

DHMC Comprehensive Breast Program and Center for Shared Decision Making
Integrating Decision Support in Breast Cancer Care
 Time period: 24 May 2004 - 22 February 2007
 Patients enrolled in study: n = 190

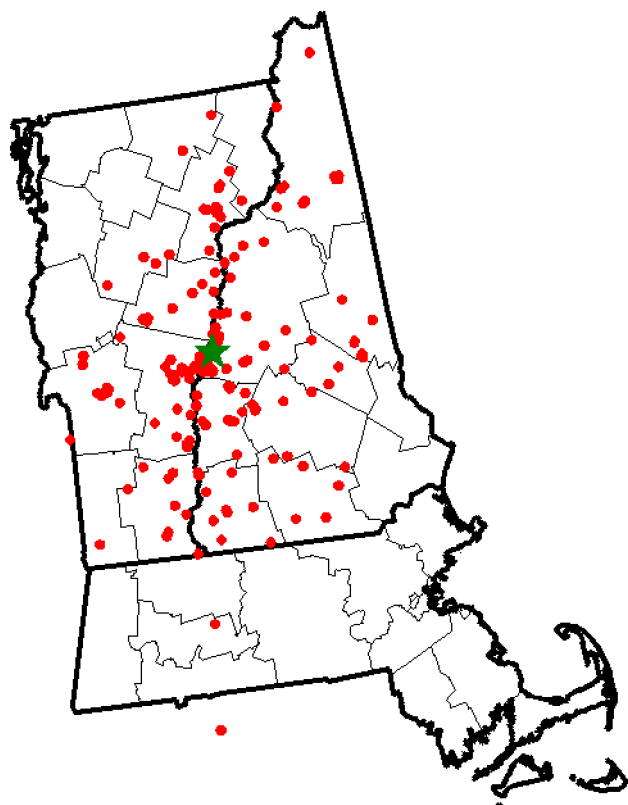
Demographic Characteristics

Patient age at intake: Mean(SD):58.2(11.8), range: 25-88

Question	Response	Count	Percent
Education:	Some HS or less	5	3 %
	High school/GED	49	26 %
	Some college	54	28 %
	College/Grad degree	82	43 %
Race/Ethnicity:	White, non-Hisp	188	99 %
	White, Hispanic	2	1 %
Employment:	Full time	82	43 %
	Retired	58	31 %
	Part time	29	15 %
	Homemaker	21	11 %
	Unemployed	11	6 %
	Disabled	3	2 %
	Student	2	1 %
Marital status:	Married	131	69 %
	Single	25	13 %
	Divorced/separ.	21	11 %
	Widowed	16	8 %

Geographic Distribution

Dot density map of patients by zip code



★ = Dartmouth Hitchcock Medical Center

Clinical Summary

Breast cancer, ovarian cancer, and family history

Question	Response	Count	Percent
Breast ca diagnosis:	Right	84	44 %
	Left	103	54 %
	Bilateral	2	1 %
	Neither	1	1 %
Ovarian cancer:	OvCa diagnosis	3	2 %
Family history:	BrCa: 1st deg rel	43	23 %
	BrCa: 2nd deg rel	67	35 %
	OvCa: 1st deg rel	8	4 %
	OvCa: 2nd deg rel	15	8 %

Self-Reported Charlson Co-Morbidity Index and medical history
 Charlson scores: Mean(SD):2.4(0.8), range: 0-5, scale: 0-23

Question	Response	Count	Percent
Charlson (+ response):	Asthma	23	12 %
	Diabetes	11	6 %
	MI	5	3 %
	Stroke/Clot/TIA	5	3 %
	Connective tis dis	4	2 %
	CHF	3	2 %
	Renal disease	3	2 %
	Ulcer disease	3	2 %
	Cirrhosis	2	1 %
	Diabetes	1	1 %
	Leukemia	1	1 %
	Medical history:	Ever taken HRT	67
Current HRT		6	3 %
Birth control Rx		4	2 %
Blood pressure meds		65	34 %
Mitral prolapse		14	7 %
Heart problems		10	5 %
Nitroglycerin		9	5 %
DVT		8	4 %
Ever had hepatitis		4	2 %
Surgical history:		Hysterectomy	38
	Oophorectomy	26	14 %
	Tubal ligation	53	28 %
	C-section	28	15 %
	Tonsillectomy	71	37 %
	Appendectomy	33	17 %
	Cholecystectomy	17	9 %
	Knee surgery	19	10 %
	Back surgery	9	5 %
	None of the above	49	26 %
Smoking/Alcohol hx:	Currently smoke:	14	7 %
	Ever smoke:	92	48 %
	Drink alcohol:	99	52 %
	+CAGE(score>=2)	6	3 %

