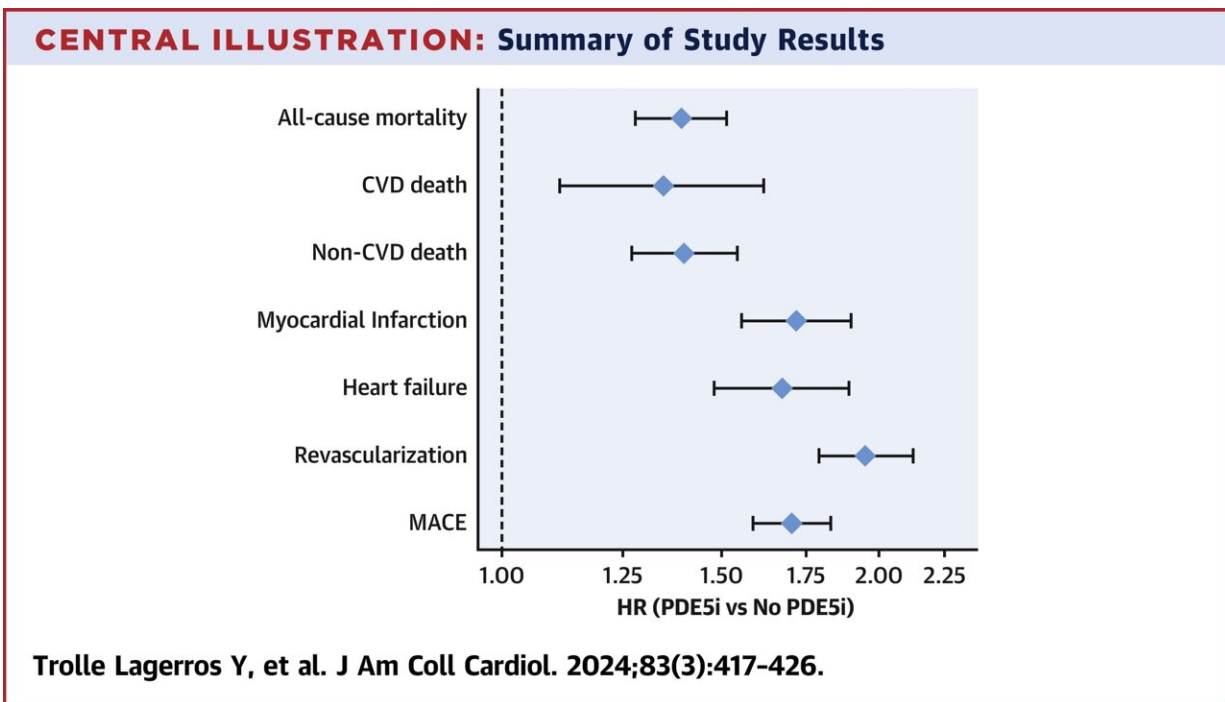


# Researchers urge caution in co-prescribing potency drugs and nitrates

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Credit: *Journal of the American College of Cardiology* (2024). DOI: 10.1016/j.jacc.2023.10.041

Co-prescribing potency drugs such as Viagra and organic nitrates for angina is associated with a 35% to 40% increased risk of death and about 70% higher risk of heart attack and heart failure. This is according to a Swedish registry study [published](#) in the *Journal of the American College of Cardiology*. The Swedish researchers are now urging caution.

Drugs for erectile dysfunction or impotence containing phosphodiesterase inhibitors type 5 are contraindicated in the treatment of angina with organic nitrates. Because the two types of drugs enhance each other's antihypertensive effect, they can cause [serious side effects](#), including death, if taken together.

However, many people who treat angina with organic nitrates use the [medication](#) as [emergency relief](#) for a sudden onset of angina. The medication is quickly absorbed by the body, exerts its effect, and then breaks down quickly again. It is not usually a permanent treatment, although maintenance treatment is possible.

## **Does not necessarily mean an increased risk**

Potency drugs are also taken as needed, which theoretically makes it possible to separate the two treatments in time to avoid side effects. If [patients](#) are aware of these factors, co-prescribing does not necessarily mean an increased risk.

Previous studies have shown that an increasing number of men who treat their angina with organic nitrates are also prescribed potency drugs. However, there is no evidence that side effects have increased.

It has also been shown that type 5 phosphodiesterase inhibitors for men with cardiovascular disease without [angina](#) reduce the risk of death and heart failure. In other words, the picture is not entirely clear.

"There is an increasing demand for medication for [erectile dysfunction](#) from men with cardiovascular disease. And even if these drugs are beneficial for most men with [cardiovascular disease](#), those who are also treated with nitrates need to consider the benefits of the [drug](#) against the cardiovascular risks," says Ylva Trolle Lagerros, Associate Professor at the Department of Medicine at Karolinska Institutet and first author of

the study.

To find out what the actual risk of concurrent prescribing is, the researchers used Swedish health registers between 2005 and 2013. They found nearly 61,500 men who had been prescribed organic nitrates, of which just over 5,700 had also been prescribed one of the potency drugs in question. A clear majority of those who had a prescription for both medications used nitrates as an emergency treatment only.

## Adjusted for differences

The men who received the drugs were on average nine years younger and significantly healthier than those who did not receive them. The researchers therefore had to adjust for these and other differences.

The adjusted results show that co-prescribing potency drugs with type 5 phosphodiesterase inhibitors and organic nitrates is associated with a 35% to 40% increased risk of death. In addition, the researchers show an approximately 70% increased risk of heart attack and heart failure. This suggests that the theoretical separation in time of the treatments does not seem to work fully.

"We want to point out the importance of careful and patient-centered consideration before prescribing this type of potency medication to men treated with nitrates," says Ylva Trolle Lagerros.

**More information:** Ylva Trolle Lagerros et al, Risk of Death in Patients With Coronary Artery Disease Taking Nitrates and Phosphodiesterase-5 Inhibitors, *Journal of the American College of Cardiology* (2024). [DOI: 10.1016/j.jacc.2023.10.041](https://doi.org/10.1016/j.jacc.2023.10.041)

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