TRANSFUSION MEDICINE PROTOCOL	
Immunoglobulin Products	
Scope (Staff):	All staff
Scope (Area):	All areas

There are a large range of immunoglobulin products available for the prevention and treatment of vaccine-preventable disease and in the management of various immune-mediated diseases. Note that Rh(D) Immunoglobulin is also an immunoglobulin product but is **NOT** discussed in this document. Refer to the Rh(D) Immunoglobulin Products & Applications Protocol.

- Limited stock is kept on site. If demand for a particular product is anticipated, advance notification (and Haematology referral) is required.
- Immunoglobulin products are not interchangeable. Check the Product Information prior to use.
- Batch numbers must be documented in the medical notes for traceability.

Immunoglobulin Product and Indication

Product	Indication
CMV Immunoglobulin-VF	Prophylaxis of CMV infection or treatment of established CMV infection.
Hepatitis B Immunoglobulin VF	Prophylaxis of Hepatitis B infection following exposure.
Intragam 10	Complex. See below and Criteria for the Clinical Use of Immunoglobulin in Australia.
Privigen 10	Prevention of exchange transfusion in haemolytic disease of the newborn (see below).
Privigen® AU	Indicated for immunomodulatory therapy in Idiopathic Thrombocytopenic Purpura (ITP), in adults or children at high risk of bleeding or prior to surgery/delivery, prevention of severe HDFN or FNAIT; as well as neonatal alloimmune thrombocytopenia (NAIT), neonatal thrombocytopenia associated with maternal autoimmune thrombocytopenia and neonatal symptomatic hypogammaglobulinaemia secondary to underlying disease or treatment
Tetanus Immunoglobulin VF **– Intramuscular**	Prophylaxis of tetanus following wound/injury.

Tetanus Immunoglobulin VF – **Intravenous**	Treatment of clinical tetanus.
Zoster Immunoglobulin VF	Prophylaxis of varicella (chickenpox).

Consent

Immunoglobulins are blood products. Treatment consent, documented on the Generic Consent Form (MR295), is required prior to administration. Refer also to WA Health Consent to Treatment Policy.

Ordering

Immunoglobulin products must be ordered on a named patient basis from the Transfusion Medicine Unit (TMU). If use is anticipated, Haematologist consultation and communication with the TMU to ensure stock availability is required. If collected and not required, the product should be returned to TMU immediately.

Administration

Refer to individual Product Information for administration of each immunoglobulin product. However, general points include:

- Verify that the prescription is complete and clearly states the product name. Immunoglobulin products are **NOT** interchangeable. If not clear, contact prescribing doctor and TMU.
- Follow the 6 Rights of Medication Administration (Right Patient, Product, Dose, Route, Time/Date, Documentation)
- Two staff to perform double independent checks as per the Blood Product Administration guidelines. Double independent checking helps minimise the risk of error at the final checks before administering the product. If discrepancies are identified, contact prescribing doctor and TMU. **DO NOT PROCEED** with administration.
- Inspect product and allow to reach room temperature before administration. **DO NOT** administer if turbid/cloudy. Use immediately after opening; discard unused solution.
- Undertake observations as for all blood products (see Blood Product Administration). Vital signs must be recorded on the Observation Response Chart. If required, escalate as per the WNHS Recognising and Responding to Acute Physiological (Clinical) Deterioration.

Adverse Reactions

All adverse reactions should be reported to the Haematologist and TMU. Refer to WNHS Management of Transfusion Reactions and Adverse Events. Complete MR735.2.