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Mental Health Summary

Intervention criteria assessed before video(Intake) and 4 weeks after definitive surgery(4weeks). [Persist. = (+) at baseline and 4 weeks]

Question Response	Intake (n=190)	4 weeks (n=150)	Persist. (n=150)
Screen +: Distress > 5.0	79 (42%)	36 (24%)	23 (15%)
General anxiety	11 (6%)	7 (5%)	0 (0%)
PHQ-9 dep > 10	12 (6%)	4 (3%)	2 (1%)
PC-PTSD > 2	10 (5%)	4 (3%)	0 (0%)
Panic disorder	13 (7%)	6 (4%)	3 (2%)
Patient Total	87 (46%)	47 (31%)	27 (18%)
PHQ-9: Neg/Min (0-5)	175 (92%)	133 (93%)	
Mild (6-10)	3 (2%)	4 (3%)	
Moderate (11-14)	5 (3%)	2 (1%)	
Mod-severe (15-27)	7 (4%)	4 (3%)	
PTSD: Breast Ca diagnosi	1 (10%)		
Previous event	1 (10%)	2 (1%)	
BrCa Dx + Prev eve	8 (80%)	1 (1%)	
History: Currently taking meds	44 (23%)	39 (26%)	25 (17%)
Ever taken medication	68 (36%)		
Mental hospital admit	8 (4%)		
Hx of depression	50 (26%)		

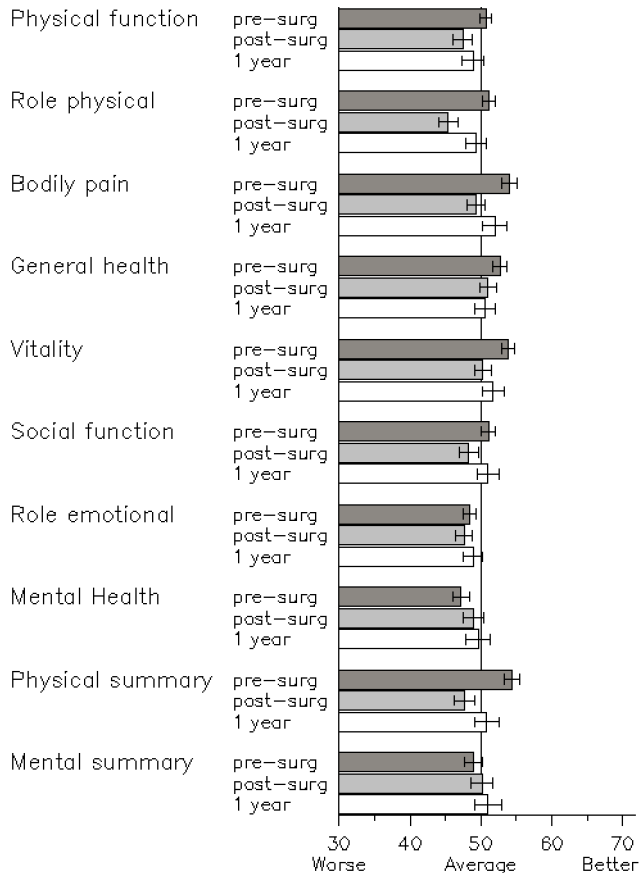
Distress over time

Assessed before video(Intake), after surgical consult(Dec pt), 4 weeks after definitive surgery, and 1 year post-intake (% Endorsing each item)

