

## Interventions to reduce waiting times for elective procedures

### **Authors**

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### **Abstract**

#### **Background**

Long waiting times for elective healthcare procedures may cause distress among patients, may have adverse health consequences and may be perceived as inappropriate delivery and planning of health care.

#### **Objectives**

To assess the effectiveness of interventions aimed at reducing waiting times for elective care, both diagnostic and therapeutic.

#### **Search methods**

We searched the following electronic databases: Cochrane Effective Practice and Organisation of Care (EPOC) Group Specialised Register, the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (1946-), EMBASE (1947-), the Cumulative Index to Nursing and Allied Health Literature (CINAHL), ABI Inform, the Canadian Research Index, the Science, Social Sciences and Humanities Citation Indexes, a series of databases via Proquest: Dissertations & Theses (including UK & Ireland), EconLit, PAIS (Public Affairs International), Political Science Collection, Nursing Collection, Sociological Abstracts, Social Services Abstracts and Worldwide Political Science Abstracts. We sought related reviews by searching the Cochrane Database of Systematic Reviews and the Database of Abstracts of Reviews of Effectiveness (DARE). We searched trial registries, as well as grey literature sites and reference lists of relevant articles.

#### **Selection criteria**

We considered randomised controlled trials (RCTs), controlled before-after studies (CBAs) and interrupted time series (ITS) designs that met EPOC minimum criteria and evaluated the effectiveness of any intervention aimed at reducing waiting times for any type of elective procedure. We considered studies reporting one or more of the following outcomes: number or proportion of participants whose waiting times were above or below a specific time threshold, or participants' mean or median waiting times. Comparators could include any type of active intervention or standard practice.

## **Data collection and analysis**

Two review authors independently extracted data from, and assessed risk of bias of, each included study, using a standardised form and the EPOC 'Risk of bias' tool. They classified interventions as follows: interventions aimed at (1) rationing and/or prioritising demand, (2) expanding capacity, or (3) restructuring the intake assessment/referral process.

For RCTs when available, we reported preintervention and postintervention values of outcome for intervention and control groups, and we calculated the absolute change from baseline or the effect size with 95% confidence interval (CI). We reanalysed ITS studies that had been inappropriately analysed using segmented time-series regression, and obtained estimates for regression coefficients corresponding to two standardised effect sizes: change in level and change in slope.

## **Main results**

Eight studies met our inclusion criteria: three RCTs and five ITS studies involving a total of 135 general practices/primary care clinics, seven hospitals and one outpatient clinic. The studies were heterogeneous in terms of types of interventions, elective procedures and clinical conditions; this made meta-analysis unfeasible.

One ITS study evaluating prioritisation of demand through a system for streamlining elective surgery services reduced the number of semi-urgent participants waiting longer than the recommended time (< 90 days) by 28 participants/mo, while no effects were found for urgent (< 30 days) versus non-urgent participants (< 365 days).

Interventions aimed at restructuring the intake assessment/referral process were evaluated in seven studies. Four studies (two RCTs and two ITSs) evaluated open access, or direct booking/referral: One RCT, which showed that open access to laparoscopic sterilisation reduced waiting times, had very high attrition (87%); the other RCT showed that open access to investigative services reduced waiting times (30%) for participants with lower urinary tract syndrome (LUTS) but had no effect on waiting times for participants with microscopic haematuria. In one ITS study, same-day scheduling for paediatric health clinic appointments reduced waiting times (direct reduction of 25.2 days, and thereafter a decrease of 3.03 days per month), while another ITS study showed no effect of a direct booking system on proportions of participants receiving a colposcopy appointment within the recommended time. One RCT and one ITS showed no effect of distant consultancy (instant photography for dermatological conditions and telemedicine for ear nose throat (ENT) conditions) on waiting times; another ITS study showed no effect of a pooled waiting list on the number of participants waiting for uncomplicated spinal surgery.

Overall quality of the evidence for all outcomes, assessed using the GRADE (Grades of Recommendation, Assessment, Development and Evaluation) tool, ranged from low to very low.

We found no studies evaluating interventions to increase capacity or to ration demand.

## **Authors' conclusions**

As only a handful of low-quality studies are presently available, we cannot draw any firm conclusions about the effectiveness of the evaluated interventions in reducing waiting times. However, interventions involving the provision of more accessible services (open access or direct booking/referral) show some promise.