

## Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

**eTable 1. Causes of Death for the 92 Participants Who Died**

<b>Cause of death</b>	<b>Frequency</b>
Breast cancer	35
Ovarian/peritoneal cancer	30
Brain tumour	2
Colon cancer	2
Heart/Circulatory Failure	2
Lung cancer	2
Thrombosis	2
Accident	1
Amyloidosis	1
Brain Aneurysm	1
Diabetes	1
Endometrial cancer	1
Kidney cancer	1
Leukemia	1
Liver cancer	1
Pancreas cancer	1
Amyotrophic lateral sclerosis	1
Thyroid cancer	1
Death Cause Unknown	6
Total	92

**eTable 2. Other Cancers Diagnosed in the Cohort**

<b>Cancer</b>	<b>Frequency</b>
Ovarian	85
Fallopian	14
Peritoneal	12
Melanoma	11
Pancreatic	11
Endometrial	8
Colon	7
Lung	4
Kidney	3
Brain	3
Lymphoma	3
Parotid gland	3
Cervix	2
Bladder	1
Bone	1
Leukemia	1
Liver	1
Multiple myeloma	1
Sarcoma	1
Stomach	1
Missing	4
Other	11
Total	188

**eTable 3. Means of Detection of Breast Cancer**

	<b>No MRI group N =103</b>	<b>MRI group N = 241</b>
MRI	0	106
Other screening method (any)	28	42
Ultrasound	6	14
Mammogram	22	28
Both	0	0
Palpable	59	78
Myself	57	75
Doctor	2	3
At preventive surgery	2	9
Other/unknown	14	6

**eTable 4. Characteristics of Invasive Breast Cancers in the No MRI Surveillance Group and the MRI Surveillance Group**

	<b>No MRI group n = 79</b>	<b>MRI group n = 205</b>
Age of diagnosis (years)	45.8 (32-69)	46.5 (31-72)
Year of diagnosis	2007.5 (1997-2019)	2011.4 (1999-2021)
Size (cm)	3.2 (0.3-30)	2.3 (0.1-9.0)
Missing	10	20
Node status		
Positive	23 (34.3%)	35 (19.7%)
Negative	44 (65.7%)	143 (80.3%)
Missing	12	27
ER-positive		
Positive	24 (37.5%)	66 (36.3%)
Negative	39 (60.9%)	101 (55.5%)
Borderline	1 (1.6%)	15 (8.2%)
Missing	15	23
Chemotherapy		
No	8 (12.9%)	30 (18.3%)
Yes	54 (87.1%)	134 (81.7%)
Missing	17	41
Initial Surgery		
Lumpectomy	14 (22.2%)	36 (19.7%)
Unilateral mastectomy	47 (74.6%)	136 (74.3%)
Bilateral mastectomy	2 (3.2%)	11 (6.0%)
Missing	16	22
Radiation therapy		
No	37 (61.7%)	112 (72.7%)
Yes	23 (38.3%)	42 (27.3%)
missing	19	51
Died of breast cancer (%)	17 (21.5%)	14 (6.8%)
10 -year actuarial breast cancer survival	73.1%	88.5%

**eTable 5. Characteristics of the 14 Women Who Died of Invasive Breast Cancer in the MRI Surveillance Group**

Main index	Country	Age at first MRI	Year of first MRI	Year of last MRI	Year of breast cancer	Total MRI at/before dx	Age of dx	Means of diagnosis	Size (CM)	Nodes	Age at death
5279	Canada	59	2001	2005	2005	5	62	MRI	6.0	Neg	73
5934	Poland	40	2011	2013	2015	2	44	Palpable	1.3	Neg	47
6527	Norway	40	2006	2008	2008	2	41	MRI	0.5	Neg	46
6764	Poland	41	2009	2009	2010	1	42	Palpable	2.0	Neg	45
7166	USA	42	2004	2004	2004	1	42	MRI	6.0	.	43
15368	Poland	53	2008	2008	2008	1	53	MRI	0.8	Neg	59
16349	Poland	47	2008	2013	2017	4	55	MRI	1.5	Pos	57
16651	Poland	33	2007	2007	2009	1	35	Palpable	2.0	Pos	39
16734	Poland	36	2008	2008	2008	1	36	Palpable	1.6	Neg	46
18086	Poland	61	2008	2011	2014	3	66	MRI	1.7	Pos	72
18535	Poland	53	2013	2013	2013	1	53	MRI	1.5	Neg	55
19806	Canada	54	2008	2008	2011	1	56	Mammogram	6.0	Pos	59
23420	Norway	35	2006	2006	2008	1	37	Palpable	0.5	Neg	39
23559	Norway	46	2005	2005	2005	1	46	MRI	0.5	Pos	51