Pharmaceutical policies: effects of cap and co-payment on rational drug use

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An updated version of this systematic review has been published and can be found online at www.cochrane.org. We will soon update the below RHL summary to reflect the updated findings of the systematic review.

RHL summary

Cap and cost-sharing policies were introduced to reduce the use of unnecessary medications and insurers costs. However, such policies could reduce the use of life-sustaining drugs and drugs used to treat chronic ailments. This review aimed to determine the effects of cap and co-payment policies on drug use, health-care use, health outcomes and expenditures. The 21 observational studies included in the review cover variety of policies: fixed co-payment, coinsurance with a ceiling, caps, fixed co-payment with a ceiling, etc. Direct co-payments reduced drug use and planned drug costs across the studies, and patients responded through drug discontinuation or by cost-sharing. The studies also reported reductions in life-sustaining drugs or drugs used in treating chronic conditions. The authors caution that reductions in the use of life-sustaining drugs or drugs used to treat chronic conditions could consequently increase the burden of health-care services and overall expenditures. Such polices are likely to cause less harm if non-essential drugs are exempted from such schemes.

Cochrane review


Abstract

Growing expenditures on prescription drugs represent a major challenge to many health systems. Cap and co-payment (direct cost-share) policies are intended as an incentive to deter unnecessary or marginal utilisation, and to reduce third-party payer expenditures by shifting parts of the financial burden from the insurer to patients, thus increasing their financial responsibility for prescription drugs. Direct patient drug payment policies include caps (maximum number of prescriptions or drugs that are reimbursed), fixed co-payments (patients pay a fixed amount per prescription or drug), coinsurance (patients pay a percent of the price),
ceilings (patients pay the full price or part of the cost up to a ceiling, after which drugs are free or available at reduced cost), and tier co-payments (differential co-payments usually assigned to generic and brand drugs).

To determine the effects of cap and co-payment (cost-sharing) policies on drug use, healthcare utilisation, health outcomes and costs (expenditures).

We searched the following databases and web sites: Effective Practice and Organisation of Care Group Register (date of last search: 6 September 07), Cochrane Central Register of Controlled Trials (27 August 07), MEDLINE (29 August 07), EMBASE (29 August 07), NHS EED (27 August 07), ISI Web of Science (09 January 07), CSA Worldwide Political Science Abstracts (21 October 03), EconLit (23 October 03), SIGLE (12 November 03), INRUD (21 November 03), PAIS International (23 March 04), International Political Science Abstracts (09 January 04), PubMed (25 February 04), NTIS (03 March 04), IPA (22 April 04), OECD Publications & Documents (30 August 05), SourceOECD (30 August 05), World Bank Documents & Reports (30 August 05), World Bank e-Library (04 May 05), JOLIS (22 February 06), Global Jolis (22 February 06), WHOLIS(22 February 06), WHO web site browsed (25 August 05).

We defined policies in this review as laws, rules, or financial or administrative orders made by governments, non-government organisations or private insurers. We included randomised controlled trials, non-randomised controlled trials, interrupted time series analyses, repeated measures studies and controlled before-after studies of cap or co-payment policies for a large jurisdiction or system of care. To be included, a study had to include an objective measure of at least one of the following outcomes: drug use, healthcare utilisation, health outcomes or costs (expenditures).

Two authors independently extracted data and assessed study limitations. We undertook quantitative analysis of time series data for studies with sufficient data.

We included 30 evaluations (in 21 studies). Of these, 11 evaluated fixed co-payment, six evaluated coinsurance with a ceiling, four evaluated caps, three evaluated fixed co-payment with a ceiling, three evaluated tier co-payment, one evaluated ceiling, one evaluated fixed co-payment and coinsurance with a ceiling, and one evaluated a fixed co-payment with a cap. Most of the included evaluations were observational studies and the quality of the evidence was found to be generally low to moderate.

Introducing or increasing direct co-payments reduced drug use and saved plan drug expenditures across studies. Patients responded through drug discontinuation or by cost-sharing. Investigators found reductions for life-sustaining drugs or drugs that are important in treating chronic conditions as well as other drugs. Few studies reported on the effects on health and healthcare utilisation. One study found adverse effects on health through increased healthcare utilisation when a cap was introduced in a vulnerable population. No statistically significant change in use of healthcare services was found in other studies when a cap was introduced on a drug considered over-prescribed in a vulnerable population, or following a shift from a two-tier to a three-tier system with increased co-payments for tier-1 drugs in a general population.

We found a diversity of cap and co-payment policies. Poor reporting of the intensity of interventions and differences in setting, populations and interventions made it difficult to make comparisons across studies. Cap and co-payment polices can reduce drug use and save plan drug expenditures. However, although insufficient data on health outcomes were available, substantial reductions in the use of life-sustaining drugs or drugs that are important in treating chronic conditions may have adverse effects on health, and as a result increase the use of healthcare services and overall expenditures. Direct payments are less likely to cause harm if only non-essential drugs are included or exemptions are built in to ensure that patients receive needed medical care.

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