The Pharm- Assistant
Presents

MANAGING
DOAC'S

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WELCOME
TO THE PHARM-ASSISTANT

The Pharm-Assistant Platform has been set up to help health professionals widen their scopes of practice, while also developing confidence, comfort, and competence in their roles. Over the last 3 years I have helped many pharmacists achieve new goals and succeed in more challenging roles within the profession. For more information please visit my website at www.pharm-assistant.co.uk.

I have been mentoring pharmacists since 2018. At first for the Royal Pharmaceutical Society, and since 2021 as an independent mentor with a simple vision in mind.

"I want to help as many pharmacists as possible develop into being the best they can be, EITHER in the role they are in, OR in the role they want to be in."

So if you are someone who is lost and not quite sure what the next step is I urge you to GET IN TOUCH AT:

https://pharm-assistant.co.uk/need-a-mentor%3F.

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DISCLAIMER
TO THE READER

This guide is written from a clinical perspective to help health professionals structure their consultations, such that they are able to accurately help to manage their patients with regards the high risk medications.

This guide does not seek to circumvent the guidelines, and clinical training already given to Pharmacists by the NHS. Where this guide differs from the information given to you by the NHS, clinicians should follow the national guidance given.

This guide does not aim to replace a pharmacists clinical judgment, and responsibility for decisions made ultimately lies with the pharmacist making that clinical decision.

We aim only to provide information and structure to the reader, such that the reader is able to use the information provided confidently to the benefit of their patients.

Thank You.

PHARM-ASSISTANT

HELPING YOU TO HELP YOURSELF

THE DOAC'S

REVIEWING DOAC'S

There are 5 key points to remember

- **Check compliance-** DOAC's have a short half life (average 7-17 hours) while blood monitoring is not as often as warfarin. This means that poor compliance can lead to greater time outside the therapeutic window and as such increase the risk of stroke.

- **Check dose -** Is the dose clinically safe, confirm using the shared care agreement and BNF? (query this if the dose prescribed is above the clinical maximum for that condition).

- **Check the drug monitoring -**
  - Is the blood monitoring up to date?
  - Are the results normal? is any action required?

- **Check for red flags-** see "a tool for assessing bleeding risk" on page 6

- **Check when they are next due to see their consultant-** Patients on high risk drugs will be under a consultant as part of the shared care agreement.
  - Check when their next appointment is?
  - Check if they are aware of the action plans?
  - Check if they know what to do in an emergency?

IMPORTANT INFO. RE DOAC'S

- **What to do if a dose is missed** - If unsure, talk to healthcare provider

    - **For once daily dosing:**
        - Take within 12 hours of missed dose, if more than 12 hours, omit the dose and then continue at the usual time.

    - **Twice daily dosing:**
        - take within 6 hours of missed dose, if more than 6 hours, omit the dose and then continue at the usual time

for rivaroxaban 15mg bd dosing - can take 2 at one time to make dose but never more than 30mg/day.

- **With or without food**
    - Rivaroxaban and Dabigatran= WITH FOOD (don't open dabigatran caps)
    - Apixaban and Edoxaban - WITH / WITHOUT FOOD

- **Avoid contact sports**. as this can increase the risk of a head injury.

- **If patient falls pregnant unexpectedly or if seeking to have a baby** - let Health Professional know immediately. Otherwise to use adequate contraception.

- **If having surgery,** the patient should let the team carrying out the surgery know that they are on a DOAC.

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THINGS TO WATCH FOR

RED FLAG SYMPTOMS

- BLEEDING OR BRUISING - Patient to alert the GP or Pharmacist if having bleed or bruise which is serious or from an unknown cause.

The benefit here is that DOAC's generally have a lower bleeding risk than warfarin. However bleeds can be problematic as there is only 1 licenced antidote. Generally if there is a bleed and its major, the patient would need to see go to hospital.

Which specialist should be seeing them

- HAEMATOLOGICT
- CARDIOLOGIST

Take a look at their last clinic letters from these specialists

1. *What are the action plans,*
2. *When are they next due to be seen,*
3. *Have they had any monitoring in hospital*

HIGH RISK Patients

- **PREGNANT PATIENTS -** AVOID
- **BREAST-FEEDING PATIENTS -** AVOID
- **HEPATIC PATIENTS** - DISCUSS WITH CONSULTANT
- **RENAL PATIENTS -** SEE INDIVIDUAL DRUG PAGE

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WHAT AFFECTS BLEEDING RISK?

- CHRONIC ALCOHOL CONSUMPTION -
  - Consumption *Should be less than 14 units/ week. Chronic alcoholism can affect the:*
    - *Bone marrow- resulting in fewer than normal or non functioning blood cell creating (leading to Megaloblastic Anaemia).*
    - *Haemoglobin synthesis - (can lead to sideroblastic anaemia, this is reversible on stopping).*

A CLEAR ALCOHOL HISTORY IS A MUST DUING EVERY REVIEW AND CHANGES SHOULD BE .

