

## NIHR

### **Imaging tests for the detection of osteomyelitis: a systematic review**

Osteomyelitis is reliably diagnosed by MRI, PET and SPECT. No clear reason to prefer one test over the other in terms of diagnostic accuracy was identified. The wider availability of MRI machines, and absence of harmful ionising radiation, may make MRI preferable in most cases. Diagnostic accuracy does not appear to vary with the potential cause of osteomyelitis or body part scanned. Uncertainty remains over the diagnostic accuracy of imaging tests in children.

Health Technology Assessment

Systematic search: Yes

November 2019

<https://www.journalslibrary.nihr.ac.uk/hta/hta23610/#/abstract>

## Kings Fund

Nil

## Scottish Medicines Consortium

### **ibrutinib (Imbruvica®)**

NOT recommended for use in combination with obinutuzumab for the treatment of adult patients with previously untreated chronic lymphocytic leukaemia.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/ibrutinib-imbruvica-nonsub-smc2244/>

### **ribociclib (Kisqali®)**

Accepted for restricted use for the treatment of women with hormone receptor (HR)-positive, human epidermal growth factor receptor 2 (HER2)-negative locally advanced or metastatic breast cancer in combination with fulvestrant\* as initial endocrine-based therapy, or in women who have received prior endocrine therapy. Restricted to women who have relapsed on or within 12 months of completing (neo) adjuvant endocrine therapy, or those who have progressed on first-line endocrine-based therapy for advanced breast cancer.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/ribociclib-kisqali-full-smc2198/>

### **imiquimod (Zyclara®)**

Accepted for restricted use for the topical treatment of clinically typical, nonhyperkeratotic, nonhypertrophic, visible or palpable actinic keratosis of the full face or balding scalp in immunocompetent adults when other topical treatment options are contraindicated or less appropriate. Restricted to the treatment of large field actinic keratosis (>25cm<sup>2</sup>).

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/imiquimod-zyclara-full-smc2211/>

**lenvatinib (Kisplyx®)**

Accepted for use in combination with everolimus for the treatment of adults with advanced renal cell carcinoma (RCC) following one prior vascular endothelial growth factor (VEGF)-targeted therapy.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/lenvatinib-kisplyx-full-smc2199/>

**trientine tetrahydrochloride (Cuprior)**

Accepted for the treatment of Wilson's disease in adults, adolescents and children  $\geq 5$  years intolerant to D-penicillamine therapy.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/trientine-tetrahydrochloride-cuprior-abb-smc2222/>

**glecaprevir/pibrentasvir (Maviret®)**

Accepted for use in the treatment of chronic hepatitis C virus (HCV) infection in adolescents aged 12 to <18 years.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/glecaprevirpibrentasvir-maviret-abb-smc2214/>

**clostridium botulinum neurotoxin type A (Xeomin®)**

Accepted for use for the symptomatic treatment of chronic sialorrhoea due to neurological disorders in adults.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/clostridium-botulinum-neurotoxin-type-a-xeomin-full-smc2212/>

**pentosan polysulfate sodium (Elmiron®)**

Accepted for use for the treatment of bladder pain syndrome characterised by either glomerulations or Hunner's lesions in adults with moderate to severe pain, urgency and frequency of micturition.

SMC advice

Systematic search: No

November 2019

<https://www.scottishmedicines.org.uk/medicines-advice/pentosan-polysulfate-sodium-elmiron-full-smc2194/>

**triptorelin (Decapeptyl SR®)**

Accepted for use as adjuvant treatment in combination with tamoxifen or an aromatase inhibitor, of endocrine responsive early stage breast cancer in women at high risk of recurrence who are confirmed as premenopausal after completion of chemotherapy.

SMC advice

Systematic search: No

October 2019

<https://www.scottishmedicines.org.uk/medicines-advice/triptorelin-acetate-decapeptyl-full-smc2186/>

**risankizumab (Skyrizi®)**

Accepted for use in the treatment of moderate to severe plaque psoriasis in adults who are candidates for systemic therapy. Restricted to patients who have failed to respond to conventional systemic therapies, are intolerant to, or have a contraindication to these treatments.

