

## عنوان مقاله:

Evaluation of Serum PSA in Different Storage Environments

## محل انتشار:

فصلنامه آسیب شناسی ایران, دوره 5, شماره 4 (سال: 1389)

تعداد صفحات اصل مقاله: 5

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## خلاصه مقاله:

**Background and Objective:** Prostate cancer is a prevalent disease around the world. The prostatic specific Antigen (PSA) test has recently proved itself as a useful method for the diagnosis and examination of patients with prostatic cancer. The objective of this study was to compare the stability of free PSA and total PSA in different storage settings. **Materials and Methods:** Samples were obtained from 12 men, within the range of 50-70 yr old, who referred to Hazrat-e-Ghaem Hospital, Mashhad, Iran. The sera were separated via centrifuge and stored at room temperature (21-24°C) for 3, 6, and 9 hours; at 4°C for 24, 48, and 72 hours; and at -20°C for 1, 2, and 3 months. Finally, the stability of PSA was compared to that of the control group. The data were analyzed using the statistical software SPSS and paired t-test and repeated measure. **Results:** In comparison with the average of the control samples, after 3 hours of storage at room temperature, the free PSA concentration had a 30% drop; and after 72 hours of storage in the refrigerator, the average of free PSA had a 34% fall. In addition, the average of the free PSA concentration kept in the freezer for 3 months exhibited an 11% drop. However, the average of total PSA kept in the refrigerator for 72 hours dropped by 6.9%. Finally, over 2 months of storage in the freezer, the average of the total PSA concentration exhibited a decrease of 10.6%. **Conclusion:** Free PSA, when compared to total PSA in terms of time and storage temperature, shows less stability.

## کلمات کلیدی:

Prostate-Specific Antigen, Temperatures, Chemical Analysis

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