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# Is breast conservation safe in the younger woman?

Fiona MacNeill FRCS, MD

Breast and Oncoplastic surgeon



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# Definition of the ‘young’ woman?

Pre-menopausal but.....

- Under 50yrs? Surrogate indication of menopause
- Under 40 yrs?
- Under 35 yrs?

No clear definition in the literature so difficult to compare studies but in general ‘young’ is taken to mean pre-menopause or fertile

- Young pre-menopause 15-35yrs
- Older pre-menopause 35-50yrs



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# BC and the younger woman

- Why focus on age – emotive? ageism?
  - 80% (40,000) of breast cancers >50 yrs
- BC is most common cancer in 15-40yr and commonest cause of death in this age group
  - Present symptomatically – no screening programme
  - More advanced disease
- In private healthcare demographics are skewed:  
At 108 40% of our patients are under 50yrs



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# Issues at diagnosis

- Fear of dying
- Body image
- Financial – woman are increasingly important source of family income
- Coping with family and other domestic or social responsibilities

However these concerns are not age-specific



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# What is the risk?

1 in every 250 (0.4%) woman  
between 30-40yrs will get BC over 10 years  
*NCI, Seer database 2005*



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## *Breast cancer care:*

# *10 point charter for younger women*

- Diagnosis during pregnancy
- Family history/genetics
- Childcare – bread winner
- Fertility after treatment
- Premature menopause
  - Bone health

*[www.breastcancercare.org.uk/docs/youngerwomensstandards](http://www.breastcancercare.org.uk/docs/youngerwomensstandards)*

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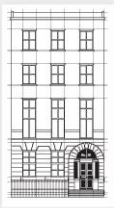
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# Conservation or mastectomy? You choose.....

Breast conservation (when compared with mastectomy) results in

- Lower psychological morbidity
- Less anxiety and depression
- Improved body image, sexuality, self esteem

*Al-Ghazal et al comparison of psychology and satisfaction  
after breast conservation, mastectomy and reconstruction EJC 2000 36:1938-43*



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# Conservation or mastectomy? You choose.....

Mastectomy and conservation (+RT)  
are equivalent in terms of survival\*

but

local recurrence rate 10yrs

Mastectomy ~2-5%

Conservation ~5-10%

*\*NSABP B-06. Fisher B et al. ...randomised clinical trial comparing total mastectomy with lumpectomy with or without irradiation in the treatment of breast cancer .20 year results. N Eng J Med 347:1233-41, 2002.*



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# Conservation or mastectomy? You choose.....

Many studies demonstrate higher local recurrence following conservation in pre-menopausal women.

	Age			
	<40	40-49	50-59	>60
% Recurrence	20	10	10	8
% EIC	33	31	18	17
% Grade III	42	27	30	28

Kurtz et al, 1992



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# Local Recurrence: Survival significance

At 15 yrs 1 of 4 local recurrences results in a  
BC death\*

*EBCTG Lancet 2006,*

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# Independent\* predictors of local recurrence

## Age\*

Stage: LVI, nodal status

- Later presentation  
bigger tumours

Tumour biology:

- Inherently more ‘aggressive’
- Less treatment sensitive chemo, TAM, AI
- More triple negative

## Margins\*

Multifocal, extensive DCIS

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# Local Recurrence: Inappropriate conservation?

Younger patients more likely to have conservation\*\*  
– despite larger tumours with more DCIS

Younger patients more likely to have repeat surgery  
to clear margins\*\*  
– The quality of conservation depends on volume excised  
( $<10-15\%$ )

\*\* *All breast cancer report 2009*



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# Conservation or mastectomy?

## Other influencing factors

### Genetic: high risk family history/BRCA1-2 carrier

The younger the patient  
the higher the risk a gene  
defect\*

- 20yr 40%
- 30yr 33%
- 40yr 20%
- 50yr <10%

- Risk of new primary
- Radiation risks in the young?
- Increased risk of contralateral disease over 20-30yrs

\**Claus EB et al Cancer 1996*

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# Breast surgery in the younger woman

## Lower threshold for mastectomy

NB: peer review standard 2010 mastectomy rates



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# Facilitating conservation

- Breast awareness with targeted screening
  - Smaller tumours
- Better patient selection for conservation
  - Role of MRI - multi-focality, synchronous
    - Will result in a ~20% higher mastectomy rate but there is little evidence so far to suggest it impacts on survival (but EBCGT 2005.....)

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# Facilitating conservation

Converting unfavourable breast: tumour volume ratios

- Primary chemotherapy to down size
  - Cochrane review 8% reduction in mastectomy rates

Extending the role of conservation

- Onco-plastic surgery
  - therapeutic mammoplasty



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# Is conservation in the young safe?

# Yes



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# Is conservation safe?

- Follow oncological principles for conservation
  - margins and multifocality
- Note increased risk of contralateral, index
- Never possible to eliminate risk completely so balance risk reduction and aesthetics to maintain QOL