

# *Germline BRCA mutation and outcome in young-onset breast cancer (POSH): a prospective cohort study*

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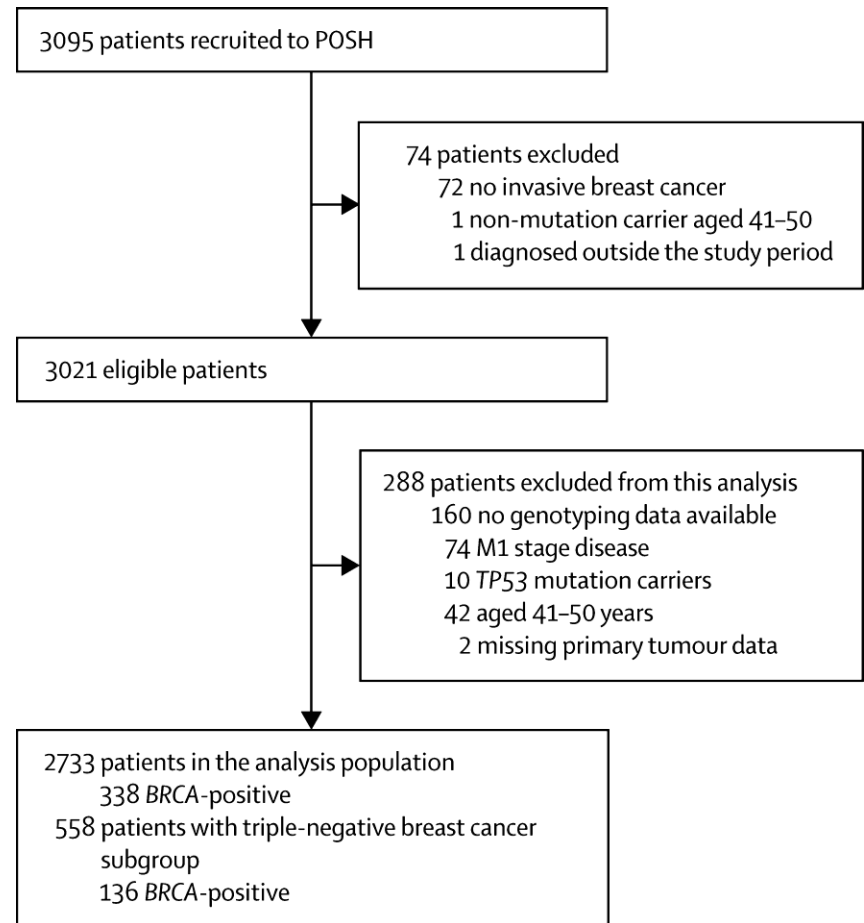
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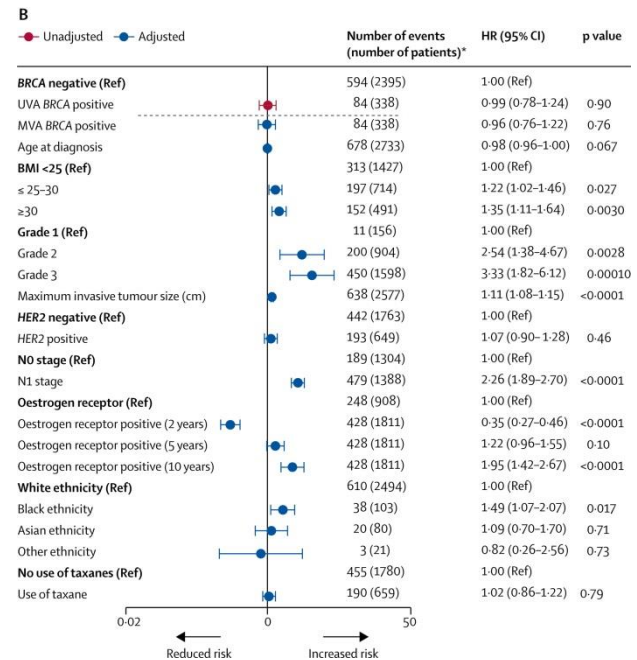
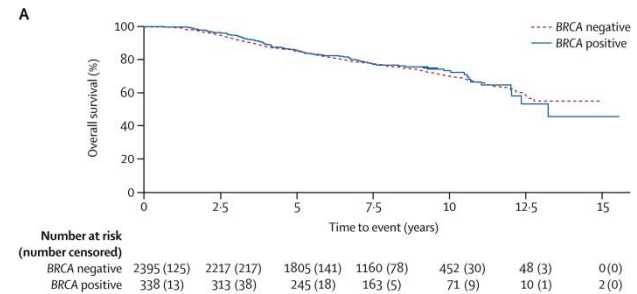
# Cohort

