

Advances in Cancer Prevention

Members Fulfillment with Colorectal Disease Screening Programs

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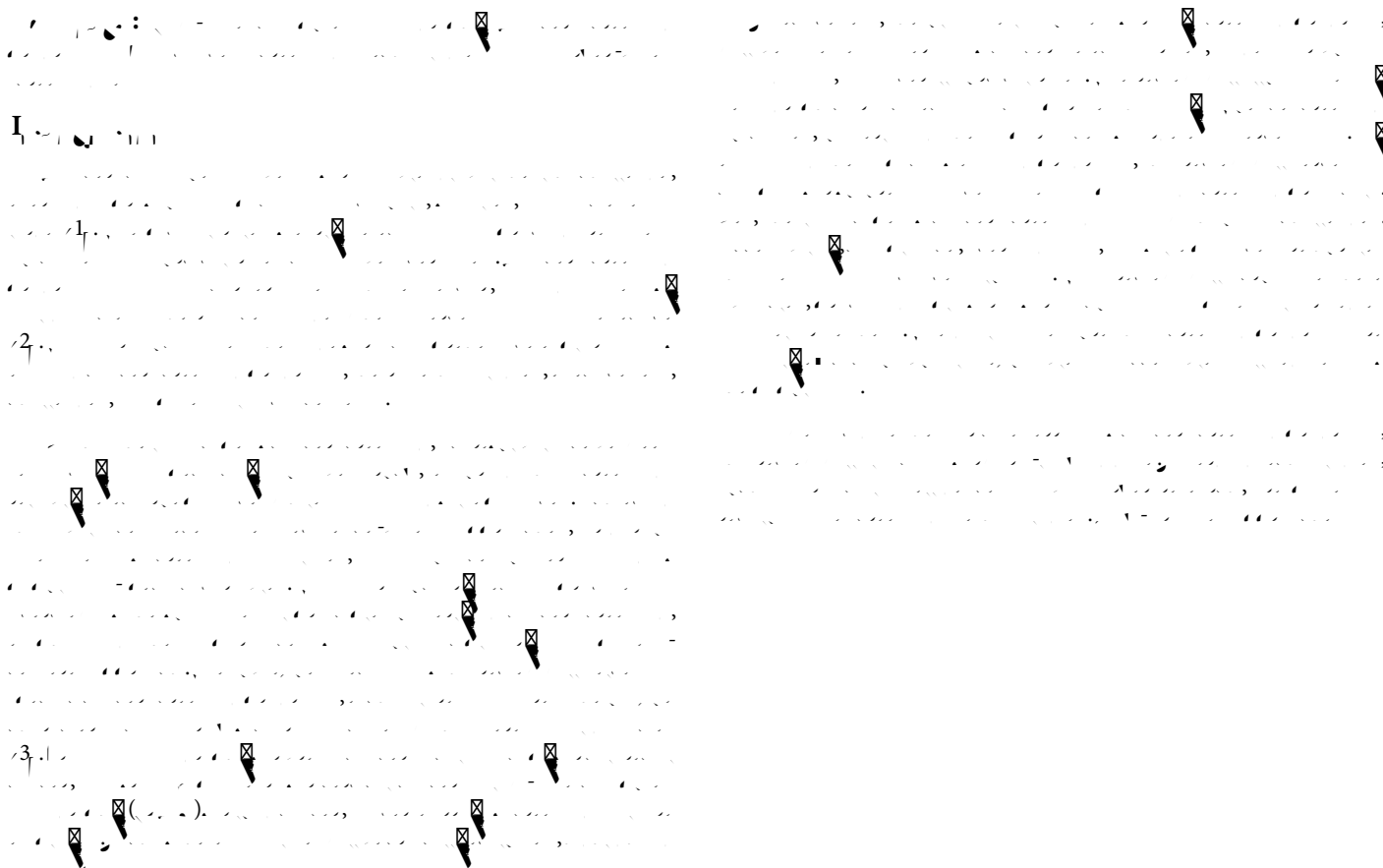
Cancer remains a significant global health challenge, with early detection being pivotal for improved prognosis and treatment outcomes. Screening programs play a critical role in identifying cancer at its earliest, most treatable stages. This comprehensive review aims to provide an overview of existing cancer screening programs, highlighting their methodologies, effectiveness, challenges, and potential advancements. The review begins by outlining the fundamental principles of cancer screening, emphasizing the importance of evidence-based approaches. It then delves into the major types of cancer screening programs, including those for breast, colorectal, cervical, and lung cancers. Each section evaluates the screening modalities employed, such as mammography, colonoscopy, Pap smears, and low-dose computed tomography (LDCT), while also discussing their respective strengths and limitations.

