

Tetanus Immune Globulin (Human)

Revision Date: May 31, 2018

Rationale for update: Updated to include minimum spacing between doses.

Please consult the Product Monograph ¹ for further information about this product.	
	HYPERTET® S/D
Manufacturer	Grifols Therapeutics Inc. (Distributed by Grifols Canada Ltd.)
Off-license use	None
Indications for use of provincially funded Tetanus Immune Globulin	<p>Prophylaxis against tetanus – released after consultation with the local Medical Officer of Health:</p> <ul style="list-style-type: none"> Individuals with tetanus-prone wounds and an unknown/uncertain history of active immunization with tetanus-containing vaccine.^{1,2,3} Individuals with tetanus-prone wounds and a history of less than three doses of a tetanus-containing vaccine.^{1,2,3} Individuals with humoral immune deficiency (e.g., HIV, agammaglobulinemia or hypogammaglobulinemia) and a tetanus-prone wound regardless of the time elapsed since the last tetanus-containing vaccine dose² <p>See <u>Tetanus Post-exposure Prophylaxis in Injury/Wound Management</u>.</p> <p>Treatment of active cases of tetanus</p> <p>For disease information and reporting requirements refer to: <i>Public Health Notifiable Disease Management Guidelines – Tetanus</i>.⁴</p>
Dose	<p>Prophylaxis:</p> <ul style="list-style-type: none"> 250 units for all ages^{1,2} <p>Note:</p> <ul style="list-style-type: none"> Alternately, for small children younger than seven years of age, dosage may be calculated using body weight (4.0 units/kg).^{1,2} Theoretically, the same amount of toxin will be produced in the child's body by the infective tetanus organism as in an adult's body.^{1,2} <p>Treatment:</p> <ul style="list-style-type: none"> An optimal therapeutic dose has not been established.² The dosage should be based on the severity of the infection¹ following the attending physician's recommendation. Some experts recommend 500 units to 3,000 to 6,000 units.^{3,5}
Route	Deep intramuscular injection. ^{1,3}
Schedule	<ul style="list-style-type: none"> Tetanus immune globulin (TIG) should be administered as soon as possible, ideally within 24 hours after a tetanus-prone wound has occurred The age-appropriate tetanus-containing vaccine should be administered at the same time using a separate syringe/needle and a different anatomical site.

	<p>Notes:</p> <ul style="list-style-type: none"> • If TIG is delayed due to unusual circumstances and the individual has had some tetanus vaccine though not up-to-date, there is probably little benefit in administering TIG more than a week or so after the injury.⁶ However, if the individual is completely unimmunized, TIG could be considered up to 21 days post injury.⁶ The appropriated tetanus-containing vaccine should also be administered at the same time as the TIG.² • Individuals with a tetanus-prone wound who have a contraindication to tetanus-containing vaccine, or whose immunization is unknown, or have less than two doses of tetanus-containing vaccine, can receive TIG 28 days following a previous dose, on a case by case basis, should a subsequent tetanus-prone wound be sustained.^{3,5} • The recommended interval between a standard dose (250 units) of TIG and subsequent immunization with MMR, MMR-Var or varicella vaccines is three months.² • When it is necessary for an immune globulin preparation to be administered within two weeks after receiving MMR, MMR-Var or varicella vaccine, the immunization with MMR, MMR-Var or varicella should be repeated three months after the TIG unless serologic testing indicates that antibodies were produced. If the immune globulin is administered more than 14 days post-MMR, MMR-Var or varicella, the dose does not need to be repeated.² <p>See Routine Immunization Schedule and Tetanus Post-exposure Prophylaxis in Injury/Wound Management.</p>
Contraindications	<p>Individuals with a history of systemic hypersensitivity reactions following administration of human immune globulin products.³</p>
Precautions	<ul style="list-style-type: none"> • Do not administer intravenously.¹ • Use with caution for individuals with a history of prior systemic allergic reactions following administration of human immunoglobulin preparations.¹ • Individuals with selective immunoglobulin A deficiency have the potential for developing IgA antibodies and could have anaphylactic reactions to subsequent administration of blood products (including immune globulin preparations) that contain IgA.³ TIG should only be given to previous recipients of TIG if the expected benefits outweigh the risks. • Hypertet® is made from human plasma. Products made from human plasma may contain infectious agents that can cause disease. The risk that such products will transmit an infectious agent has been reduced by screening plasma donors for prior exposure to certain viruses, testing for the presence of certain current viral infections and inactivating and/or removing certain viruses.¹ • Use with caution in individuals with severe thrombocytopenia or any coagulation disorder that would contraindicate intramuscular injections.¹ See General Guidelines – Health Conditions.
Possible reactions	<p>Common:</p> <ul style="list-style-type: none"> • Pain and muscle stiffness at the injection site^{1,3} • Slight fever¹ <p>Rare:</p> <ul style="list-style-type: none"> • Hives, angioedema, nephrotic syndrome³ • Anaphylaxis^{1,3} <p>Refer to: <i>Adverse Events Following Immunization (AEFI), Policy for Alberta Immunization Providers.</i>⁷</p>

Pregnancy	Should be administered during pregnancy if indicated. Intact IgG crosses the placenta from maternal circulation increasingly after 30 weeks gestation. ³
Lactation	Breastfeeding does not represent a contraindication to any maternal immunization. ² It is not known if tetanus immune globulin antibodies are excreted into breast milk. ³

References

- ¹ Grifols Therapeutics Inc. (2012, February). Hypertet® S/D: Tetanus immune globulin (Human).-*Product Monograph*.
- ² National Advisory Committee on Immunization. (2018). *Canadian Immunization Guide* (Evergreen ed.). Ottawa, ON: Public Health Agency of Canada. www.canada.ca/en/public-health/services/canadian-immunization-guide.html.
- ³ Grabenstein, J. D. (2012). *ImmunoFacts: Vaccines and Immunologic Drugs - 2013*. St. Louis, MO: Wolters Kluwer Health.
- ⁴ Alberta Health. Tetanus. In *Public Health Notifiable Disease Management Guidelines*. www.health.alberta.ca/professionals/notifiable-diseases-guide.html
- ⁵ American Academy of Pediatrics. (2015). Red Book: 2015 Report of the Committee on Infectious Diseases (30th ed.). Elk Grove Village, IL.
- ⁶ Immunization Action Coalition. Ask the Experts: Tetanus and wound management issues. Retrieved May 4, 2018, from http://www.immunize.org/askexperts/experts_per.asp.
- ⁷ Alberta Health. (2016, December). *Adverse Events Following Immunization (AEFI), Policy for Alberta Immunization Providers*. www.health.alberta.ca/documents/AIP-Adverse-Events-Following-Immunization-Policy.pdf