

DDAVP/ Stimate®

Desmopressin acetate (DDAVP) is a synthetic analog of the natural hormone vasopressin (an antidiuretic hormone affecting renal water conservation or retention). In persons with von Willebrand Disease type 1 and some type 2s or mild hemophilia A, it works by stimulating the release of von Willebrand factor (vWF) and factor VIII (FVIII) from its endothelial storage sites in the blood vessel. This causes a rapid increase in both vWF and FVIII into the bloodstream. This increase in vWF and FVIII levels promotes clotting.

Dosage:

- Stimate nasal spray (150mcg/inhalation)
- >50kg (>110 lbs.) use 2 sprays (1 spray in each nostril)
- <50kg (<110 lbs.) use 1 spray in 1 nare

Indications:

- Treatment of minor bleeding episodes (prolonged nosebleed, prolonged mouth bleeding, prolonged bleeding from a cut or laceration, hematoma or large bruise affecting mobility, etc.)
- Treatment prior to minor invasive procedures: dental procedure, minor surgery

Side Effects

- Mild facial flushing, mild headache
- Mild abdominal cramps
- Mild temporary fluctuation in blood pressure
- Renal water retention (decreased urine output for approximately 24 hours following a dose) – **FLUIDS NEED TO BE RESTRICTED: Please see back side of this document for fluid restriction guidelines.**
- Drop in serum sodium in blood, may cause seizure (rare occurrence, generally only if fluids are NOT restricted as advised).

Doses need to be given a **minimum** of 24 hours apart and for no more than 3 consecutive days or the medication may not be effective in raising the vWF levels or FVIII activity. If further dosing is recommended, need to speak with BCDI staff to determine when further doses can be given.

Contraindications:

- Not given if a person has a history of heart problems or high blood pressure.
- **DO NOT GIVE FOLLOWING ANY TYPE OF HEAD INJURY.**

Call BCDI with any questions or concerns or if unsure if dose is needed for a specific bleeding episode.

- To reach a nurse, please call **(309) 692-5337**.
- After regular business hours, please call **(309) 677-6085** to reach the provider on call.



Fluid Restriction with DDAVP/ Stimate®

One of the side effects of DDAVP is that it causes the person receiving it to retain fluid. This can occur whether the medication is given intravenously, subcutaneously or nasally (Stimate). In most cases this effect lasts for 18-24 hours. During this time, it is important that the person receiving DDAVP restrict their intake of fluid. If the person does not restrict fluid intake they can experience a drop in sodium level which could lead to seizures. This is a particular problem with small children.

The following recommendation will guide you/your family member when DDAVP is used. The guidelines should be discussed with the BCDI team/primary care physician to see if there are any modifications that might be suggested.

- Fluids are restricted based on the weight of the person. The restrictions that are recommended include:
 - 10-kg/22 lb. 1000 cc or 33 ounces (2 – 4 glasses)
 - 20-kg/44 lb. 1500 cc or 50 ounces (4 – 6 glasses)
 - 30 kg/66 lb. 1700 cc or 57 ounces (6 – 7 glasses)
 - 40 kg/88 lb. 1900 cc or 63 ounces (7 - 8 glasses)
 - 50 kg/110 lb. 2100 cc or 70 ounces (8 – 9 glasses)
 - Fluid intake should not exceed 9 glasses of fluid regardless of weight.
- Do not use plain water. The best high sodium fluids are milk, cocoa, chicken or beef broth, pedialyte, and Gatorade. Solid food may be eaten without restriction, although high sodium food may be encouraged such as macaroni and cheese, processed cheese, etc.
- Some people use DDAVP in the evening so that the first 12 hours are spent sleeping and therefore they are not likely to be interested in drinking. Unfortunately, this results in the best anti-bleeding effect also during the night, which might not be optimal. The length of the fluid retention effect is variable. Usually it lasts 18 to 24 hours and an increased urine output heralds the end of the fluid retaining effect. We must be aware, however, that the effect in young children can last as long as 36 to 48 hours.
- Activity must be considered when allowing for fluid restriction. Participation in an activity that results in heavy sweating may require more fluid than the recommended guidelines.

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