

# Complementary Tincture and Chemotherapy

## From a Local Medicines Advice Query to Once for Wales Patient Information Leaflet



Charlotte Hay; WMAS Betsi Cadwaladr University Health board.

Caroline Norris, Jenna Walker, Nina Fowler, Sana Junaid, Anna Burgess, Dianne Burnett; WMAS Cardiff and Vale University Health Board

### The Query

In May 2023 the local Coroner asked the Medicines Advice Service at Glan Clwyd Hospital to investigate the literature and see if there was evidence of an interaction between a purchased herbal tincture (Fig 1) and prescribed systemic anti-cancer therapy (SACT).

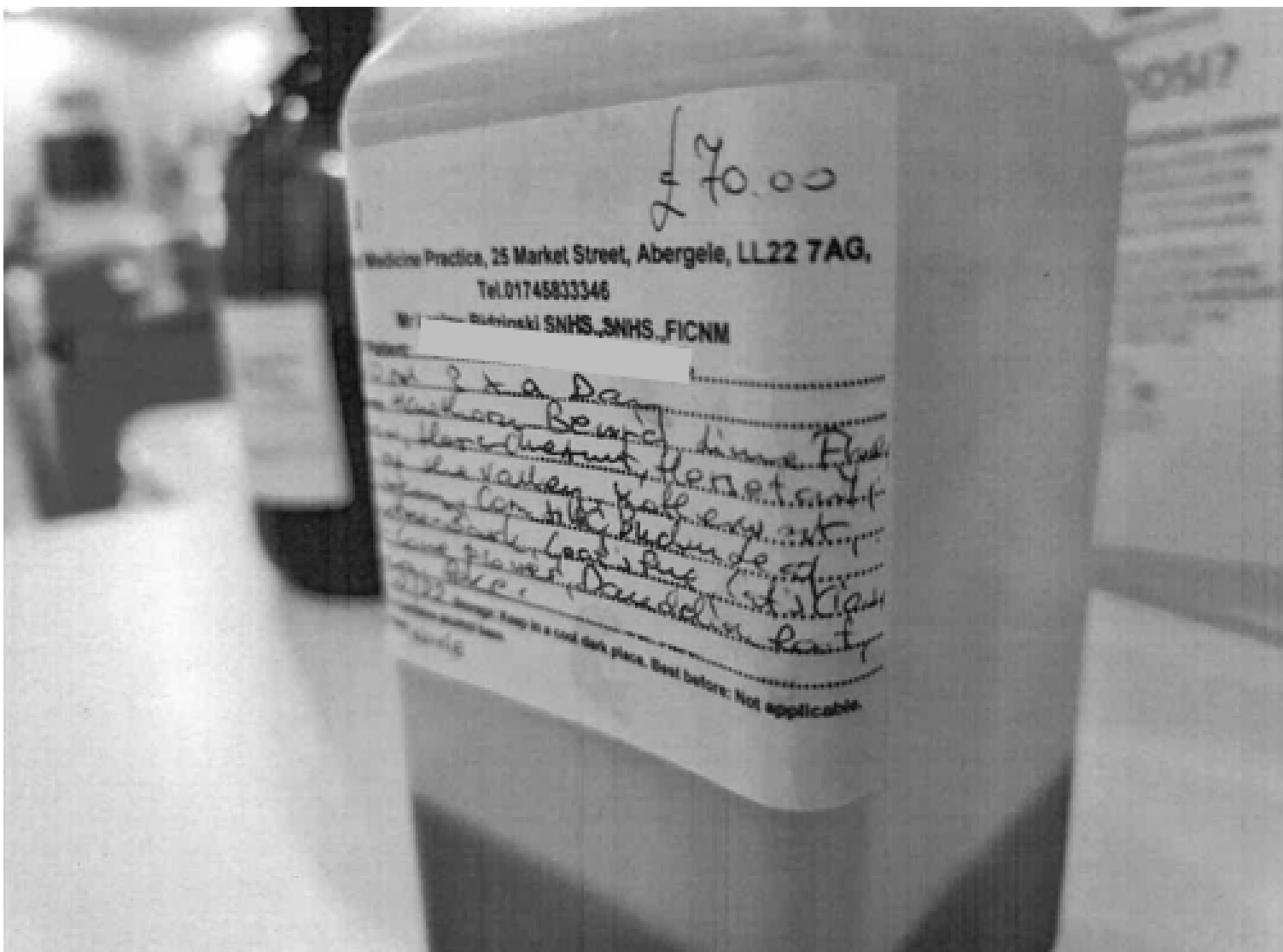


Fig 1: Herbal Tincture

The patient had been prescribed ixazomib, lenalidomide and dexamethasone for multiple myeloma. They had also purchased, and consumed, a tincture from a local herbalist which was labelled to contain: Hawthorn, Lime Flower, Yarrow, Horse Chestnut, Horsetail, Lily of the Valley, Motherwort, Mistletoe, Bearberry, Corn Silk, Buchu Leaf, Fingertree Bark, Goat's Rue, Cat's Claw, Echinacea, Dandelion Root, Cleaves, and, Poke root. They were admitted to hospital on day four of the SACT cycle. They developed cholestatic liver damage and ultimately died of multi-organ failure.

### Enquiry investigated:

1. If there were any known or expected interactions between the component herbs and the prescribed chemotherapy.
2. If any of the component herbs are known to cause hepatic side effects.

Research of the enquiry was carried out utilising the Quality and Risk Management tools regarding handling complementary medicine enquiries and resources available to our service. The Medicines Advice enquiry concluded that there is potential for pharmacokinetic drug interactions between the herbal tincture and the SACT through induction or inhibition of the cytochrome P450 enzymes and P-glycoprotein.

