
 DIAGNOSTIC SERVICES MANITOBA SERVICES DIAGNOSTIC MANITOBA	Prothrombin Complex Concentrate		Document # 160-65-22
			Version # 02
	Approved by:  Dr. C. Musuka	Effective Date: 27-OCT-2016	Source Document: Blood Product Administration Guidelines from Manufactures Monographs

Other Names	<ul style="list-style-type: none"> • Octaplex® • Beriplex® 												
Description	<p>Octaplex® and Beriplex® are manufactured prothrombin complex concentrates (PCC) that are derived from human plasma. The manufacturing process has undergone solvent / detergent treatment and / or nanofiltration for viral, bacterial and parasite inactivation and removal. Each vial contains approximately 500 IU of procoagulant vitamin K dependent factors – II, VII, IX and X, anticoagulant factors protein C, protein S, and heparin to varying degrees (see product insert for actual amounts). In addition, Beriplex®P/N also contains human antithrombin III and albumin.</p>												
Special Approvals/Authorizations	<ul style="list-style-type: none"> • To request this product please refer to Request for Prothrombin Complex Concentrates (PCC) form. Complete form and forward to blood bank. • Nurses and student nurses may administer prothrombin complex concentrate on the written order of the attending physician or designate. 												
Classification/Indications	<ul style="list-style-type: none"> • Emergent reversal of warfarin therapy of vitamin K deficiency in patients: • Exhibiting serious of life-threatening bleeding manifestations • Requiring UNPLANNED / URGENT (<6 hours) interventions with risk of bleeding 												
Contraindications	<ul style="list-style-type: none"> • Patients with history of heparin induced thrombocytopenia (HIT) • Not Recommended for: <ul style="list-style-type: none"> ○ Disseminated intravascular coagulation (DIC) ○ Coagulopathy associated with liver dysfunction/disease ○ Massive transfusions ○ Reversal of anticoagulants other than Vitamin K antagonists ○ Treatment of elevated INRs without bleeding or need for surgical intervention 												
Supplied	Vial size is 500IU and 1000IU												
Dosage	<ul style="list-style-type: none"> • USUAL DOSE: 1000 IU • Maximum total dose = 3000 IU <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">PCC dose if INR > 5</th> <th style="text-align: center;">PCC dose if INR 3-5</th> <th style="text-align: center;">PCC dose if INR <3</th> </tr> </thead> <tbody> <tr> <td>Dose</td> <td style="text-align: center;">3000 IU (120 mL)</td> <td style="text-align: center;">2000 IU (80 mL)</td> <td style="text-align: center;">1000 IU (40 mL)</td> </tr> <tr> <td>Vitamin K1</td> <td colspan="3">10 mg IV co-administration is strongly recommended if reversal is required for longer than 6 hours (the half-life of PCC). The onset of action of Vitamin K1 is 4-6 h IV.</td> </tr> </tbody> </table>		PCC dose if INR > 5	PCC dose if INR 3-5	PCC dose if INR <3	Dose	3000 IU (120 mL)	2000 IU (80 mL)	1000 IU (40 mL)	Vitamin K1	10 mg IV co-administration is strongly recommended if reversal is required for longer than 6 hours (the half-life of PCC). The onset of action of Vitamin K1 is 4-6 h IV.		
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Reconstitution/Stability	<p>Reconstitution</p> <ul style="list-style-type: none"> • Available as 500 international units prothrombin complex powder/vial. • Required supplies: <ul style="list-style-type: none"> • 20 mL sterile water • Transfer set with filter • Empty 250 mL IV bags may be used for reconstituted product • Reconstitution directions are included • Do not dilute further. • Final reconstituted concentration: 25 international units /mL. <p>Stability</p> <ul style="list-style-type: none"> • Powdered product has a shelf life of 36 months when stored in a monitor facility at 2-25°C. DO NOT freeze. • Use immediately following reconstitution. 												

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Compatibilities/ Incompatibilities	<ul style="list-style-type: none"> • Use a separate line with a standard IV administration set (tubing with a filter is not required). • No other drugs / solutions (including normal saline) can be co-administered in the same line while PCC is being infused 						
Administration, Identification	Refer to Manitoba Best Practice Guidelines <ul style="list-style-type: none"> • section 2.2 Standards- Identification and Administration 						
Administration, Method	Infusion routes – Intravenous. Initial infusion rate of 1 mL / min for first 5 minutes, followed by a maximum rate for remainder of the infusion. Flush the line with normal saline following completion of the infusion. <table border="1" data-bbox="620 625 1481 697"> <tr> <td></td> <td>Octaplex®</td> <td>Beriplex®P/N</td> </tr> <tr> <td>Maximal rates of infusion</td> <td>3mL / min</td> <td>8 mL / min</td> </tr> </table>		Octaplex®	Beriplex®P/N	Maximal rates of infusion	3mL / min	8 mL / min
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Adverse Events	Refer to Manitoba Best Practice Guidelines section 2.7 for transfusion reactions. <ul style="list-style-type: none"> • Common side effect specific to Prothrombin Complex Concentrate are : headache, allergic reactions, anaphylactic reactions, fever, thromboembolic complications • Both Octaplex® and Beriplex®P/ N have been rarely associated with immediate allergic or thrombotic complications. 						
Resources:	National Advisory Council on Blood prothrombin complex recommendations: http://www.nacblood.ca/resources/guidelines/PCC-Recommendations-Final-2014-05-16.pdf Octaplex® product monograph: http://www.octapharma.ca/fileadmin/user_upload/octapharma.ca/20120613_PM_Octaplex_approved.pdf Octaplex® reconstitute Instructions: http://www.octapharma.ca/fileadmin/user_upload/octapharma.ca/5625_Octa_Instruction_Sheet-ENG.pdf Beriplex®P/N product monograph: http://labeling.cslbehring.ca/PM/CA/Beriplex-PN/EN/Beriplex-PN-Product-Monograph.pdf						