Public Health Key Documents - September 2019

#### NIHR

## Comparing alternating pressure mattresses and high-specification foam mattresses to prevent pressure ulcers in high-risk patients: the PRESSURE 2 RCT

In acutely ill inpatients who are bedfast/chairfast and/or have a category 1 PU and/or localised skin pain, alternating pressure mattress (APMs) confer a small treatment phase benefit that is diminished over time. Overall, the APM patient compliance, very low PU incidence rate observed and small differences between mattresses indicate the need for improved indicators for targeting of APMs and individualised decision-making.

https://www.journalslibrary.nihr.ac.uk/hta/hta23520/#/abstract

### Retrograde intramedullary nail fixation compared with fixed-angle plate fixation for fracture of the distal femur: the TrAFFix feasibility RCT

Surgeon-related factors, including confidence with both, were key barriers to recruitment. A definitive trial with a modified design is recommended, including an internal pilot to confirm initial recruitment rate assumptions. https://www.journalslibrary.nihr.ac.uk/hta/hta23510/#/abstract

### A bespoke smoking cessation service compared with treatment as usual for people with severe mental ill health: the SCIMITAR+ RCT

A bespoke smoking cessation intervention delivered by mental health specialists trained to deliver evidence-supported smoking cessation interventions was compared with usual care.

People with SMI who received the intervention were more likely to have stopped smoking at 6 months. Although more people who received the intervention had stopped smoking at 12 months, this was not statistically significant. https://www.journalslibrary.nihr.ac.uk/hta/hta23500/#/abstract

### MRI in the diagnosis of fetal developmental brain abnormalities: the MERIDIAN diagnostic accuracy study

iuMRI as an adjunct to ultrasonography significantly improves the diagnostic accuracy and confidence for the detection of fetal brain abnormalities. An evaluation of the use of iuMRI for cases of isolated microcephaly and the diagnosis of fetal spine abnormalities is recommended. Longer-term follow-up studies of children diagnosed with fetal brain abnormalities are required to fully assess the functional significance of the diagnoses.

https://www.journalslibrary.nihr.ac.uk/hta/hta23490/#/abstract

### Protocolised non-invasive compared with invasive weaning from mechanical ventilation for adults in intensive care: the Breathe RCT

A protocolised non-invasive weaning strategy did not reduce time to liberation from ventilation. However, patients who underwent non-invasive weaning had fewer days requiring IMV and required fewer antibiotics for respiratory infections. https://www.journalslibrary.nihr.ac.uk/hta/hta23480/#/abstract

### Behavioural activation therapy for post-stroke depression: the BEADS feasibility RCT

It would probably be feasible to run a full trial but uncertainty remains about the ability to recruit enough participants within a reasonable time frame. https://www.journalslibrary.nihr.ac.uk/hta/hta23470/#/abstract

# Minimally invasive autopsy for fetuses and children based on a combination of post-mortem MRI and endoscopic examination: a feasibility study

Less invasive methods of autopsy are likely to be acceptable for bereaved parents and may increase uptake but further studies are required. <u>https://www.journalslibrary.nihr.ac.uk/hta/hta23460/#/abstract</u>

#### A contingency management intervention to reduce cannabis use and time to relapse in early psychosis: the CIRCLE RCT

The CM intervention did not appear to be effective in reducing cannabis use and acute relapse among people with early psychosis and problematic cannabis use. https://www.journalslibrary.nihr.ac.uk/hta/hta23450/#/abstract

## Exercise or manual physiotherapy compared with a single session of physiotherapy for osteoporotic vertebral fracture: three-arm PROVE RCT

At 1 year, neither treatment intervention conferred more benefit than a single 1hour physiotherapy advice session. <u>https://www.journalslibrary.nihr.ac.uk/hta/hta23440/#/abstract</u>

### E-cigarettes compared with nicotine replacement therapy within the UK Stop Smoking Services: the TEC RCT

Within the context of multisession treatment for smokers seeking help, ecigarettes were significantly more effective than NRT. If Stop Smoking Services provide e-cigarette starter packs, it is likely to boost their success rates and improve their cost-efficacy.

https://www.journalslibrary.nihr.ac.uk/hta/hta23430/#/abstract

#### Magnetic resonance enterography compared with ultrasonography in newly diagnosed and relapsing Crohn's disease patients: the METRIC diagnostic accuracy study

Magnetic resonance enterography has higher accuracy for detecting the presence, extent and activity of small bowel Crohn's disease than ultrasonography. Both tests are broadly acceptable to participants, although ultrasonography produces less participant burden. Diagnostic impact and costeffectiveness are similar.

https://www.journalslibrary.nihr.ac.uk/hta/hta23420/#/abstract

### Vertebral artery stenting to prevent recurrent stroke in symptomatic vertebral artery stenosis: the VIST RCT

This trial did not recruit the planned number of patients or show that vertebral stenting reduced the risk of stroke.

