Benefits and Risks of Cancer Screening

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Screening of asymptomatic persons is one concept in the management of cancer. It aims at reduction of morbidity and mortality through detection of cancer at an early stage. Screening is promising in malignancies with a stage-dependent prognosis. The downside of screening lies in discomfort and complications caused by the examination itself, overdiagnosis with subsequent invasive diagnostic procedures, and overtreatment of tumors which would not have become symptomatic during the person's life and would not have led to death.

In Germany, only few cancer screening programs have been established and are financed by the statutory health insurance providers. 'Grey' screening is widely applied, its extent is unclear. Oncology is currently one of the most dynamic disciplines in medicine. Cancer screening has to be reviewed constantly in the light of significant diagnostic and therapeutic advances. The DGHO – German Society for Hematology and Medical Oncology – has decided to support an active discussion about the current benefits and risks of cancer screening.

This supplement contains highly committed contributions advocating the benefits of cancer screening and equally driven statements warning against the risks of overdiagnosis and overtreatment. It seems fair to draw the following general conclusions: i) The current screening programs in Germany have to be subjected to a rigorous risk-benefit assessment; endpoints are cancer-specific mortality, overall mortality, morbidity, patient-reported outcome, and costs. ii) All screening programs need a transparent system of quality assurance. iii) Risk-adapted screening based on genetic markers and risk scores can improve the risk-benefit ratio. iv) The rapid progress in oncology has to be translated into cancer screening programs. v) Asymptomatic persons need up-to-date, understandable, comprehensive and independent information about the risks and benefits of cancer screening to enable them to make informed choices.

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