapy Evidence Database quality assessment tool and The Cochrane Collaboration tool for assessing risk of bias were used by two independent authors (HA and FM) in order to appraise the included studies.

Results: The database search resulted in 879 articles, of which five papers were included. VBF was compared to no intervention, a placebo, and traditional exercise. The total number of participants in all the five included studies was 181, with a mean age of 74.3 years (standard deviation 6.7). Two studies were rated as high-quality studies, and three were rated as fair quality.

Conclusion: Engaging elderly people living in the community in VBF training was found to be effective and could improve their balance ability. However, the variation between studies in methodology, intervention protocol, and outcomes utilized made it difficult to inform a definitive statement regarding the potential application of VBF for balance training with the elderly. Furthermore, high-quality randomized control trials are required. The systematic review level of evidence is moderate, and the strength of recommendation is that VBF is likely to be beneficial. Copyright © 2017 Alhasan et al

Health Visiting and Nursing

Probing community nurses' professional basis: a situational case study in diabetic foot ulcer treatment
British Journal of Community Nursing
Complicated and long-lasting wound care of diabetic foot ulcers are moving from specialists in wound care at hospitals towards community nurses without specialist diabetic foot ulcer wound care knowledge. The aim of the study is to elucidate community nurses' professional basis for treating diabetic foot ulcers. A situational case study design was adopted in an archetypical Danish community nursing setting. Experience is a crucial component in the community nurses' professional basis for treating diabetic foot ulcers. Peer-to-peer training is
the prevailing way to learn about diabetic foot ulcer, however, this contributes to the risk of low evidence-based practice. Finally, a frequent behaviour among the community nurses is to consult colleagues before treating the diabetic foot ulcers.

**Enabling breastfeeding for mothers and babies; Special Collection**

**Cochrane Library**

The reviews in this collection have been prepared by the authors and editors of the Cochrane Pregnancy and Childbirth Group and the Cochrane Neonatal Group. They include support for breastfeeding, advice for mums of twins and triplets, as well as strategies to support women who are unable to fully breastfeed.

**Nursing home nurses’ and community-dwelling older adults’ reported knowledge, attitudes, and behavior toward antibiotic use**

**BMC Nursing**

Background: Antibiotic overuse causes antibiotic resistance, one of the most important threats to human health. Older adults, particularly those in nursing homes, often receive antibiotics when they are not indicated.

Methods: To understand knowledge, attitudes, and behaviors of nursing home (NH) nurses and community-dwelling older adults towards antibiotic use, especially in clinical situations consistent with antibiotic overuse, we conducted a mixed-method survey in two NHs and one Family Medicine clinic in North Carolina, among English-speaking nurses and community-dwelling, cognitively intact adults aged 65 years or older. Based on the Knowledge-Attitude-Practice model, the survey assessed knowledge, attitudes, and behavior towards antibiotic use, including three vignettes designed to elicit possible antibiotic overuse: asymptomatic bacteriuria (ASB), a viral upper respiratory illness (URI), and a wound from a fall.

Results: Of 31 NH nurses and 66 community-dwelling older adults, 70% reported knowledge of the dangers of taking antibiotics. Nurses more often reported evidence-based attitudes towards antibiotics than older adults, except 39% agreed with the statement "by the time I am sick enough to go to the doctor with a cold, I expect an antibiotic", while only 28% of older adults agreed with it. A majority of nurses did not see the need for antibiotics in any of the three vignettes: 77% for the ASB vignette, 87% for the URI vignette, and 97% for the wound vignette. Among older adults, 50% did not perceive a need for antibiotics in the ASB vignette, 58% in the URI vignette, and 74% in the wound vignette.

Conclusions: While a substantial minority had no knowledge of the dangers of antibiotic use, non-evidence-based attitudes towards antibiotics, and behaviors indicating inappropriate management of suspected infections, most NH nurses and community-dwelling older adults know the harms of antibiotic use and demonstrate evidence-based attitudes and behaviors. However, more work is needed to improve the knowledge, attitudes and behaviors that may contribute to antibiotic overuse
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