

## Serious Interaction: Tramadol - Warfarin

1

### Introduction:

There has been a report of serious interaction between **tramadol** and **warfarin** that resulted in a patient's death. At the time this interaction was not listed in the BNF. A prevention of future deaths report was issued by the coroner on 20<sup>th</sup> November 2023.

2

### Drug Interaction:

The drug-drug interaction between **tramadol** and **vitamin K antagonists (warfarin sodium, acenocoumarol and phenindione)** can cause elevated INR and increased risk of bleeding in patients taking Warfarin. This interaction is now in the e-BNF and on EMIS.

3

### Vitamin K antagonist oral anticoagulation:

The oral anticoagulants **warfarin sodium, acenocoumarol and phenindione**, antagonise the effects of vitamin K, and take at least 48 to 72 hours for the anticoagulant effect to develop fully. Treatment is managed by dosing according to response, relative to a specified international normalised ratio (INR). This is different for different treatment indications.

4

### INR monitoring:

INR monitoring is usually performed by local anticoagulation monitoring services. One of the main adverse effects of all oral anticoagulants is haemorrhage. Checking the INR and following local and national guidance is essential. INR can be affected by changes in dose, changes in diet or in this case the result of a drug-drug interaction.

5

### Patient Identification:

ePACT2 have released a new comparator in the Alerts Dashboard view, located under Clinical Dashboards. The comparator highlights the number of unique patients co-prescribed tramadol and warfarin. NHS numbers for patients in any dataset on ePACT2 can be requested by practices via contacting: [DataServicesSupport@nhsbsa.nhs.uk](mailto:DataServicesSupport@nhsbsa.nhs.uk) Pharmacists and Prescribers in hospitals, GP practices and community pharmacies may opportunistically identify patients taking tramadol and a vitamin K antagonist.

6

### Action Required:

Consider prescribing an alternative opiate to tramadol, such as codeine, when looking to commence an opiate in a patient who is prescribed vitamin K antagonists. Switching existing patients on tramadol to an alternative opiate if they are being anticoagulated with vitamin K antagonists may be considered. **Ensure that INR is monitored before and after interacting medications are commenced or discontinued.**

7

### References and Further Reading:

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