Tutorial

NOACs

From the Editorial desk

1. What does NOAC stand for?

Non Vitamin K antagonist Oral Anti Coagulants.

The drugs in this class which are sometimes used in this country are,

- dabigatran
- rivaroxaban
- apixaban.

Dabigatran is a thrombin inhibitor. Rivaroxaban and apixaban are factor Xa inhibitors.

2. Can NOACs be used for atrial fibrillation complicating mitral stenosis?

No.
NOACs are not authorized for used in hemodynamically significant valvular diseases.

3. Can NOACs be used for anti-coagulation for prosthetic valves?

No.
(See answer for question 4).

4. For what indications can NOACs be used?

(i) Non valvular atrial fibrillation.
(ii) Prevention of venous thrombosis and embolism after knee/hip joint replacement.
(iii) Deep vein thrombosis of lower limbs.
(Thrombosis of cerebral veins, portal vein, splenic vein, upper torso veins are not indications for NOACs).

5. Need the renal and hepatic function be assessed before using NOACs?

Yes.

Do not use in the following:

- Hepatic insufficiency of Child-Pugh Category B
- Creatinine clearance < 15-30 mL/ min by Cockcroft- Gault equation.

6. How do you switch from warfarin sodium to NOACs?

- Adjust warfarin sodium dosage until the INR is <2.5
- Once this INR is reached commence NOACs.

7. How do you switch from NOACs to warfarin sodium?

Start on warfarin sodium 5 mg while on NOACs.

Do INR daily.

Once INR reaches 2, omit NOACs. Repeat INR in 3 days to ensure INR is in the therapeutic range.

8. If a patient on NOACs has a non-life threatening major bleed, what is the management?

Omit NOACs and observe.

The bleeding will stop in 12-24 hours if renal function is OK.

In the presence of renal dysfunction, normalization may take 48 hours.

9. If a patient on NOACs has life threatening bleeding, what is the management?

Reverse action as follows:

Dabigatran – Idarucizumab 2.5 mg iv two doses.

(The two doses 15 minutes apart)

Factor Xa inhibitors – Prothrombin concentrate 50u/kg.

10 A patient on NOACs has had a significant gastric bleed. What is the management?

i. Manage the gastric bleed as usual.

ii. Observe for 7 days.

iii. If the risk of stroke persists and out weighs the risk of recurrent bleed, restart NOACs after 7 days. Use a lower dosage if the dose is approved for the indication.

11. If a patient on NOACs has to undergo surgery, what is the management?

i. Withhold the NOACs for 12-48 hours.

ii. Bridging heparin is usually not required. But if so required by the cardiologist, UFH can be started 24 hours after stopping NOAC.

iii. If LMWH is to be commenced, check the Cr Cl. If <25ml/mt wait for 48 hours before commencement.

12. If a patient already on NOACs develops an acute coronary syndrome what is the management?

i. PCI is the safest mode of therapy. Use a radial approach. Primary PCI is allowed.

ii. If not very high risk or high risk unstable angina, wait for 24 hours and perform PCI as appropriate.

iii. Antiplatelet agents may be given along with PPIs.

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13. How do you administer anti platelet agents along with NOACs?

i. Patients with acute coronary syndrome who have undergone PCI- stenting, need dual anti platelet therapy. These patients may need "triple therapy" (i.e. NOAC + aspirin + clopidogrel) for three months.

ii. Subsequently omit aspirin and continue on dual therapy (i.e. NOAC + clopidogrel) for 1 year.

iii. After one year continue only on NOAC.

14. What is the management if a patient on NOACs develops an ischemic stroke?

i. If the last intake of NOAC is >48 hours, thrombolysis may be permitted.

ii. Endovascular therapy is ideal if available.

iii. If NOAC has been ingested recently, reverse action of NOAC (as in question 9) and administer thrombolytic agent.

iv. Restart NOAC 2 weeks after the stroke.

15. What drugs must not be co – prescribed with NOACs?

i. Rifampicin

ii Anti fungal agents

Iii Dexamethasone

iv HIV protease inhibitors