SUPPLEMENTARY MATERIALS

Impact of Radiotherapy on Complications and Patient-Reported Outcomes after Breast Reconstruction

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Supplementary Table 1. One and Two years Postoperative Complication by Radiotherapy Status and Procedure Type

Complication	One year post-op, No. (%)				Two years post-op*, No. (%)			
	Radiated		Not radiated		Radiated		Not radiated	
	Implant	Autologous	Implant	Autologous	Implant	Autologous	Implant	Autologous
No. patients	386	236	1218	407	283	199	964	332
Hematoma	17 (4.4)	9 (3.8)	42 (3.4)	27 (6.6)	12 (4.2)	8 (4.0)	35 (3.6)	21 (6.3)
Wound dehiscence	11 (2.8)	12 (5.1)	12 (1.0)	8 (2.0)	21 (7.4)	11 (5.5)	10 (1.0)	8 (2.4)
Wound infection requiring oral antibiotics	18 (4.7)	4 (1.7)	44 (3.6)	7 (1.7)	20 (7.1)	3 (1.5)	48 (5.0)	5 (1.5)
Wound infection requiring IV antibiotics	30 (7.8)	5 (2.1)	43 (3.5)	3 (0.7)	25 (8.8)	3 (1.5)	36 (3.7)	3 (0.9)
Wound infection requiring surgical repair	7 (1.8)	5 (2.1)	10 (0.8)	4 (1.0)	7 (2.5)	3 (1.5)	6 (0.6)	3 (0.9)
Mastectomy skin flap necrosis	28 (7.3)	16 (6.8)	76 (6.2)	32 (7.9)	19 (6.7)	15 (7.5)	52 (5.4)	25 (7.5)
Acute partial flap necrosis	-	6 (2.5)	-	19 (4.7)	-	5 (2.5)	-	12 (3.6)
Total flap loss	-	1 (0.4)	-	8 (2.0)	-	1 (0.5)	-	6 (1.8)
Chronic fat necrosis	-	11 (4.7)	-	33 (8.1)	-	14 (7.0)	-	29 (8.7)
Capsular contracture	6 (1.6)	-	6 (0.5)	-	15 (5.3)	-	10 (1.0)	-
Implant malposition	0 (0.0)	-	9 (0.7)	-	3 (1.1)	-	8 (0.8)	-
Seroma	20 (5.2)	2 (0.8)	27 (2.2)	7 (1.7)	14 (4.9)	2 (1.0)	20 (2.1)	5 (1.5)
Implant leakeage, rupture and/or deflation	7 (1.8)	-	12 (1.0)	-	6 (2.1)	-	12 (1.2)	-

* Complication rates are cumulative for the entire two year postoperative period.

Supplementary Table 2. Mixed-effects Regression Model for One Year Postoperative BREAST-Q

Variable	Satisfaction with Breast		Satisfaction with Outcome		Psychosocial well-being		Physical well-being	
	Beta (95%CI)	*P**	Beta (95%CI)	*P**	Beta (95%CI)	*P**	Beta (95%CI)	*P**
Baseline outcome	0.06 (0.02 to 0.10)	0.008	--	--	0.44 (0.39 to 0.49)	<.001	0.39 (0.34 to 0.44)	<.001
Radiation								
No RT	Reference		Reference		Reference		Reference	
RT	-8.27 (-11.42 to -5.11)	<.001	-3.98 (-7.71 to -0.25)	0.04	-3.06 (-6.27 to 0.16)	0.06	-7.51 (-9.99 to -5.03)	<.001
Reconstruction type								
Implant-based	Reference		Reference		Reference		Reference	
Autologous	4.84 (2.20, 7.48)	<.001	4.25 (1.02 to 7.47)	0.01	3.29 (0.50 to 6.08)	0.02	2.25 (0.11 to 4.40)	0.04
RT x autologous	5.92 (1.53 to 10.32)	0.008	2.21 (-3.01 to 7.44)	0.41	2.10 (-2.42 to 6.62)	0.36	3.23 (-0.25 to 6.71)	0.07
Age, y								
≤30	Reference		Reference		Reference		Reference	
30-39	-0.48 (-7.06 to 6.11)	0.89	-0.11 (-7.92 to 7.69)	0.98	3.16 (-3.57 to 9.90)	0.36	1.98 (-3.20 to 7.15)	0.45
40-49	-0.51 (-6.89 to 5.87)	0.88	-0.31 (-7.86 to 7.24)	0.94	3.68 (-2.84 to 10.19)	0.27	0.76 (-4.24 to 5.76)	0.77
50-59	0.46 (-6.02 to 6.94)	0.89	-1.48 (-9.15 to 6.20)	0.71	5.20 (-1.42 to 11.82)	0.12	0.17 (-4.92 to 5.25)	0.95
≥60	2.38 (-4.38 to 9.15)	0.49	1.24 (-6.77 to 9.24)	0.76	9.74 (2.82 to 16.66)	0.006	1.39 (-3.93 to 6.70)	0.61
Extent of disease								
Local	Reference		Reference		Reference		Reference	
Regional	0.24 (-2.50 to 2.97)	0.87	2.54 (-0.70 to 5.77)	0.12	-0.63 (-3.43 to 2.16)	0.66	0.70 (-1.46 to 2.85)	0.53
Metastatic	-6.26 (-15.54 to 3.02)	0.19	2.05 (-9.17 to 13.27)	0.72	-2.27 (-11.89 to 7.36)	0.64	0.53 (-6.88 to 7.94)	0.89
Laterality								
Unilateral	Reference		Reference		Reference		Reference	
Bilateral	3.49 (1.56 to 5.42)	<.001	1.99 (-0.28 to 4.25)	0.09	0.22 (-1.74 to 2.19)	0.82	-0.08 (-1.60 to 1.44)	0.92
Reconstruction timing								
Immediate	Reference		Reference		Reference		Reference	
Delayed	1.52 (-2.95 to 5.98)	0.51	0.97 (-4.20 to 6.14)	0.71	7.09 (2.56 to 11.62)	0.002	1.60 (-1.84 to 5.04)	0.36

Chemotherapy								
No	Reference		Reference		Reference		Reference	
Yes	-2.04 (-4.22 to 0.15)	0.07	-1.10 (-3.68 to 1.49)	0.41	-3.02 (-5.27 to -0.78)	0.008	0.60 (-1.12 to 2.32)	0.49
Lymph node biopsy								
None	Reference		Reference		Reference		Reference	
SLNB alone	-1.80 (-4.64 to 1.04)	0.21	-2.07 (-5.52 to 1.38)	0.24	-0.59 (-3.57 to 2.39)	0.70	0.84 (-1.46 to 3.14)	0.48
ALND	-2.56 (-5.82 to 0.69)	0.12	-4.73 (-8.68 to -0.78)	0.02	-1.29 (-4.69 to 2.12)	0.46	-0.11 (-2.73 to 2.51)	0.94
Body mass index, kg/m^2								
<30	Reference		Reference		Reference		Reference	
≥30	-3.94 (-6.23 to -1.66)	0.001	-3.84 (-6.49 to -1.20)	0.005	-1.61 (-3.91 to 0.69)	0.17	-2.42 (-4.18 to -0.65)	0.007
Smoking								
Non-smoker	Reference		Reference		Reference		Reference	
Previous smoker	-3.17 (-5.13 to -1.21)	0.002	-3.77 (-6.09 to -1.46)	0.001	-2.55 (-4.55 to -0.55)	0.01	-0.63 (-2.18 to 0.91)	0.42
Current smoker	-4.81 (-10.56 to 0.93)	0.10	-8.89 (-15.64 to -2.14)	0.01	-6.03 (-11.86 to -0.21)	0.04	-1.30 (-5.79 to 3.18)	0.57
Diabetes								
No	Reference		Reference		Reference		Reference	
Yes	2.15 (-2.60 to 6.90)	0.37	-0.35 (-5.97 to 5.26)	0.90	4.67 (-0.18 to 9.53)	0.06	1.74 (-2.00 to 5.48)	0.36
Race								
White	Reference		Reference		Reference		Reference	
Black	-1.93 (-5.68 to 1.82)	0.31	0.35 (-4.11 to 4.82)	0.88	2.54 (-1.34 to 6.43)	0.20	3.24 (0.28 to 6.20)	0.03
Other	-2.00 (-5.78 to 1.78)	0.30	0.10 (-4.37 to 4.56)	0.97	-0.70 (-4.59 to 3.18)	0.72	-1.94 (-4.93 to 1.04)	0.20
Ethnicity								
Non-Hispanic	Reference		Reference		Reference		Reference	
Hispanic	0.27 (-3.59 to 4.13)	0.89	6.40 (1.83 to 10.96)	0.006	-1.44 (-5.43 to 2.56)	0.48	1.38 (-1.66 to 4.42)	0.37
Education								
College degree	Reference		Reference		Reference		Reference	
No college degree	0.51 (-1.71 to 2.72)	0.65	1.57 (-1.04 to 4.19)	0.24	0.52 (-1.76 to 2.80)	0.65	0.97 (-0.78 to 2.72)	0.28
Employment status								
Unemployed	Reference		Reference		Reference		Reference	

Full-time including (students)	3.40 (1.26 to 5.54)	0.002	4.57 (2.03 to 7.10)	<.001	1.10 (-1.10 to 3.30)	0.33	0.38 (-1.31 to 2.07)	0.66
Part-time	0.38 (-2.58 to 3.34)	0.80	2.44 (-1.06 to 5.95)	0.17	-1.30 (-4.33 to 1.73)	0.40	1.71 (-0.62 to 4.04)	0.15
Income								
<$50,000	Reference		Reference		Reference		Reference	
$50,000-$99,999	0.93 (-1.76 to 3.63)	0.50	2.12 (-1.06 to 5.31)	0.19	-0.06 (-2.81 to 2.70)	0.97	1.65 (-0.47 to 3.77)	0.13
≥$100,000	2.86 (0.13 to 5.58)	0.04	5.06 (1.85 to 8.27)	0.002	1.65 (-1.14 to 4.44)	0.24	3.84 (1.69 to 5.98)	0.001

*Based on two-sided t test. SLNB=sentinel lymph node biopsy, ALND=axillary lymph node dissection, BMI=body mass index,