https://www.journalslibrary.nihr.ac.uk/hta/hta23410/#/abstract

#### **Kings Fund**

#### **Creating healthy places: perspectives from NHS England's Healthy New Towns programme**

The report provides personal insights from programme participants, illustrating how powerful a coherent local approach to improving population health can be. It highlights the value of taking a place-based approach to population health, the need for specific action on health inequalities, the importance of working closely with communities and the potential to use new places as a test bed for integrated care. The NHS should be closely involved in major housing developments and regeneration programmes in order to improve health and care outcomes.

https://www.kingsfund.org.uk/publications/creating-healthy-places

#### **Scottish Medicines Consortium - SMC Advice**

#### pembrolizumab (Keytruda®)

Accepted for restricted use in combination with carboplatin and paclitaxel in patients whose tumours express programmed death ligand 1 (PD-L1) with a <50% tumour proportion score (TPS), or

in those whom it has not been possible to evaluate PD-L1 TPS. Treatment with pembrolizumab is subject to a two-year clinical stopping rule. Pembrolizumab in combination with platinum based doublet chemotherapy was associated with a progression-free survival and overall survival benefit over platinum based doublet chemotherapy in patients with treatment naïve metastatic squamous NSCLC.

https://www.scottishmedicines.org.uk/medicinesadvice/pembrolizumab-keytruda-full-smc2187/

#### dolutegravir / lamivudine (Dovato®)

Accepted for use for the treatment of human immunodeficiency virus type 1 (HIV-1) infection in adults and adolescents above 12 years of age weighing at least 40kg, with no known or suspected resistance to the integrase inhibitor class, or lamivudine. Dolutegravir / lamivudine (Dovato®) offers a single tablet at no additional cost compared with the two individual components. https://www.scottishmedicines.org.uk/medicines-advice/dolutegravir-lamivudine-dovato-abbreviated-smc2205/

#### tisagenlecleucel (Kymriah®)

Accepted for use for adult patients with relapsed or refractory diffuse large B-cell lymphoma (DLBCL) after two or more lines of systemic therapy. https://www.scottishmedicines.org.uk/medicines-advice/tisagenlecleucelkymriah-resubmission-smc2200/

#### dapagliflozin (Forxiga®)

Accepted for use in adults for the treatment of insufficiently controlled type 1 diabetes mellitus as an adjunct to insulin in patients with BMI  $\geq$ 27kg/m2, when insulin alone does not provide adequate glycaemic control despite optimal insulin therapy. Dapagliflozin in combination with insulin improved glycaemic control compared with insulin alone in adult patients with inadequately controlled type 1 diabetes.

https://www.scottishmedicines.org.uk/medicines-advice/dapagliflozin-forxiga-fullsmc2185/

#### ospemifene (Senshio)

Accepted for use for the treatment of moderate to severe symptomatic vulvar and vaginal atrophy (VVA) in post-menopausal women who are not candidates for local vaginal oestrogen therapy.

Ospemifene was associated with significant improvements in physiological parameters (including vaginal maturation index and vaginal pH), and generally associated with improved patient reported symptom scores for vaginal dryness and dyspareunia compared with placebo in patients with VVA.

https://www.scottishmedicines.org.uk/medicines-advice/ospemifene-senshio-fullsmc2170/

#### dacomitinib (Vizimpro®)

Accepted for use as monotherapy, for the first-line treatment of adult patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) with

epidermal growth factor receptor (EGFR)-activating mutations. In an open-label, randomised, phase III study, dacomitinib significantly improved progression-free survival compared with another EGFR tyrosine kinase inhibitor in adults with locally advanced or metastatic NSCLC with EGFR-activating mutations. <u>https://www.scottishmedicines.org.uk/medicines-advice/dacomitinib-vizimpro-full-smc2184/</u>

#### melatonin prolonged-release (Slenyto®)

NOT recommended for treatment of insomnia in children and adolescents aged 2 to 18 years with autism spectrum disorder and / or Smith-Magenis syndrome, where sleep hygiene measures have been insufficient. Melatonin prolonged-release (Slenyto®), compared with placebo, increased total sleep time and sleep onset latency in children aged 2 to 17.5 years with sleep problems and autism spectrum disorder and / or Smith-Magenis syndrome who had an insufficient response to sleep hygiene measures. The submitting company's justification of the treatment's cost in relation to its health benefits was not sufficient and it did not present a sufficiently robust clinical and economic analysis. https://www.scottishmedicines.org.uk/medicines-advice/melatonin-slenyto-full-

<u>smc2168/</u>

#### osimertinib (Tagrisso®)

NOT recommended for use as monotherapy for the first-line treatment of adult patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) with activating epidermal growth factor receptor (EGFR) mutations. Osimertinib, compared with two other EGFR tyrosine kinase inhibitors, improved progressionfree survival in adults with locally advanced or metastatic NSCLC with activating EGFR mutations. The submitting company did not present a sufficiently robust economic analysis.

