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Title:	**Guideline for the Management of Patients on Oral Anticoagulants requiring Dental Surgery**
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Southern Health and Social Care Trust

Guideline for the Management of Patients on Oral Anticoagulants requiring Dental Surgery

What constitutes dental treatment?

Many procedures performed in the primary care setting are relatively non-invasive and would not, therefore, require changes to normal anticoagulant therapy. Such procedures would include prosthodontics [construction of dentures], scaling / polishing and some conservation work [fillings, crowns, bridges].

Potentially invasive procedures performed in primary care would include:

- Endodontics [root canal treatment]
- Local anaesthesia [infiltrations, inferior alveolar nerve block, mandibular blocks]
- Extractions [single and multiple]
- Minor oral surgery
- Periodontal surgery
- Biopsies
- Subgingival scaling

The following patients should NOT have a surgical dental procedure in the primary care setting:

- Patients on oral anticoagulants with co-existing medical problems, e.g. liver disease, renal disease, thrombocytopenia or who are taking anti-platelet drugs. Such patients may have an increased risk of bleeding.
- Patients requiring surgical procedures not listed above. Such patients should be referred to a dental hospital or hospital-based oral and maxillofacial surgery department.

General advice for patient's taking oral anticoagulants

- Plan treatment for a morning session (with the expectation that complications can be detected before 17:00hr). For patients on a DOAC aim for an appointment late morning or at least 4 hours after last dose. Consider limiting the initial treatment area (e.g. perform a single extraction or limit subgingival periodontal scaling to 3 teeth, then assess bleeding before continuing).
- For procedures with a higher risk of post-operative bleeding complications, consider carrying out the treatments in a staged manner over separate visits.
- Use local haemostatic measures to achieve haemostasis. Actively consider suturing and packing.
- Advise the patient to take paracetamol, unless contraindicated, for pain relief following dental surgery, rather than NSAIDs and COX-2 inhibitors.
- Following an acute VTE or recent stroke, elective dental treatment requiring interruption of anticoagulation should be planned at least 3 months after the event. If an emergency procedure is required within this period, then contact the Southern Trust anticoagulant clinic for advice on bridging with enoxaparin if the oral anticoagulant has to be stopped.

Patients taking Warfarin or another Vitamin K antagonist (VKA)

- The risk of significant bleeding in patients with a stable INR in the therapeutic range 2-4 (i.e. <4.0) is small and the risk of thrombosis may be increased in patients in whom treatment is temporarily discontinued. Warfarin (or another VKA) should not be discontinued in the majority of patients requiring out-patient dental surgery including dental extraction.
- The INR should be within the therapeutic range for the individual and warfarin / coumarin regimen should not be interrupted. The range should be documented on the patient's INR book or dosing letter. The range is 2 to 3 for the majority of patients. In general, patients with a mechanical heart valve have a higher range, mostly 2.5 to 3.5 but occasionally 3 to 4 and a few patients with recurrent VTE will have a similar high range.
- When prescribing a single dose of antibiotic to a patient with a stable INR there is no need to alter the anticoagulant dose regimen.
- Ensure that the INR has been checked, **ideally** no more than **24 hours** before the procedure. If the patient has a stable INR, an INR check is recommended no more than **72 hours** prior to dental surgery.

Patients taking DOACs (Dabigatran, Rivaroxaban, Apixaban or Edoxaban)

- For dental procedures with a low bleeding risk, e.g., simple extractions (1-3 teeth), the patient should be treated without interrupting medication.
- For dental procedures with a higher bleeding risk, e.g., complex extractions, advise the patient to **omit the morning dose** before treatment.

For further information on bleeding risk in different procedures, please see summary table included in the SDCEP document: Management of Dental Patients Taking Anticoagulants or Antiplatelet Drugs.

General advice would be to treat patients taking DOACs at least 4 hours after a morning dose (i.e. DOAC to be taken before 8am). Late morning would appear to be the best time to fit in around most dose schedules and allow detection of complications before 17:00hr. Limit the initial treatment area and assess bleeding before continuing, stage extensive or complex procedures and actively consider suturing and packing. For further information, see SDCEP document: Management of Dental Patients Taking Anticoagulants or Antiplatelet Drugs.

- Advise patient when to restart their medication following the procedure (see table below).

DOAC dose schedules:

DOAC	Usual drug schedule	Post-treatment dose
apixaban or dabigatran	Twice a day	Usual time in evening‡
rivaroxaban or edoxaban	Once a day; morning	Next scheduled dose (next morning after the procedure)
rivaroxaban or edoxaban	Once a day; evening	Usual time in evening‡

‡As long as no earlier than 4 hours after haemostasis has been achieved.
The patient should continue with their usual drug schedule thereafter.

References

British Dental Journal 203, 389 - 393 (2007) Guidelines for the management of patients on oral anticoagulants requiring dental surgery. D. J. Perry, T. J. C. Noakes & P. S. Helliwell

Scottish Dental Clinical Effectiveness Programme: Management of Dental Patients Taking Anticoagulants or Antiplatelet Drugs. Published August 2015
For full guidance go to: http://www.sdcep.org.uk/published-guidance/anticoagulants-and-antiplatelets/

British Society for Haematology Guideline (2016) Peri-operative Management of Anticoagulation and Antiplatelet Therapy.

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