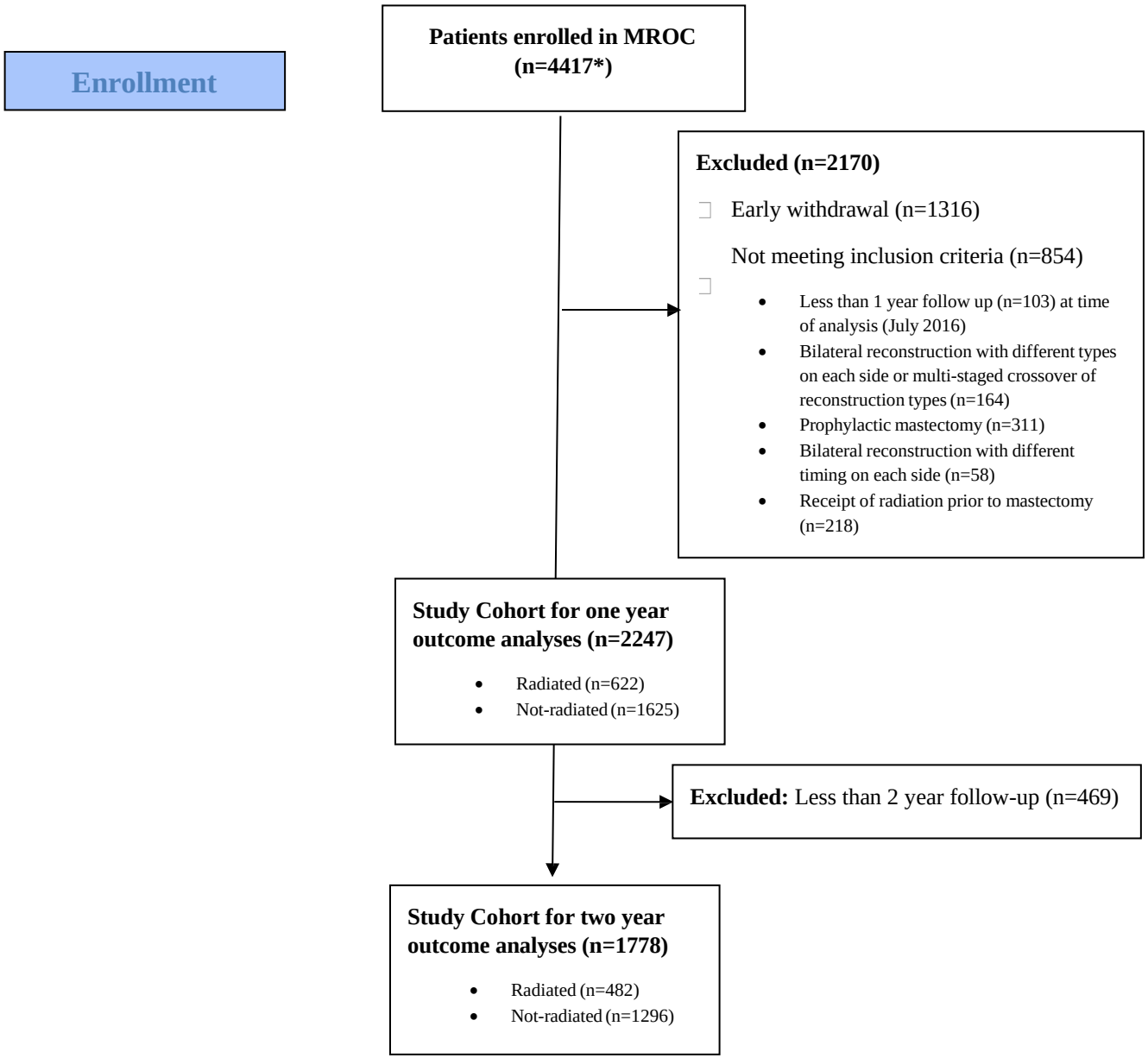
Supplementary Table 3. Mixed-effects Regression Model for Two Year Postoperative BREAST-Q

Variable	Satisfaction with Breast		Satisfaction with Outcome		Psychosocial well-being		Physical well-being	
	Beta (95%CI)	*P**	Beta (95%CI)	*P**	Beta (95%CI)	*P**	Beta (95%CI)	*P**
Baseline outcome	0.08 (0.03 to 0.13)	0.004	-	-	0.4 (0.33 to 0.47)	<.001	0.43 (0.37 to 0.49)	<.001
Radiation								
No RT	Reference		Reference		Reference		Reference	
RT	-12.8 (-16.81 to -8.80)	<.001	-9.05 (-14.00 to -4.10)	<.001	-7.69 (-11.80 to -3.59)	<.001	-6.2 (-9.28 to -3.12)	<.001
Reconstruction type								
Implant-based	Reference		Reference		Reference		Reference	
Autologous	7.06 (3.80 to 10.31)	<.001	4.75 (0.72 to 8.77)	0.02	4.33 (1.13 to 7.54)	0.008	1.95 (-0.52 to 4.42)	0.12
RT x autologous	8.75 (3.34 to 14.16)	0.002	4.45 (-2.24 to 11.15)	0.19	3.12 (-2.40 to 8.65)	0.27	2.65 (-1.49 to 6.80)	0.21
Age, y								
≤30	Reference		Reference		Reference		Reference	
30-39	-0.43 (-8.67 to 7.81)	0.92	8.94 (-1.28 to 19.16)	0.09	8.26 (-0.26 to 16.78)	0.06	3.98 (-2.34 to 10.30)	0.22
40-49	-0.46 (-8.48 to 7.55)	0.91	8.93 (-1.01 to 18.88)	0.08	6.17 (-2.13 to 14.48)	0.15	1.96 (-4.19 to 8.11)	0.53
50-59	-1.84 (-9.99 to 6.31)	0.66	6.62 (-3.50 to 16.74)	0.20	9.57 (1.13 to 18.02)	0.03	2 (-4.26 to 8.25)	0.53
≥60	-0.85 (-9.27 to 7.58)	0.84	8.87 (-1.59 to 19.33)	0.10	9.65 (0.91 to 18.38)	0.03	2.53 (-3.94 to 8.99)	0.44
Extent of disease								
Local	Reference		Reference		Reference		Reference	
Regional	2.74 (-0.48 to 5.96)	0.10	3.29 (-0.70 to 7.28)	0.11	1.9 (-1.41 to 5.21)	0.26	0.52 (-1.95 to 2.99)	0.68
Metastatic	-0.94 (-12.62 to 10.75)	0.88	5.93 (-8.49 to 20.36)	0.42	-4.63 (-16.66 to 7.41)	0.45	-0.6 (-9.55 to 8.35)	0.89
Laterality								
Unilateral	Reference		Reference		Reference		Reference	
Bilateral	3.37 (1.05 to 5.70)	0.005	3.94 (1.08 to 6.80)	0.007	-0.58 (-2.96 to 1.81)	0.64	0.18 (-1.59 to 1.96)	0.84
Reconstruction timing								
Immediate	Reference		Reference		Reference		Reference	
Delayed	1.64 (-3.70 to 6.98)	0.55	0.16 (-6.28 to 6.60)	0.96	6.65 (1.38 to 11.91)	0.01	4.41 (0.44 to 8.37)	0.03
Chemotherapy								

No	Reference		Reference		Reference		Reference	
Yes	-0.01 (-2.65 to 2.64)	0.99	-0.83 (-4.10 to 2.44)	0.62	-2.29 (-5.01 to 0.43)	0.10	-0.11 (-2.13 to 1.92)	0.92
Lymph node biopsy								
None	Reference		Reference		Reference		Reference	
SLNB alone	-1.09 (-4.79 to 2.61)	0.56	-2.83 (-7.38 to 1.73)	0.22	0.21 (-3.41 to 3.82)	0.91	2.34 (-0.45 to 5.14)	0.10
ALND	-2.94 (-7.08 to 1.21)	0.16	-3.56 (-8.65 to 1.54)	0.17	-0.36 (-4.40 to 3.68)	0.86	2.29 (-0.83 to 5.41)	0.15
Body mass index, kg/m^2								
<30	Reference		Reference		Reference		Reference	
≥30	-4.49 (-7.31 to -1.67)	0.002	-5.68 (-9.09 to -2.28)	0.001	-1.45 (-4.31 to 1.40)	0.32	-1.91 (-4.02 to 0.21)	0.08
Smoking								
Non-smoker	Reference		Reference		Reference		Reference	
Previous smoker	-1.7 (-4.08 to 0.68)	0.16	-3.31 (-6.25 to -0.38)	0.03	-1.31 (-3.76 to 1.13)	0.29	-1.95 (-3.77 to -0.13)	0.04
Current smoker	-8.51 (-15.80 to -1.22)	0.02	-6.75 (-15.68 to 2.18)	0.14	-6.11 (-13.55 to 1.33)	0.11	-0.92 (-6.45 to 4.62)	0.75
Diabetes								
No								
Yes	-0.83 (-6.53 to 4.87)	0.78	3.84 (-3.20 to 10.89)	0.28	9.34 (3.47 to 15.21)	0.002	0.29 (-4.09 to 4.67)	0.90
Race								
White	Reference		Reference		Reference		Reference	
Black	1.05 (-3.51 to 5.61)	0.65	-1.72 (-7.34 to 3.91)	0.55	3.72 (-0.96 to 8.40)	0.12	-4.73 (-8.21 to -1.26)	0.008
Other	-1.63 (-6.33 to 3.06)	0.50	1.64 (-4.09 to 7.36)	0.58	-3.97 (-8.75 to 0.80)	0.10	-3.25 (-6.81 to 0.32)	0.07
Ethnicity								
Non-Hispanic	Reference		Reference		Reference		Reference	
Hispanic	2.25 (-2.54 to 7.04)	0.36	4.48 (-1.45 to 10.40)	0.14	1.2 (-3.72 to 6.11)	0.63	-0.86 (-4.51 to 2.80)	0.65
Education								
College degree	Reference		Reference		Reference		Reference	
No college degree	-0.82 (-3.50 to 1.87)	0.55	1.59 (-1.72 to 4.91)	0.35	0.79 (-1.97 to 3.54)	0.58	-0.27 (-2.33 to 1.78)	0.79
Employment status								
Unemployed	Reference		Reference		Reference		Reference	
Full-time including (students)	2.46 (-0.17 to 5.09)	0.07	2.05 (-1.21 to 5.30)	0.22	1.18 (-1.55 to 3.90)	0.40	0.01 (-2.00 to 2.03)	0.99

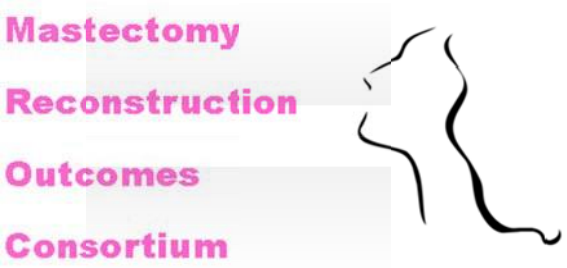
Part-time	0.49 (-3.08 to 4.07)	0.79	0.72 (-3.71 to 5.15)	0.75	3.41 (-0.28 to 7.11)	0.07	1.89 (-0.85 to 4.64)	0.18
Income								
<$50,000	Reference		Reference		Reference		Reference	
$50,000-$99,999	1.43 (-1.81 to 4.67)	0.39	0.4 (-3.60 to 4.40)	0.84	2.35 (-0.99 to 5.70)	0.17	2.89 (0.40 to 5.37)	0.02
≥$100,000	3.68 (0.37 to 6.99)	0.03	2.16 (-1.89 to 6.21)	0.30	3.39 (0.00 to 6.78)	0.05	3.48 (0.97 to 6.00)	0.007

*Based on two-sided t test. SLNB=sentinel lymph node biopsy, ALND=axillary lymph node dissection.