- 2733 women breast cancer diagnosed <40
  - 338 (12%) BRCA mutations
  - Of 558 TNT:
    - 123 were B1(22%)
    - 13 (2%) were B2
    - 76% were BRCA neg
  - 20% overall were TNT
  - No mention of FH
- Only 14% had service BRCA testing



# Survival

- Median follow up 8.2 y
- Contralateral tumours in 151 (6%)
  - 18% B1
  - 12% B2
  - 4% B-neg
- There was NO difference in overall survival between B+ and B-, even when B1 and B2 compared separately
- At 2, 5 and 10y



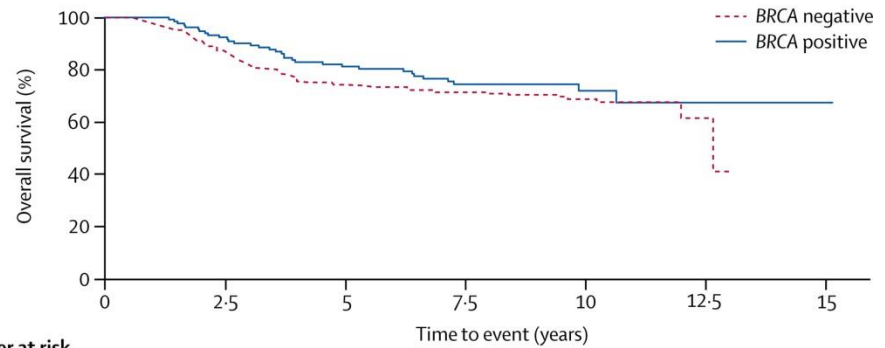
# Comments

- Some differences in short-term survival with B1/2, and TNT, but none overall
- *Bilateral risk-reducing mastectomy is not a necessary part of treating a unilateral breast cancer but unilateral mastectomy might enable breast radiotherapy to be omitted.*
- *In the POSH cohort, immediate bilateral mastectomy was **not** associated with improved survival, although the reported use of risk-reducing surgery was low; (32 BSO 107 RRM)*
- *One theory that could explain the slight survival advantage for BRCA mutation carriers **not** undergoing immediate bilateral mastectomy is that a major surgical intervention might compromise host immunity at a time when this is particularly important for eradicating micrometastases.*

- *risk-reducing surgery, particularly for BRCA1 gene carriers is an appropriate management; in our analysis, **the rising hazard for death in BRCA carriers over time women was negated by removing from the analysis all patients who developed a second new primary breast or ovarian cancer during the follow-up period.***
- *With modern MRI-based breast screening, we conclude that patients who choose to delay additional surgery for 1 or 2 years until they are psychologically and physically recovered from their cancer treatment can be reassured that this choice is unlikely to lead to any substantial survival disadvantage.*

# Triple neg breast cancers

A



Number at risk  
(number censored)

	0	2.5	5	7.5	10	12.5	15
BRCA negative	422 (52)	361 (53)	267 (8)	165 (4)	62 (2)	4 (1)	0 (0)
BRCA positive	136 (10)	120 (14)	94 (7)	63 (1)	26 (1)	2 (0)	1 (0)

B

● Unadjusted ● Adjusted