https://www.scottishmedicines.org.uk/medicines-advice/osimertinib-tagrisso-fullsmc2171/

#### **Scottish Government**

#### Scottish health survey 2018: volume 1 - main report

Statistics on mental health and wellbeing, general health, cardiovascular conditions, caring, alcohol, smoking, diet, physical activity, obesity and respiratory conditions.

https://www.gov.scot/publications/scottish-health-survey-2018-volume-1-mainreport/

### Reducing health harms of foods high in fat, sugar, or salt: consultation analysis

Independent analysis of the responses to the consultation on proposals to restrict the promotion and marketing of foods high in fat, sugar, or salt. <u>https://www.gov.scot/publications/reducing-health-harms-foods-high-fat-sugar-salt-consultation-analysis/</u>

#### SIGN

Nil

**NHS Health Scotland** 

#### Adverse childhood experiences in context: briefing paper

The paper by the Scottish Adverse Childhood Experiences (ACEs) Hub outlines a number of principles that could underpin cross-sectoral work in Scotland to prevent and respond to childhood adversity.

http://www.healthscotland.scot/publications/adverse-childhood-experiences-incontext

#### Building our future: NHS Health Scotland's contribution to public health

Records NHS Health Scotland's contribution to public health in Scotland from 2003 to 2020. Analyses its strategic development as an organisation and its contribution to public health in the areas of alcohol, place and early years. http://www.healthscotland.scot/publications/building-our-future-nhs-health-scotland-s-contribution-to-public-health

#### NICE - Guidelines

#### Twin and triplet pregnancy [NG137]

Covers the care that should be offered to women with a twin or triplet pregnancy in addition to the routine care that is offered to all women during pregnancy. Aims to reduce the risk of complications and improve outcomes for women and their babies.

https://www.nice.org.uk/guidance/ng137

#### Pneumonia (community-acquired): antimicrobial prescribing [NG138]

Sets out an antimicrobial prescribing strategy for adults, young people, children and babies aged 72 hours and over with a confirmed diagnosis of communityacquired pneumonia. <u>https://www.nice.org.uk/guidance/ng138</u>

#### Pneumonia (hospital-acquired): antimicrobial prescribing [NG139]

Sets out an antimicrobial prescribing strategy for adults, young people, children and babies aged 72 hours and over with a confirmed diagnosis of hospital-acquired pneumonia. Does not cover ventilator-associated pneumonia. <u>https://www.nice.org.uk/guidance/ng139</u>

#### Abortion care [NG140]

Covers care for women of any age (including girls and young women under 18) who request an abortion. Aims to improve the organisation of services and make them easier for women to access. Detailed recommendations on conducting abortions at different gestational stages are included, to ensure that women get the safest and most effective care possible. https://www.nice.org.uk/guidance/ng140

#### Cellulitis and erysipelas: antimicrobial prescribing [NG141]

Sets out an antimicrobial prescribing strategy for adults, young people, children and babies aged 72 hours and over with cellulitis and erysipelas. <u>https://www.nice.org.uk/guidance/ng141</u>

#### Hypertension in adults: diagnosis and management [NG136]

Covers identifying and treating primary hypertension (high blood pressure) in people aged 18 and over, including people with type 2 diabetes. Aims to reduce the risk of cardiovascular problems such as heart attacks and strokes by facilitating accurate diagnosis and effective treatment. <u>https://www.nice.org.uk/guidance/ng136</u>

#### **NICE - Technology Appraisal guidance**

#### Sodium zirconium cyclosilicate for treating hyperkalaemia [TA599]

Sodium zirconium cyclosilicate is recommended as an option for treating hyperkalaemia in adults only if used in emergency care for acute life-threatening hyperkalaemia alongside standard care OR in outpatient care for people with persistent hyperkalaemia and chronic kidney disease stage 3b to 5 or heart failure, if they have a confirmed serum potassium level of at least 6.0 mmol/litre, are not taking an optimised dosage of renin-angiotensin-aldosterone system (RAAS) inhibitor because of hyperkalaemia and are not on dialysis. In outpatient care, sodium zirconium cyclosilicate must be stopped if RAAS inhibitors are no longer suitable.

https://www.nice.org.uk/guidance/ta599

#### Pembrolizumab with carboplatin and paclitaxel for untreated metastatic squamous non-small-cell lung cancer

Pembrolizumab, with carboplatin and paclitaxel, is recommended for use as an option for untreated metastatic squamous non-small-cell lung cancer (NSCLC) in adults only if pembrolizumab is stopped at 2 years of uninterrupted treatment, or earlier if disease progresses.