- Mean(SD) Source	Intake 4.7(2.6) (n=190)	Dec pt 4.2(2.6) (n=163)	4 week 3.4(2.8) (n=150)	1 year 2.2(2.6) (n=91)
Uncertainty	88 %	75 %	58 %	26 %
Outcome	79 %	63 %	45 %	21 %
Treatments	64 %	37 %	9 %	4 %
Success	61 %	41 %	27 %	5 %
Complication	53 %	43 %	35 %	9 %
Affect others	45 %	21 %	13 %	5 %
What is wrong	25 %	17 %	7 %	4 %
Decision making	21 %	10 %	9 %	1 %
Emotional	84 %	74 %	61 %	42 %
Worry	66 %	56 %	42 %	21 %
Fears	57 %	52 %	27 %	14 %
Nervousness	55 %	54 %	29 %	19 %
Sadness	34 %	30 %	21 %	13 %
Depression	20 %	18 %	14 %	18 %
Physical	61 %	56 %	75 %	43 %
Sleep	38 %	38 %	43 %	21 %
Fatigue	25 %	26 %	44 %	25 %
Pain	18 %	15 %	23 %	19 %
Eating	13 %	7 %	7 %	4 %
Nausea	11 %	7 %	15 %	2 %
Diarrhea	9 %	7 %	8 %	0 %
Dry skin	8 %	9 %	15 %	7 %
Indigestion	8 %	8 %	8 %	2 %
Swollen	7 %	7 %	14 %	8 %
Sexual	4 %	2 %	3 %	5 %
Breathing	4 %	3 %	2 %	3 %
Constipation	4 %	3 %	9 %	9 %
Fevers	3 %	2 %	3 %	1 %
Mobility	2 %	4 %	7 %	8 %
Bathing/Dressing	1 %	0 %	3 %	4 %
Practical	38 %	32 %	37 %	34 %
Finances	22 %	19 %	24 %	18 %
Work/School	16 %	12 %	15 %	15 %
Insurance	10 %	7 %	9 %	3 %
Child care	5 %	3 %	2 %	2 %
Housing	4 %	3 %	4 %	7 %
Transportation	3 %	4 %	9 %	3 %
Family	33 %	18 %	23 %	25 %
Family/friends	24 %	12 %	11 %	18 %
Children	13 %	7 %	8 %	5 %
Partner	9 %	5 %	11 %	13 %
Spiritual	3 %	4 %	3 %	2 %
Relating to God	2 %	3 %	3 %	2 %
Loss of faith	1 %	1 %	1 %	1 %

SF-8 Health Survey

reference - JE Ware, 2001



Decision Process

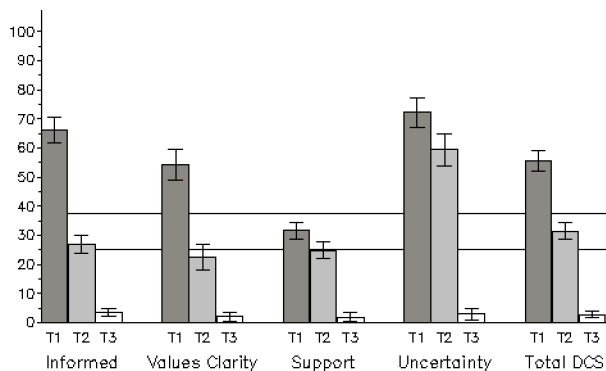
Stage and preferred/actual role before video and after surgical consult

Question Response	Before video (n=189)	After consult (n=163)
Stage: Not considered options	41 (22%)	0 (0%)
Considering options	90 (48%)	0 (0%)
Close to choosing	27 (14%)	0 (0%)
Made choice	31 (16%)	163 (100%)
Role: Decide(d) myself after consult	87 (46%)	92 (56%)
Share(d) decision with others	101 (53%)	66 (40%)
Someone else decide(d)	1 (1%)	5 (3%)

Treatment Preference/First Surgery

	Before video	After video	After consult	1st surgery
Lumpectomy	67 (36%)	61 (32%)	112 (69%)	104 (70%)
Mastectomy	44 (24%)	63 (33%)	51 (31%)	45 (30%)
Unsure	76 (41%)	66 (35%)		

Decisional Conflict: 0 (low) to 100 (high) - Scores of 25 or lower are associated with those who make decisions; scores of 37.5 or greater are associated with those who delay decisions. (O'Connor, 1995). Before video (T1), After video (T2), After surgical consult(T3)



Acceptability

Time to complete intake: mean=0:30:03 (range: 0:09:53-1:41:57)

Question	Response	Count	Percent
Length of intake:	Too short	4	2 %
	Right amount of time	165	87 %
	Too long	21	11 %
Information:	Too little	14	7 %
	Just right	164	86 %
	Too much	12	6 %
Relevant to care:	Extremely/Quite	148	78 %
	Moderately	38	20 %
	Slightly/Not at all	4	2 %
Confused by ques:	Never/Rarely	142	75 %
	Sometimes	46	24 %
	Often/Constantly	2	1 %

