Desmopressin is an antidiuretic hormone analog. It increases cyclic adenosine monophosphate (cAMP) which increases water permeability at the renal tubule resulting in decreased urine volume and increased osmolality; it also causes peristalsis by directly stimulating the smooth muscle in the GI tract.

Pre-authorization Criteria:

Injection/Nasal Spray: treatment of diabetes insipidus; maintenance of hemostasis and control of bleeding in hemophilia A with factor VIII coagulant activity levels >5%; mild-to-moderate classic von Willebrand’s disease (type 1) with factor VIII coagulant activity levels >5%

Tablet: treatment of central diabetes insipidus; temporary polyuria and polydipsia following pituitary surgery or head trauma; primary nocturnal enuresis (alone or adjunctive to behavioral conditioning or other non-pharmacological intervention)

Off-Label: prevention of surgical bleeding in patients with uremia; uremic bleeding associated with acute or chronic renal failure
1. **Recommended Dosing Regimen and Authorization Limit:**

<table>
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<tr>
<th>Drug</th>
<th>Dosing Regimen</th>
<th>Authorization Limit</th>
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</table>
| **Desmopressin Acetate\(^R\)** (oral) | **Primary Nocturnal Enuresis**  
   Adults and children over 6 years of age:
   Patients begin at 0.2 mg at bedtime. The dose may be adjusted upward to a maximum dose of 0.6 mg. | One year            |
| **Desmopressin Acetate\(^R\)** (nasal) | **Central Diabetes Insipidus**  
   Adults and Children:  
   It is recommended that patients be started on doses of 0.05 mg (1/2 of the 0.1 mg tablet) two times a day and individually adjusted to their optimum therapeutic dose. | One year |
|                             | **Central Diabetes Insipidus**  
   Adults:  
   The usual dosage range is 0.1 to 0.4 mLs daily, either as a single dose or divided into 2 or 3 doses. |                     |
<table>
<thead>
<tr>
<th>Desmopressin Acetate^R (injection)</th>
<th><strong>Central Diabetes Insipidus</strong></th>
<th>One year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most adults require 0.2 mLs daily in 2 divided doses. Children (aged 3 months to 12 years): The usual dosage range is 0.05 to 0.3 mLs daily, either as a single dose or divided into 2 doses.</td>
<td><strong>Adults:</strong> The usual dosage range is 0.5 ml (2 mcg) to 1.0 ml (4 mcg) daily, administered subcutaneously or intravenously usually in two divided doses. <strong>Hemophilia A or Willebrand's disease Type 1</strong> Adults and children: An intravenous solution of 0.3 mcg/kg diluted in sterile physiologic saline and infused slowly over 15-30 minutes. 50 ml of diluent is recommended. For children less than 10 kg, 10 ml of diluent is recommended.</td>
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</tbody>
</table>

**MONITORING PARAMETERS** - Serum and urine sodium, urine specific gravity, urine and serum osmolality; urine output, fluid input and output, blood pressure, heart rate

**WARNINGS / PRECAUTIONS** - Use with caution in patients with seizure disorders, migraine, asthma, vascular disease, renal disease, cardiac disease; chronic nephritis with nitrogen retention. Goiter with cardiac complications, arteriosclerosis; I.V. infiltration may lead to severe vasoconstriction and localized tissue necrosis; also, gangrene of extremities, tongue, and ischemic colitis. Elderly and pediatric patients should be cautioned not to increase their fluid intake beyond that sufficient to satisfy their thirst in order to avoid water intoxication and hyponatremia; under experimental conditions, the elderly have shown to have a decreased responsiveness to vasopressin with respect to its effects on water homeostasis.
ADVERSE REACTIONS SIGNIFICANT - Frequency not defined.
Cardiovascular: Increased blood pressure, arrhythmia, venous thrombosis, vasoconstriction (with higher doses), chest pain, MI
Central nervous system: Pounding in the head, fever, vertigo
Dermatologic: Urticaria, circumoral pallor
Gastrointestinal: Flatulence, abdominal cramps, nausea, vomiting
Genitourinary: Uterine contraction
Neuromuscular & skeletal: Tremor
Respiratory: Bronchial constriction
Miscellaneous: Diaphoresis

PATIENT EDUCATION - Side effects such as abdominal cramps and nausea may be reduced by drinking a glass of water with each dose

REFERENCES
<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Content Revised (Yes/No)</th>
<th>Contributors</th>
<th>Review/Revision Notes</th>
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<tr>
<td>1/24/17</td>
<td>No</td>
<td>Catherine Sanders, MD; Robert Sterling, MD</td>
<td>Annual review</td>
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