The next step in cancer screening and diagnosis

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ABSTRACT
Cancer remains a leading cause of death in Malaysia, with lung, colorectal, and breast cancers ranking among the top causes. The Malaysia National Cancer Registry reveals that a significant proportion of cases are diagnosed at late stages, underlining the urgent need for more effective screening and early detection strategies. The National Strategic Plan for Cancer Control Programme (NSPCC) 2021–2025 prioritizes downstaging of major cancers and improving survival rates by enhancing early detection, diagnosis, and treatment. Despite these efforts, challenges persist, including gaps in screening policies for high-burden cancers, limited epidemiological data, risks of overdiagnosis, public unawareness, and significant resource constraints. To address these issues, the next steps in cancer screening and diagnosis should embrace precision public health, personalized risk-based approaches, and technological advancements. Among factors worth exploring include multi-cancer screening, deploying liquid biopsy technologies, and integrating artificial intelligence (AI) for enhanced diagnostic accuracy. The Lung Health Initiative Malaysia 2025–2030 exemplifies this shift, emphasizing AI-enabled screening tools, integrated care pathways, strengthening the primary healthcare services and digital data systems across both public and private sectors. This forward-looking framework calls for multi-sectoral collaboration, investment in infrastructure and human capital, and policy innovations to transform cancer care. With these integrated efforts, Malaysia aims to improve outcomes, reduce premature cancer mortality, and ensure equitable access to high-quality screening and care services nationwide.

Keywords: Cancer, screening, artificial intelligence