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Pharmacist's Letter
Hospital

Guide Peri-Op Management of Direct Oral Anticoagulants

Your help will be needed to **manage direct oral anticoagulants (DOACs) around procedures or surgery**.

Consider these strategies...and ensure that the peri-op management plan is clearly documented for the team.

Holding. Stop and restart based on procedure and patient risks.

Generally hold DOACs 1 day before procedures with low bleeding risk, such as colonoscopy or upper endoscopy...since these may involve biopsy or polyp removal.

Typically hold DOACs for 2 days before procedures with high bleeding risk, such as abdominal or vascular surgery.

Don’t be surprised if some anesthesiologists use a more conservative approach with regional anesthesia...such as holding for 3 days or more.

And consider other factors...such as renal function.

For example, if CrCl is below 50 mL/min, hold dabigatran for 2 days before low-bleeding-risk procedures...or 4 days before high-bleeding-risk procedures.

Usually restart DOACs at least 1 day after low-bleeding-risk procedures...or 2 to 3 days after high-bleeding-risk surgeries.

If regional anesthesia is used, wait at least 6 hours after catheter removal to restart DOACs.

Keep in mind, it’s often okay to continue DOACs for procedures with minimal bleeding risk...such as pacemaker placement or paracentesis.

In these cases, delay DOACs the day of surgery until 4 to 6 hours post-op. This may mean skipping the morning dose of twice-daily DOACs.

Bridging. Don’t routinely bridge DOACs. Risk of bleeding seems to outweigh any benefit...plus DOACs have a rapid onset when resumed.

Reversing. Limit peri-op DOAC reversal to life-threatening emergencies.

Andexanet alfa (*Andexxa*) is a specific reversal agent for factor Xa inhibitors, such as apixaban or rivaroxaban...but don’t be surprised if it’s non-formulary.

Data are limited...mostly to patients with major bleeding. Plus andexanet alfa costs up to $23,000/dose.

Consider 4-factor prothrombin complex concentrate (*Kcentra, Balfaxar*) to reverse apixaban, rivaroxaban, or edoxaban.

Think about using a fixed dose of 2,000 units for reversal...instead of weight-based dosing.

All data are weak...and none compare dosing regimens. But fixed dosing is simpler...may reduce med waste...and costs about $6,000/dose.

If dabigatran reversal is required, generally use idarucizumab (*Praxbind*). It corrects coagulation labs prior to emergent surgery...but outcomes data are limited. It costs $4,000/dose.

See our chart, *Peri-Op Management of Chronic Meds*, for guidance about using VTE prophylaxis while DOACs are held, managing warfarin, and more.

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Key References:

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