EVIDENCE-BASED HEMOPHILIA CLINICAL PRACTICE: GLOBAL ASSESSMENT OF KNOWLEDGE AND CONFIDENCE AMONG HEMATOLOGISTS AND ONCOLOGISTS

Van Laar ES, Warren C, Frick N, Maeglin J, Pipe S

Medscape, LLC, New York, NY; National Hemophilia Foundation, New York, NY; University of Michigan, Ann Arbor, MI

INTRODUCTION

Appropriate and timely clinical assessment, monitoring, and management/prevention of joint bleeds and joint damage are critical to minimizing long-term disability and deterioration in quality of life for individuals with hemophilia.1,2 Despite the availability of therapies for the prevention and treatment of bleeding episodes, hemophilia continues to be associated with substantial morbidity. Clinical knowledge gaps can affect outcomes in patients with hemophilia through reduced application of prophylaxis and suboptimal tailoring of interventions, particularly in the presence of comorbidities.

To better characterize educational needs among hematologists/oncologists, an assessment was undertaken to identify and characterize clinical practice gaps and confidence levels in the management of hemophilia.

METHODS

A survey consisting of 20 knowledge- and case-based multiple-choice questions reflecting evidence-based guidelines and best practices, including the National Hemophilia Foundation and World Federation of Hemophilia recommendations was created.2,3 The survey was made available online on Medscape Education to healthcare providers without monetary compensation or charge.4 The survey launched on March 23, 2015, with responses collected until June 4, 2015. Confidentiality of survey respondents was maintained and responses were de-identified and aggregated before analysis.

RESULTS

170 hematologists/oncologists completed the survey.

Participants were from Europe (23%), United States (26%), Canada (2%), Asia (9%), Middle East (10%), Central/South America (6%), Africa (6%), and Australia (3%) (Figure 1).

Practice settings included academic centers (42%), community hospitals/clinics (35%), private practice (11%), and hemophilia treatment centers (4%) (Figure 2).

75% of respondents indicated a professional interaction with patients with hemophilia.

Knowledge gaps were seen in several areas of patient care (Table 1). Responses to illustrative questions are provided in Figures 3 to 6.

TABLE 1. Knowledge Gaps Among Hematologists/Oncologists Who Professionally Interact With Patients With Hemophilia

<table>
<thead>
<tr>
<th>Assessment Variable</th>
<th>Incorrect Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular Issues</td>
<td></td>
</tr>
<tr>
<td>Stenosis</td>
<td>59%</td>
</tr>
<tr>
<td>Angina</td>
<td>56%</td>
</tr>
<tr>
<td>Atrial Fibrillation</td>
<td>50%</td>
</tr>
<tr>
<td>Antiplatelet Therapy*</td>
<td>29%</td>
</tr>
<tr>
<td>Managing Joint Bleeds</td>
<td>47%</td>
</tr>
<tr>
<td>Personalizing Therapy</td>
<td>31%</td>
</tr>
<tr>
<td>Applying a Comprehensive Care Model</td>
<td>27%</td>
</tr>
<tr>
<td>Transferring a Patient to Extended Half-Life Product</td>
<td>34%</td>
</tr>
<tr>
<td>Initiating Bypass Therapy*</td>
<td>33%</td>
</tr>
<tr>
<td>Current Guidelines on Prophylaxis Protocols</td>
<td>27%</td>
</tr>
<tr>
<td>When to Initiate Prophylactic Factor Replacement*</td>
<td>29%</td>
</tr>
<tr>
<td>Recognizing Nonadherence*</td>
<td>12%</td>
</tr>
<tr>
<td>Characterizing the Severity of Hemophilia</td>
<td>16%</td>
</tr>
</tbody>
</table>

*The data for these gaps are shown in the poster figures.

REFERENCES


FIGURE 1. Practice Location

FIGURE 2. Practice Setting

FIGURE 3. Cardiovascular Issues: Antiplatelet therapy

FIGURE 4. Bypassing Therapies

FIGURE 5. When to Initiate Prophylaxis

FIGURE 6. Adherence

CONCLUSIONS & IMPLICATIONS

This study yielded important insights into clinical gaps in knowledge and confidence about the assessment and optimal care of hemophilia for hematologists/oncologists, suggesting that further education specific to the following topics is warranted:

- Aging and cardiovascular issues
- Inhibitors and utilization of bypassing therapy
- Recognizing when and at what dose to initiate prophylaxis
- Adressing adherence

DISCLOSURES

The clinical practice survey was supported by an unrestricted grant from GSK.

Corresponding author: Emily Van Laar, MS, Director, Medical Education, Medscape, LLC, evanlaar@medscape.net

FIGURE 3. Cardiovascular Issues: Antiplatelet therapy

Assessment Question: A 57-year-old man with severe hemophilia A (FVIII less than 1%) presents with symptoms of angina. He has been treated for hypertension with enalapril for 4 years. If single antiplatelet therapy is considered the best approach for treating his symptoms, how would you manage the increased bleeding risk? Select the best answer from the choices provided below. Correct answer shown with *.

- By treating him with aspirin 325 mg daily
- By treating him with clopidogrel 75 mg daily
- By treating him with clopidogrel 75 mg daily and aspirin 162 mg daily
- Aspirin and clopidogrel are contraindicated

FIGURE 4. Bypassing Therapies

Assessment Question: The patient developed a persistently high-titer inhibitor and was no longer able to prevent or treat bleeding events with recombinant factor VIII, what therapy would be offered instead? Correct answer shown with *.

- By treating him with bypassing agent over months to years
- By treating him with bypassing agent over weeks to months
- By treating him with bypassing agent with every other day bleed
- Bypassing agent is contraindicated

FIGURE 5. When to Initiate Prophylaxis

Assessment Question: The patient presents again at age 14 months and has been walking since his first birthday; however today he is refusing to bear weight on his left leg and there is an obvious left ankle hematoma. Which of the following is the optimal approach to caring for this patient? Correct answer shown with *.

- Observation
- Initiate standard treatment
- Initiate prophylaxis for Factor Xa
- Initiate prophylaxis for Factor Xa with a normal hepatic bleed

FIGURE 6. Adherence

Assessment Question: A 17-year-old boy with severe hemophilia A receiving primary prophylaxis treatment begins after the first joint bleed at 9 months of age with recombinant factor VIII 50 IU/kg every 4 days. He is active and plays soccer 3 to 4 times per week on his high school team. He denies missing any doses, but does not keep calendar. He has had 3 breakthrough bleeds during the past 6 months. If in each such event and in his right elbow. The bleeds have all responded to a single infusion. He is unable to recall a relationship between the bleeds and soccer practices or games. He had not had any bleeds during the prior 6 months. He orders his factor from the pharmacy. He appears well on examination today. He has no signs of acute or chronic synovitis. He has trouble making eye contact and lies to his mom answer the majority of the questions. What is the most likely cause of his breakthrough bleeds? Correct answer shown with *.

- The patient's education
- Factor prophylaxis dose is too low
- Factor prophylaxis dose is too active
- The patient is nonadherent