Decision Quality - After consult

Questions added March 2005 (n=89), [** correct response **]

Knowledge Questions	Response	n (%)
Summary	Average score	(90%)
On average, which patients with early stage breast cancer live longer?	** No difference **	100 (96%)
	Better survival mastectomy	3 (3%)
	Better survival lumpectomy	1 (1%)
On average, how do the chances of having cancer come back in the breast or breast area compare between lumpectomy with radiation and mastectomy?	** Slightly higher lumpectomy	51 (49%)
	** Both are the same **	45 (43%)
	Slightly lower lumpectomy	4 (4%)
	Much lower lumpectomy	3 (3%)
	Much higher lumpectomy	1 (1%)
If 100 women are treated with lumpectomy and radiation for early stage breast cancer, about how many will have breast cancer come back in the treated breast in the 10 years after treatment?	** 5 to 15 **	74 (71%)
	** Fewer than 5 **	21 (20%)
	16 to 25	8 (8%)
	26 to 35	1 (1%)
	More than 35	0 (0%)
How many women with early stage breast cancer are candidates to choose between lumpectomy and mastectomy?	** Almost all **	52 (50%)
	About half	26 (25%)
	** About 3/4 **	25 (24%)
	About 1/4	1 (1%)
	Few or none	0 (0%)
For most women with early stage breast cancer, how much would waiting 4 weeks to make a treatment decision affect their chances of survival?	** A little or not at all **	101 (97%)
	A lot	2 (2%)
	Somewhat	1 (1%)

VALUE/CHOICE CONCORDANCE: Using patient value scores, calculate predicted treatment and compare to actual choice (% match).

Surgery Choice	Before video	After video	After consult
Lumpectomy	91 %	97 %	93 %
Mastectomy	62 %	62 %	75 %
subtotal (Lumpectomy,Mastectomy)	78 %	78 %	86 %
TOTAL (Lump, Mast, Unsure)	46 %	52 %	86 %

Knowledge Over Time

Patients answer questions: After video, After consult, and After surgery
 Questions added March 2005, [Correct response]

Q1. On average, which patients with early stage breast cancer live longer?

Response	After video n (%)	After consult n (%)	After surgery n (%)	1 year n (%)
[No difference]	76 (100%)	74 (97%)	71 (95%)	29 (85%)
Better survival-mast	-	2 (3%)	2 (3%)	4 (12%)
Better survival-lump	-	-	2 (3%)	1 (3%)

Q2. On average, how do the chances of having cancer come back in the breast or breast compare between lumpectomy with radiation and mastectomy?

	After video	After consult	After surgery	1 year
[Slightly higher-lump]	40 (53%)	38 (50%)	24 (32%)	12 (35%)
[Both are the same]	23 (30%)	32 (42%)	42 (55%)	16 (47%)
Slightly lower-lump	2 (3%)	4 (5%)	9 (12%)	5 (15%)
Much lower-lump	8 (11%)	2 (3%)	1 (1%)	1 (3%)
Much higher-lump	3 (4%)	-	-	-

Q3. If 100 women are treated with lumpectomy and radiation for early stage breast cancer, about how many will have breast cancer come back in the treated breast in the 10 years after treatment?

	After video	After consult	After surgery	1 year
[5 to 15]	72 (95%)	55 (72%)	47 (62%)	21 (62%)
[Fewer than 5]	3 (4%)	16 (21%)	21 (28%)	11 (32%)
16 to 25	- (0%)	4 (5%)	6 (8%)	2 (6%)
26 to 35	- (0%)	1 (1%)	2 (3%)	-
More than 35	1 (1%)	-	-	-

Q4. How many women with early stage breast cancer are candidates to choose between lumpectomy and mastectomy? [estimate = 80%]

	After video	After consult	After surgery	1 year
[Almost all]	59 (78%)	42 (55%)	34 (47%)	13 (39%)
[About 3/4]	9 (12%)	16 (21%)	23 (32%)	11 (33%)
About half	6 (8%)	17 (22%)	14 (19%)	8 (24%)
About 1/4	2 (3%)	1 (1%)	-	1 (3%)
Few or none	- (0%)	-	2 (3%)	-

