

# New Horizons in the Diagnosis and Treatment of Hereditary Angioedema: Overcoming Barriers to Management and Improving Patient Outcomes

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## Pharmacy Credit

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## Testing and Grading Directions

- Each participant evaluating the activity is eligible to receive CE credit.
- To receive your credit online, go to [www.PharmacyTimes.org](http://www.PharmacyTimes.org) and complete the online posttest and the online activity evaluation form before the expiration date. Your CE credit will be automatically uploaded to CPE Monitor. Please ensure that your *Pharmacy Times*<sup>®</sup> account is updated with your NABP e-profile ID number and your date of birth (MMDD format). Participation data will *not* be uploaded into CPE Monitor if you do not have your NABP e-profile ID number and date of birth entered into your profile on [www.PharmacyTimes.org](http://www.PharmacyTimes.org).

## Sample of Online Posttest

Choose the best answer for each of the following:

- Which is a hallmark symptom commonly associated with allergic angioedema but not hereditary angioedema (HAE)?**
  - Urticaria
  - Swelling in the extremities
  - Swelling in a child or adolescent
  - Swelling occurring on more than one occasion
- KS is a 9-year-old male with complaint of swelling in right upper arm over the past 2 days that has not improved with corticosteroids. He has experienced swelling in his arms in the past, which has resolved within 1 to 2 days; however this episode seems more profound. He does not complain of any other symptoms, and the swelling is not associated with urticaria. There is history of angioedema in his father over the past 10 years, with symptoms recurring every 6 to 9 months and spontaneously resolving. What would be an appropriate next step in evaluation of this patient?**
  - Refer to an allergist for evaluation of potential allergens
  - Obtain a C4 level and C1-INH level to evaluate for potential HAE
  - Give additional corticosteroids
  - Send him home without further workup; his presentation is not a cause for concern
- In a patient presenting with symptoms of hereditary angioedema, which location of edema can be fatal if not quickly addressed?**
  - Edema of the upper extremities
  - Abdominal edema
  - Laryngeal edema
  - Edema of the face
- Which of the following is the mechanism of action for icatibant?**
  - Attenuated androgen
  - Bradykinin-receptor antagonist
  - Kallikrein inhibitor
  - Antifibrinolytic
- Which agent is labeled for subcutaneous administration and should be used for routine prophylaxis?**
  - pdC1-INH (Berinert)
  - pdC1-INH (Cinryze)
  - pdC1-INH (Haegarda)
  - rhC1-INH (Ruconest)
- Which of the following acute treatments *should not* be self-administered due to safety concerns?**
  - rhC1-INH (Ruconest)
  - Icatibant
  - Ecallantide
  - Tranexamic acid
- Which approved agent can now be administered for routine prophylaxis against angioedema attacks in children younger than 6 years?**
  - pdC1-INH (Berinert)
  - pdC1-INH (Cinryze)
  - Icatibant
  - Tranexamic acid

8. What percentage of patients with HAE as a primary diagnosis (HAE-PD) required discharge to another short-term hospital or a skilled nursing facility following inpatient treatment in the study by Zilberberg et al?
- A. 5%
  - B. 10%
  - C. 15%
  - D. 20%
9. A 2015 study published in *Formulary Journal* found that patients with HAE were accruing \_\_\_\_\_ in expenses for specialty drug treatment costs annually.
- A. \$200,000
  - B. \$300,000
  - C. \$400,000
  - D. \$500,000
10. A 33-year-old female diagnosed with C1-INH-HAE with a history of infrequent attacks visits a pharmacist who manages her HAE. The pharmacist opts to perform a HAE-QOL questionnaire to assess outcomes over the past 6 months. The pharmacist should use assessment questions in all of the following areas *except*:
- A. Treatment difficulties
  - B. Perceived illness control
  - C. Costs of therapy
  - D. Emotional role/social functioning

# SAMPLE POSTTEST