S32. Screening for Breast Cancer Among Older Women: Costs and Outcomes

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Background: The incidence of female breast cancer declines significantly after age 75. We investigated whether this decline may be explained, in part, by reductions in mammographic testing for older women.

Data Sources: Cancer incidence was obtained from the California Cancer Registry (CCR) between 1988 and 1997. Data on mammographic screening were obtained from the Centers for Disease Control and Prevention (CDC) 2002 Behavioral Risk Factor Surveillance System (BRFSS). Modeling was used to estimate the costs and health effects of screening women age 75 and older.

Results: Most previous analyses lump together all individuals greater than age 75, 80 or 85. Creating separate categories for age ranges 85-89, 90-94, 95-99 and 100+ suggests different incidence patterns for a variety of cancers including ductile carcinoma in-situ (DCIS). Between the ages of 40 and 74, there is a significant rise in DCIS. Beginning at age 75, there is a significant decline in DCIS through the highest age categories. The use of mammographic screening increases between the ages of 40 and 60 years. Beginning at age 75, a significant decline in the use of mammography with age parallels the decline in incident cases of DCIS. If failure to screen results in missed cases of treatable cancer, death rates should increase with advancing age. However, deaths from breast cancer also decline in the oldest age groups.

Conclusion: There may be a substantial reservoir of undiagnosed DCIS in the population. The decreasing incidence DCIS with advancing age in the oldest age groups might be explained by elimination of surveillance bias. Screening for breast cancer in women older than 75 years may increase health care costs without producing health benefit. Autopsy studies are needed to estimate the true prevalence of DCIS in older women.