University Hospitals of Derby and Burton
NHS Foundation Trust

Antithrombotics and Skin Surgery in Dermatology - Full Clinical Guideline

Reference no.:CG-DERM/2018/003

1. Introduction

The Dermatology department performs skin surgery and biopsies for multiple skin conditions. Patients can be on a range of antithrombotic medications including single antiplatelet therapy, dual antiplatelet therapy (DAPT), warfarin, Novel Oral Anticoagulants (NOAC) or Direct Acting Oral anticoagulants (DOAC). The risk of bleeding should be weighed against the risk of thrombosis peri-operatively.

2. Aim and Purpose

The aim is to incorporate the British Society of Dermatological Surgeons (BSDS) guidelines with local haematology guidelines and local Dermatology Departmental expertise at the University Hospitals of Derby and Burton. It is recognised under certain conditions it may be necessary to deviate from the guidelines and clinical judgement should ultimately determine the degree of risk. Multidisciplinary team input maybe helpful.

3. Definitions, Keywords

Skin surgery, dermatology, minor operation, antiplatelet, antithrombotic, anticoagulant

4. Guidance: A. Bleeding risk of procedure, B. thrombotic risk and C. antithrombotic/antiplatelet medication, D. Other

The clinician must weigh up the risk factors and obtain informed consent from the patient. If uncertain please discuss with the haematologist or cardiologist.

A) Procedure risk

In practice, most skin procedures can be considered to be **low bleeding risk**.

Higher bleeding risk skin procedures include:
• Wide excision, grafts or secondary intention wounds on non-compressible sites (e.g. neck, ears, lips and periocular) • Local flaps on head and neck with wide undermining (e.g. forehead, periocular, cheek, nose, ear, neck)

B) Thrombotic risk

It is important to know why the patient is on the medication to assess the thrombotic risk if the drug were stopped.

High thrombotic risk
• Mechanical heart valve (INR target >3.0)
• Venous or arterial thromboembolism (VTE):
  ○ within last 3 months or recurrent thromboembolism
• Acute intracardiac thrombus (within 12months)
  ○ See DAPT indications in DAPT section
• Atrial fibrillation (AF) with history of stroke, TIA or VTE
• Active cancer
• Known hypercoagulable state/genetic defects

Moderate thrombotic risk VTE within last 3-6months
Low thrombotic risk AF without above risk factors

C) Antithrombotics

C1) Single antiplatelet medication

Low bleeding risk procedure- continue the antiplatelet.

Higher bleeding risk procedure - Consider booking into Daycase procedures at the Royal Derby Hospital. In general, the antiplatelet agent can be continued but in some circumstances the dermatologist performing the procedure may consider stopping the agent. Discussion with the haematologist or cardiologist maybe required.

Antiplatelet (PO)	**Reversibility**	**Time to stop pre-operatively**
Aspirin	Irreversible	7 days
Dipyridamole	Reversible	24 hr
Clopidogrel	Irreversible	7 days
Prasugrel	Irreversible	7 days
Ticagrelor	Reversible	5 days

Agents can be restarted the next day if no significant post-operative bleeding.

C2) Dual antiplatelet therapy (DAPT)

Low bleeding risk procedure- continue the DAPT.

Higher bleeding risk procedure - consider waiting until DAPT is completed. If surgery cannot wait then consider booking into Daycase procedures at the Royal Derby Hospital. In such cases please discuss with the dermatologist to whose list they are assigned. It may require discussion with the patient's cardiologist if alteration of the regimen is required to reduce the bleeding risk.

Indications and duration for DAPT
• At least 1 month after bare metal stent into stable coronary artery disease • 6 months after new generation drug eluting stent • Up to 1 year after an acute coronary syndrome irrespective of revascularisation method • All of the above should continue aspirin lifelong

C3) NOAC/DOACs

Low bleeding risk procedure – continue the NOAC/DOAC

Higher bleeding risk procedure - consider booking into Daycase procedures at the Royal Derby Hospital. In such cases please stop the NOAC/DOACs ***(See Appendix C)***. However, if the thrombotic risk is moderate or high, discuss it with the haematologist as alternatives maybe required.

It may be reasonable to stop a DOAC in advance of a moderate risk procedure (see Appendix C) if the indication is low thrombotic risk (e.g AF only), these do not need to be booked to daycase:

NOAC/DoAC	**Time to stop pre-operatively**
Apixaban	24 hrs
Rivaroxaban	24 hrs
Dabigatran	24 hr unless impaired renal function (eGFR <60) then stop 48 hrs.
Edoxaban	24 hrs

NOAC/DOACs are usually restarted the next day. As the patient is fully anticoagulated within hours of taking the medication, please ensure adequate haemostasis before restarting.

C4) Warfarin

Low bleeding risk procedure - Check the indication and target range. Patients should have an INR check several days prior aiming for ***INR < 3.0***. However, there will be exceptions where the thrombotic risk is high and the indication of warfarin requires a higher target INR >3.0 e.g. metallic heart valve. Such cases should be booked on a doctor list (NOT a nurse list) and INR should be below 3.5.

Higher bleeding risk procedure – As for low risk procedure, but consider booking for Daycase procedures at the Royal Derby Hospital. If the target INR is > 3.0 please discuss with the dermatologist to whose list they are assigned. If they require the INR to be below 3.0 then may need to discuss with the consultant haematologist as low molecular weight heparin (LMWH) cover may be required.

C5) Heparin & Fondaparinux

Low bleeding risk and higher bleeding risk procedure - LMWH at prophylactic dose can be continued. If LMWH or fondaparinux is at treatment dose (PE/DVT/MI) then take advice from the prescribing specialist or haematologist.

