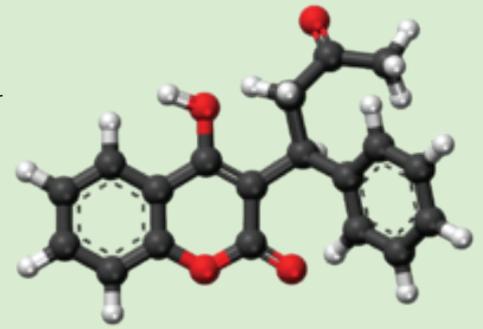


# WARFARIN AND COMPLEMENTARY THERAPIES.

Julie Shepherd MN RN

## SOME INTERESTING BACKGROUND

The sweet smell of freshly mown grass is produced by Coumarin (the precursor chemical compound to Warfarin). Coumarin is found in many plants such as Woodruff, clovers, liquorice and lavenders. In the early 20th Century in North America a number of cattle died from haemorrhage following routine surgical procedures. The common linking factor was the ingestion of silage (fermented hay) which contained mouldy clover. Coumarin by itself is not an anticoagulant and scientists and veterinarians worked for the next 20 years to isolate the active substance and to discover the mechanism that produced it.



Warfarin is a widely used for long term anti-coagulant therapy for individuals with conditions such as Pulmonary Embolism (PE) and Deep Venous Thrombosis (DVT). Other indicators for use include stroke prevention associated with cardiac disease and orthopaedic surgery.

Warfarin is sometimes called a 'blood thinner' but this is incorrect as it doesn't alter the viscosity of blood but inhibits the Vitamin K dependent syntheses of calcium dependent blood clotting factors as well as other regulatory proteins.

## INTERACTIONS

There are multiple drugs that interact with Warfarin. The numbers in the literature vary but around 875 generic (5680 trade and brand names) prescription and non-prescription medications have different levels of interaction with Warfarin increasing or decreasing its effectiveness (Institute for Healthcare Improvement, 2008).

Complementary and supplemental medicines available without prescription, over the counter, traditional medicines and online may also have a confirmed or potential interaction with Warfarin metabolism and/or on other anticoagulant pathways.

## DOCUMENTED REPORTS OF HERBAL-WARFARIN INTERACTIONS

(Bristol-Myers Squibb, 2018) (NPS Medicinewise, 2002)

<b>Co enzyme Q10</b>	Decreases INR (International Normalised Ratio) Structurally related Vitamin K2
<b>Danshen/Salvia Root</b>	Decreases platelet aggregation Increases warfarin absorption Decreases warfarin elimination half life
<b>Devil's Claw</b>	May cause purpura (a rash of purple spots on the skin caused by internal bleeding from small blood vessels.)
<b>Dong Quai (Angelica sinensis)</b>	Decreases platelet aggregation and activation Contains at least 6 Coumarin derivatives
<b>Garlic</b>	Increase in anticoagulant effect
<b>Ginseng: American, Oriental and Siberian</b>	Antagonises Warfarin effects Decreases INR
<b>Green Tea</b>	Contains Vitamin K1 Antagonises Warfarin effects
<b>Papaya (Pawpaw) Extract</b>	Increases INR
<b>St John's Wort Extract</b>	Increases metabolism of Warfarin at standard dose of 900 mg per day
<b>Tobacco</b>	Smoking or chewing tobacco can affect your INR
<b>Vitamin E</b>	Possibly increases INR at doses >400IU per day

## POTENTIAL INTERACTIONS

There are a significant number of herbal and complementary substances listed on websites and in the scientific literature that may interact with Warfarin and may potentiate its effects but these have still to be conclusively demonstrated in human studies. Some of these include alfalfa, aniseed, arnica, celery; German and Roman chamomile, fenugreek, horse chestnut etc.

Other herbal preparations that may have an anticoagulant, antiplatelet effect include feverfew, ginger, ginkgo, Korean ginseng and liquorice.

## WHAT YOU CAN DO

There are a number of proactive steps that you can take to minimise potential interactions:

- Read labels, self-medication with complementary, herbal and over the counter therapies carries inherent risks if you are not aware of the active constituents of the preparation you are taking
- Ask your Doctor and pharmacist before you start using any herbal or complementary products
- Be sure your Doctor and pharmacist know ALL the herbal and complementary products that you are taking

## BIBLIOGRAPHY

- Bristol-Myers Squibb, 2018. Coumadin (Warfarin Sodium). [Online] Available at: <http://www.coumadin.bmscustomerconnect.com/medications> [Accessed April 2018].
- Institute for Healthcare Improvement, 2008. Guide to Coumadin (Warfarin) Therapy. [Online] Available at: <http://www.ihl.org/resources/Pages/Tools/GuidetoCoumadinTherapy.aspx> [Accessed April 2018].
- NPS Medicinewise, 2002. Australian Prescriber. [Online] Available at: [www.nps.org.au](http://www.nps.org.au) [Accessed April 2018].
- Wikipedia, n.d. Commons Wikipedia. [Online] Available at: [https://upload.wikimedia.org/wikipedia/commons/3/3a/Warfarin\\_ball-and-stick\\_model.png](https://upload.wikimedia.org/wikipedia/commons/3/3a/Warfarin_ball-and-stick_model.png)

## SUPPORT AUTOIMMUNE RESOURCE AND RESEARCH CENTRE AND YOU'LL BE REWARDED!

We are raising funds and you can help. Order the NEW 2018 | 2019 Entertainment Book or Entertainment Digital Membership and you will receive hundreds of valuable offers for everything you love to do, and you will also be supporting our fundraising. PLUS, order now to receive over \$200 of bonus Early Bird Offers (hurry, these sell out quickly).

### SUPPORT US NOW



"The Entertainment Book is great value for such a low price. There are a lot of savings I get back instantly. It more than outweighs the original price. There is something for everyone casual, fine dining, adventure and family. I couldn't live without it." – Susan L