

DOAC Anti-coagulants

What if you were offered a blood-thinner (anticoagulant)? The most likely scenario for you to be offered one is if you had atrial fibrillation (AF). This is a common condition, especially as people get older. The heartbeat becomes irregular. Atrial fibrillation increases the risk of stroke. To be precise, there is an overall five-fold increased risk.

However, blood thinners are not without risk; as you might expect they increase the risk of bleeding. Today most people are given DOACs (Direct Oral Anticoagulants) rather than warfarin as they have fewer adverse effects and are more convenient (but it is harder to antidote should bleeding occur).

If you were offered one, you would want to know the likely benefits and balance this against possible harm. And when it comes to explaining the risks and benefits doctors haven't always done a great job with DOACs. A recent article in the British Medical Journal suggests that doctors often give the wrong advice. One example was a doctor telling a patient that DOACs reduced the risk of stroke from 10% to 2% and have no side effects except easy bruising (neither statements were true).

So what is the truth? How can you know if these drugs are for you. The first thing to say is the facts are not clear cut because these are relatively new drugs and there are not many studies yet. But we do, I think, know enough to make some sense of it

Firstly, the risk of stroke varies with age. If you are under 65, have never had stroke or transient ischaemic attack (TIA) and don't have hypertension or diabetes then your risk of stroke is very low and you probably won't need a blood thinner. In fact one study found 25% of patients given a DOAC didn't need them if guidelines had been followed. There is a calculation that can be done. This is called CH₂ DS₂ -VASc and it gives a more precise measure of risk.

The second thing is that DOACs don't reduce the risk of stroke to the levels of those without AF. As mentioned, AF increases the risk of stroke about five-fold (though this varies greatly with age and other factors). There is still an increased risk of stroke when taking these drugs - up to two and a half times normal.

With any drug you might take it is worth looking at the numbers needed to treat (NNT), in this case the number of people that need to be taking the drug to prevent both stroke and death. The answer is 23-70 for preventing a stroke and 50-200 for death. What does this mean? It means you would need 23 to 70 people to take the drug to prevent one stroke and 50 to 200 to take the drug to prevent one death.

But you also need to consider if taking the drug could do you any harm. Here we can look at the Numbers Needed to Harm (NNH) and this works out as fairly similar, between 23 and 112. In other words, between one out of 23 and one out of 112 will be harmed by taking the drug. The most likely side effect is gastro-intestinal bleeding.

Stroke is an extremely unpleasant illness. Anticoagulation is one of the best methods of reducing stroke in a population at risk, such as those with AF. However, the odds of DOACs preventing a stroke in any one individual are small and the risk of adverse effects about the same.