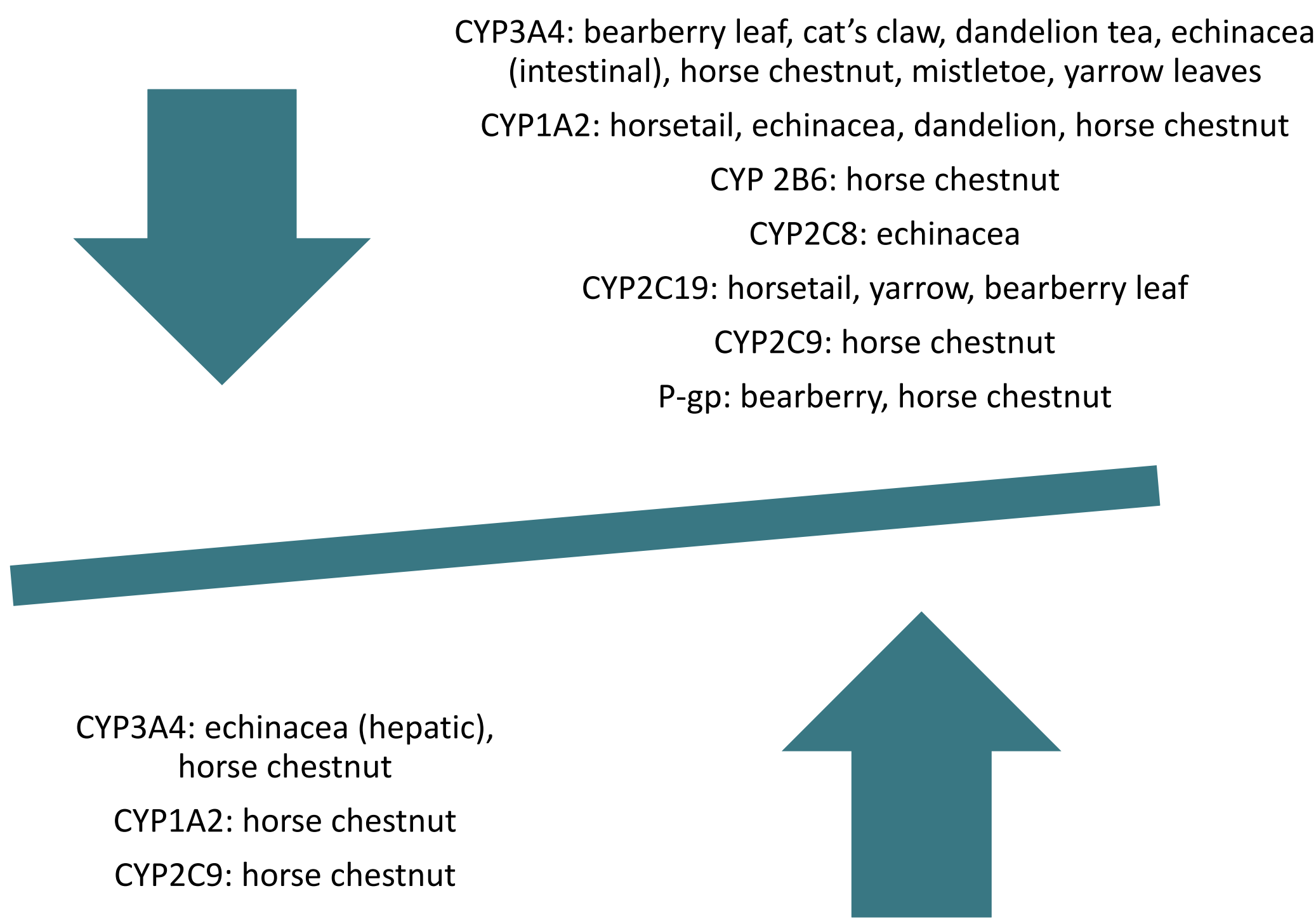


Fig 2: Representation of Inducers and Inhibitors

Case reports of hepatic injury/hepatitis/abnormal liver function tests/hepatic fascioliasis were found with the following herbs contained within the tincture: dandelion, echinacea, goat's rue, horse chestnut, horsetail, mistletoe and motherwort. However, causal relations have not necessarily been established.

### The Answer

There have been no formal studies between the prescribed chemotherapy and complementary products. There is potential for pharmacokinetic drug interactions through induction or inhibition of the cytochrome P450 enzymes and P-glycoprotein.

### Coroner's Conclusion and Recommendation

The Coroner concluded that "likely a rare reaction occurred resulting in his death".

An action for the Health Board was to provide clear information to chemotherapy patients about herbal medicines.

### Once for Wales Patient Information Leaflet

The Medicines Advice Service responded to the Coroners request and a patient information leaflet was produced which was disseminated locally within the Health Board. The team shared this important learning nationally via the Welsh Medicines Advice Service (WMAS) network. The team worked in collaboration with the WMAS