

## **Prenosological diagnosis as an improving element of the health care of working-age population**

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### **Abstract**

Studying red blood cells in the pathogenesis of tumor growth increasingly attracts attention due to the high biological activity. There is evidence of changes in red blood cells under the influence of negative production factors. The study applied screening tests for the presence of inter-erythrocyte lagoons and luminescent red blood cells. The object of the study were military servicemen engaged in the chemical weapons storage and destruction facilities. The objective of the study was to conduct analysis of the peripheral blood with the further development of preventive measures to reduce the risk of malignancies. The results of the study revealed the following trends: a risk group for the emergence of malignant tumors includes the retired and former military servicemen. The highest percentages of positive tests for the presence of inter-erythrocyte lagoons and luminescent red blood cells were observed in the contingent group (95.1% for each indicator). Analysis of the results by age and employment structure revealed a direct correlation - the older the age and the greater the working experience is, the higher the risk of cancer development is. The risk group includes persons over 70 years old (100% of positive results for the presence of lagoons and luminescent red blood cells). High percentages of positive tests are in working intervals of 30-39 years (71.6% for lagoons and 70.1% for luminescent red blood cells), 10-19 years (58.8% for lagoons and 70.6% for luminescent red blood cells), and 20-29 years (58.6% for lagoons and 69% for luminescent red blood cells).

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### **Keywords**

Inter-erythrocyte lagoons, Luminescent red blood cells, Risk of malignancies