https://www.nice.org.uk/guidance/ta600

#### **EPPI** Centre

Nil

#### AHRQ (Agency for Healthcare Research and Quality - USA)

#### Antipsychotics for the Prevention and Treatment of Delirium (Systematic Review)

Haloperidol or second-generation antipsychotics, compared to placebo, used for the prevention or treatment of delirium did not improve length of stay in hospital. Little or no evidence was found to determine the effect of antipsychotics on cognitive function, delirium severity, or caregiver burden. Second-generation antipsychotics may decrease delirium incidence in postoperative patients, but this evidence is limited and requires more study. Neurological harms associated with haloperidol or second-generation antipsychotics used for the prevention or treatment of delirium were not detected. However, cardiac effects tended to occur more frequently in those receiving antipsychotics. Future studies should include standardized, clinically meaningful measures of patient distress, subsequent memories of delirium, caregiver burden and distress, inappropriate continuation of antipsychotic therapy, and long-term cognitive and functional outcomes.

https://effectivehealthcare.ahrg.gov/products/antipsychotics/research

#### Comparative Effectiveness of Analgesics To Reduce Acute Pain in the **Prehospital Setting (Systematic Review)**

As initial analgesia administered primarily IV, opioids are no different than ketamine, APAP, and NSAIDs in reducing acute pain in the prehospital setting. Opioids may cause fewer total side effects than ketamine, but more than APAP or NSAIDs. Differences in specific side effects vary between analgesics and can further inform treatment decisions. Combined administration of an opioid and ketamine may reduce acute pain more than an opioid alone, but comparative harms are uncertain. When initial morphine is inadequate in reducing pain, giving ketamine may provide greater and quicker acute pain relief than giving additional morphine, although comparative harms are uncertain. <u>https://effectivehealthcare.ahrq.gov/products/acute-pain-ems/research</u>

#### **Health Foundation**

### A whole-government approach to long-term investment in the nation's health

Over the past decade there has been a significant shift in expenditure across government, moving from spending on the services and infrastructure that help people stay healthy, towards addressing problems that could be avoided in the first place. This short-term approach is storing up significant problems for the future and runs the risk of widening inequalities in people's health. An ambitious, whole-government approach to long-term investment in the nation's health is needed. Five big "shifts" designed to embed a shared goal to improve health across the whole of government are proposed.

https://www.health.org.uk/publications/reports/creating-healthy-lives

#### Canadian Agency for drugs and Technologies in Health (CADTH)

#### **Trimmed Peripherally Inserted Central Catheters for Hospitalized Neonatal Patients: A Review of Safety and Guidelines**

No evidence regarding the safety of peripherally inserted central catheters among hospitalized neonatal patients or evidence-based guidelines on their use was found.

https://www.cadth.ca/trimmed-peripherally-inserted-central-cathetershospitalized-neonatal-patients-review-safety-and-0

### Second-Line Therapy for Patients with Relapsing-Remitting Multiple Sclerosis: A Review of Guidelines

One evidence-based guideline was identified with one strong recommendation regarding switching from an interferon or glatiramer acetate to a second-line therapy in patients with relapsing-remitting multiple sclerosis and evidence of disease activity. Consensus statements provided by the guideline suggest that there is insufficient evidence on patient factors or disease activity considerations to make more specific recommendations for switching to second-line treatments. https://www.cadth.ca/second-line-therapy-patients-relapsing-remitting-multiple-sclerosis-review-guidelines-0

#### **Custom-Made Foot Orthoses versus Prefabricated foot Orthoses: A Review of Clinical Effectiveness and Cost-Effectiveness**

This review included two systematic reviews, one RCT and one prospective cohort study. The evidence showed no difference between custom-made and prefabricated foot orthoses for pain reduction or functional improvement after short-term (6 weeks), medium-term (12 weeks) and long-term (12 months) treatment in adult patients with plantar heel pain. There was also no difference between interventions for short-term self-reported recovery and patient satisfaction. Evidence on comfort was mixed. No cost-effectiveness studies of custom-made foot orthoses were identified.

https://www.cadth.ca/custom-made-foot-orthoses-versus-prefabricated-footorthoses-review-clinical-effectiveness-and-cost

### Sodium-Glucose Cotransporter 2 Inhibitors for the Treatment of Diabetic Nephropathy: A Review of Clinical Effectiveness