Supplementary Figure 1. Study flow diagram. *The rate of refusal to enroll was 28%.

Questionnaires



Visit 1 Questionnaires

Thank you for participating in the Mastectomy Reconstruction Outcomes Consortium (MROC) Study. T is packet contains the MROC Pre-Operative Questionnaires. Please complete the questionnaires prior to your surgery date.

Your participant code is written on each page of the questionnaires. This code will be used to identify you. Therefore please do NOT write your name anywhere on the questionnaires.

Please indicate the date you completed on the questionnaires on the line below.

Date Completed: _____

MROC Patient Demographic Questions

PLEASE NOTE: It would be very helpful if you could answer a few questions about yourself to help us describe the sample of women participating in this study.

1. What is your age?_____years

2. Do you smoke cigarettes?

☐ 1 Never Smoked

☐ 2 Yes

☐ 3 Previous smoker

2a. If **Yes**, how many packs per day? _

2b. **Previous smoker**, date last smoked (mm/dd/yyyy) _

3. Which of the following categories best describes your current marital status?

☐ 1 Married

☐ 2 Living with significant other

☐ 3 Widowed

☐ 4 Separated

☐ 5 Divorced

☐ 6 Single, never married

4. What is the last level of education you have completed?

- ☐ 1 Some high school
- ☐ 2 High school diploma
- ☐ 3 Some college, trade or university
- ☐ 4 College, trade or university degree
- ☐ 5 Some Master/Doctoral work
- ☐ 6 Master/Doctoral degree

5. What is your main activity or work situation?

- ☐ 1 Employed full-time
- ☐ 2 Employed part-time
- ☐ 3 Volunteer work
- ☐ 4 Homemaker
- ☐ 5 Student
- ☐ 6 Retired
- ☐ 7 Unable to work/disabled
- ☐ 8 Unemployed/seeking employment
- ☐ 9 Other (Please specify) _

6. Can you estimate your annual gross household income?

☐1 Less than $25,000

☐2 $25,000 - $49,999

☐3 $50,000 - $74,999

☐4 $75,000 - $99,000

☐4 $100,000 or more

7. How would you best describe your race (please choose one)?

☐1 American Indian/Alaska Native

☐2 Asian

☐3 Native Hawaiian or Other Pacific Islander

☐4 Black or African American

☐5 White

8. How would you best describe your ethnic background (please choose one)?

☐1 Hispanic or Latino

☐2 Not Hispanic or Latino

After reading each question, please circle the number in the box that best describes your situation. If you are unsure how to answer a question, choose the answer that comes closest to how you feel. Please answer all questions.

1. With your breasts in mind, or if you have had a mastectomy, with your breast area in mind, in the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How you look in the mirror clothed?	1	2	3	4
b.	How comfortably your bras fit?	1	2	3	4
c.	Being able to wear clothing that is more fitted?	1	2	3	4
d.	How you look in the mirror unclothed?	1	2	3	4

2. With your breasts in mind, or if you have had a mastectomy, with your breast area in mind, in the past 2 weeks, how often have you felt:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Confident in a social setting?	1	2	3	4	5
b.	Emotionally able to do the things that you want to do?	1	2	3	4	5
c.	Emotionally healthy?	1	2	3	4	5
d.	Of equal worth to other women?	1	2	3	4	5
e.	Self-confident?	1	2	3	4	5
f.	Feminine in your clothes?	1	2	3	4	5
g.	Accepting of your body?	1	2	3	4	5
h.	Normal?	1	2	3	4	5
i.	Like other women?	1	2	3	4	5
j.	Attractive?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

3. In the past 2 weeks, how often have you experienced:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Neck pain?	1	2	3	4	5
b.	Upper back pain?	1	2	3	4	5
c.	Shoulder pain?	1	2	3	4	5
d.	Arm pain?	1	2	3	4	5
e.	Rib pain?	1	2	3	4	5
f.	Pain in the muscles of your chest?	1	2	3	4	5
g.	Difficulty lifting or moving your arms?	1	2	3	4	5
h.	Difficulty sleeping because of discomfort in your breast area?	1	2	3	4	5
i.	Tightness in your breast area?	1	2	3	4	5
j.	Pulling in your breast area?	1	2	3	4	5
k.	Nagging feeling in your breast area?	1	2	3	4	5
l.	Tenderness in your breast area?	1	2	3	4	5
m.	Sharp pains in your breast area?	1	2	3	4	5
n.	Shooting pains in your breast area?	1	2	3	4	5
o.	Aching feeling in your breast area?	1	2	3	4	5
p.	Throbbing feeling in your breast area?	1	2	3	4	5
q.	Swelling (lymphoedema) of the arm on the side that you had your mastectomy surgery?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

4. In the past 2 weeks, with your abdomen (tummy area) in mind, how often have you experienced:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Difficulty sitting up because of abdominal muscle weakness (e.g. getting out of bed)?	1	2	3	4	5
b.	Difficulty doing everyday activities because of abdominal muscle weakness (e.g. making your bed)?	1	2	3	4	5
c.	Abdominal discomfort?	1	2	3	4	5
d.	Abdominal bloating?	1	2	3	4	5
e.	Lower back pain?	1	2	3	4	5

5. In the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How your abdomen looks in your clothes?	1	2	3	4
b.	How your abdomen looks when unclothed?	1	2	3	4

6. Thinking of your sexuality, how often do you generally feel:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time	Not Applicable
a.	Sexually attractive in your clothes?	1	2	3	4	5	N/A
b.	Comfortable/at ease during sexual activity?	1	2	3	4	5	N/A
c.	Confident sexually?	1	2	3	4	5	N/A
d.	Satisfied with your sex-life?	1	2	3	4	5	N/A
e.	Confident sexually about how your breast(s) look when unclothed?	1	2	3	4	5	N/A
f.	Sexually attractive when unclothed?	1	2	3	4	5	N/A

Numerical Pain Rating Scale
(NPRS)

You may experience some pain from cancer or cancer treatment. Only you know how much pain you have. You need to be able to describe your pain to your health care team as well as to your family or friends.

Describe How Much Pain You Feel

Using a pain rating scale, like the one below, is helpful in describing how much pain you are feeling.

Try to assign a number from 0 (zero) to 10 (ten) to your pain level. If you have no pain, use a 0. As the numbers get higher, they stand for pain that is getting worse. A 10 means the pain is as bad as it can be.

No Pain (0)				Moderate Pain (5)						Worst Pain (10)
0	1	2	3	4	5	6	7	8	9	10

From McCaffery, M. Pasero C; *Pain: Clinical manual*, p. 63., 1999. Copyrighted by Mosby, Inc.

Note: This form is used with permission

Below is a list of 15 words that describe some of the different qualities of pain that people can suffer. Some of the words probably describe your pain. Please put an X in the box for ONLY those words that you believe BEST describe the intensity of your pain DURING THE PAST 30 DAYS. Do not put an X for more than ONE word in each group. If a group has no word to describe your pain, than do not select a word for that group.

Short Form McGill Pain Questionnaire

Please indicate in the boxes below the type of pain(s), if any, that you have experienced in the previous 30 days in relation to your injury/disability.

	None	Mild	Moderate	Severe
Throbbing	☐	☐	☐	☐
Shooting	☐	☐	☐	☐
Stabbing	☐	☐	☐	☐
Sharp	☐	☐	☐	☐
Cramping	☐	☐	☐	☐
Gnawing	☐	☐	☐	☐
Hot burning	☐	☐	☐	☐
Aching	☐	☐	☐	☐
Heavy	☐	☐	☐	☐
Tender	☐	☐	☐	☐
Splitting	☐	☐	☐	☐
Tiring\Exhausting	☐	☐	☐	☐
Sickening	☐	☐	☐	☐
Fearful	☐	☐	☐	☐
Punishing\Cruel	☐	☐	☐	☐

MARK ON THIS LINE THE **AVERAGE INTENSITY** OF THE PAIN YOU SUFFER

NO PAIN |_____| **WORST POSSIBLE PAIN**

CURRENT PAIN

i.e. the pain you are experiencing at this present moment

Please tick **one** box only

No pain	☐	Distressing	☐
Mild	☐	Horrible	☐
Discomforting	☐	Excruciating	☐

Melzack 1984

EORTC QLQ - BR23

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the past week.

