

## Statewide Medicine Formulary Advisory Note

### Restricted: idarucizumab for reversal of anticoagulant effect of dabigatran

Following review by the WA Drug Evaluation Panel (WADEP), idarucizumab 5 mg IV infusion will be listed on the Statewide Medicine Formulary (SMF) for adult patients restricted: For use under the direction of a Haematologist for the reversal of the anticoagulant effect of dabigatran in patients:

- exhibiting signs and symptoms of life-threatening or uncontrolled bleeding requiring urgent intervention, or
- requiring emergency surgery or other medical procedure necessitating rapid reversal of the anticoagulant effect of dabigatran prior to surgery/procedure.

Dabigatran is a direct thrombin inhibitor used for the prevention of stroke, systemic embolism in non-valvular atrial fibrillation and venous thromboembolism prevention post total knee or total hip replacement. Idarucizumab, a monoclonal antibody fragment, binds with high affinity to dabigatran to neutralise its activity. The effect of idarucizumab has been shown in an interim analysis from the prospective cohort study by Pollock et al. (RE-VERSE AD, 2015).<sup>1</sup> The primary endpoint was the maximum percentage reversal of the anticoagulant effect of dabigatran based on dilute thrombin time (dTT) or ecarin clotting time (ECT). In patients with elevated clotting times 88 – 98% had normalised dTT or ECT after idarucizumab administration. In 35 patients with life-threatening bleeding, haemostasis was restored at a median of 11.4 hours and normal intraoperative haemostasis was reported in 33 of 36 patients.

There is limited evidence and availability of alternative options for patients on dabigatran with life threatening bleeding or who require emergency surgery. Currently the treatments of choice are prothrombin complex concentrate (PCC) or factor VIII inhibitor bypassing agent (FEIBA) at a cost of approximately \$1,925 and \$8,400 respectively (50 IU/Kg for 70 Kg patient). It is not yet known if idarucizumab will reduce the use of PCC, FEIBA or other therapies, as such WADEP will review this decision as further evidence emerges and will audit use in 24 months.

<sup>1</sup> Pollock CV, Reilly PA, Eikelboom J et al. Idarucizumab for Dabigatran Reversal. N Engl J Med 2015; 373:511-520

## Statewide Medicine Formulary – Treatment Algorithm

### Idarucizumab for reversal of anticoagulant effect of dabigatran

Idarucizumab is given as 2 doses of 2.5 grams by intravenous bolus injection over 5 – 10 minutes per dose. The two doses should be administered no more than 15 minutes apart.

The decision to treat with Idarucizumab will need to take into account the individual patient's situation including characteristics of the bleed or risk of bleeding associated with surgery or procedure, the patient's thrombotic risk and any other comorbidities. Idarucizumab should be used with standard supportive measures as considered medically appropriate.

