

Fuzzy Sets Applications for Cancer Risk Assessment

Molchanov P.A., Dudatiev A.V., Podobna Y.Y., Molchanova O.P.

Vinnytsia State Technical University

Vinnytsia State Medical College, Vinnytsia, Ukraine

Summary: The method of cancer risk assessment on the basis of the Fuzzy Set Theory is presented. The method is based on a multifactor risk assessment of cancer diseases. The individual risk of cancer disease is evaluated as the probability of disease multiplied by the value of an individual dose. An acupuncture method of cancer risk assessments was developed. The method is based on the analysis of changes of an electromagnetic field (biofield) of a person. The method allows to determine both cancer probability and probable location of the process.

Key words: individual risk assessment, cancer diseases, fuzzy knowledge base, cause-effect relation tree

Address for correspondence: *P.A. Molchanov, 25 Pushkin str., Apt 4, Vinnytsia, 21050, Ukraine. E-mail: envrisk@vstu.vinnica.ua, mpavlo@mail.vinnica.ua*