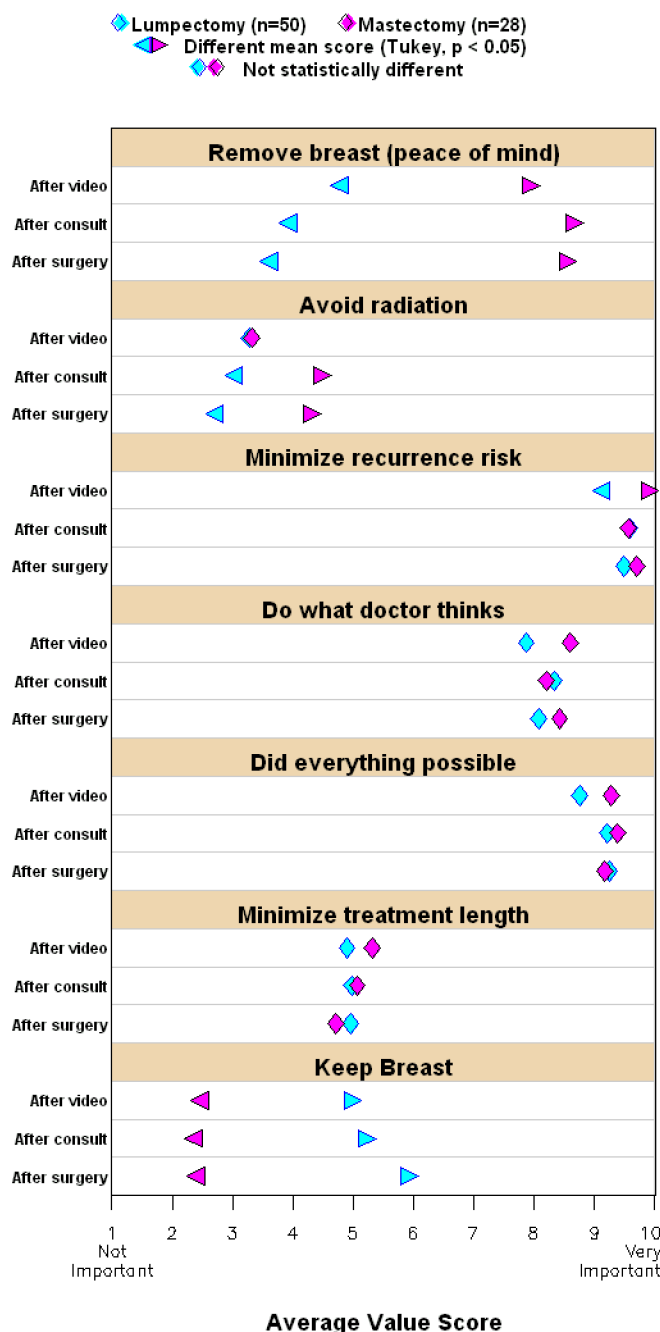
Q5. For most women with early stage breast cancer, how much would waiting 4 weeks to make a treatment decision affect their chances of survival?

	After video	After consult	After surgery	1 year
[A little or not at all]	71 (93%)	74 (97%)	74 (97%)	34 (100%)
Somewhat	5 (7%)	1 (1%)	1 (1%)	-
A lot	- (0%)	1 (1%)	1 (1%)	-

Knowledge Summary

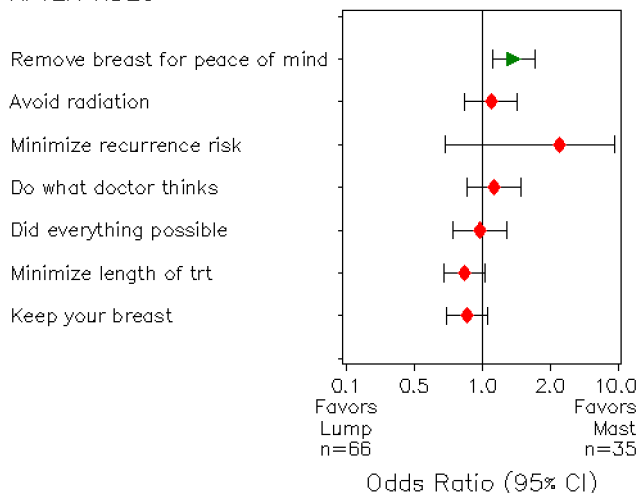
Question	After video	After consult	After surgery	1 year
Q1 - Survival rate	100 %	97 %	95 %	85 %
Q2 - Recurrence rate	83 %	92 %	86 %	82 %
Q3 - Recurrence #	99 %	93 %	88 %	94 %
Q4 - Surgery choice	89 %	76 %	77 %	73 %
Q5 - Timing of decision	93 %	97 %	96 %	100 %
Total score	93 %	91 %	88 %	87 %

