

SUPPLEMENT 1

Interview guide used in:

Pappadis et al. Perceptions of overdetection of breast cancer among women 70 years of age and older in the USA: A mixed-methods analysis

Supplement 1. Interview guide with presentation of overdiagnosis

Introduction: We are going to look at two pictures together. The first picture shows how getting a mammogram might help someone live longer (Judy). The second picture shows how getting a mammogram may not help someone live longer, even if it finds a cancer (Barbara). Present mortality benefit of screening (Judy). Then present overdiagnosis (Barbara).

[Show figures of Judy and Barbara depicting mortality benefit of screening and overdiagnosis]*

Presentation of Judy – Mortality benefit of screening

In the first scenario, Judy is 74 years old. Judy gets a mammogram and it detects a small cancer. She undergoes treatment for breast cancer and then lives until age 86, and then dies of heart disease. In the second scenario, she does not get a mammogram, her cancer progresses and is detected at a later stage, and she dies of breast cancer at age 80. This figure shows how getting a mammogram could help someone live longer.

- Can you tell me what you think about this picture?

Now we are going to look at a picture that shows how getting a mammogram may not help someone live longer, even if it finds a cancer.

Presentation of Barbara – Overdiagnosis

In the first scenario, Barbara is also 74 years old, and develops a very slow-growing breast cancer. She gets a mammogram and it detects a small cancer. She undergoes treatment for breast cancer and then lives until age 86, then she dies of heart disease. In the second scenario, Barbara does not get a mammogram, but her cancer remains small and undetected, and she lives until age 86, and then dies of heart disease. This figure shows how getting a mammogram did not help Barbara live longer. Barbara's mammogram found a small cancer that never would have caused symptoms or shortened her life, even without any treatment. This is called overdiagnosis because the mammogram showed a cancer that never would have caused her problems.

- Can you tell me what you think about this picture?
- After hearing about overdiagnosis, what are your thoughts or feelings?
- How does it make you feel about having a mammogram?

Presentation of Overtreatment as a result of Barbara's Overdiagnosis

If Barbara had not had a mammogram, she still would have lived until she was 86. She would not have been diagnosed with breast cancer, and she would not have had to have surgery and radiation and experience the side effects of those treatments. Her treatment was unnecessary.

- What do you think about Barbara's situation?
- How does the possibility of potentially unnecessary treatment make you feel about getting a mammogram?

Presentation of Overtreatment as a result of Barbara's Overdiagnosis

Research shows that 10-30% of breast cancers found by mammograms are probably the result of overdiagnosis. This means that up to one-third of women who had breast cancer found by a mammogram never would have had symptoms or died of breast cancer. The mammogram found a breast cancer that never would have caused problems.

- What do you think about this information?
- How does this affect your decision about whether or not to get a mammogram?

*Figures used during the interview are available in the following publication: Hersch J, Jansen J, Barratt A, et al. Women's views on overdiagnosis in breast cancer screening: a qualitative study. *BMJ*. 2013;346:f158.