




Pharmacy Bulletin

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UPDATES on Novel Oral Anti-coagulants in PPUKM

Novel oral anticoagulants (NOACs) are new generation of oral anticoagulants that do not require frequent blood monitoring and have fewer drug interactions compared to warfarin. Currently, there are 3 NOACs available in PPUKM with different approved indication and supply policies. Below are the differences :

Indication Drug	Prophylaxis of DVT/PE after KNEE or HIP replacement surgery	Reduce stroke risk in non-valvular AF (SPAF)	Treatment of DVT & prevention of recurrent DVT	Treatment of PE & prevention of recurrent DVT & PE after acute PE
1. Dabigatran (PRADAXA) 110mg, 150mg 	Day 1: 110mg within 1-4 hrs of completed surgery (Elderly >75 & CrCl 30-50 ml/min: 75mg) Day 2 onwards: 220mg once daily Duration: Knee - 10 days Hip - 28-35 days Reduce dose to 150mg once daily : ♦ Elderly >75yo ♦ CrCl 30-50 ml/min	150mg twice daily lifelong Reduce dose to 110mg twice daily : ♦ Elderly >80 yo ♦ Patient with gastritis, esophagitis or gastroesophageal reflux ♦ If thromboembolic risk is low & bleeding risk is high (e.g. CrCL 30-50 mL/min) ♦ Patients weigh <50kg CrCl <30 ml/min: Contraindicated	150mg twice daily following treatment with parenteral anticoagulant for at least 5 days Reduce dose to 110mg twice daily if: ♦ Elderly ≥80 yo (due to risk of bleeding in this population) ♦ Taking verapamil ♦ At high risk of bleeding	
PPUKM Policy	Pay full at Kedai Farmasi RM 4.50/tab	**With subsidy card: RM 150/month	Pay full at Kedai Farmasi RM 4.50/tab	
2. Rivaroxaban (XARELTO) 10mg  15mg 20mg	10mg once daily Duration: Knee- 2 weeks Hip - 5 weeks Initial dose should be taken 6-10 hrs after surgery provided hemostasis has been achieved.	Normal dose/CrCl > 50ml/min : 20mg once daily with evening meal Reduce dose to 15mg once daily if CrCl 15-50 ml/min	15mg twice daily with food for first 21 days 20mg once daily with food on Day 22 onwards	
PPUKM Policy	FREE [A* Consultants only]	**With subsidy card: RM 150/month	Pay full at Kedai Farmasi RM8.75 (15mg tab), RM8.95 (20mg)	FREE (A* Respiratory only)
3. Apixaban (ELIQUIS) 2.5mg  5mg	2.5mg twice daily. Initial dose should be taken 12-24 hrs post op Duration: Knee - 2 weeks Hip- 5 weeks	5mg twice daily Reduce dose to 2.5mg twice daily if : ♦ Age ≥80 yo ♦ Wt ≤ 60 kg ♦ SrCr ≥ 1.5mg/dL(133μ mol/L)	Treatment dose : 10mg twice daily for first 7 days followed by 5mg twice daily for at least 3 months Prevention dose: 2.5mg twice daily following the completion of 6 months of treatment with 5 mg twice daily	
PPUKM Policy	Pay full at Kedai Farmai RM 8.75/tab	**With subsidy card: RM 150/month	Pay full at Kedai Farmasi RM4.50 (2.5mg) & RM4.60 (5mg)	

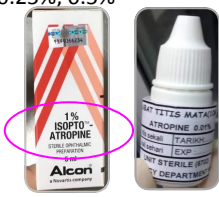




****Subsidy cards** allocated for only **300 patients** for the combination all the three drugs. Cards are with Cardiologists & Neurologists.

References :

1. Department of Pharmacy, PPUKM. (2014). PPUKM Drug Formulary- 6th Edition. Kuala Lumpur.
2. MIMS Drug Reference Concise Prescribing Information, 149th Edition, 2017.
3. Paulus Kirchhof, Stefano Benussi, et. Al., 2016 ESC Guidelines for the management of Atrial Fibrillation in collaboration with EACTS, European Heart Journal, Vol. 37, Issue 38, 2016, pg 2893-2962.
4. BNF 70, September 2015– March 2016, BMJ Group, 2015.
5. Product information leaflet of PRADAXA, XARELTO, and ELIQUIS.

Worldwide Discontinuation of Homatropine Eye Drop

DKSH has issue out a letter to inform the discontinuation of Homatropine Eye Drop. It is commonly use refraction and to treat uveitis. Below is the list of alternatives available in PPUKM to replace homatropine :

Alternatives	Indication	Dosage
ATROpine 1%, (EX)- 0.01%, 0.25%, 0.5% Availability: Formulary Item Prescriber: All clinic 	Uveitis	Child: 1 drop of 0.5% 3 times daily Adult: 1 drop 3 times daily
	Refraction	Child: 1 drop 2 times daily for 1-2 days before examination and 1 hr before examination Adult: 1 drop, repeated 1 hr before examination
TROPicamide 1% Availability: Formulary Item Prescriber: All clinic 	Refraction	Cycloplegic refraction: 1-2 drops, repeat in 5 mins. A further instillation may be necessary to prolong the effect after 20-30 mins. Funduscopy: 1-2 drops, 15-20 mins prior to examination
CYCLOpentolate 1% (CYCLOGYL) Availability: Formulary Item Prescriber: All clinic 	Diagnostic procedures	Adult: 1 drop followed by a second drop in 5 min. Child: 1 drop at the time of refraction, a second application 5 min later if necessary. If pre-treatment needed, 1-2 drops evening prior to examination.
CYCLOpentolate 0.2% + PHENYLephrine 1% Availability: Formulary Item Prescriber: A* (Ophthal Clinic/ward and NICU only) ONLY FOR CLINIC AND WARD USE. NOT FOR OUTPATIENT DISPENSING. 	Production of mydriasis	Funduscopy: 1 drop in each eye every 5-10 mins, not exceeding 3 times to produce rapid mydriasis. Notes: To minimise absorption in premature & small infants, apply pressure over the nasolacrimal sac for 2-3 mins following instillation. Observe infant closely for at least 30 mins.
PHENYLephrine 2.5% Availability: Formulary Item Prescriber: All clinic 	Uveitis	Posterior Synechiae: 1 drop to upper surface of cornea and repeated as necessary, not more than 3 times.
	Refraction	Vasoconstriction & Pupil Dilation: 1 drop on upper limbus Surgery: 30-60 mins before operation Notes: Preceding with a suitable topical anesthetic helps to prevent pain and subsequent lacrimation.

Drugs	Onset of Action & Recovery			
	Mydriasis		Cycloplegia	
	Maximal	Recovery	Maximal	Recovery
Homatropine	10-30 mins	6 hr to 4 days	30-90 mins	10-48 hr
Atropine	30-40 mins	7-10 days	1-3 hr	6-12 days
Tropicamide	20-40 mins	6-7 hr	20-35 mins	50 mins-6 hr
Cyclopentolate	30-60 mins	24 hr	25-75 mins	6-24 hr
Phenylephrine	15-60 mins	3 hr	NO cycloplegic effect	

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<http://www.ppukm.ukm.my/farmasil/>

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