Four systematic reviews and five RCTS on the clinical effectiveness of sodium glucose cotransporter 2 (SGLT2) inhibitors for treatment of adult patients with type 2 diabetes and chronic kidney disease were identified. The risks for allcause death, cardiovascular death, myocardial infarction, and stroke were less with SGLT2 inhibitor compared with placebo, however, the between group differences were not always statistically significant. The risk for heart failure was statistically significantly less with SGLT2 inhibitors compared with placebo. The risks for renal death, and end stage kidney disease was less with SGLT2 inhibitor compared with placebo, however the between group differences were not always statistically significant. The risks for composite renal outcomes were statistically significantly less with SGLT2 inhibitor compared with placebo. There were inconsistencies in the findings with respect to risk of acute kidney injury. Albuminuria, doubling serum creatinine, glycated hemoglobin, fasting blood glucose, and body weight were less with SLGT2 inhibitors compared with placebo, however, the between group differences were not always statistically significant. Findings with respect to estimated glomerular filtration rate were inconsistent. The risks of genital infections and diabetic ketoacidosis were generally higher with SLGT2 inhibitors compared with placebo. There were inconsistencies in the findings with respect to adverse events such as hypoglycemia, amputation, and fracture. Findings must be interpreted with caution considering the limitations of included studies (including lack of details regarding patient characteristics, variable study quality, limited generalizability etc).

https://cadth.ca/sodium-glucose-cotransporter-2-inhibitors-treatment-diabeticnephropathy-review-clinical

#### Mindfulness Training and Yoga for the Management of Chronic Nonmalignant Pain: A Review of Clinical Effectiveness and Costeffectiveness

Three systematic reviews and one non-randomized controlled study were identified and the results were mixed. Evidence from a limited quality systematic review suggested that mindfulness training versus waitlist control significantly improved pain acceptance and depression scores for patients with chronic pain (low back pain, fibromyalgia, tension headache, general chronic pain), but did not significantly improve pain intensity, anxiety, and guality of life outcomes. Results from two systematic reviews and one non-randomized study of low to moderate quality suggested that yoga was significantly more effective than no treatment for managing chronic non-malignant pain. The included systematic reviews suggested that yoga, compared to control, significantly reduced pain intensity and psychological distress and increased general activity (e.g., daily activities, socialization, absenteeism) for patients with primary dysmenorrhea. Compared to no treatment, the nonrandomized study reported that yoga significantly reduced back pain intensity and increased back flexibility and physiologic domains (e.g., serum serotonin) for patients with chronic low back pain. No evidence regarding the cost-effectiveness of mindfulness training or yoga for chronic non-malignant pain in adults was identified.

https://www.cadth.ca/mindfulness-training-and-yoga-management-chronic-nonmalignant-pain-review-clinical-effectiveness-0

#### Rapid Genome-wide Testing: A Review of Clinical Utility, Cost-Effectiveness, and Guidelines

Evidence of limited quality demonstrated that genome-wide tests with a rapid turnaround time significantly decreased the time to diagnosis for infants in intensive care compared to standard genetics tests with a routine turnaround time. There were mixed results regarding how rapid tests may have ultimately affected medical management. Neither of the included studies noted significant differences in rates of mortality between infants who received rapid genomewide testing or those who received genome-wide testing with routine turnaround time. The limitations of the included studies should be considered when interpreting the findings of the report.

https://www.cadth.ca/rapid-genome-wide-testing-review-clinical-utility-costeffectiveness-and-guidelines-0

#### Glatiramer Acetate and Interferon Beta 1a and 1b for Clinically Isolated Syndrome: A Review of Clinical Effectiveness and Guidelines

Sponsorship from manufacturers and some evidence of patient selection bias and discrepancy in the reporting of results in studies found require this report to be viewed with caution.

Overall, relative to placebo, specific doses of glatiramer acetate and betainterferons slowed down the conversion from clinically isolated syndrome to clinically definite multiple sclerosis or McDonald multiple sclerosis and reduced the development of new brain lesions. Safety outcomes favoured glatiramer acetate and beta-interferons over placebo. There were no comments on the statistical significance of these effects, nor was there direct comparison of active therapies. Based on a limited quantity of evidence from four RCTS a guideline development group provided recommendations on discussing the benefits and risks of disease-modifying therapies, prescribing, monitoring patients with CIS, and stopping therapies. There was no identified evidence on incidence of progression to clinically definite multiple sclerosis, mortality, hospitalizations, quality of life, disability, time to disability, long-term disability progression, or relapse. None of the studies directly compared glatiramer acetate and betainterferons.

https://www.cadth.ca/glatiramer-acetate-and-interferon-beta-1a-and-1b-clinicallyisolated-syndrome-review-clinical-0

#### Minocycline for Relapsing-Remitting Multiple Sclerosis and Clinically Isolated Syndrome: A Review of Clinical Effectiveness and Guidelines

One relevant RCT was identified. Limited evidence from this single study indicated that the risk of conversion from clinically isolated syndrome to multiple sclerosis at six months was statistically significantly lower in patients treated with minocycline versus placebo. However, the differences in outcomes were not sustained at 24 months. Relapse rates at six and 24 months were not statistically different between groups. The mean change in Expanded Disability Status Scale score between baseline and the end of the study was not statistically different between groups. Furthermore, the between-group differences at six months on magnetic resonance imaging outcomes (lesions volume, new enhancing lesions, cumulative number of lesions) in favour of minocycline were no longer significant at 24 months, when results were adjusted for the number of enhancing lesions at baseline. Patients treated with minocycline were also found to have statistically significantly greater numbers of adverse events compared to patients treated with placebo. <u>https://www.cadth.ca/minocycline-relapsing-remitting-multiplesclerosis-and-clinically-isolated-syndrome-review-0</u>