CMV Immunoglobulin-VF		
	CMV Immunoglobulin-VF	
	INDICATIONS	Prevention of CMV infection in bone marrow, renal, cardiac and liver transplant recipients who are CMV antibody negative where the donor is CMV antibody positive. Therapy in patients with established CMV infection (e.g. CMV pneumonitis).
	DOSE **PRESCRIPTION**	Dose is dependent on patient weight and clinical indication. Refer to Consultant Immunologist or Microbiologist for advice.
	CONSUMER INFORMATION	CMV Immunoglobulin-VF Consumer Medicine Information
	CONTRAINDICATIONS **PRECAUTIONS**	Contraindicated in: • Previous true anaphylactic reaction to the active substance or any of its constituents • Isolated IgA deficiency, unless patient is shown **not** to have circulating anti-IgA antibodies Maltose may interfere with blood glucose testing.
	SPECIFICATIONS **PRODUCT INFORMATION**	Manufactured from pooled human plasma. Contains 55-65mg/mL plasma proteins (at least 98% IgG) and 292mmol/L maltose. 50mL/vial corresponding to CMV Ig activity 1.5 million units/vial. CMV Immunoglobulin-VF Product Information
	ADMINISTRATION DOCUMENTATION	Administer intravenously only using infusion pump and appropriate giving device. Should not be co-administered or piggybacked with other IV fluids. Commence the infusion at a rate of 1mL/minute. After 15 minutes the rate may gradually be increased to a maximum of 3-4mL/minute over a further 15 minutes. Refer to Product Information.
	ADVERSE REACTIONS	Adverse reactions are usually rate related & are most likely to occur within the first hour. Refer to the Product Information.

Hepatitis B Immunoglobulin-VF		
	Hepatitis B Immunoglobulin-VF	
	INDICATIONS	Post-exposure prophylaxis if unvaccinated, prior vaccination program is incomplete or if hepatitis B antibody level is inadequate (HBsAb <10 IU/L). Further information is available in the Australian Immunisation Handbook – Hepatitis B.
	DOSE **PRESCRIPTION**	Seek advice from the requesting Microbiologist or Haematologist regarding dose.
	CONSUMER INFORMATION	Hepatitis B Immunglobulin-VF Consumer Medicine Information
	CONTRAINDICATIONS **PRECAUTIONS** **WARNING**	Contraindicated in: • Previous true anaphylactic reaction to the active substance or any of its constituents • Isolated IgA deficiency, unless patient is shown **not** to have circulating anti-IgA antibodies • Severe thrombocytopenia or other coagulation disorder posing a contraindication to intramuscular injection • Patients who are Hepatitis B surface antigen (HBsAg) positive Hepatitis B Immunoglobulin-VF is unnecessary in patients with adequate circulating hepatitis B surface antibody (HBsAb >10 IU/L).
	SPECIFICATIONS **PRODUCT INFORMATION**	Manufactured from pooled human plasma. Contains 160mg/mL plasma proteins (98% immunoglobulins, mainly IgG) yielding a Hepatitis B antibody titre of not less than 100 units/mL. Also contains glycine 22.5mg/mL. Available in two vial sizes: • 100 unit • 400 units Hepatitis B Immunoglobulin-VF Product Information
	ADMINISTRATION **DOCUMENTATION**	Give slowly by deep intramuscular injection using appropriately sized needle. If a large dose is required this may be administered in divided doses at different sites. Suitable local anaesthetic may be added to the injection if desired. Refer to Product Information.
	ADVERSE REACTIONS	Adverse reactions include: • Local tenderness, erythema and stiffness at the injection site • Mild pyrexia, malaise and drowsiness (uncommon) • Generalised hypersensitivity (rare)