Patient Values over time

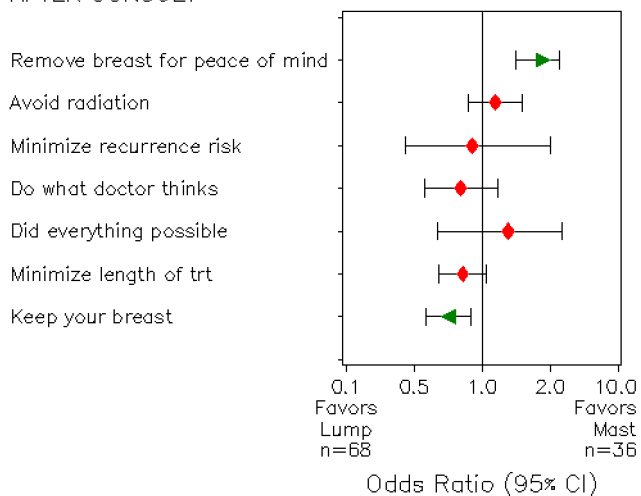


Patient Value Plots

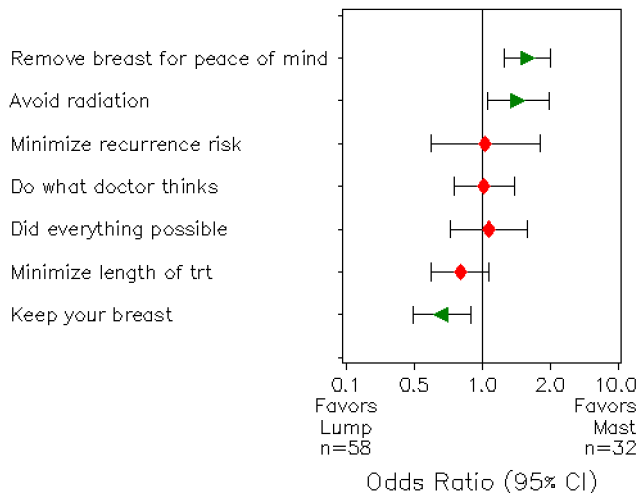
AFTER VIDEO



AFTER CONSULT



4 WKS AFTER SURGERY



Odds Ratio Tables

Logistic regression - Odds of choosing Mastectomy(95% CI),

AFTER VIDEO

Value	OR (95% CI)
Remove breast for peace of mind	1.38 (1.11, 1.71)
Avoid radiation	1.10 (0.84, 1.43)
Minimize recurrence risk	2.50 (0.69, 9.10)
Do what doctor thinks	1.13 (0.85, 1.48)
Did everything possible	0.98 (0.74, 1.29)
Minimize length of trt	0.83 (0.68, 1.03)
Keep your breast	0.86 (0.70, 1.05)

AFTER CONSULT

Value	OR (95% CI)
Remove breast for peace of mind	1.86 (1.41, 2.46)
Avoid radiation	1.14 (0.87, 1.51)
Minimize recurrence risk	0.90 (0.40, 2.01)
Do what doctor thinks	0.81 (0.56, 1.17)
Did everything possible	1.30 (0.64, 2.66)
Minimize length of trt	0.82 (0.65, 1.04)
Keep your breast	0.71 (0.56, 0.89)

4 WEEKS AFTER SURGRERY

Value	OR (95% CI)
Remove breast for peace of mind	1.60 (1.26, 2.04)
Avoid radiation	1.44 (1.05, 1.98)
Minimize recurrence risk	1.04 (0.60, 1.81)
Do what doctor thinks	1.02 (0.75, 1.39)
Did everything possible	1.07 (0.72, 1.58)
Minimize length of trt	0.80 (0.59, 1.08)
Keep your breast	0.65 (0.48, 0.89)