

# POEMs

## Patient-Oriented Evidence that Matters

*Due to competition for space in this issue of the journal we have reprinted only one POEM. However, this provides us with some useful data from the large and comprehensive Scandinavian monitoring of screening outcomes for breast cancer. It exemplifies the conundrum that exists between the desire to institute population screening and the reality of preventing terminal cancer in an individual. The problem is that when we detect an abnormality with screening we do not know what the outcome would have been for that person had we not detected it. The plethora of rapid responses to the original paper does little to resolve the conundrum. Editor.*

### Clinical question

Does screening identify breast cancers that would not otherwise have affected patients' mortality?

### Bottom line

Misdiagnosis is a common risk with breast cancer screening (or any disease screening). But there is a second risk: overdiagnosis, in which women are screened for breast cancer and found to have the disease who would not otherwise have ever known, in their lifetimes, that they had it (i.e. they would have died from something else before symptoms ever occurred). In this study, approximately one-third of all women between the ages of 50 years and 69 years were overdiagnosed. (LOE=1b)

### Reference

Zahl P, Strand BH, Maehlen J. Incidence of breast cancer in Norway and Sweden during introduction of nationwide screening: prospective cohort study. *BMJ* 2004; 328:921–24.

### Study Design

Cohort (prospective)

### Setting

Population-based

### Synopsis

Everyone has heard the (incorrect) statistic: 1 in 8 women will get breast cancer. This statistic assumes all women will live to be 85 years old; by that age, their chances would be 1 in 8. The authors of this impressive study began collecting data when screening mammograms were started for the first time in parts of Norway and Sweden. Approximately 75% of the 4.3 million women older than 30 years participated in the study. The introduction of mammographic screening programmes resulted in a 54% increase in the incidence of invasive breast cancer in women between 50 years and 69 years in Norway and a 45% increase in the same age group in Sweden. However, there was no corresponding decrease in the incidence of breast cancer in women older than 69 years. Here's the logic: Once the screening started in women younger than 70 years old, women with cancer would have been diagnosed and thus would have not been available, in a sense, for diagnosis after age 70. Yet the incidence of screening in the women after age 70 did not decrease, as expected. Therefore, these early diagnosed cancers may represent overdiagnoses that may not have been found in the patient's lifetime.