During the past week:		**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
1.	Did you have a dry mouth?	1	2	3	4
2.	Did food and drink taste different than usual?	1	2	3	4
3.	Were your eyes painful, irritated or watery?	1	2	3	4
4.	Have you lost any hair?	1	2	3	4
5.	Answer this question only if you had any hair loss: Were you upset by the loss of your hair?	1	2	3	4
6.	Did you feel ill or unwell?	1	2	3	4
7.	Did you have hot flashes?	1	2	3	4
8.	Did you have headaches?	1	2	3	4
9.	Have you felt physically less attractive as a result of your disease or treatment?	1	2	3	4
10.	Have you been feeling less feminine as a result of your disease or treatment?	1	2	3	4
11.	Did you find it difficult to look at yourself naked?	1	2	3	4
12.	Have you been dissatisfied with your body?	1	2	3	4
13.	Were you worried about your health in the future?	1	2	3	4

During the past <u>four</u> weeks:		**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
14.	To what extent were you interested in sex?	1	2	3	4
15.	To what extent were you sexually active? (with or without intercourse)	1	2	3	4
16.	Answer this question only if you have been sexually active: To what extent was sex enjoyable for you?	1	2	3	4

Please go on to the next page

During the past week:	**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
17. Did you have any pain in your arm or shoulder?	1	2	3	4
18. Did you have a swollen arm or hand?	1	2	3	4
19. Was it difficult to raise your arm or to move it sideways?	1	2	3	4
20. Have you had any pain in the area of your affected breast?	1	2	3	4
21. Was the area of your affected breast swollen?	1	2	3	4
22. Was the area of your affected breast oversensitive?	1	2	3	4
23. Have you had skin problems on or in the area of your affected breast (e.g., itchy, dry, flaky)?	1	2	3	4

Brief Fatigue Inventory

Throughout our lives, most of us have times when we feel very tired or fatigued. Have you felt unusually tired or fatigued in the last week? Yes ☐ No ☐

1. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your fatigue right NOW.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

2. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your USUAL level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

3. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your WORST level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

4. Circle the one number that describes how, during the past 24 hours, fatigue has interfered with your:

A. General activity

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

B. Mood

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

C. Walking ability

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

D. Normal work (includes both work outside the home and daily chores)

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

E. Relations with other people

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

F. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

PROMIS–29 Profile v1.0

Please respond to each question or statement by marking one box per row.

	Physical Function	**Without any difficulty**	**With a little difficulty**	**With some difficulty**	**With much difficulty**	**Unable to do**
1	Are you able to do chores such as vacuuming or yard work?.....	☐	☐	☐	☐	☐
2	Are you able to go up and down stairs at a normal pace?	☐	☐	☐	☐	☐
3	Are you able to go for a walk of at least 15 minutes?	☐	☐	☐	☐	☐
4	Are you able to run errands and shop?.....	☐	☐	☐	☐	☐
	Anxiety **In the past 7 days…**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
5	I felt fearful.....	☐	☐	☐	☐	☐
6	I found it hard to focus on anything other than my anxiety	☐	☐	☐	☐	☐
7	My worries overwhelmed me.....	☐	☐	☐	☐	☐
8	I felt uneasy	☐	☐	☐	☐	☐
	Depression **In the past 7 days...**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
9	I felt worthless.....	☐	☐	☐	☐	☐
10	I felt helpless	☐	☐	☐	☐	☐
11	I felt depressed	☐	☐	☐	☐	☐
12	I felt hopeless	☐	☐	☐	☐	☐
	Fatigue **During the past 7 days…**	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
13	I feel fatigued	☐	☐	☐	☐	☐
14	I have trouble starting things because I am tired.....	☐	☐	☐	☐	☐
	In the past 7 days…					
15	How run-down did you feel on average? ...	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
16	How fatigued were you on average?.....	☐	☐	☐	☐	☐

PROMIS–29 Profile v1.0

Sleep Disturbance

	In the past 7 days…	Very poor	Poor	Fair	Good	Very good
17	My sleep quality was.....	☐	☐	☐	☐	☐

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
18	My sleep was refreshing.....	☐	☐	☐	☐	☐
19	I had a problem with my sleep	☐	☐	☐	☐	☐
20	I had difficulty falling asleep	☐	☐	☐	☐	☐

Satisfaction with Social Role

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
21	I am satisfied with how much work I can do (include work at home)	☐	☐	☐	☐	☐
22	I am satisfied with my ability to work (include work at home)……	☐	☐	☐	☐	☐
23	I am satisfied with my ability to do regular personal and household responsibilities	☐	☐	☐	☐	☐
24	I am satisfied with my ability to perform my daily routines.....	☐	☐	☐	☐	☐

Pain Interference

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
25	How much did pain interfere with your day to day activities?.....	☐	☐	☐	☐	☐
26	How much did pain interfere with work around the home?	☐	☐	☐	☐	☐
27	How much did pain interfere with your ability to participate in social activities?	☐	☐	☐	☐	☐
28	How much did pain interfere with your household chores?	☐	☐	☐	☐	☐

Pain Intensity

In the past 7 days…

29	How would you rate your pain on average?.....	☐ 0 **No pain**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10 **Worst imaginable pain**

PHQ-9

Over the **last 2 weeks**, how often have you been bothered by any of the following problems *(circle **one** number on each line).*

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
1. Little interest or pleasure in doing things.....	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much.....	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating.....	0	1	2	3
6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down.....	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television.....	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.....	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

General Anxiety Scale (same instructions and response format)

10. Feeling nervous, anxious or on edge ……..	0	1	2	3
11. Being unable to stop or control worrying….	0	1	2	3

Study ID:_____

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
12. Worrying too much about different things…	0	1	2	3
13. Having trouble relaxing……	0	1	2	3
14. Being so restless that it is hard to sit still….	0	1	2	3
15. Becoming easily annoyed or irritable……	0	1	2	3
16. Feeling afraid, as if something awful might happen……	0	1	2	3

Mastectomy
Reconstruction
Outcomes
Consortium

Visit 2 Questionnaires

Thank you for participating in the Mastectomy Reconstruction Outcomes Consortium (MROC) Study. T is packet contains the MROC 1 Week Post-Op Questionnaires.

Your participant code is written on each page of the questionnaires. This code will be used to identify you. Therefore please do NOT write your name anywhere on the questionnaires.

Please indicate the date you completed on the questionnaires on the line below.

Date Completed: _____

BREAST-Q™

Study ID:_____

RECONSTRUCTION MODULE (POST OPERATIVE) 1.0

. In the past 2 weeks, how often have you experienced:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. Neck pain?	1	2	3	4	5
b. Upper back pain?	1	2	3	4	5
c. Shoulder pain?	1	2	3	4	5
d. Arm pain?	1	2	3	4	5
e. Rib pain?	1	2	3	4	5
f. Pain in the muscles of your chest?	1	2	3	4	5
g. Difficulty lifting or moving your arms?	1	2	3	4	5
h. Difficulty sleeping because of discomfort in your breast area?	1	2	3	4	5
i. Tightness in your breast area?	1	2	3	4	5
j. Pulling in your breast area?	1	2	3	4	5
k. Nagging feeling in your breast area?	1	2	3	4	5
l. Tenderness in your breast area?	1	2	3	4	5
m. Sharp pains in your breast area?	1	2	3	4	5
n. Shooting pains in your breast area?	1	2	3	4	5
o. Aching feeling in your breast area?	1	2	3	4	5
p. Throbbing feeling in your breast area?	1	2	3	4	5
q. Swelling (lymphoedema) of the arm on the side that you had your mastectomy surgery?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

Numerical Pain Rating Scale

(NPRS)

You may experience some pain from cancer or cancer treatment. Only you know how much pain you have. You need to be able to describe your pain to your health care team as well as to your family or friends.

Describe How Much Pain You Feel

Using a pain rating scale, like the one below, is helpful in describing how much pain you are feeling.

Try to assign a number from 0 (zero) to 10 (ten) to your pain level. If you have no pain, use a 0. As the numbers get higher, they stand for pain that is getting worse. A 10 means the pain is as bad as it can be.

No Pain (0)				Moderate Pain (5)						Worst Pain (10)
0	1	2	3	4	5	6	7	8	9	10

From McCaffery, M. Pasero C; *Pain: Clinical manual*, p. 63., 1999. Copyrighted by Mosby, Inc.

Note: This form is used with permission

Below is a list of 15 words that describe some of the different qualities of pain that people can suffer. Some of the words probably describe your pain. Please put an X in the box for ONLY those words that you believe BEST describe the intensity of your pain SINCE YOUR BREAST RECONSTRUCTION SURGERY. Do not put an X for more than ONE word in each group. If a group has no word to describe your pain, than do not select a word for that group.

Short Form McGill Pain Questionnaire

Please indicate in the boxes below the type of pain(s), if any, that you have experienced since your breast reconstruction surgery.

	None	Mild	Moderate	Severe
Throbbing	☐	☐	☐	☐
Shooting	☐	☐	☐	☐
Stabbing	☐	☐	☐	☐
Sharp	☐	☐	☐	☐
Cramping	☐	☐	☐	☐
Gnawing	☐	☐	☐	☐
Hot burning	☐	☐	☐	☐
Aching	☐	☐	☐	☐
Heavy	☐	☐	☐	☐
Tender	☐	☐	☐	☐
Splitting	☐	☐	☐	☐
Tiring\Exhausting	☐	☐	☐	☐
Sickening	☐	☐	☐	☐
Fearful	☐	☐	☐	☐
Punishing\Cruel	☐	☐	☐	☐

MARK ON THIS LINE THE **AVERAGE INTENSITY** OF THE PAIN YOU SUFFER

NO PAIN |_____| **WORST POSSIBLE PAIN**

CURRENT PAIN

i.e. the pain you are experiencing at this present moment

Please tick **one** box only

No pain	☐	Distressing	☐
Mild	☐	Horrible	☐
Discomforting	☐	Excruciating	☐

Melzack 1984

Mastectomy
Reconstruction
Outcomes
Consortium

Visit 3 Questionnaires

Thank you for participating in the Mastectomy Reconstruction Outcomes Consortium (MROC) Study. T is packet contains the MROC 3 Month Post-Op Questionnaires.

Your participant code is written on each page of the questionnaires. This code will be used to identify you. Therefore please do NOT write your name anywhere on the questionnaires.

Please indicate the date you completed on the questionnaires on the line below.

