



Direct Oral Anticoagulant (DOAC) Monitoring with DAWN AC

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Pharmacist Management of Direct Oral Anticoagulants (DOACs)

- The role of pharmacists at Scripps as anticoagulation specialists includes DOAC management.
- Our dedicated Anticoagulation Services uses DAWN-AC modules for DOAC management.
- Patients are referred to us by outpatient physicians, inpatient physicians and Urgent Care

Pharmacist Management of Direct Oral Anticoagulants (DOACs)

- Provide education
- Prescription verification and insurance coverage
- Encourage adherence
- Drug dose adjustment and follow up renal function
- Adverse drug reactions
- Pre and post op therapy instructions
- Follow-up of bleeding complications
- Track drug discontinuation and transition back to warfarin

Advantages of DOACs

- No routine monitoring
- Rapid onset
- Short half-life (advantageous for invasive procedures or in the setting of active bleed)
- Fixed dosing
- Greater convenience, patient satisfaction and quality of life
- Fewer drug, disease and diet interactions

Missing Follow-ups

- Less concerns among practitioners for follow-ups on DOACs vs VKA
- Urgent care physicians started ordering DOACs without an anticoagulation clinic referral
- Many new patients lack appropriate follow-ups

Case 1

- 70yo male was seen in the urgent care for acute proximal and distal DVT in RLE. Patient was prescribed Xarelto 15mg bid with meals.
- Patient was discharged home with no anticoagulation clinic referral
- Both Xarelto and Eliquis were not covered, so patient was started on Coumadin 5mg qd
- One week later, patient was admitted to the hospital for an acute PE

Solution

Use a silent BPA (best practice advisory) in our electronic health record, Epic, to send a message to the anticoagulation clinic's inbox every time a provider in our Urgent Care departments orders an anticoagulant

Alert the anticoagulation clinic that an anticoagulant was prescribed and needs follow-up

BPA Data (2/5/18 - 9/8/18)

