

Is Vitamin K Helpful for People Who Have Taken Too Much Warfarin?

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The full report is titled “Oral Vitamin K Versus Placebo to Correct Excessive Anticoagulation in Patients Receiving Warfarin. A Randomized Trial.” It is in the 3 March 2009 issue of *Annals of Internal Medicine* (volume 150, pages 293-300). The authors are M.A. Crowther, W. Ageno, D. Garcia, L. Wang, D.M. Witt, N.P. Clark, M.D. Blostein, S.R. Kahn, S.K. Vesely, S. Schulman, M.J. Kovacs, M.A. Rodger, P. Wells, D. Anderson, J. Ginsberg, R. Selby, S. Siragusa, M. Silingardi, M.B. Dowd, and C. Kearon.

What is the problem and what is known about it so far?

Warfarin is a medicine that “thins” the blood. Doctors prescribe warfarin to treat or prevent blood clots. Too much warfarin can thin the blood too much, causing a bleeding event. Treatment is temporarily stopping the warfarin. Vitamin K also helps reverse warfarin’s effects. Doctors sometimes prescribe vitamin K to people whose blood is too thin from too much warfarin. However, it is not known whether people who take vitamin K are less likely to have a bleeding event and whether it can reverse warfarin’s effects too much, thickening the blood and causing blood clots.

Why did the researchers do this particular study?

To find out whether giving vitamin K to people who have taken too much warfarin is safe and prevents bleeding events.

Who was studied?

712 people taking warfarin whose blood tests showed that their blood was too thin.

How was the study done?

Every person was advised to stop taking warfarin. The researchers then randomly assigned half of the patients to take a low dose of vitamin K or a placebo pill. They then followed the study participants for 3 months to compare how many in each group had bleeding events, clots, or other complications.

What did the researchers find?

Vitamin K rapidly reversed the effects of warfarin. However, there were no differences between groups in the number of participants with bleeding events, clots, or other complications.

What were the limitations of the study?

There may have been too few participants to detect differences in complications between groups. Participants had only modest warfarin overdoses. The findings may not apply to people with more serious, life-threatening overdoses or to people who take higher doses of vitamin K or other forms of the vitamin.

What are the implications of the study?

Vitamin K reverses the effects of warfarin but does not lead to fewer bleeding events. Temporarily stopping warfarin may be all that is needed to treat thin blood caused by too much warfarin.