



Cancer Screening Over 65

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MS is a 68-year-old woman with a medical history of hypertension, type 2 diabetes managed with insulin, and osteoporosis. She comes to the primary care clinic for follow up and medication refills. She has been your patient for 18 months, since she moved to the United States with her son, daughter-in-law, and their children from the Dominican Republic. She is adherent with her anti-hypertensive medications but is less enthusiastic about measuring her blood glucose levels and explains that she would rather have high sugar levels than risk the shakiness of hypoglycemia. She remembers that her most recent Pap smear was within the past five years and thinks “it may have had some problems” but is unable to provide more detail. She did not bring her medical records with her when she moved, and wants to know if you think she should have a Pap test today.

The benefits of screening for cancer are clear. Without even considering the immeasurable personal cost of a cancer diagnosis, the expense associated with many current treatment regimens makes early diagnosis paramount to managing finite health care resources and to improve chance of meaningful recovery. One difficulty in designing guidelines for screening is to determine who would, and who would not, benefit from the treatment that follows a positive screening test result. The additional challenge is that there has also been harm demonstrated in patients who have a false positive

test result, either due to unnecessary procedures or treatments, or due to psychological impact. Furthermore, everyone reaches an age (chronologic or functional) when potential treatments could cause more suffering than the natural course of the disease.

For the primary practitioner, there are a paucity of guidelines to inform appropriate screening in patients over 65, as ideas of life expectancy and quality at the end of life are shifting with the aging population.

BREAST CANCER

Nearly 50% of breast cancers are diagnosed in women over the age of 65.¹ A systematic review has shown that there is a benefit to screening with mammography in women over the age of 65 annually or biannually, and that if no significant co-morbidities exist, there are mortality and down-staging benefits to screening women over age 75.² Potential harms outweigh benefits around age 85, or at younger ages, if co-morbidities limit life expectancy to less than 5 years. Studies are ongoing that are designed to compare the natural course of breast cancers in younger women versus those in older women. At this point there are no data sufficiently compelling to alter screening guidelines. This research will elucidate whether tumors first diagnosed in older women differ in aggressiveness or treatment responsiveness from those diagnosed in younger women.

Table 1: Recommendations for method and frequency of cancer screening

Cancer Site	Method of Screening	Frequency	Start	Stop
Cervical	Pap test	At least every three years	Three years after start of intercourse, no later than age 21.	65 to 70 years old if no abnormal Pap within past 10 years
Breast	Mammogram	Annually	Age 40 if not high risk	Age 85 or life expectancy less than 5 years
	Clinical Breast Exam	Every three years during 20's and 30's, annually after age 40	Age 20	
Prostate	Serum PSA	Annually	Age 50, or age 45 for high risk	Age 75 or life expectancy less than 10 years
Colorectal	Colonoscopy	Every 10 years	Age 50 or 10 years prior to diagnosis first degree relative	No official recommendations
	FOBT	Annually		
	Flexible sigmoidoscopy	Every 5 years		

CERVICAL CANCER

Twenty-five percent of new cases of cervical cancer are diagnosed in women over 65 years old, with 10% over the age of 75.³ Guidelines from the American Cancer Society recommend that women between 65 and 70 year old, who have had three or more consecutive normal Pap tests in the last ten years, may choose to stop screening.⁴ Despite the significant reduction in cervical cancer mortality that Pap screening has conferred, it has also been shown that a majority of women over age 60 with a new diagnosis of cervical cancer were diagnosed as a result of symptoms rather than because of an abnormal

Pap smear.³ This suggests that this demographic may be under-screened in general. Recent survey data show that primary practitioners place sexual history at a lower priority in the older female population, and that screening is offered less often to older women with co-morbid conditions.⁵ The role that multiple sexual partners, contraception use, and HPV infection play in increasing the risk of cervical cancer is less frequently considered in the population of women over age 65. It may be that these factors will contribute to a revision of the current guidelines for cervical cancer screening in the older female population.

