



Rebuttal: Should women 40 to 49 years of age be offered mammographic screening?

YES

Isabelle Trop, MD, MPH, FRCPC

Dr Deck quotes results from his own study to state that “the reduction in mortality [from screening] is much more substantial among older women.” This argument is always put forth to argue against screening women aged 40 to 49, but is flawed because the improvement in mortality for younger women improves with length of follow-up.¹ Indeed, the numbers quoted from the Agence d'évaluation des technologies et des modes d'intervention en santé study contrast with results published by Tabar's group²: after 20 years' follow-up of the 40- to 49-year-old group, Tabar and colleagues report a 48% reduction in breast cancer mortality in the screened group compared with 19% in unscreened women.

Dr Deck states that the ineffectiveness of mammography in young women is because of a lower risk of breast cancer and denser breast parenchyma. He proposes obtaining a baseline mammogram at age 40 to see if “the image is clear enough.” The premise for this proposition is only partly valid because the detection of 2 of the 3 principal manifestations of cancer on mammography (microcalcifications and architectural distortion) is not hindered by dense breast tissue.

The limitations of mammography due to the added anxiety of patients' receiving false-positive results have been exaggerated—given the choice, women opt for greater sensitivity at the cost of lower specificity.³ As for the risk of radiation exposure for women in their 40s, I addressed this topic in my initial position paper.

It is undeniable that the risk of breast cancer increases with age. Because the cohort of 40- to 49-year-old women is so large, however, and will grow to become the largest segment of the population in 2031,⁴ many women in their 40s stand to benefit from screening mammography. In 1993, breast cancer was the leading cause of mortality among women 35 to 49.⁴

I will again conclude with the following thought:

NO


W. Deck, MD, MSC

In support of mammography screening for younger women, Dr Trop cites a number of familiar arguments, but fails to support her conclusion in favour of systematic screening of women younger than 50.

It is true that a Swedish study¹ showed a decline in breast cancer mortality since the initiation of widespread mammography screening. That is encouraging, but it is not proof that widespread screening works, because alternative explanations—in particular better treatment—might also explain these findings.

It is also true that early mammography trials used examinations whose quality today would be considered unacceptable, but those earlier trials produced results more favourable to screening—for instance, the 4 trials initiated before 1980 indicate a combined reduction of 16%, while the 3 more recent trials showed a reduction of only 10%.²

Eliminating data from earlier studies only weakens the case for early screening. It is even more important that some trials were conducted under flawed research conditions.³ Data from the 2 best trials of a weak group show a 2% reduction in breast cancer mortality.²

Dr Trop mentions many drawbacks—sensitivity of breast tissue to radiation; anxiety from false-positive tests; surgery for pseudocancers; high recall rates; and costlier programs—but attributes experts' reluctance to include younger women in screening programs to cost alone. This is a legitimate concern, but without good evidence of effectiveness, why should governments pay the cost and women suffer other drawbacks of screening? Dr Trop suggests that recommending screening to women starting at the age of 40 is safer than waiting until there is proof of efficacy, but medical practice should be based on evidence, and current evidence suggests that mammography screening entails risk and provides little benefit until the age of 50. 

These rebuttals are responses from the authors who were asked to discuss, “Should women 40 to 49 years of age be offered mammographic screening?” in the Debates section of the September issue (*Can Fam Physician* 2006;52:1050-2 [Eng], 1053-5 [Fr]). In these rebuttals, the authors refute their opponents' arguments.

YES

because there is quite a high likelihood that screening mammography will ultimately be found to decrease mortality from breast cancer significantly among women 40 to 49; because technology and radiologic expertise have improved since initial studies; and because risks of mammography are close to nil; it is safer to recommend screening for this population than to wait until "proof of efficacy" is obtained.



Dr Trop is an Assistant Professor of Radiology in the Department of Radiology at Centre hospitalier de l'Université de Montréal (CHUM), Hôtel Dieu, and a radiologist at Clinique Léger in Montreal, Que.

References

1. Helme S, Perry N, Mokbel K. Screening mammography in women aged 40-49: is it time to change? [editorial]. *Int Semin Surg Oncol* 2006;3:4.
2. Tabar L, Yen MF, Vitak B, Chen HH, Smith RA, Duffy SW. Mammography service screening and mortality in breast cancer patients: 20-year follow-up before and after introduction of screening. *Lancet* 2003;361:1405-10.
3. Mokbel K, Lirosi F, Al-Sarakbi W, Leris C. Women's views on the introduction of annual screening mammography to those aged 40-49 years (a pilot study). *Curr Med Res Opin* 2001;17(2):111-2.
4. Statistics Canada. 1996 health report. Ottawa, Ont: Statistics Canada; 1996.



NO

Dr Deck is a consultant physician at the Gaspésie-Iles-de-la-Madeleine Public Health Department in Gaspé and is a researcher with the Quebec Agency for Health Services Research and Technology Assessment.

References

1. Tabar L, Yen MF, Vitak B, Chen HH, Smith RA, Duffy SW. Mammography service screening and mortality in breast cancer patients: 20-year follow-up before and after introduction of screening. *Lancet* 2003;361:1405-10.
2. Agence d'évaluation des technologies et des modes d'intervention en santé (AETMIS). Screening mammography: a reassessment. Report prepared by Wilber Deck with the contribution of Ritsuko Kakuma (AETMIS 05-03). Montreal, Que: AETMIS; 2006. p. xii-77.
3. Gotzsche PC, Olsen O. Is screening for breast cancer with mammography justifiable? *Lancet* 2000;355(9198):129-34.