SMC advice

Systematic search: No

October 2019

<https://www.scottishmedicines.org.uk/medicines-advice/risankizumab-skyrizi-full-smc2196/>

**pembrolizumab (Keytruda®)**

After resubmission, accepted for restricted use in combination with pemetrexed and platinum chemotherapy, for the first-line treatment of metastatic non-squamous non-small cell lung carcinoma (NSCLC) in adults whose tumours have no EGFR or ALK positive mutations. Restricted to 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.

SMC advice

Systematic search: No

October 2019

<https://www.scottishmedicines.org.uk/medicines-advice/pembrolizumab-keytruda-resub-smc2207/>

**axicabtagene ciloleucel (Yescarta®)**

After resubmission, accepted for use in the treatment of adult patients with relapsed or refractory diffuse large B cell lymphoma (DLBCL) and primary mediastinal large B cell lymphoma (PMBCL), after two or more lines of systemic therapy.

SMC advice

Systematic search: No

October 2019

<https://www.scottishmedicines.org.uk/medicines-advice/axicabtagene-ciloleucel-yescarta-resubmission-smc2189/>

**Scottish Government**

Nil

**SIGN**

Nil

**NHS Health Scotland**

**Evaluating the impacts of minimum unit pricing for alcohol on the alcoholic drinks industry in Scotland**

Interviews in a small number of case study organisations suggest that, in general, the short-term economic impacts of MUP over the first nine months have been modest. This is due in part to the small proportion of total production and sales accounted for by the Scottish market for many of the national and multinational players that make up the industry in Scotland.

Briefing paper

Systematic search: No

November 2019

<http://www.healthscotland.scot/publications/evaluating-the-impacts-of-minimum-unit-pricing-for-alcohol-on-the-alcoholic-drinks-industry-in-scotland>

## NICE

### **NG143 Fever in under 5s: assessment and initial management**

Covers the assessment and early management of fever with no obvious cause in children aged under 5 and aims to improve clinical assessment and help healthcare professionals diagnose serious illness among young children who present with fever in primary and secondary care.

NICE Guideline

Systematic search: Yes

November 2019

<https://www.nice.org.uk/guidance/ng143>

### **NG144 Cannabis-based medicinal products**

Covers prescribing of cannabis-based medicinal products for people with intractable nausea and vomiting, chronic pain, spasticity and severe treatment-resistant epilepsy.

NICE Guideline

Systematic search: Yes

November 2019

<https://www.nice.org.uk/guidance/ng144>

### **NG142 End of life care for adults: service delivery**

Covers organising and delivering end of life care services, which provide care and support in the final weeks and months of life (or for some conditions, years), and the planning and preparation for this. Aims to ensure that people have access to the care that they want and need in all care settings. Also includes advice on services for carers.

NICE Guideline

Systematic search: Yes

October 2019

<https://www.nice.org.uk/guidance/ng142>

### **DG37 Point-of-care creatinine devices to assess kidney function before CT imaging with intravenous contrast**

Point-of-care creatinine devices ABL800 FLEX, i-STAT Alinity and StatSensor, which calculate estimated glomerular filtration rate (eGFR), are recommended to assess kidney function to guide decisions on whether to use intravenous contrast during an outpatient CT scan in adults (subject to certain limitations). Point-of-care creatinine devices ABL90 FLEX PLUS, Dri-chem NX500, epoc Blood Analysis System, and Piccolo Xpress are not recommended.

NICE Diagnostics Guideline

Systematic search: Yes

November 2019

<https://www.nice.org.uk/guidance/dg37>

### **DG38 Rapid tests for group A streptococcal infections in people with a sore throat**

Rapid tests for strep A infections are not recommended for routine adoption for people with a sore throat. Their effect on improving antimicrobial prescribing and stewardship, and on patient

outcomes, as compared with clinical scoring tools alone, is likely to be limited and they are unlikely to be cost-effective.