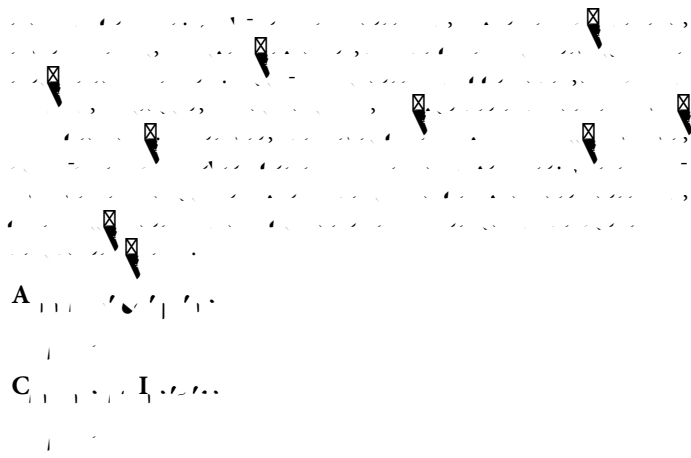
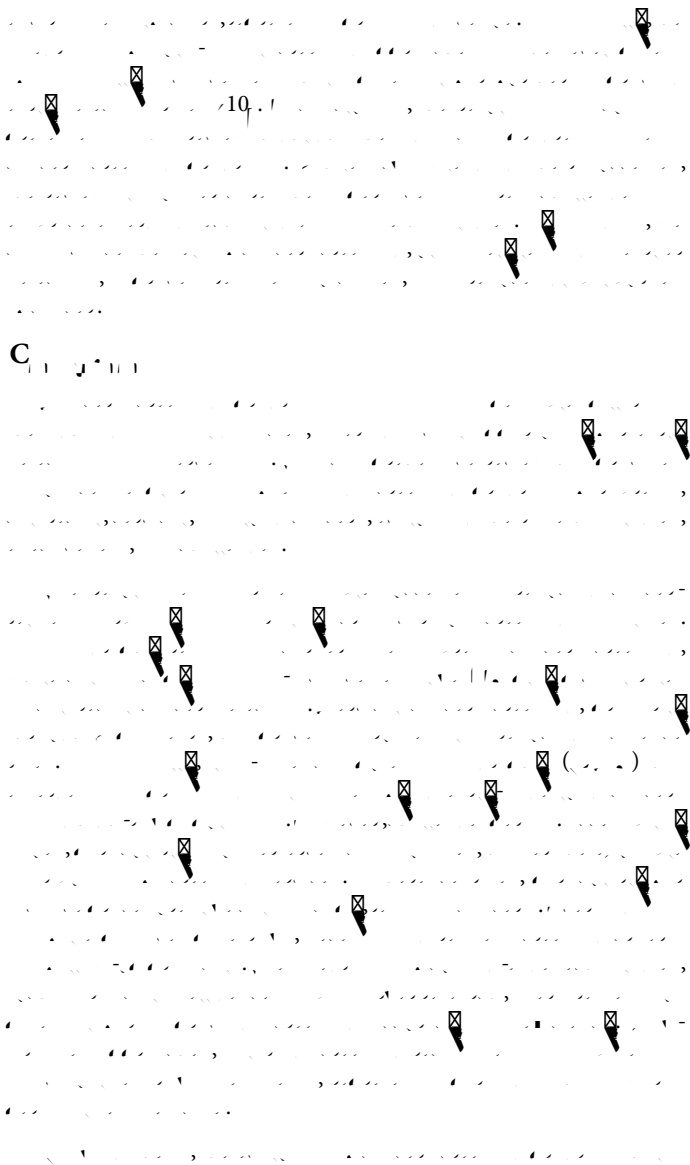
Furthermore, the review assesses the effectiveness of current screening programs in terms of cancer detection rates, stage distribution at diagnosis, and overall survival rates. Special attention is given to population-specific variations, considering factors such as age, gender, and socio-economic status. The review also examines the impact of advancements in technology and biomarker research on the re- cancer screening. This encompasses the integration of artificial intelligence (AI) in image interpretation, the development of minimally invasive biomarker-based screening tests, and the implementation of risk-stratified screening approaches. Consideration is given to the ethical, legal, and social implications of these advancements. In conclusion, th

efforts to enhance early cancer detection and ultimately reduce the global burden of this devastating disease.

Programsa. Adv Cancer Prev 7: 184.

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