Date Completed: _____

. With your breasts in mind, in the past 2 weeks, how often have you felt:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Confident in a social setting?	1	2	3	4	5
b.	Emotionally able to do the things that you want to do?	1	2	3	4	5
c.	Emotionally healthy?	1	2	3	4	5
d.	Of equal worth to other women?	1	2	3	4	5
e.	Self-confident?	1	2	3	4	5
f.	Feminine in your clothes?	1	2	3	4	5
g.	Accepting of your body?	1	2	3	4	5
h.	Normal?	1	2	3	4	5
i.	Like other women?	1	2	3	4	5
j.	Attractive?	1	2	3	4	5

. Thinking of your sexuality, since your breast reconstruction, how often do you generally feel:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time	Not Applicable
a.	Sexually attractive in your clothes?	1	2	3	4	5	N/A
b.	Comfortable/at ease during sexual activity?	1	2	3	4	5	N/A
c.	Confident sexually?	1	2	3	4	5	N/A
d.	Satisfied with your sex-life?	1	2	3	4	5	N/A
e.	Confident sexually about how your breast(s) look when unclothed?	1	2	3	4	5	N/A
f.	Sexually attractive when unclothed?	1	2	3	4	5	N/A

Please check that you have answered all the questions before going on to the next page

BREAST-Q™

Study ID:_____

RECONSTRUCTION MODULE (POST OPERATIVE) 1.0

. In the past 2 weeks, how often have you experienced:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. Neck pain?	1	2	3	4	5
b. Upper back pain?	1	2	3	4	5
c. Shoulder pain?	1	2	3	4	5
d. Arm pain?	1	2	3	4	5
e. Rib pain?	1	2	3	4	5
f. Pain in the muscles of your chest?	1	2	3	4	5
g. Difficulty lifting or moving your arms?	1	2	3	4	5
h. Difficulty sleeping because of discomfort in your breast area?	1	2	3	4	5
i. Tightness in your breast area?	1	2	3	4	5
j. Pulling in your breast area?	1	2	3	4	5
k. Nagging feeling in your breast area?	1	2	3	4	5
l. Tenderness in your breast area?	1	2	3	4	5
m. Sharp pains in your breast area?	1	2	3	4	5
n. Shooting pains in your breast area?	1	2	3	4	5
o. Aching feeling in your breast area?	1	2	3	4	5
p. Throbbing feeling in your breast area?	1	2	3	4	5
q. Swelling (lymphoedema) of the arm on the side that you had your mastectomy surgery?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

. How satisfied or dissatisfied were you with the information you received from your plastic surgeon about:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How the breast reconstruction surgery was to be done?	1	2	3	4
b.	Healing and recovery time?	1	2	3	4
c.	Possible complications?	1	2	3	4
d.	The options you were given regarding types of breast reconstruction?	1	2	3	4
e.	The options you were given regarding timing of your breast reconstruction (i.e. same time as your mastectomy versus later)?	1	2	3	4
f.	The pros and cons of the timing of your breast reconstruction?	1	2	3	4
g.	How long the process of breast reconstruction would take from start to finish?	1	2	3	4
h.	What size you could expect your breasts to be after reconstructive surgery?	1	2	3	4
i.	How much pain to expect during recovery?	1	2	3	4
j.	What you could expect your breasts to look like after surgery?	1	2	3	4
k.	How long after reconstruction surgery it would take to feel like yourself/feel normal again?	1	2	3	4
l.	How the surgery could affect future breast cancer screening (e.g. mammogram, self examinations)?	1	2	3	4
m.	Lack of sensation in your reconstructed breast(s) and nipple(s)?	1	2	3	4
n.	What other women experience with their breast reconstruction surgery?	1	2	3	4
o.	What the scars would look like?	1	2	3	4

Please check that you have answered all the questions before going on to the next page

. These questions ask about your plastic surgeon. Did you feel that he/she:

		Definitely Disagree	Somewhat Disagree	Somewhat Agree	Definitely Agree
a.	Was competent?	1	2	3	4
b.	Gave you confidence?	1	2	3	4
c.	Involved you in the decision-making process?	1	2	3	4
d.	Was reassuring?	1	2	3	4
e.	Answered all your questions?	1	2	3	4
f.	Made you feel comfortable?	1	2	3	4
g.	Was thorough?	1	2	3	4
h.	Was easy to talk to?	1	2	3	4
i.	Understood what you wanted?	1	2	3	4
j.	Was sensitive?	1	2	3	4
k.	Made time for your concerns?	1	2	3	4
l.	Was available when you had concerns?	1	2	3	4

Please check that you have answered all the questions before going on to the next page

. These questions ask about members of the medical team other than the surgeon (e.g. nurses and other doctors who looked after you in the hospital when you had your breast reconstruction surgery). Did you feel that they:

	Definitely Disagree	Somewhat Disagree	Somewhat Agree	Definitely Agree
a. Were professional?	1	2	3	4
b. Treated you with respect?	1	2	3	4
c. Were knowledgeable?	1	2	3	4
d. Were friendly and kind?	1	2	3	4
e. Made you feel comfortable?	1	2	3	4
f. Were thorough?	1	2	3	4
g. Made time for your concerns?	1	2	3	4

. These questions ask about members of the office staff (e.g. secretaries, office or clinic nurses). Did you feel that they:

	Definitely Disagree	Somewhat Disagree	Somewhat Agree	Definitely Agree
a. Were professional?	1	2	3	4
b. Treated you with respect?	1	2	3	4
c. Were knowledgeable?	1	2	3	4
d. Were friendly and kind?	1	2	3	4
e. Made you feel comfortable?	1	2	3	4
f. Were thorough?	1	2	3	4
g. Made time for your concerns?	1	2	3	4

Please check that you have answered all the questions

Numerical Pain Rating Scale

(NPRS)

You may experience some pain from cancer or cancer treatment. Only you know how much pain you have. You need to be able to describe your pain to your health care team as well as to your family or friends.

Describe How Much Pain You Feel

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0	1	2	3	4	5	6	7	8	9	10

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Short Form McGill Pain Questionnaire

Please indicate in the boxes below the type of pain(s), if any, that you have experienced in the previous 30 days in relation to your injury/disability.

	None	Mild	Moderate	Severe
Throbbing	☐	☐	☐	☐
Shooting	☐	☐	☐	☐
Stabbing	☐	☐	☐	☐
Sharp	☐	☐	☐	☐
Cramping	☐	☐	☐	☐
Gnawing	☐	☐	☐	☐
Hot burning	☐	☐	☐	☐
Aching	☐	☐	☐	☐
Heavy	☐	☐	☐	☐
Tender	☐	☐	☐	☐
Splitting	☐	☐	☐	☐
Tiring\Exhausting	☐	☐	☐	☐
Sickening	☐	☐	☐	☐
Fearful	☐	☐	☐	☐
Punishing\Cruel	☐	☐	☐	☐

MARK ON THIS LINE THE **AVERAGE INTENSITY** OF THE PAIN YOU SUFFER

NO PAIN |_____| **WORST POSSIBLE PAIN**

CURRENT PAIN

i.e. the pain you are experiencing at this present moment
Please tick **one** box only

No pain	☐	**Distressing**	☐
Mild	☐	**Horrible**	☐
Discomforting	☐	**Excruciating**	☐

Melzack 1984

EORTC QLQ - BR23

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the past week.

During the past week:		**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
1.	Did you have a dry mouth?	1	2	3	4
2.	Did food and drink taste different than usual?	1	2	3	4
3.	Were your eyes painful, irritated or watery?	1	2	3	4
4.	Have you lost any hair?	1	2	3	4
5.	Answer this question only if you had any hair loss: Were you upset by the loss of your hair?	1	2	3	4
6.	Did you feel ill or unwell?	1	2	3	4
7.	Did you have hot flashes?	1	2	3	4
8.	Did you have headaches?	1	2	3	4
9.	Have you felt physically less attractive as a result of your disease or treatment?	1	2	3	4
10.	Have you been feeling less feminine as a result of your disease or treatment?	1	2	3	4
11.	Did you find it difficult to look at yourself naked	1	2	3	4
12.	Have you been dissatisfied with your body	1	2	3	4
13.	Were you worried about your health in the future	1	2	3	4

During the past <u>four</u> weeks:		**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
14.	To what extent were you interested in sex?	1	2	3	4
15.	To what extent were you sexually active? (with or without intercourse)	1	2	3	4
16.	Answer this question only if you have been sexually active: To what extent was sex enjoyable for you?	1	2	3	4

Please go on to the next page

During the past week:	**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
17. Did you have any pain in your arm or shoulder?	1	2	3	4
18. Did you have a swollen arm or hand?	1	2	3	4
19. Was it difficult to raise your arm or to move it sideways?	1	2	3	4
20. Have you had any pain in the area of your affected breast?	1	2	3	4
21. Was the area of your affected breast swollen?	1	2	3	4
22. Was the area of your affected breast oversensitive?	1	2	3	4
23. Have you had skin problems on or in the area of your affected breast (e.g., itchy, dry, flaky)?	1	2	3	4

Brief Fatigue Inventory

Throughout our lives, most of us have times when we feel very tired or fatigued. Have you felt unusually tired or fatigued in the last week? Yes ☐ No ☐

1. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your fatigue right NOW.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

2. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your USUAL level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

3. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your WORST level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

4. Circle the one number that describes how, during the past 24 hours, fatigue has interfered with your:

A. General activity

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

B. Mood

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

C. Walking ability

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

D. Normal work (includes both work outside the home and daily chores)

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

E. Relations with other people

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

F. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

PROMIS–29 Profile v1.0

Please respond to each question or statement by marking one box per row.