NICE Diagnostics Guideline

Systematic search: Yes

November 2019

<https://www.nice.org.uk/guidance/dg38>

#### **TA610 Pentosan polysulfate sodium for treating bladder pain syndrome**

Pentosan polysulfate sodium is recommended as an option for treating bladder pain syndrome with glomerulations or Hunner's lesions in adults with urinary urgency and frequency, and moderate to severe pain in limited circumstances.

Technology Appraisal Guidance

Systematic search: Yes

November 2019

<https://www.nice.org.uk/guidance/ta610>

#### **TA611 Rucaparib for maintenance treatment of relapsed platinum-sensitive ovarian, fallopian tube or peritoneal cancer**

Rucaparib is recommended for use within the Cancer Drugs Fund as an option for maintenance treatment of relapsed platinum-sensitive high-grade epithelial ovarian, fallopian tube or primary peritoneal cancer that has responded to platinum-based chemotherapy in adults, only if the conditions in the managed access agreement for rucaparib are followed.

Technology Appraisal Guidance

Systematic search: Yes

November 2019

<https://www.nice.org.uk/guidance/ta611>

#### **TA604 Idelalisib for treating refractory follicular lymphoma**

Idelalisib is not recommended for treating follicular lymphoma that has not responded to 2 prior lines of treatment in adults.

Technology Appraisal Guidance

Systematic search: Yes

October 2019

<https://www.nice.org.uk/guidance/ta604>

#### **TA605 Xeomin (botulinum neurotoxin type A) for treating chronic sialorrhoea**

Xeomin (botulinum neurotoxin type A) is recommended as an option for treating chronic sialorrhoea caused by neurological conditions in adults.

Technology Appraisal Guidance

Systematic search: Yes

October 2019

<https://www.nice.org.uk/guidance/ta605>

#### **TA606 Lanadelumab for preventing recurrent attacks of hereditary angioedema**

Lanadelumab is recommended as an option for preventing recurrent attacks of hereditary angioedema in people aged 12 and older in limited circumstances.

Technology Appraisal Guidance

Systematic search: Yes

October 2019

<https://www.nice.org.uk/guidance/ta606>

### **TA607 Rivaroxaban for preventing atherothrombotic events in people with coronary or peripheral artery disease**

Rivaroxaban plus aspirin is recommended as an option for preventing atherothrombotic events in adults with coronary artery disease or symptomatic peripheral artery disease who are at high risk of ischaemic events.

Technology Appraisal Guidance

Systematic search: Yes

October 2019

<https://www.nice.org.uk/guidance/ta607>

### **EPPI Centre**

#### **What helps to support people affected by Adverse Childhood Experiences? A review of evidence.**

The current systematic review evidence base on interventions shows that crisis-point services such as psychological therapies may provide some short-term benefits for people affected by ACEs. However, these types of interventions do not reflect the kinds of services that the qualitative evidence suggests are needed to address the extent, and continuing complexity, of the needs of people affected by ACEs. The importance of day-to-day practical and emotional support underpinned by relationships with a trusted adult (or mentor/ peer(s)) was consistently highlighted in the qualitative evidence.

Review of evidence

Systematic search: Yes

November 2019

<https://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3755>

### **AHRQ (Agency for Healthcare Research and Quality – USA)**

#### **Pharmacologic and Nonpharmacologic Therapies in Adult Patients With Exacerbation of COPD**

The evidence base for most interventions remains limited. Systemic antibiotics and corticosteroids are associated with improved outcomes in mild and moderate to severe ECOPD. Titrated oxygen reduces mortality. Future research is required to assess the effectiveness of several emerging nonpharmacologic and dietary treatments.

Systematic Review

Systematic search: Yes

October 2019

<https://effectivehealthcare.ahrq.gov/products/copd/research>

### **Health Foundation**

#### **Mortality and life expectancy trends in the UK: stalling progress**

Improvements in life expectancy in the UK have stalled since 2011 and, for some groups, gone into reverse. A new analysis of mortality data uncovers worrying trends, including a rising number of avoidable deaths among the under 50s and a widening gap in life expectancy between the richest and poorest. There is no single cause of the slowdown and no single solution. Actions must be taken on the wider factors that shape the living, social and working conditions.

