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Cochrane Special Collections

De-implementation of low-value health care: resource prioritization in the COVID-19 pandemic era

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The COVID-19 pandemic and its associated measures have brought added urgency to the need for sustainable health care.[1,2] The rapid reorganization of health care and the drive to initiate new research has contributed to a substantial burden on financial and human resources. There has also been considerable impact on the delivery of health care with routine investigations and treatments being postponed or cancelled, and societal lockdowns, and spending to combat COVID-19 causing a global economic crisis. The available resources for non-COVID-19 health care are declining in many countries [3] and are likely to continue to do so for some time to

come, while the need for healthcare services may increase due to delays to diagnosis and treatment. Consequently, global health care is facing considerable new challenges to the sustainability of its systems in both high- and low-resource settings. It is imperative that the limited resources available for health care are used efficiently and effectively. They need to be utilized in ways that will generate the most benefit for patients and be prioritized for those with the greatest need. Healthcare systems need to deliver high-value care, while lower-value or inefficient care needs to be identified, safely reduced and, where appropriate, stopped. To ensure sustainability and equity in healthcare systems, decisions about this should be transparent, informed by reliable and robust evidence, and in keeping with equity and ethical principles.

This Special Collection provides examples of resource-intensive interventions, including those requiring extra healthcare visits, for which there is high or moderate certainty evidence that they confer clinically small or no effects, and for which there is some evidence of harm to patients. The reviews are particularly relevant to the COVID-19 pandemic, and should inform guideline, and policy developers, and decision makers planning health care, both during and after the pandemic. This Special Collection is intended as the first in a series, with subsequent Collections focusing on other healthcare interventions shown to being ineffective, harmful, or unproven.

See also the accompanying editorial: [Making wise choices about low-value health care in the COVID-19 pandemic](#); and Evidently Cochrane has also produced an accompanying blog [‘Choosing health care wisely when resources are scarce’](#)



General health checks in adults for reducing morbidity and mortality from disease

Free access

General health checks offered to the healthy population are common elements of health care and health insurances in some countries. They aim to detect disease and risk factors for disease in the general population in the hope that this will reduce morbidity and mortality. Most of the individual screening tests that are commonly offered in general health checks have been incompletely studied, but because screening the general population requires substantial resources and can lead to increased use of potentially harmful diagnostic and therapeutic interventions, it is important to know whether general health checks do more good than harm.

This review of 15 trials, including about 250,000 participants, provided high certainty evidence that adding regular health check-ups to standard medical services had little or no effect on the risk of ischaemic heart disease, dying from cancer, or dying from any cause. There was also moderate certainty evidence of little or no effect on stroke or cardiovascular mortality. Associated Cochrane Clinical Answer: [What are the effects of general health checks for reducing morbidity and mortality from disease in adults?](#)

Routine preoperative medical testing for cataract surgery

Free access

Cataract surgery is one of the most commonly performed eye surgeries, and substantial resources are committed to an increasing number of these procedures in low- and middle-income countries. This makes it critical to optimize the safety and cost-effectiveness of cataract surgery. Most of these operations are performed on older individuals with correspondingly high systemic and ocular comorbidities. Routine preoperative medical testing might be used to detect these medical conditions. The rationale for these tests is to detect medical conditions that would increase the risk of surgical adverse events, which might mean that the patient is asked to postpone surgery or to choose an alternative procedure. However, the usefulness and value of these tests is uncertain because it is questionable whether these conditions should prevent individuals from having cataract surgery or change their perioperative management.

This review used data from more than 20,000 patients in three trials to show that doing routine preoperative tests in people who plan to undergo cataract surgery increases costs but does not reduce adverse events related to surgery or increase cancellation of surgeries. Associated Cochrane Clinical Answer: [What are the benefits and harms of routine preoperative medical testing for adults awaiting cataract surgery?](#)

Subacromial decompression surgery for rotator cuff disease

Free access

Surgery for rotator cuff disease is usually offered to patients after non-operative interventions have failed, but there has been uncertainty for some time about the clinical benefits of subacromial decompression surgery and any potential benefits need to be considered alongside the potential harms of surgery.

This review included eight trials (1062 participants) that compared surgery with placebo surgery or other non-operative treatment, such as exercise in people with impingement of the shoulder rotator cuff tendons. It found high certainty evidence that subacromial decompression surgery does not improve pain, function, or health related quality of life compared with placebo surgery, and moderate certainty evidence that there is no improvement in the number of people reporting treatment success. The review found moderate certainty evidence that the risk of serious adverse events is likely to be less than 1%, but such events (including deep infection, pulmonary embolism, nerve injury, and death) have been reported following shoulder surgery.

