

# Evaluation of Knowledge of Patients with Hemophilia Regarding Their Diseases and Treatment in Iran

## İran'daki Hemofili Hastalarının Hastalıkları ve Tedavileri Hakkında Bilgilerinin Değerlendirilmesi

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To the Editor,

Hemophilia A and B are hereditary X-chromosomal recessive disorders affecting 1 in 5000 male births [1,2]. Hemophilia is classified as severe at F VIII / F IX <1 kIU L<sup>-1</sup>, moderate at 1-5 kIU L<sup>-1</sup>, and mild at >5-25 kIU L<sup>-1</sup> [3].

During the mid-1970s hemophilia care underwent substantial improvement to provide more optimal disease management for bleeding prevention strategies and education programs. This led to better educational strategies for disease management [4,5].

Home therapy can be used to manage mild and moderate bleeding episodes and can help to achieve optimal treatment, resulting in decreased pain and hospital admissions for complications [6].

In this cross-sectional study, 30 patients with hemophilia A and B who were registered at the Hemophilia Center of Shiraz, Fars Province, southern Iran, were investigated between March and October of 2013. The data collection form consisted of two parts including demographic data and 22 specific questions regarding assessment of knowledge of the patients regarding the disease and treatment. In this latter section specific topics included appropriate treatment, disease transmission, physiotherapy application, management of bleeding, and the most common symptoms of bleeding.

The correct answer to questions had a sum of 1 to 4 points. Some of the questions had more than one correct answer.

Total knowledge scores were categorized into three grades: scores of 1-14 (poor knowledge), 15-29 (fair knowledge), and 30-41 (good knowledge).

This study was approved by the Ethics Committee of Shiraz University of Medical Sciences.

Data were analyzed by SPSS 17 using the Mann-Whitney U test and the Pearson correlation test, and p<0.05 was considered as statistically significant.

Demographic characteristics of the patients including disease severity and educational level are shown in Table 1.

Participants included 3 female patients and 27 male patients; 26 patients had hemophilia type A and 4 patients had hemophilia type B.

The median age of the patients was 23.5±6.1 years, ranging from 8 to 37 years old. Seven patients had a mild/moderate and 23 had a severe form of hemophilia.

Overall, the mean knowledge score of the patients was determined as 14.7±4.5 (range: 4-26). Considering the three levels of knowledge classification, all patients fell into the first category of poor knowledge (score of <30). There was no significant correlation between the knowledge of the patients and their ages (p=0.094). The results also revealed no significant association between the knowledge of patients and disease severity (p=0.446) or educational level (p>0.999).

There are limited studies that assess the knowledge level of individual patients regarding the management of hemophilia [7,8,9]. An important finding of this study was that patients' knowledge was not correlated with age, educational level, or disease severity.

**Table 1. Demographic characteristics of the patients with hemophilia, including severity and educational level.**

Variables	Median (Interquartile Range)	p-value
Severity		
Severe	15 (5.50)	0.446
Moderate/mild	14 (5)	
Education level		>0.999
High school Diploma	15 (5.63)	
Undergraduate Diploma	15.5 (11.13)	

Hemophilia associations should be recommended for educational programs for patients and caregivers. Hematologists and nongovernmental organizations can work together for lifelong educational programs. Finally, we recommend holding patient workshops twice a year as well as publishing simple books or brochures in each local language to improve the knowledge and therefore the quality of life of these patients.

**Keywords:** Knowledge, Hemophilia, Treatment, Disease

**Anahtar Sözcükler:** Bilgi, Hemofili, Tedavi, Hastalık

### Ethics

Ethics Committee Approval: This study was approved by the Ethics Committee of Shiraz University of Medical Sciences.

### Authorship Contributions

Concept: Mehran Karimi; Design: Mehran Karimi; Editing the Manuscript: Mehran Karimi; Data Collection or Processing: Zohreh Zahedi; Analysis or Interpretation: Sezaneh Haghpanah; Literature Search: Tahereh Zarei; Writing: Tahereh Zarei.

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## Therapeutic Plasma Exchange Ameliorates Incompatible Crossmatches

### Çapraz Karşılaştırma Uyumsuzluklarını Ortadan Kaldıran Tedavi Edici Plazma Değişimi

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To the Editor,

Red blood cell (RBC) transfusion is a risk factor for mortality and morbidity in coronary artery bypass graft (CABG) surgery, and transfusion-related adverse effects may be catastrophic in these patients [1,2,3,4]. Unfortunately, there are no recommendations for these patients regarding how to proceed in the case of incompatible crossmatch tests against donors' blood. To our

knowledge, there is no report about the role of therapeutic plasma exchange (TPE) in resolving incompatible crossmatches.

A 73-year-old man was admitted to our hospital because of chest pain. He had no previous medical history of coronary artery disease or any other diseases, including hemolytic disease and recent infection. In addition, he used no medication and had not received blood transfusions. After coronary angiography, a