- Number of BPA: 78

Types of Medication

Warfarin 2

DOACs 76

Indications

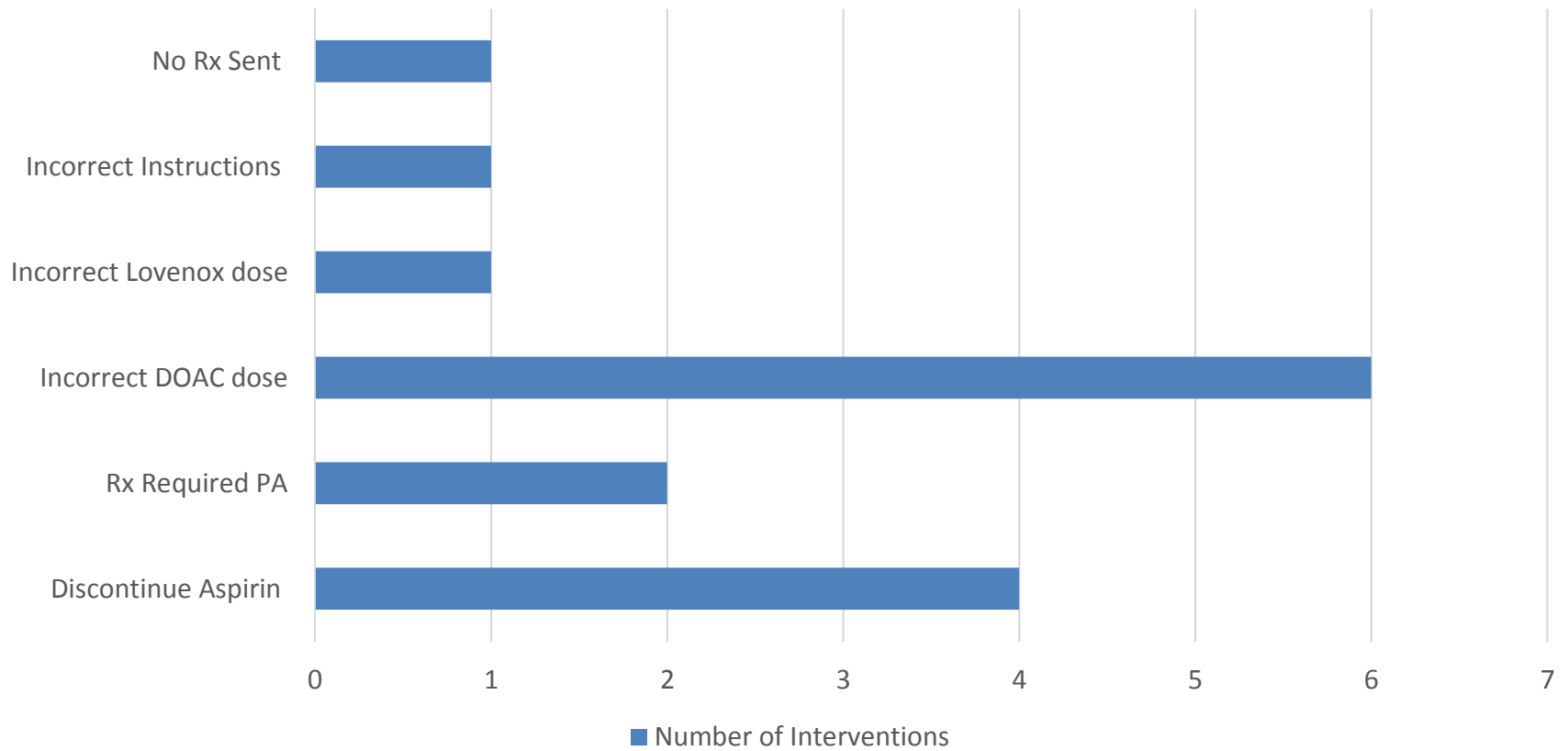
Afib 18

VTE 60

- Number of referrals coinciding with BPAs: 20
- Number enrolled into Anticoag Clinic: 67
- **Number of interventions made: 15 of 67 (22%)**



Interventions (2/5/18 - 9/8/18)



Case 2

73 yo male presents to the urgent care for evaluation of irregular heart rhythm. Pt has a h/o afib and currently takes ASA 81mg qd. There were concerns about cardioverting the patient so rate control and anticoagulation were recommended. Pt was started on Toprol XL 25mg qd and Xarelto starter pack (15mg bid x21days, then 20mg qd thereafter).

PMH: paroxysmal afib, HPL

Labs: CMP unremarkable, CBC normal, SCr=1.1

Meds: ASA 81mg qd

Interventions


- No referral was placed; silent BPA was triggered
- Patient was prescribed Xarelto starter pack for acute VTE when he has afib
- Pharmacist contacted urgent care MD and asked to change Xarelto dose to 20mg qd
- Pharmacist contacted patient to educate him on Xarelto and to make sure he's on correct dose
- Pharmacist contacted patient's cardiologist about ASA use with Xarelto and cardiologist discontinued ASA

DAWN Oral Anticoagulant Modules

NOAC Management using DAWN AC

- Full anticoagulant history
- Ensure patients are on appropriate drug and dose
- Schedule follow-ups
- Manage missed appointments
- Reporting
- Audit

Use of Dawn for DOACs

Therapeutic Indication:	ATRIAL FIBRILLATION NON VALVULAR	
If switching from VKA, please enter the current INR:	Not entered	No date recorded
	Delay starting Rivaroxaban until INR<3.0 for AFNV	

Dawn guides you on how to switch from VKA to a DOAC



Contraindicated Drugs:

None

Interacting Drugs:

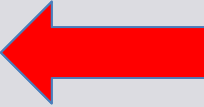
- ASPIRIN
- Clarithromycin
- OTHER NSAIDs
- Telithromycin


ASPIRIN:
Please consider GI protection

Other anticoagulant or platelet inhibitor:

None

Dawn checks for drug-drug interactions

Serum Creatinine:	1.00 mg/dL	08/15/2018
Body Weight:	62 kg	08/15/2018
Gender:	Male	
Age (at due date):	73	
Cockcroft-Gault CrCl:	58 mL/min	
	Please be aware of the limitations of estimates of renal function in relation to muscle mass, race and diet.	

Suggested Dose:	20mg once daily with the evening meal	
Rivaroxaban Dose:	Rivaroxaban 20 mg Once Daily	

Dawn checks patient's renal function and give dose recommendation



Conclusions

- With their ease of dosing and lack of blood monitoring, DOACs are preferred by many practitioners and patients
- Many medication errors can still occur with DOACs
- The use of silent BPAs and Dawn AC program help us make many interventions and prevent serious outcomes
- Future plan: create a BPA program for hospital discharges with anticoagulants