Percutaneous vertebroplasty for osteoporotic vertebral compression fracture

Free access

Vertebral fractures are among the most common type of fracture in patients with osteoporosis. While most fractures generally heal within a few months, some people have persistent pain and disability and may require hospitalization and ongoing treatment for pain. Percutaneous vertebroplasty is a surgical treatment for vertebral compression fractures, and has been widely adopted into clinical practice. The treatment involves injecting medical-grade cement into a fractured vertebra, under light sedation or general anaesthesia. The cement hardens in the bone space to form an internal cast. However, the benefits and harms of this procedure are debated.

This review included 21 studies in total, of which five trials with 535 participants found moderate to high certainty evidence that vertebroplasty when compared to placebo provides little to no benefit with respect to pain, disability, quality of life or treatment success. Furthermore, the procedure can cause serious adverse events, such as spinal cord compression due to cement leaking out from the bone; cement leaking into the bloodstream leading to cement emboli into the lungs and perforation of the heart; rib fractures; infection; anaesthetic complications and death. Associated Cochrane Clinical Answer: [In people with osteoporotic vertebral compression fracture, how does percutaneous vertebroplasty compare with placebo?](#)

Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion

Free access

In the past there has been debate about the haemoglobin threshold that should be used to trigger a red blood cell transfusion for an anaemic patient. Restrictive transfusion strategies that use a lower haemoglobin level to trigger transfusion (most commonly 7 g/dL or 8 g/dL) should lead to fewer transfusions than liberal strategies (most commonly 9 g/dL to 10 g/dL). This is important because blood is a scarce resource, and transfusions are less safe in some countries than others because of a lack of testing for viral pathogens. Therefore, reducing the number and volume of unnecessary transfusions would benefit patients.

This review identified 31 trials, with more than 12,000 participants across a range of clinical areas. It found moderate or high certainty evidence that a restrictive transfusion strategy almost halved the number of transfusions compared to a liberal strategy, without impacting on 30-day mortality or morbidity.

Follow-up strategies for patients treated for non-metastatic colorectal cancer

Free access

Patients with colorectal cancer are often followed for several years after their curative surgery or adjuvant therapy. This requires special visits to health care but there is controversy about how often patients should be seen, what tests should be performed on them, and what impact this follow-up has on patient outcomes.

This review used evidence from 19 trials with more than 13,000 participants to show that there is high certainty evidence of little or no overall survival benefit from intense follow-up after curative surgery for colorectal cancer. Likewise, there was moderate certainty evidence that intense follow-up did not reduce mortality from colorectal cancer specifically. However, more participants were treated with salvage surgery with curative intent in the intensive follow-up groups. Associated Cochrane Clinical Answer: [For people treated for non-metastatic colorectal cancer, how do different intensities of follow-up compare?](#)

Recall intervals for oral health in primary care patients

Free access

There is ongoing debate about how often patients should have a dental check-up, and the effects on oral health of different intervals between check-ups. Recommendations regarding optimal recall intervals vary across countries and dental healthcare systems, but 6-month dental check-ups have traditionally been advocated by general dental practitioners in many high-income countries.

This review found that whether adults have a dental check-up every six months, or at personalized intervals based on their dentist's assessment of their risk of dental disease, does not affect tooth decay, gum disease, or quality of life. It also found that longer intervals (up to 24 months for those at low risk) between check-ups may not lead to worse outcomes. High certainty evidence, mainly from one low risk of bias trial that included nearly 2400 adults, shows little or no difference between risk-based, 6-month, and 24-month recall intervals in the amount of caries, gum bleeding and oral health related quality of life over a 4-year period. Associated Cochrane Clinical Answer: [What is the optimal recall interval for dental check-ups?](#)

Routine scale and polish for periodontal health in adults

Free access

There is debate over the clinical and cost effectiveness of routine scaling and polishing and the optimal frequency at which it should be provided for healthy adults. This review assessed the effects of routine scale and polish treatments for healthy adults, to establish whether different time intervals between treatments influence these effects, and to compare the effectiveness of the treatment when given by a dentist compared to a dental therapist or hygienist.

This review included two studies with 1711 participants. Both studies were conducted in general dental practices and involved adults without severe periodontitis who were regular attenders at dental appointments. The studies found little or no difference between regular planned scale and polish treatments compared with no scheduled scale and polish for the early signs of gum disease (gingivitis or bleeding gums, plaque deposits, and probing depths or gum pockets). There was a small reduction in calculus (tartar) levels, but it was uncertain if this is important for patients or their dentists. Participants receiving 6- and 12-monthly scale and polish treatments reported feeling that their teeth were cleaner than those who were scheduled to receive no treatment. However, there did not seem to be a difference between groups in oral health related quality of life.

About this Special Collection

References

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