



## ***An Important Financial Burden: Unnecessary Test Requests for Viral Hepatitis***

### **Önemli Bir Ekonomik Yük: Viral Hepatitlerin Gereksiz Test İstekleri**

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#### **Dear Editor;**

Cost-effective approaches for using limited financial resources correctly are essential in the healthcare field. Life expectancy has been increasing in developed and developing countries, and nowadays, acute and chronic diseases are being treated with processes that are becoming more expensive. Consequently, increasing pressure on the health budgets of countries around the world is now a reality. The health expenditure percentage of the gross domestic product is expected to climb in future years (1).

To decrease this health expenditure, initially, misapplications in health care should be detected. An article by Demiray et al. (2) in the recent issue of the Viral Hepatitis Journal emphasized the costs of unnecessary tests, and provided beneficial information on this subject for clinicians.

Unnecessary test requests for viral hepatitis, in particular, are a significant problem in various centers in Turkey. Alpaz Ozbek et al. (3) found that 14% of anti-hepatitis A virus total tests and 18% of (anti-HBc) tests were unnecessarily repeated over a three-year period at a university hospital. The rate of inappropriate tests used for the diagnosis of hepatitis A infection was 52.2% in a two-year study at a state hospital. At this same hospital, it was detected that 12.9% of anti-HBs, 12.9% of anti-HBc total, 74.8% of anti-HBc immunoglobulin M (IgM), 83.9% of hepatitis B envelope antigen (HBeAg), and 75.2% of anti-HBe tests were unnecessary, at a total cost of 56.153 Turkish liras (TL) (4). Genc and Aksu (5) found that the percentages of unnecessary test requests were 2.23% in anti-HBs, 0.7% in anti-HBc total, 37.41% in anti-HBc IgM, 44.86%

in HBeAg, and 37.75% in anti-HBe at a tertiary care hospital, and those tests led to an average annual financial burden of 14.000 TL.

The causes of unnecessary test requests were as follows: i) failure of healthcare workers to check previous tests results due to lack of time; ii) difficulty for healthcare workers to retrieve previous results; iii) distrust of previous test results; iv) no familiarity of diagnostic algorithms; v) requests for tests made by non-physician healthcare providers; vi) failure to determine if the patient had already received the hepatitis B vaccine; vii) requests for screening tests for preventive medicine (5). These reasons can all be corrected. Consequently, unnecessary tests might decrease.

The total economic burden of chronic hepatitis infection in terms of treatment, monitoring, and complications is high (6), all costs which might be inevitable. The results of health policies that will be developed to prevent diseases may require a long time. In addition, we cannot afford prevention campaigns. However, it is possible to lessen this financial burden with some preventative measures.

A test may be studied in accordance with another test, as appropriate diagnostic algorithms. This practice is called reflex tests. Therefore, if the first requested test is not appropriate, the second and subsequent tests may be blocked (7). Determining test interval is important. Warning signals that are situated within hospital network systems may report to the physician previous test results. Thus, the physician may not request the tests again (5). Another technique for preventing duplicate tests is organizing education about diagnostic algorithms for health professionals (4). Also, if the patient is infected with hepatitis B or C virus, this information can be saved on hospital network systems. History of

hepatitis B or A vaccine, the presence of hepatitis B and C infected person in the family, and previous hepatitis test results performed in another hospital can be questioned.

#### **Ethics**

Peer-review: Externally and Internally peer-reviewed.

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