	Physical Function	**Without any difficulty**	**With a little difficulty**	**With some difficulty**	**With much difficulty**	**Unable to do**
1	Are you able to do chores such as vacuuming or yard work?.....	☐	☐	☐	☐	☐
2	Are you able to go up and down stairs at a normal pace?	☐	☐	☐	☐	☐
3	Are you able to go for a walk of at least 15 minutes?	☐	☐	☐	☐	☐
4	Are you able to run errands and shop?.....	☐	☐	☐	☐	☐
	Anxiety **In the past 7 days…**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
5	I felt fearful.....	☐	☐	☐	☐	☐
6	I found it hard to focus on anything other than my anxiety	☐	☐	☐	☐	☐
7	My worries overwhelmed me.....	☐	☐	☐	☐	☐
8	I felt uneasy	☐	☐	☐	☐	☐
	Depression **In the past 7 days...**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
9	I felt worthless.....	☐	☐	☐	☐	☐
10	I felt helpless	☐	☐	☐	☐	☐
11	I felt depressed	☐	☐	☐	☐	☐
12	I felt hopeless	☐	☐	☐	☐	☐
	Fatigue **During the past 7 days…**	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
13	I feel fatigued	☐	☐	☐	☐	☐
14	I have trouble starting things because I am tired.....	☐	☐	☐	☐	☐
	In the past 7 days…					
15	How run-down did you feel on average? ...	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
16	How fatigued were you on average?.....	☐	☐	☐	☐	☐

PROMIS–29 Profile v1.0

Sleep Disturbance

	In the past 7 days…	Very poor	Poor	Fair	Good	Very good
17	My sleep quality was.....	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
18	My sleep was refreshing.....	☐	☐	☐	☐	☐
19	I had a problem with my sleep	☐	☐	☐	☐	☐
20	I had difficulty falling asleep	☐	☐	☐	☐	☐

Satisfaction with Social Role

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
21	I am satisfied with how much work I can do (include work at home)	☐	☐	☐	☐	☐
22	I am satisfied with my ability to work (include work at home)……	☐	☐	☐	☐	☐
23	I am satisfied with my ability to do regular personal and household responsibilities	☐	☐	☐	☐	☐
24	I am satisfied with my ability to perform my daily routines.....	☐	☐	☐	☐	☐

Pain Interference

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
25	How much did pain interfere with your day to day activities?.....	☐	☐	☐	☐	☐
26	How much did pain interfere with work around the home?	☐	☐	☐	☐	☐
27	How much did pain interfere with your ability to participate in social activities?	☐	☐	☐	☐	☐
28	How much did pain interfere with your household chores?	☐	☐	☐	☐	☐

Pain Intensity

In the past 7 days…

29	How would you rate your pain on average?.....	☐ 0 **No pain**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10 **Worst imaginable pain**

PHQ-9/GAD 7

PHQ-9

Over the **last 2 weeks**, how often have you been bothered by any of the following problems *(circle **one** number on each line).*

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
1. Little interest or pleasure in doing things.....	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much.....	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating.....	0	1	2	3
6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down.....	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television.....	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.....	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

General Anxiety Scale (same instructions and response format)

10. Feeling nervous, anxious or on edge ……..	0	1	2	3
11. Being unable to stop or control worrying….	0	1	2	3

Study ID:_____

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
12. Worrying too much about different things…	0	1	2	3
13. Having trouble relaxing……	0	1	2	3
14. Being so restless that it is hard to sit still….	0	1	2	3
15. Becoming easily annoyed or irritable……	0	1	2	3
16. Feeling afraid, as if something awful might happen……	0	1	2	3

Mastectomy
Reconstruction
Outcomes
Consortium

Visit 4 Questionnaires

Thank you for participating in the Mastectomy Reconstruction Outcomes Consortium (MROC) Study. T is packet contains the MROC 1 Year Post-Op Questionnaires.

Your participant code is written on each page of the questionnaires. This code will be used to identify you. Therefore please do NOT write your name anywhere on the questionnaires.

Please indicate the date you completed on the questionnaires on the line below.

Date Completed: _____

BREAST-Q™

Study ID:_____

RECONSTRUCTION MODULE (POST OPERATIVE) 1.0

The following questions are about your breasts and breast reconstruction surgery. After reading each question, please circle the number in the box that best describes your situation. If you are unsure how to answer a question, choose the answer that comes closest to how you feel. Please answer all questions.

1. With your breasts in mind, in the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How you look in the mirror clothed?	1	2	3	4
b.	The shape of your reconstructed breast(s) when you are wearing a bra?	1	2	3	4
c.	How normal you feel in your clothes?	1	2	3	4
d.	The size of your reconstructed breast(s)?	1	2	3	4
e.	Being able to wear clothing that is more fitted?	1	2	3	4
f.	How your breasts are lined up in relation to each other?	1	2	3	4
g.	How comfortably your bras fit?	1	2	3	4
h.	The softness of your reconstructed breast(s)?	1	2	3	4
i.	How equal in size your breasts are to each other?	1	2	3	4
j.	How natural your reconstructed breast(s) looks?	1	2	3	4
k.	How naturally your reconstructed breast(s) sits/hangs?	1	2	3	4
l.	How your reconstructed breast(s) feels to touch?	1	2	3	4
m.	How much your reconstructed breast(s) feels like a natural part of your body?	1	2	3	4
n.	How closely matched your breasts are to each other?	1	2	3	4
o.	How your reconstructed breast(s) look now compared to before you had any breast surgery?	1	2	3	4
p.	How you look in the mirror unclothed?	1	2	3	4

Please check that you have answered all the questions before going on to the next page

This question is about breast reconstruction using IMPLANTS. If you do not have an implant(s) please skip to question 3. If you do have an implant(s), please answer question 2 below.

2. In the past 2 weeks, how satisfied or dissatisfied have you been with:

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a. The amount of rippling (wrinkling) of your implant(s) that you can see?	1	2	3	4
b. The amount of rippling (wrinkling) of your implant(s) that you can feel?	1	2	3	4
c. Hollowness (depression) that you can see above your implant(s)?	1	2	3	4
d. Hardness (scar tissue) that you can feel around your implant(s)?	1	2	3	4

3. We would like to know how you feel about the outcome of your breast reconstruction surgery. Please indicate how much you agree or disagree with each statement:

	Disagree	Somewhat Agree	Definitely Agree
a. Having reconstruction is much better than the alternative of having no breast(s).	1	2	3
b. I would encourage other women in my situation to have breast reconstruction surgery.	1	2	3
c. I would do it again.	1	2	3
d. I have no regrets about having the reconstruction surgery.	1	2	3
e. Having the reconstruction surgery changed my life for the better.	1	2	3
f. The outcome perfectly matched my expectations.	1	2	3
g. It turned out exactly as I had planned.	1	2	3

Please check that you have answered all the questions before going on to the next page

4. With your breasts in mind, in the past 2 weeks, how often have you felt:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Confident in a social setting?	1	2	3	4	5
b.	Emotionally able to do the things that you want to do?	1	2	3	4	5
c.	Emotionally healthy?	1	2	3	4	5
d.	Of equal worth to other women?	1	2	3	4	5
e.	Self-confident?	1	2	3	4	5
f.	Feminine in your clothes?	1	2	3	4	5
g.	Accepting of your body?	1	2	3	4	5
h.	Normal?	1	2	3	4	5
i.	Like other women?	1	2	3	4	5
j.	Attractive?	1	2	3	4	5

5. Thinking of your sexuality, since your breast reconstruction, how often do you generally feel:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time	Not Applicable
a.	Sexually attractive in your clothes?	1	2	3	4	5	N/A
b.	Comfortable/at ease during sexual activity?	1	2	3	4	5	N/A
c.	Confident sexually?	1	2	3	4	5	N/A
d.	Satisfied with your sex-life?	1	2	3	4	5	N/A
e.	Confident sexually about how your breast(s) look when unclothed?	1	2	3	4	5	N/A
f.	Sexually attractive when unclothed?	1	2	3	4	5	N/A

Please check that you have answered all the questions before going on to the next page

6. In the past 2 weeks, how often have you experienced:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. Neck pain?	1	2	3	4	5
b. Upper back pain?	1	2	3	4	5
c. Shoulder pain?	1	2	3	4	5
d. Arm pain?	1	2	3	4	5
e. Rib pain?	1	2	3	4	5
f. Pain in the muscles of your chest?	1	2	3	4	5
g. Difficulty lifting or moving your arms?	1	2	3	4	5
h. Difficulty sleeping because of discomfort in your breast area?	1	2	3	4	5
i. Tightness in your breast area?	1	2	3	4	5
j. Pulling in your breast area?	1	2	3	4	5
k. Nagging feeling in your breast area?	1	2	3	4	5
l. Tenderness in your breast area?	1	2	3	4	5
m. Sharp pains in your breast area?	1	2	3	4	5
n. Shooting pains in your breast area?	1	2	3	4	5
o. Aching feeling in your breast area?	1	2	3	4	5
p. Throbbing feeling in your breast area?	1	2	3	4	5
q. Swelling (lymphoedema) of the arm on the side that you had your mastectomy surgery?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

The following questions are about reconstruction using a TRAM or DIEP flap (i.e., reconstruction using skin and fat from you abdomen/tummy area). If you do not have a TRAM or DIEP flap, please skip to question 10. If you do have a TRAM or DIEP flap, please answer the following questions:

7. In the past 2 weeks, with your abdomen (tummy area) in mind, how often have you experienced:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Difficulty sitting up because of abdominal muscle weakness (e.g. getting out of bed)?	1	2	3	4	5
b.	Difficulty doing everyday activities because of abdominal muscle weakness (e.g. making your bed)?	1	2	3	4	5
c.	Abdominal discomfort?	1	2	3	4	5
d.	Abdominal bloating?	1	2	3	4	5
e.	Abdominal bulging?	1	2	3	4	5
f.	Tightness in your abdomen?	1	2	3	4	5
g.	Pulling in your abdomen?	1	2	3	4	5
h.	Lower back pain?	1	2	3	4	5

8. In the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How your abdomen looks in your clothes?	1	2	3	4
b.	The position of your navel (belly button)?	1	2	3	4
c.	How your abdominal scars look?	1	2	3	4
d.	How your abdomen looks when unclothed?	1	2	3	4

9. In the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How your abdomen feels now compared to before your surgery?	1	2	3	4
b.	How your abdomen looks now compared to before your surgery?	1	2	3	4

This question is about NIPPLE reconstruction. If you did not have nipple reconstruction, please skip to question 11. If you did have nipple reconstruction, please answer question 10 below.

10. In the past 2 weeks, how satisfied or dissatisfied are you with:

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a. The shape of your reconstructed nipple(s)?	1	2	3	4
b. How your reconstructed nipple(s) and areola(s) look?	1	2	3	4
c. How natural your reconstructed nipple(s) look?	1	2	3	4
d. The color of your reconstructed nipple/areolar complex?	1	2	3	4
e. The height (projection) of your reconstructed nipple(s)?	1	2	3	4

Please check that you have answered all the questions before going on to the next page

Numerical Pain Rating Scale

(NPRS)

You may experience some pain from cancer or cancer treatment. Only you know how much pain you have. You need to be able to describe your pain to your health care team as well as to your family or friends.

Describe How Much Pain You Feel

Using a pain rating scale, like the one below, is helpful in describing how much pain you are feeling.

