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MAIN ASPECTS OF SCREENING PROGRAMS AMONG THE POPULATION

The World Health Organization defines screening as the presumptive identification of an undiagnosed disease in an apparently healthy, asymptomatic population through the use of tests or other procedures that can be quickly and easily applied to the target population [1].

The organization of a screening program is a complex task that requires a clear coordination of components both within the health care system and beyond.

In 2008, the World Health Organization published the «Policy Framework. Screening in Europe», where she noted that the modern principles of screening were formulated in 1968 by J. Wilson and G. Jungner. These principles include: the condition under study must be an important public health issue; the natural course of the disease is well known; the disease can be detected at an early stage; there are effective treatments for this stage; inexpensive, sensitive and specific tests are available for early stage detection; screening tests should be repeated at regular intervals; the risk of harm from the diagnostic test used must be less than the likelihood of benefit; the cost of the program must be justified by its benefits [2].

Even though screening capabilities have evolved a lot since these principles were established, they are still considered the gold standard when deciding whether to conduct screening programs.

According to population coverage, population-based, selective and targeted screenings are distinguished [3].

Population screening involves a large-scale process in which significant populations are invited to be screened (tuberculosis screening by fluorography).

Selective screening is carried out in certain population groups (national Health Check programs to identify certain chronic non-communicable diseases and risk factors for their development).

Targeted screening is screening given to selected high-risk groups within a population (TB, HIV or hepatitis screening).

By the number of tests used, screening programs are divided into: the use of one screening method to detect one disease (mammography as a screening method for breast cancer, measurement of blood pressure to detect arterial hypertension) and multiple (multiphase) screening is the use of two or more screening tests to detect one or more diseases.

There are different ways to make a screening program worthwhile. These include: examining the role played by various subject in determining supply and demand; incorporating evidence-based screening studies into special secondary education programs, postgraduate programs for physicians, and training programs for nurses; public information and awareness campaigns; joint decision-making; identify barriers to maximizing the effectiveness of appropriate screening programs and take action to overcome them.

Following the decision to implement a screening program, a sequence of actions should be developed that forms the screening route: from identifying a population that meets the criteria established for screening, to ensuring that a monitoring and evaluation system is in place, to determine whether the program as a whole meets its goals and evaluates the effectiveness of the functioning of its various components.

The use of screening programs affects the long-term maintenance of a high level of patient health, as well as ensuring a high quality of life and longevity.

References:

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