# **Decision-Making Table: Management of Patients on Oral Anticoagulants**

Here's a decision-making table for managing dental patients on oral anticoagulants. It is crucial to follow current guidelines and always coordinate with the patient's physician before performing invasive procedures.

Medication	Low-Risk Procedures (cleaning, fillings, etc.)	High-Risk Procedures (extractions, surgery, etc.)	
ADIRO 100 mg	No modification required.	- Continue medication Use local bleeding control measures: hemostatic sponges, sutures, and tranexamic acid.	
ADIRO 300 mg	No modification required.	- Consult with the physician about reducing to 100 mg temporarily before the procedure (optional) Apply local hemostatic measures.	
SINTROM (acenocoumarol)	Check INR (last 24-72 h). Proceed if INR ≤ 3.	- Check INR (must be ≤ 3) Do not stop the medication but consider delaying the procedure if INR > 3 Apply local bleeding control measures.	
WARFARIN	Check INR (last 24-72 h). Proceed if INR ≤ 3.	- Check INR (must be ≤ 3) Do not discontinue, but adjust dosage in consultation with the physician if INR is elevated Intensify local hemostasis measures.	

# **Important Notes:**

## 1. Local Bleeding Control Measures:

- Sutures.
- Use of local hemostatic agents (e.g., gauze impregnated with tranexamic acid, collagen sponges).
- Rinses with tranexamic acid (10 mL of 5% solution for 2 minutes every 6-8 hours for 2 days).

## 2. Medical Coordination:

- Before modifying or adjusting any anticoagulant treatment, always consult with the patient's physician.
- Do not discontinue anticoagulants without medical authorization, as the risk of thromboembolic events may outweigh the bleeding risk.

## 3. Post-Operative Monitoring:

Plan close follow-up to ensure effective bleeding control.

# **Bibliography:**

# 1. European Society of Cardiology (ESC):

 Hindricks, G., Potpara, T., Dagres, N., et al. (2021). 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association of Cardio-Thoracic Surgery (EACTS). European Heart Journal, 42(5), 373–498.

#### 2. British Society for Haematology (BSH):

 Keeling, D., Tait, R. C., Watson, H. (2016). Perioperative management of anticoagulation and antiplatelet therapy. British Journal of Haematology, 175(4), 602–613.

### 3. American College of Cardiology (ACC):

 Douketis, J. D., Spyropoulos, A. C., Spencer, F. A., et al. (2012). Perioperative Management of Antithrombotic Therapy: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest, 141(2\_suppl), e326S—e350S.

#### 4. American Dental Association (ADA):

 Lockhart, P. B., Brennan, M. T., Sasser, H. C., et al. (2003). Anticoagulation and antiplatelet medication: perioperative management for patients undergoing dental procedures. Journal of the American Dental Association, 134(11), 1492–1499.

#### 5. World Workshop on Oral Medicine:

 Wahl, M. J. (2000). Dental surgery in anticoagulated patients. Archives of Internal Medicine, 160(8), 947–955.

#### 6. Practical Guidance on Oral Anticoagulants:

 Steffel, J., Verhamme, P., Potpara, T. S., et al. (2018). The 2018 European Heart Rhythm Association Practical Guide on the use of non-vitamin K antagonist oral anticoagulants in patients with atrial fibrillation. European Heart Journal, 39(16), 1330–1393.

# **Management of Patients on Heparin Therapy**

Here's a detailed guide on managing patients on heparin therapy (unfractionated or low molecular weight) in the dental context. The approach depends on whether the patient is on continuous therapy or receiving bridging anticoagulation due to temporary discontinuation of oral anticoagulants.

Type of Heparin	Common Indications	Low-Risk Procedures (cleaning, fillings, etc.)	High-Risk Procedures (extractions, surgery, etc.)
Unfractionated Heparin (UFH)	Hospitalized patients or those on bridging therapy due to high thromboembolic risk.	- No adjustment usually needed.	- Consult with the treating physician Proceed if APTT is within the therapeutic range.
Low Molecular Weight Heparin (LMWH) (e.g., enoxaparin, dalteparin)	Bridging therapy after discontinuing oral anticoagulants or for active thrombosis prophylaxis.	- No dose modification required.	- Administer the last dose 12 hours before the procedure (prophylactic dose) or 24 hours before (therapeutic dose) Resume 24 hours post-procedure.

# **Key Points on Heparin Use**

# 1. Unfractionated Heparin (UFH):

- Administered intravenously, typically in hospitalized patients.
- Monitored via activated partial thromboplastin time (APTT).
- For high-risk procedures, coordinate with the medical team to adjust or temporarily discontinue the dose 4-6 hours prior to the procedure.

### 2. Low Molecular Weight Heparin (LMWH):

- Commonly used for bridging therapy or thrombosis prophylaxis.
- Prophylactic Dose: Usually no adjustment needed for minor dental procedures.
   Example: Enoxaparin 40 mg/day.

 Therapeutic Dose: For high-risk procedures, consult the physician to delay a dose if feasible.

#### 3. Local Measures for High-Risk Procedures:

- Use of hemostatic agents: collagen sponges, gauze soaked in tranexamic acid.
- Appropriate suturing techniques.
- Postoperative tranexamic acid mouthwash (5%, 10 mL, for 2 minutes every 6-8 hours for 2-3 days).

### 4. Restarting Heparin Post-Procedure:

- Resume LMWH (prophylactic or therapeutic dose) 24 hours after low-bleeding-risk procedures.
- For high-bleeding-risk procedures, restarting may be delayed and should be done under medical supervision.

## **Additional References**

- 1. Douketis, J. D., Spyropoulos, A. C., et al. (2012). *Perioperative Management of Antithrombotic Therapy: Antithrombotic Therapy and Prevention of Thrombosis*, 9th ed. Chest, 141(2\_suppl), e326S-e350S.
- 2. Baron, T. H., Kamath, P. S., McBane, R. D. (2013). *Management of antithrombotic therapy in patients undergoing invasive procedures. New England Journal of Medicine*, 368(22), 2113–2124.
- 3. Garcia, D. A., Regan, S., Crowther, M., et al. (2008). The management of perioperative bridging anticoagulation: a systematic review for the American College of Physicians. Annals of Internal Medicine, 149(2), 51–60.