### Cognitive Behavioural Therapy for Chronic Non-Cancer Pain: A Review of Clinical Effectiveness

Five systematic reviews were included in this report. The clinical effectiveness of CBT was assessed in several populations. CBT was associated with a reduction in pain or pain frequency in children with chronic headache, patients with chronic low back pain, patients with chronic neck pain, and patients with spinal cord injury and chronic pain, compared with wait-list control, no treatment, or standard care. CBT was also associated with a reduction in physical impairment in children with chronic headache, a reduction in disability and an improvement in quality of life in patients with chronic neck pain. However, a significant pain reduction was not observed in children with chronic headache in smaller trials and in patients with spinal cord injury three months after intervention, compared with control groups. Despite the inclusion of multiple systematic reviews, this report had limitations, such as the limited number of relevant primary studies identified within those systematic reviews, short durations of follow-up, and unclear definitions of chronic pain or CBT.

https://www.cadth.ca/cognitive-behavioural-therapy-chronic-non-cancer-painreview-clinical-effectiveness-0

#### **Routine Pathology for Intrauterine Devices and Therapeutic Abortion: A Review of Clinical Effectiveness, Cost-Effectiveness, and Guidelines**

Evidence from one non-randomized study with several limitations suggested that both surgeons and pathologists were poor at predicting abnormal outcomes following therapeutic abortion at less than six weeks gestation. The agreement between assessments performed by surgeons and pathologists was poor. Evidence-based guidelines from the Society of Obstetricians and Gynaecololgists of Canada strongly recommend histopathological examination of products of conception when gestational trophoblastic neoplasia or ectopic pregnancy is suspected. However, this is a general recommendation; no recommendation was provided specific to therapeutic abortion unrelated to fetal abnormalities or medical concerns. Guidelines from the National Abortion Federation state that additional pathological examination of evacuated uterine contents is not required.

https://www.cadth.ca/routine-pathology-intrauterine-devices-and-therapeuticabortion-review-clinical-effectiveness-cost

#### **Transcatheter Aortic Valve Implantation for Aortic Stenosis: A Rapid Qualitative Review**

When deciding whether to undergo TAVI, patients reflected on the impact of their symptoms on their daily lives. Patients expected TAVI would afford them a longer life and a return to meaningful activities. They considered their prior health care experiences and those of their family members and friends, and how interventions had led to improved health. Many patients involved close family and adult children in their decision making. Trust in their physician helped patients feel confident in the decision-making process and their choice. Patients can encounter logistical challenges when accessing TAVI through the need to travel to specialist centres. Patients described the importance of having a caregiver available for them at discharge and during recovery. Patients described experiencing a 'new lease on life' when they had rapid recovery and improvement in symptoms post-TAVI. But patients who had long hospital stays, and/or slow or no symptom improvement from TAVI struggled to reconcile their expectations with their actual experience.. From the limited information available, physicians appear to value TAVI for its short recovery time but are concerned about the use of TAVI for younger patients due to the lack of longterm data on valve durability. <u>https://www.cadth.ca/transcatheter-aortic-valve-implantation-aortic-stenosis-rapid-qualitative-review</u>

### Pharmacist-Led Interventions for Tobacco Smoking Cessation: A Review of Clinical Effectiveness and Cost-Effectiveness

The overall quality of evidence was low making it difficult to determine the overall effectiveness of interventions. Very low- to moderate-quality evidence from three systematic reviews suggested that pharmacist-led smoking cessation interventions may lead to higher rates or no difference in rates of smoking cessation, as compared to usual care or no intervention, although there was a high degree of uncertainty in these findings. No other clinical effectiveness outcomes, including adverse events, were reported. Evidence of unknown quality from one very low-quality systematic review suggested that pharmacist-led smoking cessation interventions were cost-effective in Europe.

https://www.cadth.ca/pharmacist-led-interventions-tobacco-smoking-cessationreview-clinical-effectiveness-and-cost-0

#### **Orthotic Walking Boots for Patients with Fractures or Ligament Injuries: A Review of Clinical Effectiveness and Cost-Effectiveness**

Based on a single low-quality study, treatment with rocker bottom walking boots provided greater clinical effectiveness than treatment with casts for adults with ankle fractures; however between-group differences were not statistically significant for all outcomes investigated. Based on two low quality studies, treatment with controlled ankle motion boots was comparable to treatment with casts in pediatric patients with toddler's fracture in terms of clinical effectiveness outcomes. Skin complications were observed with the use of casts but not with use of boots.

