Managing patients who are taking warfarin and undergoing dental treatment

**General guidelines**
- If patients on warfarin who require dental surgery have an International Normalised Ratio (INR) of below 4.0, they can usually receive their dental treatment in primary care without needing to stop their warfarin or adjust their dose.
- The risk of thromboembolism after temporary withdrawal of warfarin therapy outweighs the risk of oral bleeding following dental surgery.
- Patients on warfarin may bleed more than normal, but bleeding is usually controlled with local measures.

**Advice to be given to patients**
Advice for patients is available in the patient leaflet, *Oral Anticoagulant Therapy: Important information for dental patients*.

**Drug interactions**

**Amoxicillin**
There have been anecdotal reports that amoxicillin interacts with warfarin causing increased prothrombin time and/or bleeding, but documented cases are relatively rare. Patients requiring a course of amoxicillin should be advised to be vigilant for any signs of increased bleeding.

**Clindamycin**
Clindamycin is restricted to specialist use and should not be used routinely for dental infections due to its serious side effects. There is a single case report of an interaction between warfarin and clindamycin.

**Erythromycin and other macrolide antibiotics** (for example, azithromycin)
Macrolide antibiotics interact with warfarin unpredictably and only in certain individuals. Patients should be advised to be vigilant for any signs of increased bleeding.

If increased bleeding occurs then the patient should be advised to contact the GP or anticoagulant clinic to arrange additional INR testing and dose review.

**Metronidazole**
Metronidazole interacts with warfarin and should be avoided if possible. If it cannot be avoided, the warfarin dose may need to be reduced by a third to a half, and re-adjusted again when the antibiotic is discontinued. Contact the GP or anticoagulant clinic to arrange additional INR testing and dose review.

**Non-steroidal anti-inflammatory drugs**
Drugs including ibuprofen, aspirin and diclofenac should not be used as analgesics in patients taking warfarin.

**Dental surgery covered by this advice includes:**
Treatment where the INR does not need to be checked:
- Prosthodontics
- Conservation
- Endodontics

Treatment where the INR does need to be checked (follow flow diagram):
- Extractions
- Minor oral surgery
- Periodontal surgery
- Biopsies

**Yes**
Consider the timing of the dental procedure. It is recommended treatment takes place in the morning at the beginning of the week when re-bleeding problems can be managed during the working day and working week.

- Use a local anaesthetic containing a vasoconstrictor. Where possible use an infiltration, intraligamentary or mental nerve injection.
- If there is no alternative and an inferior alveolar nerve block is used, the injection should be administered slowly using an aspirating technique.
- For extractions, gently pack the socket with an absorbable haemostatic dressing.
- Carefully suture the socket.

**No**
Obtain an INR measured no more than 72 hours before the dental procedure.

**Yes**
Use local anaesthetic

**No**
Refer to anticoagulation service.
Reschedule the procedure when INR is less than 4.0. Refer to specialist services for dental treatment if INR remains above 4.0 or control is erratic.

**Drug therapy** if the patient requires analgesia, use paracetamol. Avoid non-steroidal anti-inflammatories, for example, ibuprofen, aspirin and diclofenac. The use of dihydrocodeine should only be considered for second line pain relief when other drugs are unsuitable. Codeine has no role in dental analgesia. There is no indication for routine prescribing of antibiotics for dental procedures in this group of patients. See opposite for further information.