Health Foundation Analysis

Systematic search: No

November 2019

<https://www.health.org.uk/publications/reports/mortality-and-life-expectancy-trends-in-the-uk>

**A healthy foundation for the future: final report from the Young People's Future Health Inquiry**

A range of factors are identified as putting the UK's 12-24 year-olds at risk of ill-health later in life, including: a fragmented approach to spending on young people across government departments; a challenging housing market where more young people are living longer in poor quality, shorter term rental properties; a job market where young people struggle to secure rewarding work. The report recommends that young people's needs must be put at the centre of government policy making.

Report

Systematic search: No

October 2019

<https://www.health.org.uk/publications/a-healthy-foundation-for-the-future>

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

**Heated Humidified High Flow Oxygen for Respiratory Support: A Review of Clinical Effectiveness, Cost-Effectiveness, and Guidelines**

Heated, humidified high flow oxygen may help to avert the need for intubation relative to conventional oxygen therapy or non-invasive ventilation, though findings were not consistent. The evidence does not suggest that the length of hospital stays or oxygenation outcomes are better with high flow oxygen relative to conventional oxygen therapy or non-invasive ventilation. Patient comfort outcomes were not systematically studied, but may be improved with heated high flow oxygen. Heated, humidified high flow oxygen may be both less costly and more effective to avert intubations, however this was based on one UK-based cost-effectiveness analysis.

CADTH Rapid Response Report

Systematic search: Limited

November 2019

<https://www.cadth.ca/heated-humidified-high-flow-oxygen-respiratory-support-review-clinical-effectiveness-cost>

**Exercise for Chronic, Non-Cancer Back Pain: A Review of Cost-Effectiveness and Guidelines**

Two evidence-based clinical practice guidelines provide strong recommendations for using professionally supervised exercise therapy, including motor control exercise, as the primary treatment of chronic non-specific low back pain. One guideline strongly recommends combining exercise with educative measures based on behavioural-therapeutic principle, and strongly recommends against bed rest. The guidelines did not adequately address the use of exercise therapy for chronic non-cancer back pain. Information about the specific movements involved in exercise regimens, order of performance, duration, and frequency was also not provided. No relevant evidence regarding cost-effectiveness was identified.

CADTH Rapid Response Report

Systematic search: Limited

November 2019

<https://www.cadth.ca/exercise-chronic-non-cancer-back-pain-review-cost-effectiveness-and-guidelines>

**Endobronchial Valves for the Management of Emphysema: A Review of Clinical Effectiveness**

Limited evidence indicates Endobronchial valve therapy with Zephyr EBV was associated with significantly greater lung function, exercise capacity, quality of life, and significantly reduced dyspnea for up to 12 months, with increased risk of serious adverse events, compared to standard

medical care. Further work is required to confirm the efficacy and safety of Spiration Valve System. Pneumothorax was the most reported complication during treatment.

CADTH Rapid Response Report

Systematic search: Limited

November 2019

<https://www.cadth.ca/endobronchial-valves-management-emphysema-review-clinical-effectiveness>

### **Anal Cancer Screening in High-Risk Populations: A Review of the Clinical Utility, Diagnostic Accuracy, Cost-Effectiveness, and Guidelines**

Evidence of limited quality from one non-randomized study indicated that a population of adults with a confirmed diagnosis of HIV who underwent a structured anal cancer screening program (digital rectal examination and annual cytological testing) had decreased incidence of invasive anal squamous cell carcinoma compared to those who were not screened. One diagnostic test accuracy study suggested that screening with standard anoscopy was significantly less likely to detect high-grade intraepithelial neoplasia than screening with anal cytology. Two economic evaluations concluded that the use of cytology-based screening techniques may be cost-effective in high-risk populations. One economic evaluation suggested that screening women with a new diagnosis of cervical cancer using a combination of human papillomavirus testing and anal cytology may be cost-effective for the prevention of deaths due to anal cancer. Another economic evaluation demonstrated screening women with a previously detected cervical intraepithelial neoplasia using anal cytology was 95% likely to be cost-effective at a willingness-to-pay threshold of C\$45,500 per life-year gained. One guideline recommends the use of digital rectal examination with or without a Papanicolaou test every one to three years in HIV-positive men who have sex with men. Another guideline recommends that an annual digital anal examination may be useful to detect masses on palpation that could be anal cancer. Both of these recommendations were based on expert opinion.