PROSTATE CANCER

Until recently, the guidelines for prostate specific antigen (PSA) and digital rectal examination (DRE) screening for prostate cancer were to start screening non-high-risk men at age 50, and continue annually until ten years of expected life remained.⁶ A recent update to the United States Preventive Services Task Force (USPSTF) guideline has recommended that men over the age of 75 discontinue screening by serum PSA levels.⁷ Evidence co-published with the recommendation suggests that false-positive PSA screening results cause psychological adverse effects for up to one year after the test, unnecessary testing and treatment with resultant morbidity.⁸ The indolent nature of many prostate cancers and high morbidity associated with radical prostatectomy and radiotherapy make this a reasonable course for some men, though there has been some resistance to this recommendation in the primary care community. Future observation and study will help determine whether men over age 75 will benefit or be harmed as a result of this recommendation change.

COLON CANCER

Approximately two-thirds of colorectal cancer is diagnosed in persons over the age of 65, and 25% is diagnosed over the age of 80.⁹ Current screening recommendations are for colonoscopy every ten years starting at age 50 (or ten years prior to the age of diagnosis in a first-degree family member), yearly fecal occult blood testing (FOBT), flexible sigmoidoscopy, or double-contrast barium enema every 5 years.¹⁰ There are no official guidelines indicating the upper age limit of colorectal cancer (CRC) screening. As in other areas, life expectancy is the most often utilized guide for screening termination. A recent study shows that primary providers are under-utilizing CRC screening in patients over 65, and the most common reason patients in this age group did not participate in screening for CRC is that their physicians did not recommend testing.¹¹ The study also demonstrated a deficit patient understanding of appropriate screening timing and methods for CRC screening, suggesting a potential benefit of patient education by primary providers.

Despite the further clarification that cancer screening guidelines merit, the case of MS is reasonably straightforward. There is a possibility that she has had an abnormal result in the past, and as there are no records to establish her past care she should be screened. That she is asking for advice at all suggests she is concerned, and would likely benefit irrespective of the

test result. In the current era, referring to persons over age 65 as “elderly” is more arbitrary than ever before. Knowledge of the importance of a healthy lifestyle combined with the resources available to manage chronic diseases has significantly improved the quality of life for the oldest two-thirds of the population. Many of the studies that guide screening practices are skewed toward the younger of this age range, and the management of the oldest old is in many cases left to the individual clinician’s opinion. As the silver tsunami approaches,¹² there will likely be a louder call for evidence that explicitly supports or discourages cancer screening in more-specifically defined older adult populations.

REFERENCES

1. National Cancer Institute. *Surveillance, Epidemiology, and End Results (SEER) Program Public-Use Data (1973–1998)*. Bethesda, Md: National Cancer Institute; 2002.
2. Mandelblatt, et al. The cost-effectiveness of screening mammography beyond age 65. *Ann Intern Med* 2003;139:835–42.
3. Fox, et al. An evaluation of cervical cancer in women age sixty and over. *Oncol* 2008; 109 (1): 53-8.
4. Smith, et al. Cancer screening in the United States, 2007. *CA Cancer J Clin*. 2007; 57:90-104.
5. CI Kiefe, et al. Chronic disease as a barrier to breast and cervical cancer screening. *J Gen Intern Med* 1998.13:357–65.
6. Harris, Lohr. Screening for prostate cancer. *Ann Intern Med* 2003 137: 917-29.
7. Screening for Prostate Cancer: U.S. Preventive Services Task Force Recommendation Statement. *Ann Intern Med* 2008; 149:185-9.
8. Lin K., et al. Benefits and harms of prostate-specific antigen screening for prostate cancer. *Ann Intern Med* 2008.149:192-9.
9. Jackson-Thompson J, et al. Descriptive epidemiology of colorectal cancer in the United States, 1998–2001. *Cancer* 2006;107 (5 Suppl):1103–11.
10. US Preventive Services Task Force. Screening for colorectal cancer: Recommendation and rationale. *Ann Intern Med* 2002; 137:129–31.
11. Berkowitz, et al. Beliefs, risk perceptions, and gaps in knowledge as barriers to colorectal cancer screening in older adults. *J Amer Geriatrics Soc* 2008; 56: 307-14.
12. Shield R, et al. Preparing for the silver tsunami. *Med Health RI* 2008;91:247-9.

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