

A POLICY BRIEF ABOUT MANDATORY FECAL OCCULT BLOOD TEST



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Abstract

Worldwide Colorectal cancer is the third most common cancer among males and females. In addition to Jordan has the highest incidence and mortality rates of colorectal cancer among Eastern Mediterranean region. The major reasons related to the increased mortality rate of colorectal cancer in Jordan are that the colorectal cancer screening cost is very expensive, the colorectal cancer screening services are not available, and a lack of hospital policy or protocol on colorectal cancer screening in Jordan. There is no policy supports mandatory fecal occult blood test among Jordanians. An action must be taken to legislate mandatory fecal occult blood test among Jordanians aged 50 and more for a free. This policy brief is directed to the Medical Jordanian Constitution to promote the importance of mandating a policy about the fecal occult blood test; it would help in detecting colorectal cancer in early stages and in turn lowering the cost of its treatment.

Keywords: Colorectal cancer, Health Policy, Fecal Occult Blood Test, Policy Brief, Jordan.

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Executive Summary

A colorectal cancer combines malignant epithelial cell tumors of the cecum, colon, rectum, and anal canal. This cancer varies by their form, location, and histological structure (Dolgushin, Kornienko, & Pronin, 2018). It often starts as a growth of a polyp on the inner wall of the large intestine (colon and rectum) (National Cancer Institute, 2018).

In terms of incidence and mortality, after the prostate and lung cancers in males and after the breasts and lung cancers in females, the colorectal cancer is the third of all cancers (Marley& Nan, 2016). The highest incidence of colorectal cancer in the Eastern Mediterranean region was founded in Israel (36 per 100000), followed by Jordan (26 per 100000), and the highest mortality rates were found in Jordan, then in Kazakhstan, Armenia, and Israel (Schreuders et al., 2015). The major reasons related to the increased mortality rate of colorectal cancer in Jordan are that the colorectal cancer screening cost is very expensive, the colorectal cancer screening

services are not available, and a lack of hospital policy or protocol on colorectal cancer screening in Jordan (Omran, Barakat, Muliira, & Aljadaa, 2015).

To control the incidence and mortality rates of colorectal cancer in Jordan, there should be a health policy that obligates Jordanians who aged 50 years and above undergoing annual colorectal cancer screening tests.

Colorectal cancer screening tests include 1) tests that find polyps and cancer such as colonoscopy and CT colonography; 2) tests that detect colorectal cancer such as fecal immunochemical test and fecal occult blood test (American Cancer Society, 2017).

The fecal occult blood test reduces colorectal cancer mortality rates (Libby, Fraser, Carey, Brewster, & Steele, 2018; Luo, Cambon, & Wu, 2012). In Jordan, the cost of the fecal occult blood test is cheap (4 JD for non-patients) as compared to the cost of other tests (King Hussein Cancer Center, 2017). This test is effective as compared to other colorectal cancer screening modalities (Ladabaum, Allen, Wandell, & Ramsey, 2013; Libby et al., 2018;

Niedermaier, Weigl, Gies, Hoffmeister, & Brenner, 2018) (Fig. A). In Jordan, there is no policy supports mandatory fecal occult blood test among Jordanians. An action must be taken to legislate mandatory fecal occult blood test among Jordanians aged 50 and more for a free. This policy brief is directed to the Medical Jordanian Constitution to promote the importance of mandating a policy about the fecal occult blood test; it would help in detecting colorectal cancer in early stages and in turn lowering the cost of its treatment.

The Context of the Problem

Jordan has the highest incidence and mortality rates of colorectal cancer among Eastern Mediterranean region (Omran et al., 2015); consequently, the burden of colorectal cancer will increase. Reasons include the increased prevalence of known risk factors such as unhealthy dietary practices; obesity; smoking; age more than 50 years; sedentary lifestyle; genetic predisposition; the lack of early detection programs, the lack of population awareness regarding early detection, the absence of laws that obligate population to undergo screening, and the shortage of specialized centers which provide specialized care and treatment to cancer patients (Omran & Ismail, 2010; Omran et al., 2015).