Try to assign a number from 0 (zero) to 10 (ten) to your pain level. If you have no pain, use a 0. As the numbers get higher, they stand for pain that is getting worse. A 10 means the pain is as bad as it can be.

No Pain (0)				Moderate Pain (5)						Worst Pain (10)
0	1	2	3	4	5	6	7	8	9	10

From McCaffery, M. Pasero C; *Pain: Clinical manual*, p. 63., 1999. Copyrighted by Mosby, Inc.

Note: This form is used with permission

Below is a list of 15 words that describe some of the different qualities of pain that people can suffer. Some of the words probably describe your pain. Please put an X in the box for ONLY those words that you believe BEST describe the intensity of your pain DURING THE 30 DAYS. Do not put an X for more than ONE word in each group. If a group has no word to describe your pain, than do not select a word for that group.

Short Form McGill Pain Questionnaire

Please indicate in the boxes below the type of pain(s), if any, that you have experienced in the previous 30 days in relation to your injury/disability.

	None	Mild	Moderate	Severe
Throbbing	☐	☐	☐	☐
Shooting	☐	☐	☐	☐
Stabbing	☐	☐	☐	☐
Sharp	☐	☐	☐	☐
Cramping	☐	☐	☐	☐
Gnawing	☐	☐	☐	☐
Hot burning	☐	☐	☐	☐
Aching	☐	☐	☐	☐
Heavy	☐	☐	☐	☐
Tender	☐	☐	☐	☐
Splitting	☐	☐	☐	☐
Tiring\Exhausting	☐	☐	☐	☐
Sickening	☐	☐	☐	☐
Fearful	☐	☐	☐	☐
Punishing\Cruel	☐	☐	☐	☐

MARK ON THIS LINE THE **AVERAGE INTENSITY** OF THE PAIN YOU SUFFER

NO PAIN |_____| **WORST POSSIBLE PAIN**

CURRENT PAIN

i.e. the pain you are experiencing at this present moment

Please tick **one** box only

No pain	☐	Distressing	☐
Mild	☐	Horrible	☐
Discomforting	☐	Excruciating	☐

Melzack 1984

EORTC QLQ - BR23

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the past week.

During the past week:		**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
1.	Did you have a dry mouth?	1	2	3	4
2.	Did food and drink taste different than usual?	1	2	3	4
3.	Were your eyes painful, irritated or watery?	1	2	3	4
4.	Have you lost any hair?	1	2	3	4
5.	Answer this question only if you had any hair loss: Were you upset by the loss of your hair?	1	2	3	4
6.	Did you feel ill or unwell?	1	2	3	4
7.	Did you have hot flashes?	1	2	3	4
8.	Did you have headaches?	1	2	3	4
9.	Have you felt physically less attractive as a result of your disease or treatment?	1	2	3	4
0.	Have you been feeling less feminine as a result of your disease or treatment?	1	2	3	4
1.	Did you find it difficult to look at yourself naked?	1	2	3	4
2.	Have you been dissatisfied with your body?	1	2	3	4
3.	Were you worried about your health in the future?	1	2	3	4

During the past <u>four</u> weeks:		**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
4.	To what extent were you interested in sex?	1	2	3	4
5.	To what extent were you sexually active? (with or without intercourse)	1	2	3	4
6.	Answer this question only if you have been sexually active: To what extent was sex enjoyable for you?	1	2	3	4

<u>Please go on to the next page</u>

During the past week:	**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
7. Did you have any pain in your arm or shoulder?	1	2	3	4
8. Did you have a swollen arm or hand?	1	2	3	4
9. Was it difficult to raise your arm or to move it sideways?	1	2	3	4
0. Have you had any pain in the area of your affected breast?	1	2	3	4
1. Was the area of your affected breast swollen?	1	2	3	4
2. Was the area of your affected breast oversensitive?	1	2	3	4
3. Have you had skin problems on or in the area of your affected breast (e.g., itchy, dry, flaky)?	1	2	3	4

Brief Fatigue Inventory

Throughout our lives, most of us have times when we feel very tired or fatigued. Have you felt unusually tired or fatigued in the last week? Yes ☐ No ☐

1. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your fatigue right NOW.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

2. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your USUAL level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

3. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your WORST level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

4. Circle the one number that describes how, during the past 24 hours, fatigue has interfered with your:

A. General activity

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

B. Mood

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

C. Walking ability

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

D. Normal work (includes both work outside the home and daily chores)

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

E. Relations with other people

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

F. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

PROMIS–29 Profile v1.0

Please respond to each question or statement by marking one box per row.

	Physical Function	**Without any difficulty**	**With a little difficulty**	**With some difficulty**	**With much difficulty**	**Unable to do**
1	Are you able to do chores such as vacuuming or yard work?.....	☐	☐	☐	☐	☐
2	Are you able to go up and down stairs at a normal pace?	☐	☐	☐	☐	☐
3	Are you able to go for a walk of at least 15 minutes?	☐	☐	☐	☐	☐
4	Are you able to run errands and shop?.....	☐	☐	☐	☐	☐
	Anxiety **In the past 7 days…**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
5	I felt fearful.....	☐	☐	☐	☐	☐
6	I found it hard to focus on anything other than my anxiety	☐	☐	☐	☐	☐
7	My worries overwhelmed me.....	☐	☐	☐	☐	☐
8	I felt uneasy	☐	☐	☐	☐	☐
	Depression **In the past 7 days...**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
9	I felt worthless.....	☐	☐	☐	☐	☐
10	I felt helpless	☐	☐	☐	☐	☐
11	I felt depressed	☐	☐	☐	☐	☐
12	I felt hopeless	☐	☐	☐	☐	☐
	Fatigue **During the past 7 days…**	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
13	I feel fatigued	☐	☐	☐	☐	☐
14	I have trouble starting things because I am tired.....	☐	☐	☐	☐	☐
	In the past 7 days…					
15	How run-down did you feel on average? ...	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
16	How fatigued were you on average?.....	☐	☐	☐	☐	☐

PROMIS–29 Profile v1.0

Sleep Disturbance

	In the past 7 days…	Very poor	Poor	Fair	Good	Very good
17	My sleep quality was.....	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
18	My sleep was refreshing.....	☐	☐	☐	☐	☐
19	I had a problem with my sleep	☐	☐	☐	☐	☐
20	I had difficulty falling asleep	☐	☐	☐	☐	☐

Satisfaction with Social Role

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
21	I am satisfied with how much work I can do (include work at home)	☐	☐	☐	☐	☐
22	I am satisfied with my ability to work (include work at home)……	☐	☐	☐	☐	☐
23	I am satisfied with my ability to do regular personal and household responsibilities	☐	☐	☐	☐	☐
24	I am satisfied with my ability to perform my daily routines.....	☐	☐	☐	☐	☐

Pain Interference

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
25	How much did pain interfere with your day to day activities?.....	☐	☐	☐	☐	☐
26	How much did pain interfere with work around the home?	☐	☐	☐	☐	☐
27	How much did pain interfere with your ability to participate in social activities?	☐	☐	☐	☐	☐
28	How much did pain interfere with your household chores?	☐	☐	☐	☐	☐

Pain Intensity

In the past 7 days…

29	How would you rate your pain on average?.....	☐ 0 **No pain**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10 **Worst imaginable pain**

PHQ-9

Over the **last 2 weeks**, how often have you been bothered by any of the following problems *(circle **one** number on each line).*

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
1. Little interest or pleasure in doing things.....	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much.....	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating.....	0	1	2	3
6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down.....	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television.....	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.....	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

General Anxiety Scale (same instructions and response format)

10. Feeling nervous, anxious or on edge ……..	0	1	2	3
11. Being unable to stop or control worrying….	0	1	2	3

Study ID:_____

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
12. Worrying too much about different things…	0	1	2	3
13. Having trouble relaxing……	0	1	2	3
14. Being so restless that it is hard to sit still….	0	1	2	3
15. Becoming easily annoyed or irritable……	0	1	2	3
16. Feeling afraid, as if something awful might happen……	0	1	2	3

Mastectomy
Reconstruction
Outcomes
Consortium

Visit 5 Questionnaires

Thank you for participating in the Mastectomy Reconstruction Outcomes Consortium (MROC) Study. T is packet contains the MROC 2 Year Post-Op Questionnaires.

Your participant code is written on each page of the questionnaires. This code will be used to identify you. Therefore please do NOT write your name anywhere on the questionnaires.

Please indicate the date you completed on the questionnaires on the line below.

Date Completed: _____

BREAST-Q™

Study ID:_____

RECONSTRUCTION MODULE (POST OPERATIVE) 1.0

The following questions are about your breasts and breast reconstruction surgery. After reading each question, please circle the number in the box that best describes your situation. If you are unsure how to answer a question, choose the answer that comes closest to how you feel. Please answer all questions.

1. With your breasts in mind, in the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How you look in the mirror clothed?	1	2	3	4
b.	The shape of your reconstructed breast(s) when you are wearing a bra?	1	2	3	4
c.	How normal you feel in your clothes?	1	2	3	4
d.	The size of your reconstructed breast(s)?	1	2	3	4
e.	Being able to wear clothing that is more fitted?	1	2	3	4
f.	How your breasts are lined up in relation to each other?	1	2	3	4
g.	How comfortably your bras fit?	1	2	3	4
h.	The softness of your reconstructed breast(s)?	1	2	3	4
i.	How equal in size your breasts are to each other?	1	2	3	4
j.	How natural your reconstructed breast(s) looks?	1	2	3	4
k.	How naturally your reconstructed breast(s) sits/hangs?	1	2	3	4
l.	How your reconstructed breast(s) feels to touch?	1	2	3	4
m.	How much your reconstructed breast(s) feels like a natural part of your body?	1	2	3	4
n.	How closely matched your breasts are to each other?	1	2	3	4
o.	How your reconstructed breast(s) look now compared to before you had any breast surgery?	1	2	3	4
p.	How you look in the mirror unclothed?	1	2	3	4

Please check that you have answered all the questions before going on to the next page

This question is about breast reconstruction using IMPLANTS. If you do not have an implant(s) please skip to question 3. If you do have an implant(s), please answer question 2 below.