https://www.cadth.ca/orthotic-walking-boots-patients-fractures-or-ligamentinjuries-review-clinical-effectiveness-and-0

### Pharmacist-Led Medication Reviews: A Review of Clinical Utility and Cost-Effectiveness

Evidence from four moderate- to high-quality systematic reviews suggests that pharmacist-led medicine reviews are associated with improvements in HbA1c and blood pressure control. However, the results may not be generalizable. One economic evaluation suggested there was a net benefit to the Spanish national health system when pharmacists carried out medication review with follow-up among patients 65 years or older taking 5 or more medications.

https://www.cadth.ca/pharmacist-led-medication-reviews-review-clinical-utilityand-cost-effectiveness-0

### Fecal Occult Blood Testing in Acute Care Settings: A Review of Clinical Utility

One non-randomized study was identified regarding the clinical utility of fecal occult blood testing in acute care settings, outside of screening for colorectal cancer. Evidence of limited quality from the non-randomized retrospective chart review study suggested that there is a lack of evidence to support the clinical utility of guaiac fecal occult blood testing performed before initiating anticoagulation in patients with venous thromboembolism. The report should be interpreted with caution based on the limitations and lack of prospective comparative data for general patients in acute care settings outside of screening for colorectal cancer.

https://www.cadth.ca/fecal-occult-blood-testing-acute-care-settings-reviewclinical-utility

### **Canine and Equine Therapy for Mental Health: A Review of Clinical Effectiveness**

One relevant non-randomized study was identified regarding the comparative clinical effectiveness of equine-assisted psychotherapy plus ongoing standard therapy versus ongoing standard therapy alone for the treatment of veterans with post-traumatic stress disorder. It reported no significant differences in post-traumatic stress disorder symptom severity, psychological resilience, and salivary cortisol between the treatment groups after the six-week treatment protocol. No evidence regarding the comparative clinical effectiveness of canine therapy (alone or as an adjunct to psychotherapy) versus psychotherapy for the treatment of patients with post-traumatic stress disorder, generalized anxiety disorder, or major depressive disorder was identified.

https://www.cadth.ca/canine-and-equine-therapy-mental-health-review-clinicaleffectiveness

#### Minimally-Invasive Treatments for Lower Urinary Tract Symptoms in People with Benign Prostatic Hyperplasia: A Review of Clinical Effectiveness

Issues of possible bias (some relating to funding) in studies identified mean the results of this report must be treated with caution. Overall, based on findings from four studies that covered one RCT, there was no difference in the changes in symptom relief between aquablation and transurethral resection at six and 12 months, except for men with prostates that were 50 mL or larger. In this subpopulation, the difference in the change in maximum urinary flow from baseline to six months favoured aguablation over transurethral resection. Findings on prostatic artery embolization and prostatic urethral lift were mixed. Based on results from one meta-analysis, the difference in maximum urinary flow at posttreatment and the difference in the change of ejaculatory function scores favoured embolization over transurethral resection. Conversely, the difference in post-treatment quality of life scores and prostate volume, as well as the difference in symptom relief favoured transurethral resection and prostatectomy over embolization. Similarly, while changes in ejaculatory function at 12 months and quality of recovery at 12 and 24 months favoured prostate urethral lift over transurethral resection, improvement in symptom relief at 12 months and 24 months favoured transurethral resection over prostatic urethral lift. Overall, safety outcomes favoured minimally invasive surgical techniques over transurethral resection. Evidence from three primary studies reporting on the same RCT suggested that for up to six months, men who were treated with aguablation had a lower mean incidence of complications compared to those who had transurethral resection. One primary study involving the same RCT reported similar findings at 12 months. Evidence from two systematic reviews favoured both prostatic artery embolization and prostatic urethral lift over transurethral resection up to 12 months after treatment. Additionally, one RCT favoured prostatic urethral lift over transurethral resection up to 24 months after treatment. None of the studies compared minimally invasive surgical techniques with lifestyle changes, watchful waiting, or medical management. https://cadth.ca/minimally-invasive-treatments-lower-urinary-tract-symptomspeople-benign-prostatic-hyperplasia

**Motorized Walking Devices for Patients with Compromised Mobility: A Review of Clinical Effectiveness, Cost-Effectiveness, and Guidelines** No relevant studies, reviews or guidelines were found. https://cadth.ca/motorized-walking-devices-patients-compromised-mobilityreview-clinical-effectiveness-cost