- PRESENCE OF AN ANTIPLATELETE OR NSAID
  - *Is it necessary?*
    - *Antiplatelets increase the risk of DOAC bleeds by 30 to 60%! That's why we must review the need of antiplatelet's. The best time to do this is when an DOAC is initiated. Checking with the consultant at this point can mean avoiding this interaction affecting the outcome.*
    - *Its also key to keep all parties (consultant, patient and GP) on the sale page. For example if you start or stop an NSAID during structured medication review, it may affect the anticoagulation on that patient and the kidney function, this should be tested and relayed to specialist in-case the dose of DOAC needs to be changed.*

- UNCONTROLED HYPERTENSION -
  - Systolic >160mmHg
    - *Increases risk of bleeding. In truth any blood pressure >115/75mmHg increases the risk of stroke exponentially. Globally 60% of strokes are attributed to non optimal Blood pressure.*

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(Leblanc et al., 2018)

THE SHARE OF CARE

In some cases, these medicines will be prescribed under a shared care agreement.

Where this is the case, this is a document which will be agreed and signed by the relevant specialist consultant and the GP. Strictly speaking, these medicines should not be prescribed in primary care until this agreement has been signed.

The document highlights the following:

- The indication for which the medication is being prescribed.
- The hospital department in charge of care.
- The dose of the medication to be prescribed.
- The monitoring frequency.
- Scenarios where the patient should be referred back to the specialist e.g. deranged blood tests or red flags.

Simply put, while this booklet provides advice on how to safely manage these medicines, the shared care protocol should be your go too document with regards to individual patient care.

for more information see:
https://www.england.nhs.uk/medicines-2/regional-medicines-optimisation-committees-advice/shared-care-protocols/

and for a list of current shared care protocols see:

https://www.england.nhs.uk/publication/shared-care-protocols/

DOAC INDICATIONS AND DOSES

	NVAF		VTE	
	Standard dose	**Dose reduction**	**Standard dose**	**Dose reduction**
Apixaban	5 mg bid	2.5 mg bid if: age ≥ 80 yrs, weight ≤ 60 kg, creatinine ≥ 1.5 mg/dl (at least two); eGFR 15–29 ml/min (single criterion)	10 mg bid for 7 days followed by 5 mg bid	No in acute VTE[a] Extended treatment: possible 2.5 mg bid after 3–6 months
Edoxaban	60 mg od	30 mg od if eGFR 15–49 ml/min, weight ≤ 60 kg, concomitant potent P-Gp inhibitor	60 mg od preceded by LMWH for 5 days	30 mg od if dose reduction criteria as for AF satisfied
Rivaroxaban	20 mg od	15 mg od if eGFR 15–49 ml/min	15 mg bid for 21 days followed by 20 mg od	No in acute VTE[b] Extended treatment: possible 10 mg od after 3–6 months
Dabigatran	150 mg bid/110 mg bid	110 mg bid if age ≥ 80 yrs, concomitant verapamil, increased bleeding risk[c]	150 mg bid preceded by LMWH for 5 days	No[d]

TAKEN FROM:

Ballestri, S., Romagnoli, E., Arioli, D., Coluccio, V., Marrazzo, A., Athanasiou, A., Di Girolamo, M., Cappi, C., Marietta, M. and Capitelli, M. (2022). Risk and Management of Bleeding Complications with Direct Oral Anticoagulants in Patients with Atrial Fibrillation and Venous Thromboembolism: a Narrative Review. Advances in Therapy, 40(1). doi:https://doi.org/10.1007/s12325-022-02333-9.

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MANAGEMENT POINTS

REMEMBER TO...

- REVIEW THE PATIENT ANNUALLY!
  - Make the patient aware of frequency or blood reviews.
  - Make sure patient has clear action plan in place.
  - Make sure the patient is able to manage and tolerate the medication.
  - Make sure that there are no contraindications to treatment.
  - Make sure all monitoring is normal and the patient is safe to continue.
  - Make sure the patient has a DOAC Alert Card. If not, then advise them they can get one from their community pharmacy.

INFLUENZA VACCINE + INFECTIONS

These patient would fall into the Clinically at risk groups and should be called for their annual influenza vaccination.

They are also vulnerable to infection and should be advised to report any new signs of cough or cold to their GP.

INTERACTIONS TO WATCH FOR

- MAIN INTERACTIONS INCLUDE:
  - NSAIDS and antiplatelets.
  - Verapamil (especially with dabigatran, fine with rivaroxaban and apixaban).
  - Macrolides- Especially in patients taking Edoxaban.
  - Tri-azole Antifungals - Especially in patients taking apixaban and Dabigatran.
  - Ciclosporin - Especially with Edoxaban
  - Anti-Epileptics - Avoid co-prescribing of any DOAC unless not possible.

MONITORING REQUIREMENTS

- Full Blood Count
- Liver Function Tests
- Renal Function Tests
- Blood pressure
- Alcohol levels

Initial monitoring after starting or increasing dose - Bloods at baseline then 1 month after initiation then 3 monthly until stable.

Continual monitoring - ANUALLY DEPENDING ON RENAL FUNCTION (SEE BELOW)

If renal function changes, increase monitoring frequency.
Where a patient shows a creatinine clearance of below 60mL/min, divide the value by 10, and use the value obtained as the monthly testing frequency.

E.g. if CrCl is 30mL/min, increase frequency to every 3 months; if CrCl is 20mL/min, increase frequency to every 2 months.

(Specialist Pharmacy Service, 2021)

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I HOPE THIS WAS **HELPFUL**

Let's Grow Together

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