Intragam	Intragam	
	DESCRIPTION	Intragam® 10 is a 10% concentration preparation of human immunoglobulin for intravenous use (IVIg). It is prepared from blood obtained from Australian voluntary, non-remunerated donors.
	SPECIFICATIONS	Intragam® 10 is a sterile, preservative free solution containing 10g/100mL of human plasma protein with a purity of at least 98% immunoglobulin G (IgG). It has a nominal osmolality of 350 mOsmol/kg and is approximately isotonic. Refer to: • ARC Lifeblood Intragam® 10 Information Australian PI – Intragam 10 (Human normal immunoglobulin) (cslbehring.com)
	VIAL SIZE	Available in 25mL vials.
	INDICATIONS	Intragam 10 is supplied in accordance with The Criteria for the Clinical Use of Intravenous Immunoglobulin (IVIg) in Australia which identifies the conditions and circumstances for which the use of intravenous immunoglobulin (IVIg) is appropriate and funded under the National Blood Agreement. **Indicated for immunomodulatory therapy in:** • Idiopathic Thrombocytopenic Purpura (ITP), in adults or children at high risk of bleeding or prior to surgery/delivery • Prevention of severe HDFN • Prevention of severe FNAIT **Indications for neonates include:** • Neonatal alloimmune thrombocytopenia (NAIT) • Thrombocytopenia associated with maternal autoimmune thrombocytopenia • Symptomatic hypogammaglobulinaemia secondary to underlying disease or treatment
	CONTRAINDICATIONS AND PRECAUTIONS	⚠CAUTION Intragam® 10 is contraindicated in patients who have had an anaphylactic reaction to human immunoglobulins (especially in patients with antibodies against IgA) or to the excipient glycine.
	CONSUMER INFORMATION	Intragam® 10 Consumer Medicine Information
	CONSENT	Written consent is required as Intragam® 10 is manufactured from pooled human plasma. See WA Health Consent to Treatment Policy OD0657/16 and Transfusion Medicine Protocols (A-Z)
	DOSE	Dose is dependent on patient's body weight and clinical indication. Contact Haematologist for advice.

ORDERING	Intragam® 10 must be ordered on a named patient basis from the Transfusion Medicine Unit once the BloodSTAR request has been approved. The product will be ordered from Lifeblood and is issued with a peel off product label which can be affixed to the transfusion medicine record form (MR735). Return product to TMU immediately if no longer required.
ADMINISTRATION	• Two staff to perform checks as per WNHS Pharmacy Medication Checking and Administration. • Check issue label and patient ID. Check right patient, right product, right dose – prescription matches product supplied. If not identical, contact TMU and prescribing doctor. • Patients should be optimally hydrated prior to commencing IVIg infusion to reduce to risk of aseptic meningitis (severe headache). • **WARNING** Ensure prescription is complete, including the **PRODUCT NAME** (eg BRAND) **and CONCENTRATION** of IVIg. • The product must be used immediately after opening. Any unused solution must be discarded. • Do not use the product if it appears turbid or cloudy. • Allow product to reach room temperature before administration. • Intragam® 10 should be administered through a standard intravenous infusion giving set. • Intragam® 10 should be administered separately from IV fluids (other than normal saline) or medications the patient might be receiving. • Intragam® 10 may be infused undiluted or diluted with up to 2 parts of 0.9% saline. • The infusion should be commenced at the rate of 1 mL per minute. • After 15 minutes the rate may be gradually increased to a maximum of 3 to 4 mL per minute over a further 15 minutes. • Infusion rates higher than recommended may increase the incidence of headache. Consideration should be given to reducing the rate of infusion in patients naive to Intragam® 10, patients switching from an alternative IVIg, patients who have not received IVIg for a long time, elderly patients and in patients with pre-existing renal disease. **Neonates** Dosage depends on clinical indication. Refer to Neonatologist / Haematologist for advice. Administer as an IV infusion. In some circumstances a second dose may be required on subsequent days.
OBSERVATIONS / DOCUMENTATION	Undertake observations as for all blood products. Vital signs (temperature, pulse, respiration, blood pressure) must be recorded on the observation chart. • Before the start of each infusion. • At 15 minutes from start of infusion. • Thereafter, hourly throughout the infusion. • On completion of the infusion. Observe for signs of adverse reactions – Refer to

		Australian PI – Intragam 10 (Human normal immunoglobulin) (cslbehring.com) for the full list of adverse reactions.
	ADVERSE REACTIONS	Adverse reactions are usually rate related and most likely to occur within the first hour. ***Mild reactions*** Flushing, headache, mild changes in heart rate or blood pressure. These types of reactions may be rate dependent and may respond to a reduction in the rate of infusion. Reduce the rate by half and contact the Medical Officer for further orders. ***Moderate to severe reactions*** Anaphylaxis, haemolytic anaemia, thromboembolism, renal impairment and aseptic meningitis have been reported to have occurred after IVIg treatment. Refer to Australian PI – Intragam 10 (Human normal immunoglobulin) (cslbehring.com) for the full list of adverse reactions. If you suspect an adverse reaction: • **STOP** transfusion • Provide emergency patient care and arrange medical review. • Keep IV line open with normal saline (do not flush existing line – use a new IV line if required) • Monitor and document vital signs at least every 15 minutes until stable • All suspected reactions should be reported to the Haematologist and TMU. See WNHS Transfusion Medicine Protocol Adverse Transfusion-Related Events