### Injectable Botulinum Toxin for Pelvic Pain: A Review of Clinical Effectiveness, Cost-Effectiveness, and Guidelines

Two systematic reviews were identified regarding the clinical effectiveness of botulinum toxin type A injections for pelvic floor pain (female sexual pain and vaginismus). Botulinum toxin type A injections appeared to have no effect on pain, sexual functioning, or quality of life when compared to placebo. One systematic review included one study examining botulinum toxin compared with placebo; 100% of patients (n = 8) treated with botulinum toxin injection achieved successful intercourse compared with 0% (n = 5) of patients treated with placebo. Evidence from two RCTs comparing botulinum toxin A injections with placebo for patients with myofascial pelvic pain or provoked vestibulodynia showed no difference between groups in pain reduction. One RCT provided physiotherapy for both placebo and intervention groups after four weeks in patients with myofascial pelvic pain; there were no differences in pain or sexual functioning between the groups who received botulinum injection and physiotherapy and placebo and physiotherapy. A third RCT reported that physiotherapy was more effective than injections of botulinum toxin type A in patients with vaginismus for female sexual functioning index components and success of sexual intercourse.

https://cadth.ca/injectable-botulinum-toxin-pelvic-pain-review-clinicaleffectiveness-cost-effectiveness-and

#### Sugammadex for the Reversal of Rocuronium-Induced Neuromuscular Blockade in Surgical Patients: A Review of Clinical Effectiveness

For the most part, the small quantity of heterogenous evidence suggests that the clinical effectiveness of rocuronium with sugammadex in patients requiring rapid sequence induction was better or no different compared with succinylcholine. However, there were three outcomes that favoured low-dose succinylcholine compared to low-dose rocuronium and sugammadex. Sugammadex may lead to economic savings in the hospital setting, however, the certainty of the findings is unclear.

https://cadth.ca/sugammadex-reversal-neuromuscular-blockade-surgicalpatients-review-clinical-effectiveness-and-cost

### Multidisciplinary Medication Review in Long-Term Care: A Review of Clinical Utility, Cost-Effectiveness and Guidelines

Two systematic reviews were included in this report, however no evidence regarding the clinical utility of different frequencies of multidisciplinary medication review was identified. No evidence for the cost-effectiveness of multidisciplinary medication review every three months among patients in longterm care settings was identified. No guidelines were found.

https://cadth.ca/multidisciplinary-medication-review-long-term-care-reviewclinical-utility-cost-effectiveness-and

#### Natriuretic Peptide Testing for Monitoring of Heart Failure Therapy: A Review of Clinical Effectiveness, Clinical Utility, Cost-Effectiveness, and Guidelines

Three systematic reviews showed that the between group differences for natriuretic peptide (NP)-guided therapy compared with clinically-guided therapy for heart failure (HF) patients were statistically significant with respect to HFrelated hospitalization, favoring NP-guided therapy. However in two of the three systematic reviews, the confidence intervals indicated marginal significance. Overall for the other outcomes (all-cause mortality, HF-related mortality, all cause hospitalization, and quality of life), there were no statistically significant between group differences for NP-guide therapy compared with clinically-guided therapy for HF patients. Overall the clinical effectiveness and clinical utility of the use of NP-guided therapy for HF patients remains uncertain. One economic evaluation showed that NP-guided therapy appeared to be cost-effective for patients, who were less than 75 years of age and with heart failure with reduced ejection fraction considering a willingness-to-pay threshold of £20,000 and if NPguided therapy is considered effective. Two guidelines suggested that NP-guided therapy may be considered for HF patients less than 75 years of age. https://cadth.ca/natriuretic-peptide-testing-monitoring-heart-failure-therapyreview-clinical-effectiveness-clinical

#### McGill University Health Centre (Canada)

Nil

Health Information & Quality Authority (Ireland) Nil

#### **Campbell Collaboration**

Nil

#### **Glasgow Centre for Population Health**

#### A Summary of Childcare in the East End of Glasgow

Report describes childcare provision in the CHANGE area, and summarises the use of childcare services in relation to different demographic dimensions; compares the cost of childcare at different ages and by type of provider; and examines the impact of the cost of childcare on families. https://www.gcph.co.uk/publications/903\_a\_summary\_of\_childcare\_in\_the\_east\_e\_nd\_of\_glasgow

#### **NICE FORWARD PLANNING - Publications due October 2019**

End of life care - service delivery Clinical Guideline

**Idelalisib for treating follicular lymphoma refractory to 2 treatments** Single Technology Appraisal

Olaparib for maintenance treatment of recurrent, platinum-sensitive ovarian, fallopian tube and peritoneal cancer that has responded to platinum-based chemotherapy

Single Technology Appraisal

**Clostridium botulinum neurotoxin type A for treating hypersalivation associated with neurological conditions** Single Technology Appraisal

### Lanadelumab for preventing recurrent attacks of hereditary angioedema

Single Technology Appraisal

#### Diabetic foot infection: antimicrobial prescribing

Antimicrobial prescribing guideline

## Secondary infection of common skin conditions including eczema: antimicrobial prescribing

Antimicrobial prescribing guideline