Watch Out For The Washout

Michelle Rice[1], Stephanie Scammells[1], Liam Busuttin[1]

1. Pharmacy Department, Royal Brisbane and Women's Hospital (RBWH)

Objective

To describe a case based example of the pharmacist's value in the decentralised pre-admission clinic setting in providing evidence-based clinical advice to the resident medical officer (RMO) regarding perioperative management of patients taking leflunomide.

Clinical Features

An 82-year old female presented to the orthopaedic pre-admission clinic prior to an elective total hip replacement.

Her medical conditions included:

- Rheumatoid arthritis
- Hypertension
- Hypercholesterolaemia
- Chronic kidney disease
- Osteoarthritis
- Osteoporosis
- Previous deep vein thrombosis (provoked, over 12 months ago)

She was referred to the pharmacist for advice regarding perioperative medication management. Whilst conducting a comprehensive medication history it was identified that the patient was taking leflunomide for rheumatoid arthritis.

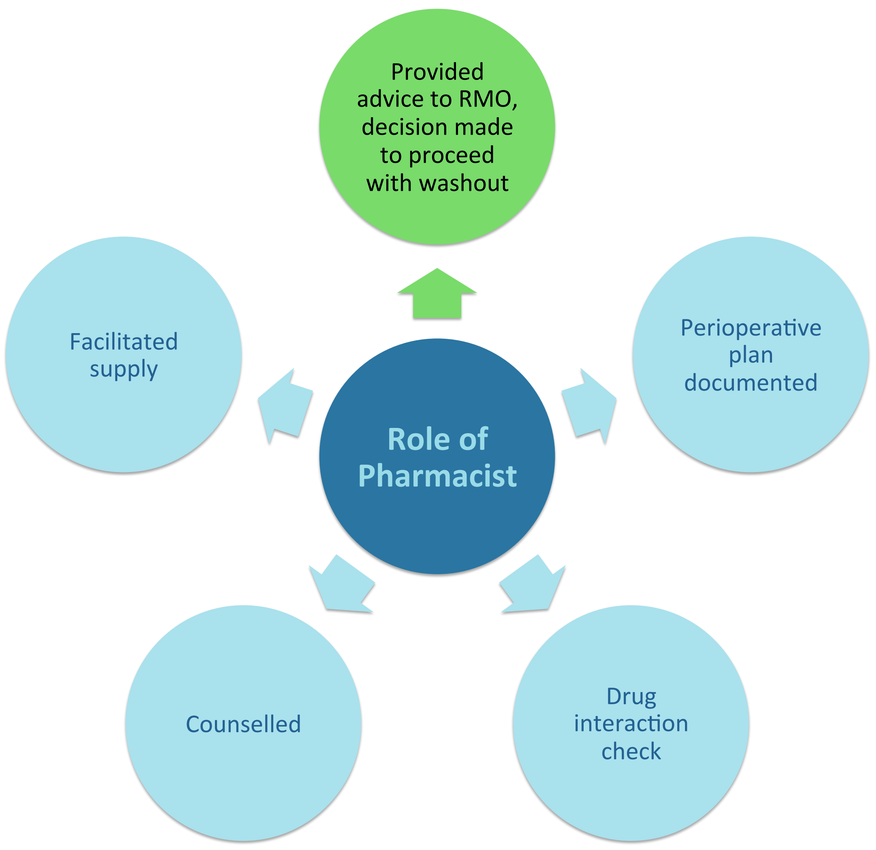
Refer to Figure 1 for a complete medication history.

Table 1: Medication History

Medicine Names	Indication	Dose
Leflunomide 20mg	Rheumatoid Arthritis	20mg daily
Sulfasalazine EC 500mg	Rheumatoid Arthritis	1g TWICE daily
Aspirin 100mg	Primary Prevention	100mg daily
Irbesartan 150mg	Hypertension	150mg daily
Atenolol 50mg	Hypertension	50mg daily
Ezetimibe 10mg	Hypercholesterolaemia	10mg daily
Pregabalin 150mg	Neuropathic Pain	150mg TWICE daily
Paracetamol 500mg	Osteoarthritis	1g TWICE daily
Sodium Bicarbonate 840mg	Chronic Kidney Disease	1680mg daily
Calcitriol 0.25microg	Parathyroid Disorder	0.25microg daily
Cholecalciferol 25microg	Vitamin D Deficiency	25microg daily
Denosumab 60mg/ml Syringe	Osteoporosis	Subcut every SIX months
Allergies and Adverse Drug Reactions		
Methotrexate	Nausea, vomiting	
Perindopril	Dry cough	
HMG CoA Reductase Inhibitors	Myalgia	
Risedronate	GI upset	

Interventions

Leflunomide is immunosuppressive and may be associated with impaired wound healing in the post-operative period[1]. Due to its long half-life (2-4 weeks) if surgery is required prior to the time taken for the drug to be eliminated, adequate washout requires treatment with cholestyramine 8g three times a day for 10-11 days[1, 2]. The risk of post-operative infection with continuing leflunomide needs to be weighed against the risk of a flare of rheumatoid arthritis if treatment is discontinued[1].



Outcomes

The pharmacist notified the resident medical officer, who was not aware of the perioperative medication management issue. The decision was made to withhold leflunomide and commence a cholestyramine washout 10 days prior to the procedure[1,2]. The pharmacist ensured a prescription was written, facilitated the supply, provided counselling particularly around the potential interaction between cholestyramine and other medications and clearly documented the plan on the pre-admission medication record.

Conclusion

This case demonstrates the role of the pre-admission clinic pharmacist in facilitating perioperative medication management and clearly communicating and documenting plans for individual patients' medications. The development of a local guideline on the perioperative management of patients taking leflunomide is warranted.

Contact Us

Michelle Rice, Pharmacist, Pharmacy Department, Royal Brisbane and Women's Hospital - michelle.rice@health.qld.gov.au

Stephanie Scammells, Pharmacist, Pharmacy Department, Royal Brisbane and Women's Hospital – stephanie.scammells@health.qld.gov.au

References:

1. MIMS Australia, Leflunomide: Product Information, MIMS Australia, 2017.
2. Metro South Hospital and Health Service (MSHHS), The Princess Alexander Prescribing Guidelines 2017: Chapter 17: Drug Use in Surgery, MSHHS, 2017.

Queensland Government