

DSEN ABSTRACT

Dual Antiplatelet Therapy Following Percutaneous Coronary Intervention: A Review of the Clinical Impact of Treatment Duration - An Umbrella Review

Summary

- Nineteen systematic reviews of RCTs were included in this systematic umbrella review.
- Earlier RCTs primarily involved use of first-generation drug-eluting stents (DESs), which may limit generalizability to current clinical practice.

Key messages

- DAPT of greater than 12 months in patients after PCI was mostly beneficial.
- Potential benefits must be contrasted with increase in risk of major bleeding and potential for non-cardiovascular mortality should be explored further.
- Patients with prior myocardial infarction or aged less than 75 years, may derive the most benefit from long-term DAPT.
- Individualized risk assessments should be made to determine ideal duration of therapy.

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What is the issue?

- Dual antiplatelet therapy (DAPT), the combination of a P2Y12 inhibitor with acetylsalicylic acid, is routinely given following percutaneous coronary intervention (PCI) with stenting to prevent stent thrombosis and other major cardiovascular adverse events. The optimal duration of DAPT to balance its benefits and harms following PCI is of interest.
- Patient reimbursement of P2Y12 inhibitors after stenting may be limited to one year, yet some patients may benefit from extended therapy. Given the current uncertainty about the benefits and harms of DAPT therapy beyond one year, a comprehensive overview of the evidence is required to inform health care decision-makers, policy-makers, clinicians and patients.

What was the aim of the study?

- The objective of this overview is to systematically review and summarize the evidence of the benefits and harms associated with extended DAPT following PCI with stenting.

How was the study conducted?

- We performed a systematic overview (umbrella review) of previously published systematic reviews that included randomized controlled trials (RCTs).
- The primary outcomes are all-cause, cardiovascular and non-cardiovascular death. Secondary outcomes are myocardial infarction, stroke, stent thrombosis, urgent target vessel revascularization, major adverse cardiovascular events and bleeding (major, minor, gastrointestinal).

What did the study find?

- Nineteen systematic reviews were included in the umbrella review.
- Relative to shorter-duration DAPT, extending DAPT beyond 12 months was associated with a reduced risk of myocardial infarction, stent thrombosis and major adverse cardiac and cerebrovascular event (MACCE). DAPT beyond 12 months may increase the risk of all-cause and non-cardiovascular death and major bleeding in this population.
- Results for all population subgroups are summarized in the [published review](#).

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