publication team and the Yellow Card Centre (YCC) Wales to develop a national patient information leaflet. It has been through stakeholder consultation with the All Wales Toxicology and Treatment Centre (AWTTC), YCC, the Welsh Cancer Network and the Patient and Public Interest Group (PAPIG).

The leaflet is available on the Welsh Medicines Advice Service website and has been cascaded to clinicians across Wales. Patients are receiving a copy during consultations where they are discussing treatment options.

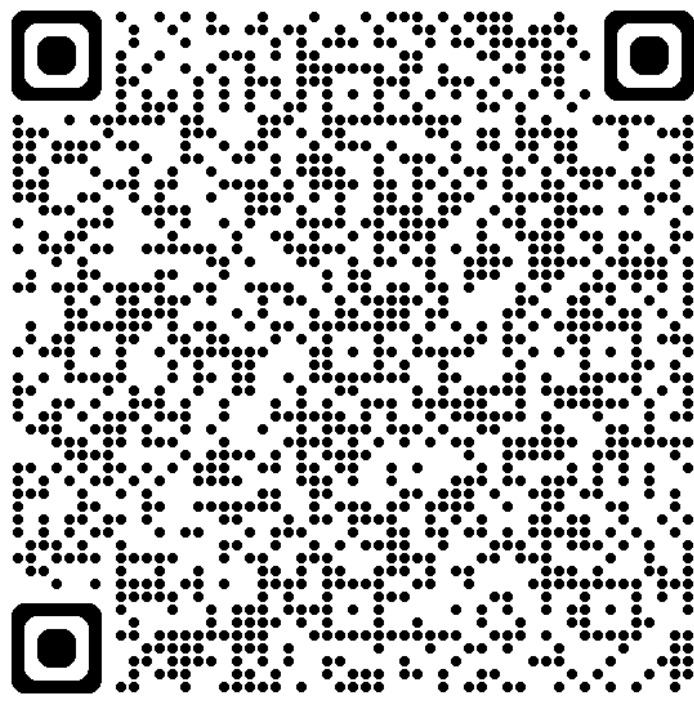


Fig 3: Advice Leaflet for Patients Having Anti-Cancer Treatment

This was an excellent example of collaboration on a national scale with multiple partners and demonstrates that the WMAS network despite their local centres being geographically remote has a national strength that can cross multiple boundaries . Providing a standard patient information leaflet ensures our citizens receive consistent advice irrespective of where in the country they receive their SACT. Working together WMAS has achieved the following UKMi objectives:

- Improving patient care through a proactive and responsive service.
- Improving patient safety and reducing the risks associated with medicines.
- Supporting patients with their medicines.