CADTH Rapid Response Report

Systematic search: Limited

November 2019

<https://www.cadth.ca/anal-cancer-screening-high-risk-populations-review-clinical-utility-diagnostic-accuracy-cost>

### **Low Carbohydrate Diets for Diabetes: A Review of the Clinical Effectiveness and Guidelines**

One network meta-analysis (NMA) found that low carbohydrate diets were significantly more effective in reducing triglyceride levels compared with the control diets, but insignificant for low-density lipoprotein (LDL) and high-density lipoprotein (HDL) cholesterol levels. Another NMA included fewer primary studies and concluded that low-carbohydrate diets were not significantly effective to reduce the levels of glycated hemoglobin (HbA1c), total cholesterol, and BMI, and increasing HDL cholesterol levels. The other NMA found low-carbohydrate diets significantly more effective in reducing HbA1c and fasting glucose levels. Various guidelines were reviewed but results were limited by the various definitions and classifications of dietary interventions and the lack of direct comparisons between low-carbohydrate and standard diets.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/low-carbohydrate-diets-diabetes-review-clinical-effectiveness-and-guidelines>

### **Screening and Diagnostic Services for People at Risk of Breast Cancer: A Rapid Qualitative Review**

In deciding whether, or when, to engage with breast cancer screening or diagnostic mammography, women indicated their decisions could be impacted by logistical challenges including: where one lived in relation to screening centres; scheduling flexibility; other life plans (e.g. holiday); managing



daily responsibilities such as work or childcare. While screening for breast cancer was often understood as a choice, women described feeling as though it were more of a responsibility. Trust in the health care system broadly, and primary care providers specifically, played a key role in the decision to pursue screening, or not. It was also possible for women to rely on their own knowledge of their bodies and desire to control what happens to them. Decisions to engage with screening could also be influenced by awareness (or not) of available services or what breast cancer screening guidelines recommended, as well as how people perceived the potential for screening to impact their lives. Women described learning about services available to them and the importance (or not) of engaging with them through the experiential knowledge of mothers or friends. It was important for women to feel comfortable during the screening with any concerns they felt being addressed.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/screening-and-diagnostic-services-people-risk-breast-cancer-rapid-qualitative-review-0>

### **Acupuncture for Chronic Non-Cancer Pain: A Review of Clinical Effectiveness, Cost Effectiveness and Guidelines**

Many systematic reviews suggested evidence of acupuncture effectiveness for decreased pain, with some additionally reporting no difference in adverse events between acupuncture and comparator groups, but results were inconsistent overall and often varied depending on the patient population. Recommendations regarding acupuncture were also conflicting depending on the guideline group. Six evidence-based guidelines provided recommendations of varying strengths for the use of acupuncture in several chronic pain conditions (including chronic low back pain, different types of arthritis, and other pain disorders), two guidelines did not provide recommendations for acupuncture in patients with chronic low back pain and spinal cord-related neuropathic injuries due to insufficient evidence, and one guideline recommended against acupuncture for neck pain and associated disorders due to evidence of no effectiveness. Conclusions on the relative costs and benefits of electroacupuncture and NSAIDs cannot be drawn. Evidence demonstrating clinical effectiveness is limited because of the low-quality primary studies contributing to the evidence base.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/acupuncture-chronic-non-cancer-pain-review-clinical-effectiveness-cost-effectiveness-and-0>

### **Codeine for Acute Pain in Patients Undergoing Orthopedic Surgery: A Review of Clinical Effectiveness**

Two relevant systematic reviews were identified but did not contain literature regarding the clinical effectiveness of codeine, or codeine with acetaminophen, for pain management after orthopedic surgery.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/codeine-acute-pain-patients-undergoing-orthopedic-surgery-review-clinical-effectiveness>

