

## Risks and benefits of direct oral anticoagulants versus warfarin

The objective of this prospective cohort study was to investigate the associations between direct oral anticoagulants and risks of bleeding, ischaemic stroke, venous thromboembolism, and all-cause mortality compared with warfarin.

The participants were recruited from UK general practices and included 132,231 warfarin, 7,744 dabigatran, 37,863 rivaroxaban and 18,223 apixaban users. The main outcome measures sought were major bleeding leading to hospital admission or death.

Overall, apixaban was found to be the safest drug, with reduced risks of major, intracranial and gastrointestinal bleeding compared with warfarin. Rivaroxaban and low-dose apixaban were, however, associated with increased risks of all-cause mortality compared with warfarin.

*BMJ* 2018; 362:k2505

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## Vitamin D supplementation in pregnancy and lactation and infant growth

It is unclear whether maternal vitamin D supplementation during pregnancy and lactation improves fetal and infant growth in regions where vitamin D deficiency is common.

Bangladesh is a country where such a deficiency is common. This report is of a trial which randomised over 1,000 pregnant women into five different groups. One group received neither prenatal nor postpartum vitamin D. Three groups received prenatal supplements only—oral vitamin D 4,200IU/week or 16,800IU/week or 28,000IU/week. The fifth group received prenatal as well as 26 weeks of postpartum supplements at a dosage of 28,000IU/week.

It was concluded that in a population with widespread prenatal vitamin D deficiency and fetal and infant growth restriction, maternal vitamin D supplementation from midpregnancy until birth or until six months postpartum did not improve fetal or infant growth.

*N Engl J Med* 2018; 379:535–46

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## Excess mortality and cardiovascular disease in young adults with type 1 diabetes in relation to age at onset

People with type 1 diabetes are at elevated risk of mortality and cardiovascular disease, yet current guidelines do not consider age of onset as an important risk stratifier.

These researchers aimed to examine how age at diagnosis of type 1 diabetes relates to excess mortality and cardiovascular risk. 27,195 individuals with type 1 diabetes and 135,178 matched controls were selected for this study. They report that patients with type 1 diabetes with onset before 10 years of age had a 30-times increased risk of coronary heart disease and acute myocardial infarction compared with matched controls. Women with onset before 10 years of age had a 60-times increased risk of coronary heart disease and 90-times increased risk of acute myocardial infarction.

Age at onset of type 1 diabetes is an important determinant of survival, as well as all cardiovascular outcomes, with highest excess risk in women. Greater focus on cardioprotection might be warranted in people with early-onset type 1 diabetes.

*Lancet* 2018; 392:477–86

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### URL:

<http://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2018/vol-131-no-1485-9-november-2018/7747>

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