Occult blood detection has existed since 1864 (Musil & Tillich, 1999). It is a lab test used to detect the hidden blood cells in a stool sample, which may indicate colon cancer or polyps in the colon or rectum (American Cancer Society, 2017). The fecal occult blood test is one of colorectal cancer screening tests among healthy populations aging 50 years and older to identify people who have cancer. It is useful in detecting the disease at early stages, and it increases the chances for successful treatment (American Cancer Society, 2017; Libby et al., 2018; Strul & Arber, 2002).

The fecal occult blood test is effective in the early detection of colorectal cancer, reducing its mortality rate. It is recommended to use this test as the national screening test to reduce colorectal cancer (American Cancer Society, 2017; Libby et al., 2018; Mandel et al., 1993; Niedermaier et al., 2018; Hardcastle et al., 1996).

Despite that colorectal cancer is a major problem in Jordan, there is no policy regarding this screening test to detect colorectal cancer among Jordanians aged 50 years and older. Depending on all proven facts regarding the importance of fecal occult blood test in the early detection of colorectal cancer, reduction of mortality and the decreased burden of colorectal

cancer, the Jordanian Medical Constitution should legislate mandatory fecal occult blood test in Jordan.

Mandatory Fecal Occult Blood Test as a Policy

Screening is recommended to reduce colorectal cancer incidence and mortality. Since 2003, the Council of the European Union recommended that all member states should establish early detection programs for colorectal cancer screening for population aged 50-74 years, with an annual or biennial fecal occult blood tests, followed by a colonoscopy, when the results were positive (Council of European Union, 2003). Finland, France, Slovenia, and the United Kingdom had completely implemented the recommended programs.

Screening programs have been established in the United States as well (Smith et al. 2016). Several countries in East Asia have ongoing organized screening programs, including Japan, Korea, China, Hong Kong, Taiwan, and Bangkok (Sano et al., 2015). (Fig. B)

In Jordan, there is no policy that mandates the fecal occult blood test as a screening test for colorectal cancer in the population aged 50 and older. There is a possibility for some barriers related to the use of fecal occult blood test as a screening test such as poor understanding of the characteristics of the test, a lack of government financial support, and a lack of public awareness regarding colorectal cancer screening. These barriers can be overcome by increasing the understanding of the nature of the test by utilizing the media, increasing population's awareness about the importance of the test in the early detection of colorectal cancer by developing national awareness programs, promoting equity of access to the test for the target population, and deducting part of the country's revenue to cover the costs of the test. Afterward, the benefits of the screening test will be outweighed its harms.

Recommendations for Policymakers

The Jordanian Medical Council should legislate mandatory fecal occult blood test for

Jordanians aged 50 and older by:

1. List mandatory fecal occult blood test in the Jordanian constitution.
2. 2-Make the first week in February of each year, the week which mandatory fecal occult blood test held in all health centers and hospitals in Jordan.

3. Increase the awareness of the Jordanian society about the benefits of colorectal cancer screening through various forms of media and social networks.
4. Conduct different awareness lectures for students from different disciplines in Jordanian universities about the importance and the nature of fecal occult blood test in the screening of colorectal cancer.
5. Deduct five piasters from the electricity bills from every citizen, ten piasters from every mobile phone, five piasters when documenting every marriage contract, and deduct part of the country's revenue to cover the costs of this important test.
6. All positive results of fecal occult blood test must be followed up with colonoscopy.

Therefore, when the mandatory fecal occult blood test is legislated and the recommendations are implemented, this will effectively contribute to reducing the burden of the disease, and to reducing its incidence and mortality rates in Jordan.