### **Medical Cannabis Use in Palliative Care: Review of Clinical Effectiveness and Guidelines – An Update**

Low quality evidence suggests that in patients with HIV, dronabinol (a synthetic cannabinoid) may be more effective than placebo for appetite and weight gain, at the expense of increased risk of

psychiatric adverse effects. In patients with cancer, dronabinol may be less effective than megestrol for improvement in appetite, weight gain and health-related quality of life, and may increase risk of withdrawal due to adverse events as compared to megestrol. Similarly, in patients with HIV, dronabinol may be less effective than megestrol for weight gain. One guideline explicitly recommends against the use of medical cannabis as a first or second line option for palliative cancer pain but suggests that it could be considered in the case of refractory symptoms and with careful consideration of potential risks. A second guideline recommends that medical cannabis only be used in the palliative care setting when other treatments have failed, and after consideration of the potential for adverse events and drug interactions.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/medical-cannabis-use-palliative-care-review-clinical-effectiveness-and-guidelines-update-0>

### **Digital Breast Tomosynthesis for the Screening and Diagnosis of Breast Cancer: A Review of the Diagnostic Accuracy, Cost-Effectiveness and Guidelines**

The benefits and harms of digital breast tomosynthesis for screening and diagnosis are unclear. Based on seven systematic reviews of nonrandomized studies, digital breast tomosynthesis in combination with digital mammography may improve detection rate and recall rate of breast cancer compared to digital mammography alone for screening. Results were conflicting in the two eligible RCTs. Both found no benefit on detection rate for digital breast tomosynthesis in addition to digital mammography for screening, while one RCT found benefit for recall rate and the other did not. There was limited evidence in the diagnostic setting. For diagnosis, two systematic reviews provided narrative comparisons of digital breast tomosynthesis alone or in combination with digital mammography to digital mammography alone. Both reported that digital breast tomosynthesis improved sensitivity, though results were conflicting for specificity. One systematic review found that digital breast tomosynthesis alone or in combination with digital mammography improved the detection rate of breast cancer for women with dense breasts in a diagnostic setting. No evidence on the clinical effectiveness or harms of digital breast tomosynthesis was identified. One American cost-effectiveness study found that digital breast tomosynthesis in combination with digital mammography was cost-effective compared to digital mammography alone in women age 40 to 79. Digital breast tomosynthesis and digital mammography was most cost-effective in those age 40 to 49. Two guidelines recommended against using digital breast tomosynthesis for screening of breast cancer in asymptomatic women not at high risk of breast cancer. Recommendations were based on the insufficient evidence for digital breast tomosynthesis on benefits and harms.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/digital-breast-tomosynthesis-screening-and-diagnosis-breast-cancer-review-diagnostic-accuracy-cost-0>

### **Intravenous Ketamine for Adults with Treatment-Resistant Depression or Post-Traumatic Stress Disorder: A Review of Clinical Effectiveness, Cost-Effectiveness and Guidelines**

Three RCTs reported that intravenous ketamine was significantly more effective than placebo or midazolam for the treatment of adults with treatment-resistant depression. One RCT reported no significant difference between intravenous ketamine (six repeated doses of 0.5mg/kg) and placebo. One evidence-based guideline reported a strong recommendation against treating PTSD with ketamine monotherapy. No relevant evidence on clinical effectiveness was identified.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/intravenous-ketamine-adults-treatment-resistant-depression-or-post-traumatic-stress-disorder-review>

