

EDITORIAL

SCREENING: THE CORNERSTONE FOR SECONDARY PREVENTION

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Screening test sorts out from apparently healthy population those who probably have the disease or risk factor. Screening test is quick, less accurate, inexpensive and simple to be conducted by technicians, thereby saving doctors time who only interprets the test. Those confirmed by the diagnostic test as cases are given treatment to alter the natural history of disease.

This case detection as a result of screening is called prescriptive screening which is superior from case finding where the people are the health care seekers. Also it is different from prospective screening done to protect local population from immigrants having disease. Selective screening in high risk population gives better yield than mass screening.

Screening is helpful in education and awareness of general public about diseases and also helps in epidemiological research by cross-sectional and longitudinal surveys. Screening is the main tool in the hands of epidemiologist to detect tuberculosis, diabetes, hypertension, cancer like chronic diseases presenting in community as 'tip of the ice-berg'.

Screening is helpful only in diseases of public health importance having increase prevalence and having time lag between onset and time of diagnosis (latent or asymptomatic period). Diseases must have known natural history, with availability of screening test, diagnostic test and treatment along with resources for sustained care. Also there must be available a clear policy of treatment. There must be good evidence that screening decreases morbidity and mortality of

disease along with cost benefit analysis.

Screening test must be acceptable for community participation, repeatable (reliable/ precise) like height and weight & not like BP measurement, which has all three sources of errors (intra/ inter observer, subject and technical). The screening test must be valid (accurate) having high sensitivity, specificity, positive and negative predictive value.

High sensitivity means increase number of true positive and decreased false negative to avoid false assurance to the patients specially having lethal diseases like cancer versus diabetes which requires less sensitive and highly specific test.

High specificity means increased true negative and decreased false positive to keep the image of screening program high as fewer anxious people will require confirming the diagnosis and our diagnostic system will not be overburdened. Sensitivity and specificity are inversely related.

Those actually deserving should be screened instead of volunteers. Participants need to be explained the possibility of false positive and false negative. To evaluate screening programs at the place where these are going on, case control, uncontrolled trials and RCTs may be conducted. The response rate is 50 to 60 percent in developed countries. The screening must be done in high risk groups instead of mass level screening for high yield with high predictive value of positive and negative screening test. Screening must be integrated into health care services.

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CONFLICT OF INTEREST

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