Conclusion

In conclusion, many scientific studies with high-quality evidences insure the use of fecal occult blood test for screening of colorectal cancer has many good advantages. Fecal occult blood test is beneficial and capable of detecting colorectal cancer in early stages. So this test has the ability to reduce mortality and disability which occur due to colorectal cancer and its complications. Fecal occult blood test is highly cost-effective and acceptable to most individuals. Therefore, if fecal occult blood test legislated in Jordan it will reduce mortality and disability among Jordanian population.

Declaration

Authors Contributions

Both AA and MTM conceived and designed the study, collected and interpreted the information. AA wrote the initial draft. MTM wrote the final draft of the manuscript. The authors reviewed and approved the final draft and are responsible for the content of the manuscript.

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Conflicts of interest

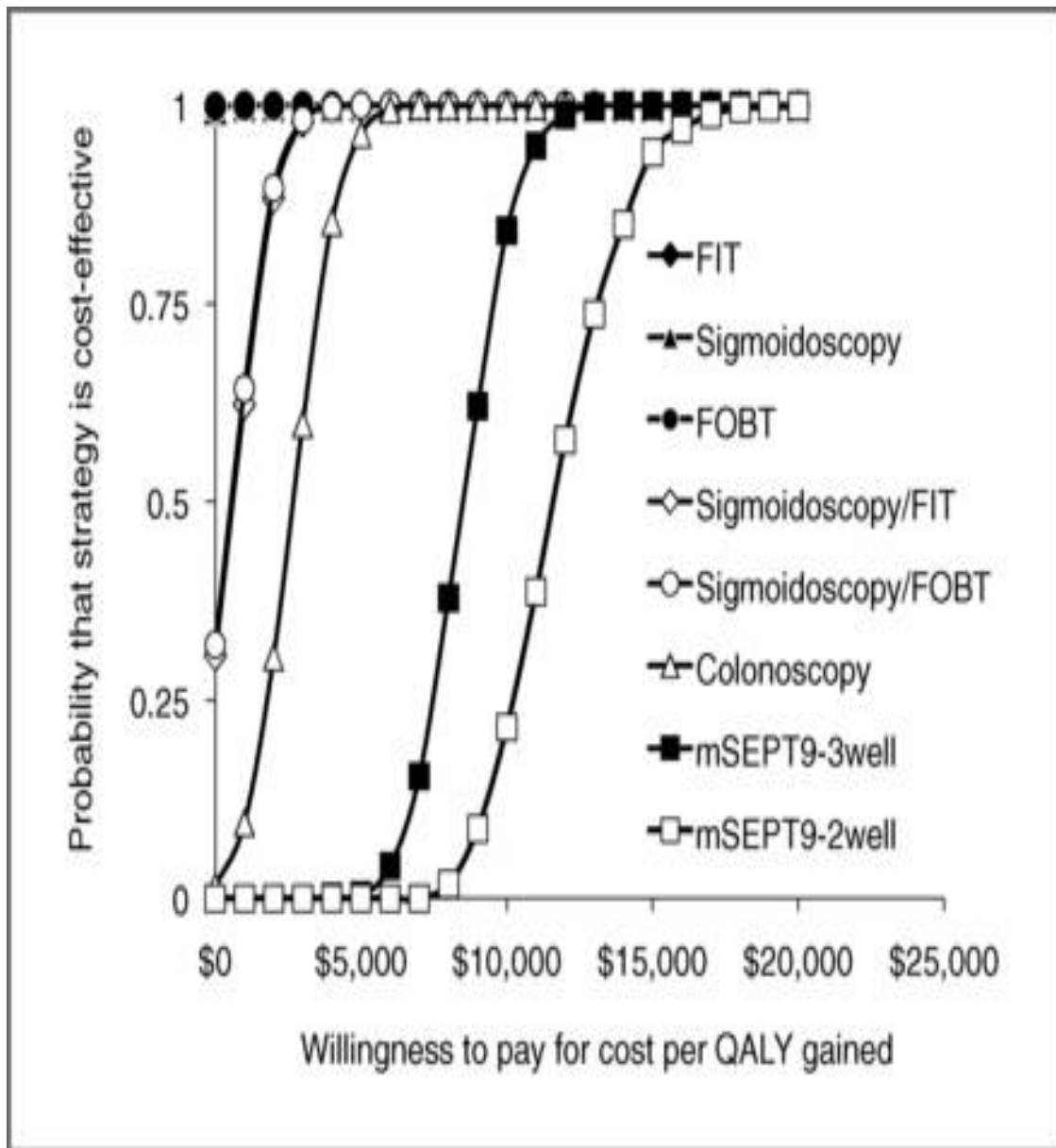
There are no conflicts of interest.