### **Community Water Fluoridation Exposure: A Review of Neurological and Cognitive Effects**

One prospective birth cohort study examining the association between fluoride exposure of mothers during pregnancy and subsequent children's intelligence quotient scores at age 3 to 4 years was identified. Both unadjusted and adjusted estimates showed no significant association between an increase of 1 mg/L in mother urine fluoride and Full Scale intelligence quotient score in the total sample of boys and girls, or in girls. Adjusted estimates also showed no statistically significant association between an increase of 1 mg/L in mother urine fluoride and performance intelligence quotient or verbal intelligence quotient in all children. In boys, every 1 mg/L increased in mothers' urine fluoride levels was associated with a 4.49 point lower intelligence quotient score. Every 1 mg increase in daily fluoride intake of mothers corresponded with 3.66 points lower in total children's intelligence quotient score. The interaction between child sex and maternal fluoride intake was not statistically significant. The evidence is weak due to multiple limitations (e.g., non-homogeneous distribution of data, potential errors and biases in the estimation of maternal fluoride exposure and in IQ measurement, uncontrolled potential important confounding factors) so the findings should be interpreted with caution.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/community-water-fluoridation-exposure-review-neurological-and-cognitive-effects-0>

### **Perineal Skin Cleansers for Adults with Urine Incontinence in Long-Term Care or Hospital Settings: A Review of the Clinical Effectiveness and Guidelines**

Low-quality evidence summarized in a high-quality systematic review suggested perineal skin cleansers may be effective at preventing incontinence associated dermatitis and maintaining skin barrier function compared to traditional soap and water. No relevant guidelines were identified.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/perineal-skin-cleansers-adults-urine-incontinence-long-term-care-or-hospital-settings-review>

### **Aerobic Exercise for Chronic Non-Cancer Back Pain: A Review of Clinical Effectiveness**

No evidence was identified regarding the clinical effectiveness of aerobic exercise alone compared with pharmacological interventions, for the management of chronic non-cancer back pain.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/aerobic-exercise-chronic-non-cancer-back-pain-review-clinical-effectiveness>

### **Medicinal and Synthetic Cannabinoids for Pediatric Patients: A Review of Clinical Effectiveness and Guidelines**

Cannabidiol and oral cannabis extracts of various dosing strategies were identified and associated with a reduction in epilepsy frequency in pediatric patients with epilepsy, based on a systematic review. In an RCT recruiting pediatric patients with severe complex motor disorder, the 5% oil formulation of cannabis made with two cannabidiol-to-tetrahydrocannabinol (THC) ratios (20:1 or 6:1) was associated with a reduction in spasticity, sleep difficulties, and pain and an improvement in

quality of life relative to baseline with rare occurrence of adverse events. Dronabinol was a synthetic cannabinoid identified in the SR and associated with a reduction in seizure frequency in epilepsy patients and a reduction in spasticity in patients with spasticity. No evidence-based guidelines were identified. This report was limited by several factors: small sample sizes in the primary studies, lack of publication bias assessment, and the lack of comparability between primary studies due to the differences in the patients and the types and dosages of cannabinoids. Evidence was limited to the following conditions: PTSD for mental health conditions, epilepsy and spasticity for neurodegenerative diseases, and neuropathic pain for pain disorders.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/medicinal-and-synthetic-cannabinoids-pediatric-patients-review-clinical-effectiveness-and-guidelines>

### **Duration of Bisphosphonate Treatment for Patients with Osteoporosis: A Review of Clinical Effectiveness and Guidelines**

One relevant HTA and four systematic reviews were identified as clinical evidence of various treatment duration and courses of bisphosphonates for osteoporosis. The identified literature revealed mixed conclusions. Incidence of atypical femoral fractures increased with duration of bisphosphonate treatment. Other types of adverse events were generally no different between the various durations of treatment reported, except for one study reporting four deaths (none considered associated with treatment) in their continuation group compared with none in the discontinuation group. No clear direction emerged regarding the effect of treatment duration on bone mineral density or on risks related to other types of fractures (e.g., vertebral, nonvertebral, morphometric). Six evidence-based guidelines offered no clear direction on optimal duration of bisphosphonate treatment or drug holidays; however, most guidelines agreed on regular patient monitoring and the individualisation of treatment in response to clinical and paraclinical manifestations. The limitations of the included studies, including the heterogeneity of primary studies included in the systematic reviews and the low-quality evidence upon which guideline recommendations were based, should be considered when interpreting the results.

