

## Taking aspirin to prevent a second deep-vein thrombosis

### Results of the INSPIRE meta-analysis

The results of INSPIRE have been published in the journal, *Circulation*. INSPIRE is a new analysis of data from the ASPIRE and WARFASA trials.

Results of the two trials came out separately in 2012. The new analysis has confirmed and strengthened the earlier results. It is now clear that aspirin helps prevent recurrent venous thromboembolism

We appreciate the part played by our volunteer participants. This may help to improve the medical treatment of patients in the future.

If you have any questions about the results, please ask your study doctor or GP.

#### Can you remind me why ASPIRE, WARFASA and the new analysis are important?

Venous thromboembolism (VTE) is the condition where blood clots occur in the leg veins or the lungs. It often occurs after leg injuries, operations or hospital stays. Sometimes there is no apparent reason for it. This is an unprovoked VTE. The treatment is generally heparin followed by 3-12 months of warfarin or a similar anticoagulant (blood-thinning) drug. This usually prevents further blood clots, called recurrent VTE.

For people who have had an unprovoked VTE, the risk of it happening again is about 1 in 10 in the first 12 months after stopping warfarin, and 1 in 3 over the next 10 years.

Many patients and their doctors decide to stop warfarin after 6 months. Some patients find warfarin restricts their lifestyle and has interactions with their other medications. Blood testing (INR) and changes in warfarin dosing can be very inconvenient. Also, warfarin sometimes leads to bleeding.

Before the ASPIRE and WARFASA trials, it was not clear whether aspirin could prevent recurrent VTE in patients after they had an unprovoked VTE.

#### ASPIRE

The ASPIRE trial investigated whether aspirin, compared with a placebo tablet, reduced the risk of recurrent VTE. Patients were randomly assigned to receive 100 mg aspirin or 100 mg placebo every day. The study started recruiting patients in 2003 and closed in 2012.

822 patients were recruited in Australia, New Zealand, Singapore, India and Argentina. The patients were followed up for 4 years, or until March 2012 (whichever was sooner). 411 patients received aspirin and 411 received placebo.

#### WARFASA

WARFASA recruited 402 patients from 34 centres in Italy between 2004 and 2010. Of these, 197 received placebo and 205 received aspirin. The design of the trial, the type of patients and the treatment were the same as in ASPIRE.

#### INSPIRE

In the early days of the trials, the researchers of ASPIRE and WARFASA cooperated in planning INSPIRE. This new international study was designed to increase the power of results by combining the data from the two trials.

#### What did the results show?

112 patients in the placebo group and 81 patients in the aspirin group had a recurrent VTE. This difference, about a third reduction in risk, is enough to show statistically that aspirin prevented VTEs.

When the researchers accounted for the fact that many of the patients on aspirin stopped taking it and many on placebo took aspirin for various reasons, the analysis showed that the relative reduction in VTEs was 40%.

Prevention of a VTE was more likely for people at higher risk, such as men and those aged over 65.

Slightly more patients treated with aspirin than those on placebo had bleeding problems, 0.5% of patients on aspirin and 0.4% of patients on placebo per year. The rate of bleeding was much less than the risk of bleeding that warfarin has.

### How will the results help patients and doctors in future?

The INSPIRE investigators estimate that VTE with no obvious cause could happen to a million people in the world each year. The combined results of the ASPIRE and WARFASA trials are likely to help many of them.

The knowledge will be particularly helpful in places where many drugs are unaffordable. Aspirin is cheap and available almost anywhere.

Doctors will be able use these results to prescribe aspirin for people who want to stop taking warfarin or similar drugs.

### What will the researchers do next?

Some of the data from INSPIRE will be used, with approval from ethics committees, to undertake further research.

## Where can I find out more about INSPIRE and ASPIRE?

Talk with your GP.

### The results of INSPIRE have been published in a scientific journal

Simes J, and others. Aspirin for the prevention of recurrent venous thromboembolism: the INSPIRE collaboration. *Circulation* 2014; volume 130, issue 13: pages 1062–1071. [link](#)

### The results of the ASPIRE trial have been published separately

Brighton T, and others. Low-dose aspirin for preventing recurrent venous thromboembolism. *New England Journal of Medicine* 2012; volume 367, issue 21: pages 1979–1987. [link](#)

### Australian New Zealand Clinical Trials Registry

[www.anzctr.org.au](http://www.anzctr.org.au)

Registered number  
ACTRN12611000684921

The INSPIRE study was done by the ASPIRE and WARFASA trial investigators. It was funded by public grants and Bayer HealthCare.

The authors of the study publication report no financial or other conflicts of interest.

Results of any clinical trial do not represent complete knowledge about treatment. Patients should not change their therapy on their understanding of the results.