#### **Abstract**

**Background:** Agrowing number of patients are taking oral anticoagulant or antiplatelet drugs for primary or secondary prevention of arterial or venous thrombosis.

**Aims:** The aim of this study is to study different types and uses of antiplatelet and anticoagulant therapy and to discuss the hazard and different challenges in perioperative management of patient on antiplatelet and anticoagulation therapy undergoing gastrointestinal surgery.

**Methodology:** Perioperative management of the risks of hemorrhage and thrombosis related to gastrointestinal surgery tailored to patient characteristics are part of daily multidisciplinary practice tasks. The goal of this work is to discuss of different types and uses of antiplatelet and anticoagulant agents and to discuss current practices concerning antithrombosis prophylaxis and different challenges in perioperative management of patient on antiplatelet and anticoagulation therapy undergoing gastrointestinal surgery.

**Conclusion:** The duration of prophylaxis is 1 month for oncological surgery. The recommended doses in bariatric surgery are twice daily injections of low-molecular weight heparin without exceeding a total dose of 10,000 IU/day. Dual antiplatelet therapy is necessary for 6 weeks after placement of bare-metal stents, from 6—12 months for drug-eluting stents, and 12 months after an acute coronary artery syndrome.

**Keywords:** Perioperative Management, Anticoagulation, Antiplatelet Therapy, Gastrointestinal Surgery

### **Contents**

Subjects	Page
List of figures	II
List of Abbreviations	III
• Introduction	1
Aim of the Work	3
• Chapter (1): Pharmacology of Antiplatelets	and
Anti-Coagulants	4
• Chapter (2): Gastrointestinal Surgery and U	ses of
Antiplatelet and Anticoagulation	on66
• Chapter (3): Perioperative Management of	
Anticoagulants	87
• Chapter (4): Perioperative Management of	
Antiplatelets	134
• Summary	154
• References	156
Arabic Summary	

# List of Figures

No.	<u>Figure</u>	Page
<u>1</u> -1	Mechanisms of platelet activation.	4
<u>1-2</u>	Mechanisms of platelet aggregation.	5
<u>1-3</u>	Classification of anticoagulants.	29
<u>2-1</u>	Recommendations for thromboprophylaxis in gastrointestinal surgery.	67
<u>3-1</u>	Peri-operative management of new oral anticoagulants (NOACs) in the elective setting.	99
3-2	Anticoagulant management for neuraxial anesthesia.	128
<u>4-1</u>	perioperative management of antiplatelets therapy.	141

### List of Abbreviations

ACS : Acute coronary syndromes

AF : Atrial fibrillation

APA : Antiplatelets

APTT : Activated partial thromboplastin time

ASA : Aspirin

AT : Antithrombin

BMS : Baremetal stents

CABG : Coronary artery bypass grafting

CYP : Cytochrome P-450

DAPT : Dual antiplatelet therapy

DVT : Deep venous thrombosis

ES : Elastic stockings

FDA : Food and Drug Administration

HIT : Heparin-induced thrombocytopenia

HITT : Heparin-induced thrombocytopenia and

thrombosis

INR : International Normalized Ratio

IPC : Intermittent pneumatic compression

IV : Intra Venous

NSAIDS : Non-steroidal anti-inflammatory medications

PCI : Percutaneous coronary intervention

### List of Abbreviations

PE : Pulmonary embolism

PT : Prothrombin time

RYGB : Roux-en-Y Gastric Bypass

SCD : Sequential compression devices

TBW : Total body weight

TTP : Thrombotic thrombocytopenic purpura

UFH : Unfractionated heparin

VKA : Vitamin K antagonists

VTE : Prevention of venous thrombo embolism

VTE : Venous thromboembolism



# Introduction





# Aim of the Work





## CHAPTER (1):

# Pharmacology of Antiplatelets and Anti-Coagulants





# CHAPTER (2):

# Gastrointestinal Surgery and Uses of Antiplatelet and Anticoagulation





# CHAPTER (3):

# Perioperative Management of Anticoagulants





# CHAPTER (4):

# Perioperative Management of Antiplatelets





# **Summary**





# References





# **Arabic Summary**





### Perioperative Management of Anticoagulation and Antiplatelet Therapy in Gastrointestinal Surgery

### Essay

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