Privigen		
	Privigen	
	INDICATIONS	Privigen is available under Jurisdictional Direct Order (JDO) from the Chief Medical Officer, Department of Health, WA, for KEMH neonatal patients in exceptional circumstances. It is indicated to prevent the need for first or repeat exchange transfusion in select cases of severe haemolytic disease of the newborn (HDN) undergoing intensive phototherapy. Specifically, it may be used when: • the total serum bilirubin (TSB) continues to rise at 8-17mmol/L/hour despite intensive phototherapy • the TSB is within 35-50mmol/L of the threshold for exchange transfusion. If necessary Privigen may be re-dosed 12 hours after first administration.
	DOSE **PRESCRIPTION**	1g/kg body weight. Refer to Neonatologist and Haematologist.
	CONSUMER INFORMATION	Privigen Consumer Product Information
	CONTRAINDICATIONS **PRECAUTIONS**	Contraindicated in: • Previous true anaphylactic reaction to the active substance or any of its constituents • Isolated IgA deficiency, unless patient is shown **not** to have circulating anti-IgA antibodies Caution should be used in patients with hyperprolinaemia type I/II as the product contains the stabiliser L-proline. The risks and benefits should be considered on an individual patient basis.
	SPECIFICATIONS **PRODUCT INFORMATION**	Privigen contains 5g/50mL of human plasma protein with a purity of at least 98% IgG. It has a nominal osmolality of 320mOsmol/kg and is approximately isotonic. It has a pH of 4.8 (range 4.6 – 5). It has low sodium content (≤1mmol/L) but contains 250mmol/L (range 210 – 290) L-proline stabiliser. Refer to Privigen Product Information. Privigen is available as a 5g/50mL vial.
	ADMINISTRATION **DOCUMENTATION**	Ensure adequate hydration prior to Privigen administration. Administer intravenously only using infusion pump and appropriate giving device. Should not be co-administered or piggybacked with other IV fluids.

		Infuse the prescribed dose over 4 hours. Refer to Neonatologist/Haematologist, or Product Information, for advice.
Privigen	**ADVERSE REACTIONS**	Adverse reactions are usually rate related & are most likely to occur within the first hour. These may include: • Flushing, headache and mild changes in heart rate or blood pressure. These may respond to reduction in infusion rate – reduce by half and contact the Medical Officer • Anaphylaxis, haemolytic anaemia, venous thromboembolism, renal failure and aseptic meningitis have been reported rarely after IVIg treatment. Refer to the Product Information.

Privigen® AU		
	ALERT	⚠CAUTION Privigen® AU is NOT the same as Privigen
	PRODUCT	Privigen® AU 10% is a sterile clear colourless or pale-yellow liquid. It is supplied in a glass bottle and is for intravenous infusion. It is prepared from blood obtained from Australian voluntary, non-remunerated donors.
	SPECIFICATIONS	• 10g of human plasma protein/100mL • Maximum IgA content is 0.025mg/mL • Stabiliser: 250mmol/L of L-proline (non-essential amino acid)
	VIAL SIZE	Available in 50mL (5g), 100mL (10g) and 200mL (20g) vials.
	INDICATIONS	Privigen® AU is supplied in accordance with The Criteria for the Clinical Use of Intravenous Immunoglobulin (IVIg) in Australia which identifies the conditions and circumstances for which the use of intravenous immunoglobulin (IVIg) is appropriate and funded under the National Blood Agreement. **Indicated for immunomodulatory therapy in:** • Idiopathic Thrombocytopenic Purpura (ITP), in adults or children at high risk of bleeding or prior to surgery/delivery • Prevention of severe HDFN • Prevention of severe FNAIT **Indications for neonates include:** • Neonatal alloimmune thrombocytopenia (NAIT) • Thrombocytopenia associated with maternal autoimmune thrombocytopenia • Symptomatic hypogammaglobulinaemia secondary to underlying disease or treatment
	CONTRAINDICATIONS AND PRECAUTIONS	⚠CAUTION Hypersensitivity to the active substance of the excipient. Hypersensitivity to human immunoglobulins especially in patients with IgA deficiency and antibodies against IgA. ⚠CAUTION Privigen® AU does not contain any antimicrobial preservative. It must therefore be used immediately after opening the bottle. Any used portion should be discarded appropriately. Use in one patient on one occasion only. Allow the product to reach room temperature before using. Do not shake.
	CONSUMER INFORMATION	Privigen AU PI (cslbehring.com) Privigen CMI (cslbehring.com)
	CONSENT	Written consent is required as Privigen® AU is manufactured from pooled human plasma. See Consent to Treatment Policy (health.wa.gov.au)