D) Other:

Platelet count- if the platelet count is >50 in isolation (e.g. no disorder of platelet function) then proceed as normal. Otherwise discuss with haematologist.

5. Important Contact Details:

Dr. McKernan, Consultant Haematologist: Secretary Tel: 01332 787973

Dr. Baron, Consultant Cardiologist: Secretary Tel: 01332 786655

Dr. Shum or Dr. Ferguson RDH Daycase Dermatology Consultants: Secretary Tel: 01332 254678, 01332 254653

6. References (including any links to NICE Guidance etc.)

1. British Society of Dermatological Surgery Guidance on Antithrombotic and skin surgery. Aug 2016. Available from: https://www.bsds.org.uk/uploads/pdfs/Resources/BSDS%20Guidance%20on%20Antithrombotics%20and%20Skin%20Surgery%2C%20August%202016.pdf
2. UHDB guidelines- Antiplatelet Drug - perioperative management. 2017
3. UHDB guidelines - Apixaban: Bleeding, Surgery and Overdose. 2018, updated 2022
4. UHDB guidelines - Edoxaban: Bleeding, Surgery and Overdose, 2022

5. UHDB guidelines - Dabigatran: How to Manage Bleeding, Surgery and Overdose 2017

6. UHDB guidelines - Rivaroxaban: Bleeding, Surgery and Overdose. 2018, updated 2022

7. Palamaras I, Semkova K. Perioperative management of and recommendations for antithrombotic medications in dermatological surgery. British Journal of Dermatology. 2015;172(3):597-605.

8. Koenen W, Kunte C, Hartmann D, Breuninger H, Moehrle M, Bechara F et al. Prospective multicentre cohort study on 9154 surgical procedures to assess the risk of postoperative bleeding - a DESSI study. Journal of the European Academy of Dermatology and Venereology. 2017;31(4):724-731.

7. Documentation Controls

Development of Guideline:	Dr Joelle Dobson, Specialist Registrar Dr Kid Wan Shum, Consultant Dermatologist Updated by Dr. Laura Adams SpR, 2022
Consultation with:	Consultant Haematologist Dr. McKernan and Consultant Cardiologist Dr. Baron
Approved By: Updated On:	Dermatology Departmental meeting 3/5/2018 25/8/22 Mr Daly - Plastic Surgery - April 2023 and Dr G.Elston (consultant) - April 2023 Medicine Division -21/4/2023
Review Date:	April 2026
Key Contact:	Dr. Kid Wan Shum

8. Appendices

Appendix A

Procedure risk	Antithrombotics	Pre-operative management of antithrombotics
Low risk procedure	+ single antiplatelet, DAPT, LMWH (prophylactic)	= No change to medication preoperatively
	+ LMWH (treatment dose) and Fondaparinux	Delay procedure/Take advice from haematologist, unless small punch biopsy (<5mm)
	+ NOAC/DOAC	= No change to medication preoperatively
	+ warfarin	= check INR < 3.0; if target >3.0 then aim for INR < 3.5 and do procedure on doctor list
Higher risk procedure (Book into RDH daycase)	+ single antiplatelet, DAPT LMWH (prophylactic)	= No change to medication preoperatively (at discretion of dermatologist doing procedure)
	+ LMWH (treatment dose) and Fondaparinux	Take advice from haematologist
	+ NOAC/DOAC	= Stop if safe* #
	+ warfarin	= check INR <3.0; if target INR >3.0 then inform dermatologist doing procedure; take advice from haematologists if need to decrease to INR< 3.0

***see above text for antithrombotic pre-operative stopping advice**
 # See Appendix C for moderate procedures where NOAC/DOAC can be stopped

Appendix B – Patient information leaflet

Message for skin surgery patients who take blood thinners

(Affix Patient label)

One of the members of the dermatology team has arranged for you to have a skin surgery procedure.

<u>If on Warfarin:</u>

To reduce the risk of bleeding after surgery, **your INR warfarin blood test needs to be 3.0 or less at the time of the surgery**

Please can you make sure that you **have your INR checked up to 5 days before the date of the surgery** (for example, if you are having surgery on a Monday, please make sure your INR has been checked on the Friday before this, at the latest)

If your INR result is 3 or less, please attend the surgery appointment as planned.

If your INR result is more than 3, please contact your consultant's secretary on the telephone number given below, as we may have to postpone your surgery until a time when your INR has gone back down to 3 or less.

<u>If on other blood thinners:</u>

If you take other anticoagulants such as **apixaban, dabigatran, rivaroxaban or edoxaban**, you may be asked to stop this medication before the surgery (see below).

Please (Dermatologist circle option, and delete rest):

Do not stop this medication

Do not take any of this medicine one day before your surgery

Do not take any of this medication 2 days before your surgery

You should then start taking it again after the surgery. Please take all of your other medications as you would normally.

Telephone numbers (Dermatology Secretaries)

Secretary to Drs Shum & Bleiker	01332 254678
Secretary to Drs Malik & Israr & Shahidullah & Sharma	01332 254680
Secretary to Dr Nambi	01332 254653
Secretary to Drs Abid, & Ferguson &.Ali	01332 254793

Appendix C

Moderate risk skin procedures where NOAC/DOAC can be discontinued pre-operatively if low thrombotic risk(see text)

- Excision of lesions on scalp
- 1 or 2 cm wider excisions of melanoma/melanoma scars, compressible site
- Secondary intention wounds / partial closure with purse-string sutures, compressible site
- Small Flap or graft, compressible site