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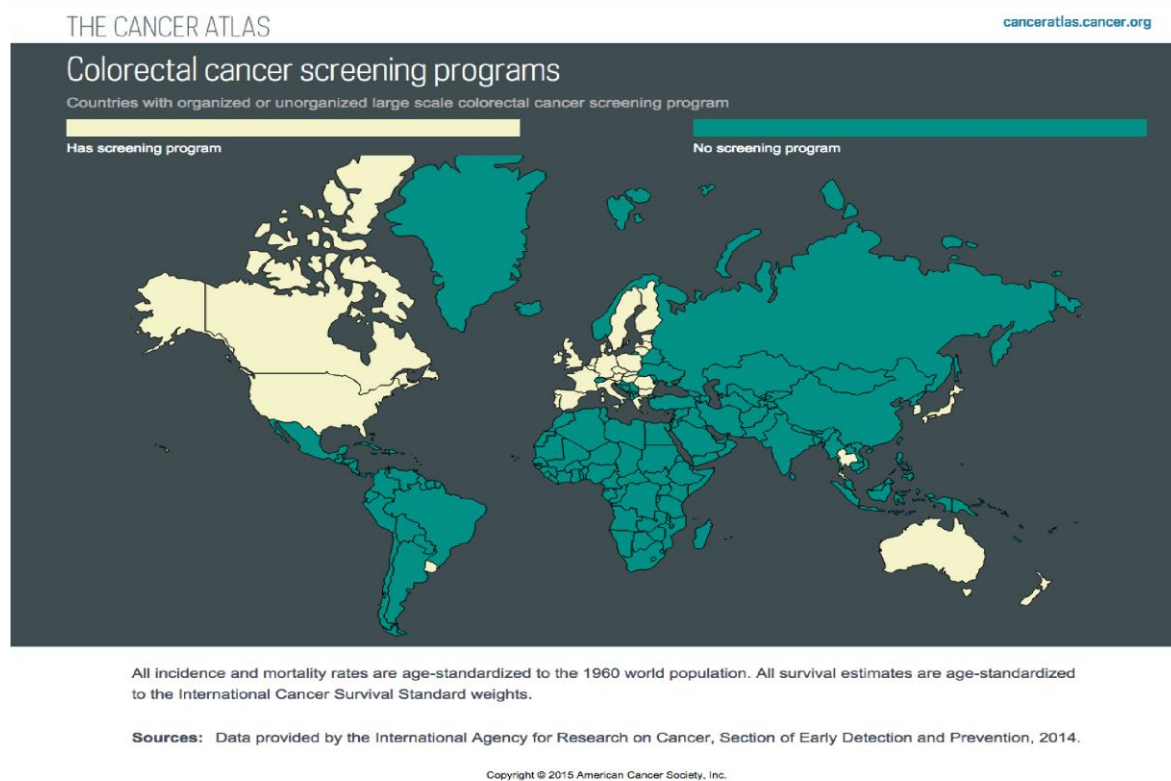
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Figure (A)



(Cost-effectiveness acceptability curves for the screening strategies compared with no screening).

Figure (B)



Organized and unorganized countries that promote colorectal cancer screening programs.

(<http://canceratlas.cancer.org/data/#?view=map&metric=ColorectalScr>)