and Transfusion Medicine Protocols (A-Z)

DOSE

Dose is dependent on patient's body weight and clinical indication. Contact Haematologist for advice

The initial infusion rate for PRIVIGEN® AU is 0.3mL/kg/hr, it can be increased every 30 minutes as per the table below, as per the patient's weight.

The recommended dosage is summarised in Table 1 and is given as a guide, they can also be accessed from:

- Privigen AU PI (cslbehring.com)
- Privigen-AU-admin-infusion-guide-flyer.pdf (cslbehring.com.au)

Normal Immunoglobulin (Human) 10% (100 g/L), intravenous injection Infusion Rate (mL/hr) calculator.

Infusion rate (mL/kg/hr)	Pump rate	Patients body weight (kg)							
		10	15	20	25	30	35	40	45
0.3	mL/hr	3	4.5	6	7.5	9	10.5	12	13.5
0.6	mL/hr	6	9	12	15	18	21	24	27
1.2	mL/hr	12	18	24	30	36	42	48	54
2.4*	mL/hr	24	36	48	60	72	84	96	108
3.6*	mL/hr	36	54	72	90	108	126	144	162
4.8*	mL/hr	48	72	96	120	144	168	192	216

Infusion rate (mL/kg/hr)	Pump rate	Patients body weight (kg)					
		50	55	60	65	70	75
0.3	mL/hr	15	16.5	18	19.5	21	22.5
0.6	mL/hr	30	33	36	39	42	45
1.2	mL/hr	60	66	72	78	84	90
2.4*	mL/hr	120	132	144	156	168	180
3.6*	mL/hr	180	198	216	234	252	270
4.8*	mL/hr	240	264	288	312	336	360

Infusion rate (mL/kg/hr)	Pump rate	Patients body weight (kg)				
		80	85	90	95	100
0.3	mL/hr	24	24	27	28.5	30
0.6	mL/hr	48	48	54	57	60
1.2	mL/hr	96	96	108	114	120
2.4*	mL/hr	192	192	216	228	240
3.6*	mL/hr	288	288	324	342	360
4.8*	mL/hr	384	384	432	456	480

*Step-up rate rises used between 2.4mL/kg/hr and 4.8 mL/kg/hr are at the discretion of the health care professional and as tolerated by the patient.

Table contents courtesy of CSL Behring Infusion and Dosing Guide.

	ORDERING	Privigen® AU must be ordered on a named patient basis from the Transfusion Medicine Unit once the BloodSTAR request has been approved. The product will be ordered from Lifeblood and is issued with a peel off product label which can be affixed to the transfusion medicine record form (MR735). Return product to TMU immediately if no longer required.
	ADMINISTRATION	Two staff to perform checks as per WNHS Pharmacy Medication Checking and Administration. Do not use if product appears cloudy, contains sediment or is turbid. The glass bottle must be vented during use. Always pierce the stopper at its centre, within the marked area Compatible fluid for **priming and flush**: 5% Glucose or 0.9% NaCl. If dilution is required, may be diluted **with 5% Glucose only**. Privigen® AU The product must be used immediately after opening. Any unused solution must be discarded. Privigen® AU should be administered through a standard intravenous infusion giving set. Privigen® AU should be administered separately from IV fluids or medications the patient might be receiving. Affix Issue label and batch number label (off the bottle) to The Patient Blood Product Administration Form (MR 735). In patients at risk of acute renal failure or thromboembolic adverse reactions, IVIG products should be administered at the minimum rate of infusion and dose practicable. As with all IVIgs, the patient needs to be adequately hydrated prior to infusion and should be closely monitored and observed for any symptoms during and after the infusion.