CADTH Rapid Response Report

Systematic search: Limited

October 2019

<https://www.cadth.ca/duration-bisphosphonate-treatment-patients-osteoporosis-review-clinical-effectiveness-and-guidelines>

### **Smartphone-, Tablet-, or App-Based Portable Ultrasound: A Review of Clinical Effectiveness**

No evidence regarding the clinical effectiveness of smartphone-, tablet-, or app-based portable ultrasound was identified.

CADTH Rapid Response Report

Systematic search: Limited

September 2019

<https://www.cadth.ca/smartphone-tablet-or-app-based-portable-ultrasound-review-clinical-effectiveness>

### **The Use of Medical Cannabis with Other Medications: A Review of Safety and Guidelines - An Update**

Evidence of limited quality from two studies of oral cannabidiol in combination with other antiepileptic drugs indicated that cannabidiol may increase serum levels of clobazam. One of the studies also found that oral cannabidiol may increase serum levels of eslicarbazepine, topiramate,

zonisamide, and rufinamide. This evidence was limited by a high risk of bias. Additionally, only antiepileptic drugs were studied. No relevant evidence-based guidelines were found.

CADTH Rapid Response Report

Systematic search: Limited

September 2019

<https://www.cadth.ca/use-medical-cannabis-other-medications-review-safety-and-guidelines-update>

#### **McGill University Health Centre (Canada)**

Nil

#### **Health Information & Quality Authority (Ireland)**

Nil

#### **Campbell Collaboration**

##### **The effect of linguistic comprehension training on language and reading comprehension: a systematic review**

The review summarizes evidence from 43 studies, including samples of both pre-school and school-aged participants. Linguistic comprehension instruction was found to have a small effect on generalized language comprehension but a negligible effect on reading.

Systematic review

Systematic search: Yes

November 2019

<https://onlinelibrary.wiley.com/doi/full/10.1002/cl2.1059>

##### **Effectiveness of continuing professional development training of welfare professionals on outcomes for children and young people: a systematic review**

The review examined the effects of CPD approaches for education and welfare practitioners (preschool teachers, school teachers, social workers, psychologists, police officers) on educational, social, crime and justice outcomes for children and young people; and also effects on the professional practice of practitioners in these fields. No clear evidence of the effectiveness of continuing professional development (CPD) was found.

Systematic review

Systematic search: Yes

November 2019

<https://onlinelibrary.wiley.com/doi/full/10.1002/cl2.1060>

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

##### **Bikes for All: widening access to cycling through social inclusion**

The Bikes for All (BfA) project aims to increase access to cycling in Glasgow by breaking down barriers related to ability, lack of confidence or low income through the provision of shared bikes and personal support to use them. BfA offers annual membership to the citywide bike hire scheme, nextbike Glasgow, for £3. Additional support is offered through one-to-one advice, group rides, route-finding tips, road skills and general guidance on cycling. The project has brought multiple benefits to people who have previously faced barriers to cycling.

Report

Systematic search: No

November 2019

[https://www.gcph.co.uk/publications/911\\_bikes\\_for\\_all\\_widening\\_access\\_to\\_cycling\\_through\\_social\\_inclusion](https://www.gcph.co.uk/publications/911_bikes_for_all_widening_access_to_cycling_through_social_inclusion)

**NICE FORWARD PLANNING – Publications due December 2019**

**Indoor air quality at home**

Public health guideline

**Atezolizumab with carboplatin and etoposide for untreated extensive-stage small-cell lung cancer**

Single Technology Appraisal

**Lung cancer (update)**

Quality Standard

**Leg ulcer infection: antimicrobial prescribing**

Antimicrobial prescribing guideline

**Cannabidiol for adjuvant treatment of seizures associated with Dravet syndrome**

Single Technology Appraisal

**Cannabidiol for adjuvant treatment of seizures associated with Lennox-Gastaut syndrome**

Single Technology Appraisal

**Palbociclib for treating hormone-receptor positive, HER2-negative breast cancer**

Single Technology Appraisal

**Sotagliflozin, in combination with insulin, for treating type 1 diabetes**

Single Technology Appraisal