Recommendations for Administration of Rabies Post Exposure Prophylaxis (Rabies PEP)

Durham Health Connection Line
905-668-2020 or
1-800-841-2729
durham.ca/rabies

PEP includes **BOTH** Rabies Immune Globulin (RIG) and Rabies Vaccine

Video on HOW to administer Rabies Immune Globulin and Rabies Vaccine
https://www.youtube.com/watch?v=yCuTF3hVt-o&feature=youtu.be

Administration of **Rabies Immune Globulin (RIG) -** HyperRab® / ImoGam® / KamRAB®

Administration of Rabies VACCINE on next page

Dose Calculation for Maximum RIG volume based on weight of client: NOTE: three different RIG products currently available: calculations will be based on product availability

- **For 1ml vial (300 IU/ml product)** = 20 IU/kg x (client weight in kg) ÷ 300 IU/ml= maximum volume (ml)
- **For 2ml vial (150 IU/ml product)** = 20 IU/kg x (client weight in kg) ÷ 150 IU/ml= maximum volume (ml)

RIG is only administered on First Day (**Day 0)** of PEP schedule at same time as first dose of Rabies Vaccine

Client Age	Administration Site				Max Vol per Site	Needle Size		Route
	*RIG should be administered as close to wound location as possible *RIG should never be administered in the same site as the vaccine					Length	Gauge	
	Ideal Location	Multiple Wound Sites	Unknown wound location (bat in room)		If it is necessary to use the same muscle to administer more than one injection, the distance separating the two injections should be 2.5 - 5 cm (1-2 inches)			
Infant under 12 months	**As much of the RIG as possible should be infiltrated into the wound and surrounding area (IM) if anatomically possible** (up to the maximum RIG volume). This is a clinical decision made at the time according to size, depth and location of wound. Only the left over RIG (if wound is small) should be given IM.	Each wound location should be infiltrated with a portion of the RIG using a separate needle and syringe. RIG can be diluted twofold to threefold in a solution of 0.9% sodium chloride if necessary (Up to the maximum RIG volume).	Multiple IM sites may be needed. When using multiple injection sites, a separate needle and syringe should be used for each injection. The decision regarding number of injections and maximum volume to be administered at each location should be based on the age and assessed muscle mass of the individual.	Ventrogluteal [1]	1 ml	7/8″–1 ″	25	IM
				Vastus lateralis	1 ml	7/8″–1 ″	25	
Children 1 yr. – 4 yrs.				Ventrogluteal [1]	1 ml	1”	22-25	IM
				Vastus lateralis	2 ml	1”	22-25	
				Deltoid [2]	1 ml	1”	22-25	
Children 5 yr. – 18 yrs.				Ventrogluteal [1]	3 ml	1″- 1½”	20-25	IM
				Deltoid [2]	1 ml	1″	22-25	
				Vastus lateralis	3 ml	1″- 1½”	20-25	
Adults 19 yrs. +				Ventrogluteal [1]	4 ml	1" - 1½"	20-22	IM
				Deltoid [2]	2 ml	1" - 1½"	20-22	
				Vastus lateralis	5 ml	1" - 1½"	20-22	

1. The ventrogluteal muscle is the preferred site for administration of immune globulin for everyone 7 months of age and older when wound location is unknown.
2. One deltoid should be reserved for the administration of rabies vaccine (only). The alternate deltoid may be used for RIG.

Adverse Reactions to HyperRab® or ImoGam®

- Local tenderness, soreness, stiffness of the muscles at the injection site – itching and swelling may occur
- Anaphylaxis is rare
- Fever, skin reactions, chills, nausea, vomiting, headache, malaise may occur

Adverse Reactions to KamRAB®

- Pain at the site of injection, headache, muscle pain, upper respiratory tract infection
- Fever, chills, dark urine, joint pain, dizziness, fatigue, abdominal pain, nausea, feeling faint, bruising, sunburn may occur
- Serious allergic reactions/anaphylaxis is rare

SOURCES: http://www.bccdc.ca/ www.phac-aspc.gc.ca www.novartis.ca www.sanofipasteur.ca www.fda.gov www.valneva.ca

Administration of **Rabies Vaccine** - RabAvert® OR ImoVax®

Administration of Rabies Immune Globulin on previous page

Dose/Schedule:

- **Immunocompetent people**:
  Four doses of 1.0 mL of Rabies vaccine, the first dose (on day 0) as soon as possible after exposure and additional doses on each of days 3, 7, and 14 after the first dose. (**Day 0, 3, 7 and 14**)
- **Immunocompromised people**: (includes those taking corticosteroids or other immunosuppressive agents, those with immunosuppressive illnesses) and those taking chloroquine and other antimalarial drugs: Five doses of 1.0 mL of Rabies vaccine. (**Day 0, 3, 7, 14 and 28**)
- **Previously Immunized Individual**: Two doses of 1.0 mL of Rabies vaccine. (**Day 0 and 3**)

RabAvert®

- Using longer of 2 needles provided, withdraw diluent
- Inject into vaccine – mix – avoid foaming
- White, freeze dried vaccine dissolves to clear or slightly opaque
- After reconstitution – unscrew syringe to equalize pressure
- Withdraw total amount into syringe and then change to smaller needle (provided)

Imovax®:

- Use only the supplied diluent – withdraw entire volume into the syringe, inject all the contents into the vial of lyophilized vaccine and gently swirl the contents until completely dissolved.
  (Refer to syringe size on opposite side of page)

Administration Sites / Needle Size

Client Age	Needle Length	Size (gauge)	Route	Max Vol per Site	**Site** ***Never administer into gluteal region** ***Vaccine** should **never** be administered in the same site as the **RIG**
Infant under 12 months	7/8″– 1″	25	IM	1 ml	Vastus lateralis (Anterolateral thigh)
Children 1 yr. - 18 yrs.	1″	25	IM	1 ml	Deltoid
Adults 19 yrs.+	1" – 1½"	25	IM	2 ml	Deltoid

Contraindications

- There is no contraindication to the use of rabies vaccine or RIG if indicated following exposure to a possibly rabid animal. Consultation should be sought regarding the administration of vaccine and immunoglobulin to individuals with a history of an allergy to any of the constituent.

Adverse Reactions to the Rabies Vaccine
RabAvert®:

- Very Common ≥10%: injection site pain and reaction
- Common >1 to <10%: dizziness, headache, malaise, arthralgia, fever, asthenia, fatigue, ILI, rash, myalgia, GI symptoms, IS erythema, lymphadenopathy
- Rare, less than 1 / 10,000 individuals: anaphylaxis

ImoVax® Rabies:

- Very Common ≥10%: headache, nausea, myalgia, malaise, injection site pain, erythema, induration and hematoma
- Common >1 to <10%: dizziness, abdominal pain, vomiting, diarrhea, arthralgia, fever, chills, allergic type reaction, IS pruritus, adenopathy

Adapted with permission of Simcoe Muskoka District Health Unit

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