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THEORETICAL APPROACH- TO SELECT AN OPTIMAL NUMBER OF LABORATORY PROGNOSTIC BIOMARKERS OF CANCER

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ABSTRACT

Referred WHO (world health organization), cancer is a second cause of death globally. Difficulties of early diagnosis, a proper assessment of influential prognostic factors, have been and are still challenges and part of numerous studies. Aim: Strategic thinking to select classical and/or recent laboratory biomarkers to improve algorithms, protocols and clinical decision. Most mentioned prognostic factors are: a. the possibility of early diagnosis; b. features of progress of cancers in generally and separately such as histopatologically and histochemically subtypes, role of miRNA-s (non-coding RNA molecule), exosomes, the scale of neovascularity, hipercoagulability, different scale of inflammation, immune response, anemia of inflammation, release of ectopic hormonal substances out of feed-back mechanisms, alteration of electrolytes, location of the tumor; c. patients features (age, nutritional status, co morbidities, therapy resistance); d. features of healthcare system and populations; These numerous points of view bring the selection of different medical attitudes, protocols, lab or imagery biomarkers, medications, health counseling or evolution of multidisciplinary teams. Conclusions: 1. It's time for multivariate studies in Albania to redefine an optimal number of independent prognostic variables, notably, for cancers with poor prognosis including features of public health and individuals in our country based on concepts of P4 medicine and recently development of laboratories and health sciences, and their involvement in clinical decision making after validation process. 2. We can't screen cancer patients with laboratory biomarkers continuously, as we do with cardiac patients with Holter. Because of variable subtypes, chameleonic behavior of cancer cells, resistance to therapy, individual response, it's difficult to select the minimal number of prognostic examinations, but we can select optimal and appropriate numbers of them, according to each cancer and each TNM (tumor, nodus, metastasis) stage.

Key words: theoretical approach, select, optimal number, laboratory prognostic, biomarkers of cancer.