	OBSERVATIONS/ DOCUMENTATION	Undertake observations as for all blood products. Vital signs (Temperature, Pulse, Respiration, Blood Pressure, SaO2 level) must be recorded on the observation chart. • Before the start of each infusion. • At each rate change. • Hourly once the maximum rate is reached. • On completion of the infusion. **Caution**: Patients who are receiving Privigen®AU for the first time, or product has been changed, or there has been a long interval since the previous infusion, should be monitored for **1-hour post infusion,** otherwise they can be monitored for 20 minutes post the infusion for signs of adverse reactions.
Privigen® AU	**ADVERSE REACTIONS**	Adverse Reactions are usually rate related and are most likely to occur within the first hours. In the case of an adverse reaction, the rate of administration must be reduced, or the infusion stopped. **Mild to moderate adverse reactions** such as chills, headache, dizziness, fever, vomiting, allergic reactions, nausea, arthralgia, mild hypotension and moderate back pain may occur. **Rarely severe reactions** such as severe hypotension, anaphylaxis or aseptic meningitis may occur. More adverse reactions can be found here Privigen AU PI (cslbehring.com) If you suspect an adverse reaction: • **STOP** transfusion • Provide emergency patient care and arrange a medical review. • Keep IV line open with normal saline (do not flush existing line – use a new IV line if required) • Monitor and document vital signs at least every 15 minutes until stable • All suspected reactions should be reported to the Haematologist.

Tetanus Immunoglobulin-VF – Intramuscular		
	Tetanus Immunoglobulin-VF – Intramuscular	
	INDICATIONS	Passive protection of individuals who have sustained a tetanus-prone wound and who have either not been actively immunised against tetanus or whose immunisation history is doubtful. Refer to the Australian Immunisation Handbook – Tetanus for more information.
	DOSE **PRESCRIPTION**	The minimum prophylactic dose is 250 IU in adults and children if ≤24 hours since injury. 500 IU should be administered if >24 hours since injury. Refer to the Australian Immunisation Handbook – Tetanus or seek advice from Consultant Microbiologist.
	CONSUMER INFORMATION	Tetanus Immunoglobulin-VF Intravenous Consumer Medicine Information
	CONTRAINDICATIONS **PRECAUTIONS**	Contraindicated in: • Previous true anaphylactic reaction to the active substance or any of its constituents • Isolated IgA deficiency, unless patient is shown **not** to have circulating anti-IgA antibodies • Severe thrombocytopenia or other coagulation disorder posing a contraindication to intramuscular injection
	SPECIFICATIONS **PRODUCT INFORMATION**	Manufactured from pooled human plasma. Contains 160mg/mL plasma proteins (98% immunoglobulins, mainly IgG) yielding a tetanus antitoxin activity of at least 100 units/mL. Also contains glycine 22.5mg/mL. Available in a 250 IU vial. Tetanus Immunoglobulin-VF Intramuscular Product Information
	ADMINISTRATION **DOCUMENTATION** **WARNING**	Give slowly by deep intramuscular injection. As this product is viscous an appropriately sized needle (e.g. 21 gauge in adults, 23 gauge in children) should be used. If a large dose is required this may be administered in divided doses at different sites. Suitable local anaesthetic may be added to the injection if desired. Refer to Product Information. **Tetanus Immunoglobulin-VF for Intramuscular Use MUST NOT be administered intravenously.**
	ADVERSE REACTIONS	Adverse reactions include: • Local tenderness, erythema and stiffness at the injection site • Mild pyrexia, malaise and drowsiness (uncommon) • Generalised hypersensitivity (rare)

Tetanus Immunoglobulin-VF - Intravenous		
	Tetanus Immunoglobulin-VF – Intravenous	
	INDICATIONS	Treatment of clinical tetanus.
	DOSE **PRESCRIPTION**	Seek advice from the Clinical Microbiologist regarding dose. The recommended dose is 4000 IU. Administration of this dose has been shown to maintain circulating antibody levels above the minimum protective titre for at least 6 weeks.
	CONSUMER INFORMATION	Tetanus Immunoglobulin-VF – Intravenous Consumed Medicine Information
	CONTRAINDICATIONS **PRECAUTIONS**	Contraindicated in: • Previous true anaphylactic reaction to the active substance or any of its constituents • Isolated IgA deficiency, unless patient is shown **not** to have circulating anti-IgA antibodies Maltose may interfere with blood glucose testing.
	SPECIFICATIONS **PRODUCT INFORMATION**	Manufactured from pooled human plasma. Contains 50-70mg/mL plasma proteins (at least 98% immunoglobulins, mainly IgG) yielding a tetanus antitoxin activity of 4000 IU per vial. Also contains 292mmol/L maltose. Available in a 4000 IU vial. Tetanus Immunoglobulin-VF – Intravenous Product Information.
	ADMINISTRATION **DOCUMENTATION**	Administer intravenously only using infusion pump and appropriate giving device. Should not be co-administered or piggybacked with other IV fluids. Commence the infusion at a rate of 1mL/minute. After 15 minutes the rate may gradually be increased to a maximum of 3-4mL/minute over a further 15 minutes. Refer to Product Information. **Tetanus Immunoglobulin-VF for Intravenous Use MUST NOT be administered intramuscularly.**
	ADVERSE REACTIONS	Reactions tend to be related to the infusion rate and are most likely to occur during the first hour of the infusion. For more information see Tetanus Immunoglobulin-VF Intravenous Product Information

Zoster Immunoglobulin-VF		
	INDICATIONS	Prophylaxis of varicella in patients who meet the criteria detailed in the Australian Immunisation Handbook – Varicella.
	DOSE **PRESCRIPTION**	The dose is generally based on body weight. Seek advice from the Clinical Microbiologist regarding dose.
	CONSUMER INFORMATION	Zoster Immunoglobulin-VF Consumer Medical Information
	CONTRAINDICATIONS **PRECAUTIONS**	Contraindicated in: • Previous true anaphylactic reaction to the active substance or any of its constituents • Isolated IgA deficiency, unless patient is shown **not** to have circulating anti-IgA antibodies
	SPECIFICATIONS **PRODUCT INFORMATION**	Manufactured from pooled human plasma. Contains 160mg/mL plasma proteins (98% immunoglobulins, mainly IgG) yielding not less than 200 IU/vial varicella zoster antibody. Also contains glycine 22.5mg/mL. Available in a 200 IU vial. Refer to Zoster Immunoglobulin-VF Product Information.
	ADMINISTRATION **DOCUMENTATION**	Give slowly by deep intramuscular injection. If a large dose is required this may be administered in divided doses at different sites. Suitable local anaesthetic may be added to the injection if desired. Refer to Product Information. **DO NOT** administer intravenously.
	ADVERSE REACTIONS	Adverse reactions include: • Local tenderness, erythema and stiffness at the injection site • Mild pyrexia, malaise and drowsiness (uncommon) • Generalised hypersensitivity and angioedema (rare)

References

- Australian Red Cross Blood Service. Blood products and transfusion practice for health professionals – Australian Red Cross Lifeblood Website.
- Australian Red Cross Blood Service – Immunoglobulins Website
- CSL Behring: Biotherapies for Life Product List Website

Related WNHS policies, procedures and guidelines

- WA Health Consent To Treatment Policy
- Transfusion Medicine: Management of Transfusion Reactions and Adverse Events Protocol
- Medication Administration Guideline
- Obstetrics and Gynaecology Clinical Guidelines

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