2. In the past 2 weeks, how satisfied or dissatisfied have you been with:

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a. The amount of rippling (wrinkling) of your implant(s) that you can see?	1	2	3	4
b. The amount of rippling (wrinkling) of your implant(s) that you can feel?	1	2	3	4
c. Hollowness (depression) that you can see above your implant(s)?	1	2	3	4
d. Hardness (scar tissue) that you can feel around your implant(s)?	1	2	3	4

3. We would like to know how you feel about the outcome of your breast reconstruction surgery. Please indicate how much you agree or disagree with each statement:

	Disagree	Somewhat Agree	Definitely Agree
a. Having reconstruction is much better than the alternative of having no breast(s).	1	2	3
b. I would encourage other women in my situation to have breast reconstruction surgery.	1	2	3
c. I would do it again.	1	2	3
d. I have no regrets about having the reconstruction surgery.	1	2	3
e. Having the reconstruction surgery changed my life for the better.	1	2	3
f. The outcome perfectly matched my expectations.	1	2	3
g. It turned out exactly as I had planned.	1	2	3

Please check that you have answered all the questions before going on to the next page

4. With your breasts in mind, in the past 2 weeks, how often have you felt:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Confident in a social setting?	1	2	3	4	5
b.	Emotionally able to do the things that you want to do?	1	2	3	4	5
c.	Emotionally healthy?	1	2	3	4	5
d.	Of equal worth to other women?	1	2	3	4	5
e.	Self-confident?	1	2	3	4	5
f.	Feminine in your clothes?	1	2	3	4	5
g.	Accepting of your body?	1	2	3	4	5
h.	Normal?	1	2	3	4	5
i.	Like other women?	1	2	3	4	5
j.	Attractive?	1	2	3	4	5

5. Thinking of your sexuality, since your breast reconstruction, how often do you generally feel:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time	Not Applicable
a.	Sexually attractive in your clothes?	1	2	3	4	5	N/A
b.	Comfortable/at ease during sexual activity?	1	2	3	4	5	N/A
c.	Confident sexually?	1	2	3	4	5	N/A
d.	Satisfied with your sex-life?	1	2	3	4	5	N/A
e.	Confident sexually about how your breast(s) look when unclothed?	1	2	3	4	5	N/A
f.	Sexually attractive when unclothed?	1	2	3	4	5	N/A

Please check that you have answered all the questions before going on to the next page

6. In the past 2 weeks, how often have you experienced:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. Neck pain?	1	2	3	4	5
b. Upper back pain?	1	2	3	4	5
c. Shoulder pain?	1	2	3	4	5
d. Arm pain?	1	2	3	4	5
e. Rib pain?	1	2	3	4	5
f. Pain in the muscles of your chest?	1	2	3	4	5
g. Difficulty lifting or moving your arms?	1	2	3	4	5
h. Difficulty sleeping because of discomfort in your breast area?	1	2	3	4	5
i. Tightness in your breast area?	1	2	3	4	5
j. Pulling in your breast area?	1	2	3	4	5
k. Nagging feeling in your breast area?	1	2	3	4	5
l. Tenderness in your breast area?	1	2	3	4	5
m. Sharp pains in your breast area?	1	2	3	4	5
n. Shooting pains in your breast area?	1	2	3	4	5
o. Aching feeling in your breast area?	1	2	3	4	5
p. Throbbing feeling in your breast area?	1	2	3	4	5
q. Swelling (lymphoedema) of the arm on the side that you had your mastectomy surgery?	1	2	3	4	5

Please check that you have answered all the questions before going on to the next page

The following questions are about reconstruction using a TRAM or DIEP flap (i.e., reconstruction using skin and fat from you abdomen/tummy area). If you do not have a TRAM or DIEP flap, please skip to question 10. If you do have a TRAM or DIEP flap, please answer the following questions:

7. In the past 2 weeks, with your abdomen (tummy area) in mind, how often have you experienced:

		None of the time	A little of the time	Some of the time	Most of the time	All of the time
a.	Difficulty sitting up because of abdominal muscle weakness (e.g. getting out of bed)?	1	2	3	4	5
b.	Difficulty doing everyday activities because of abdominal muscle weakness (e.g. making your bed)?	1	2	3	4	5
c.	Abdominal discomfort?	1	2	3	4	5
d.	Abdominal bloating?	1	2	3	4	5
e.	Abdominal bulging?	1	2	3	4	5
f.	Tightness in your abdomen?	1	2	3	4	5
g.	Pulling in your abdomen?	1	2	3	4	5
h.	Lower back pain?	1	2	3	4	5

8. In the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How your abdomen looks in your clothes?	1	2	3	4
b.	The position of your navel (belly button)?	1	2	3	4
c.	How your abdominal scars look?	1	2	3	4
d.	How your abdomen looks when unclothed?	1	2	3	4

9. In the past 2 weeks, how satisfied or dissatisfied have you been with:

		Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a.	How your abdomen feels now compared to before your surgery?	1	2	3	4
b.	How your abdomen looks now compared to before your surgery?	1	2	3	4

This question is about NIPPLE reconstruction. If you did not have nipple reconstruction, please skip to question 11. If you did have nipple reconstruction, please answer question 10 below.

10. In the past 2 weeks, how satisfied or dissatisfied are you with:

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
a. The shape of your reconstructed nipple(s)?	1	2	3	4
b. How your reconstructed nipple(s) and areola(s) look?	1	2	3	4
c. How natural your reconstructed nipple(s) look?	1	2	3	4
d. The color of your reconstructed nipple/areolar complex?	1	2	3	4
e. The height (projection) of your reconstructed nipple(s)?	1	2	3	4

Please check that you have answered all the questions before going on to the next page

Numerical Pain Rating Scale

(NPRS)

You may experience some pain from cancer or cancer treatment. Only you know how much pain you have. You need to be able to describe your pain to your health care team as well as to your family or friends.

Describe How Much Pain You Feel

Using a pain rating scale, like the one below, is helpful in describing how much pain you are feeling.

Try to assign a number from 0 (zero) to 10 (ten) to your pain level. If you have no pain, use a 0. As the numbers get higher, they stand for pain that is getting worse. A 10 means the pain is as bad as it can be.

No Pain (0)				Moderate Pain (5)						Worst Pain (10)
0	1	2	3	4	5	6	7	8	9	10

From McCaffery, M. Pasero C; *Pain: Clinical manual*, p. 63., 1999. Copyrighted by Mosby, Inc.

Note: This form is used with permission

Below is a list of 15 words that describe some of the different qualities of pain that people can suffer. Some of the words probably describe your pain. Please put an X in the box for ONLY those words that you believe BEST describe the intensity of your pain DURING THE 30 DAYS. Do not put an X for more than ONE word in each group. If a group has no word to describe your pain, than do not select a word for that group.

Short Form McGill Pain Questionnaire

Please indicate in the boxes below the type of pain(s), if any, that you have experienced in the previous 30 days in relation to your injury/disability.

	None	Mild	Moderate	Severe
Throbbing	☐	☐	☐	☐
Shooting	☐	☐	☐	☐
Stabbing	☐	☐	☐	☐
Sharp	☐	☐	☐	☐
Cramping	☐	☐	☐	☐
Gnawing	☐	☐	☐	☐
Hot burning	☐	☐	☐	☐
Aching	☐	☐	☐	☐
Heavy	☐	☐	☐	☐
Tender	☐	☐	☐	☐
Splitting	☐	☐	☐	☐
Tiring\Exhausting	☐	☐	☐	☐
Sickening	☐	☐	☐	☐
Fearful	☐	☐	☐	☐
Punishing\Cruel	☐	☐	☐	☐

MARK ON THIS LINE THE **AVERAGE INTENSITY** OF THE PAIN YOU SUFFER

NO PAIN |_____| **WORST POSSIBLE PAIN**

CURRENT PAIN

i.e. the pain you are experiencing at this present moment

Please tick **one** box only

No pain	☐	Distressing	☐
Mild	☐	Horrible	☐
Discomforting	☐	Excruciating	☐

Melzack 1984

EORTC QLQ - BR23

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the past week.

During the past week:	**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
1. Did you have a dry mouth?	1	2	3	4
2. Did food and drink taste different than usual?	1	2	3	4
3. Were your eyes painful, irritated or watery?	1	2	3	4
4. Have you lost any hair?	1	2	3	4
5. Answer this question only if you had any hair loss: Were you upset by the loss of your hair?	1	2	3	4
6. Did you feel ill or unwell?	1	2	3	4
7. Did you have hot flashes?	1	2	3	4
8. Did you have headaches?	1	2	3	4
9. Have you felt physically less attractive as a result of your disease or treatment?	1	2	3	4
10. Have you been feeling less feminine as a result of your disease or treatment?	1	2	3	4
11. Did you find it difficult to look at yourself naked?	1	2	3	4
12. Have you been dissatisfied with your body?	1	2	3	4
13. Were you worried about your health in the future?	1	2	3	4

During the past four weeks:	**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
14. To what extent were you interested in sex?	1	2	3	4
15. To what extent were you sexually active? (with or without intercourse)	1	2	3	4
16. Answer this question only if you have been sexually active: To what extent was sex enjoyable for you?	1	2	3	4

Please go on to the next page

During the past week:	**Not at All**	**A Little**	**Quite a Bit**	**Very Much**
17. Did you have any pain in your arm or shoulder?	1	2	3	4
18. Did you have a swollen arm or hand?	1	2	3	4
19. Was it difficult to raise your arm or to move it sideways?	1	2	3	4
20. Have you had any pain in the area of your affected breast?	1	2	3	4
21. Was the area of your affected breast swollen?	1	2	3	4
22. Was the area of your affected breast oversensitive?	1	2	3	4
23. Have you had skin problems on or in the area of your affected breast (e.g., itchy, dry, flaky)?	1	2	3	4

Brief Fatigue Inventory

Throughout our lives, most of us have times when we feel very tired or fatigued. Have you felt unusually tired or fatigued in the last week? Yes ☐ No ☐

1. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your fatigue right NOW.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

2. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your USUAL level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

3. Please rate your fatigue (weariness, tiredness) by circling the one number that best describes your WORST level of fatigue during past 24 hours.

0	1	2	3	4	5	6	7	8	9	10
No Fatigue										As bad as you can imagine

4. Circle the one number that describes how, during the past 24 hours, fatigue has interfered with your:

A. General activity

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

B. Mood

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

C. Walking ability

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

D. Normal work (includes both work outside the home and daily chores)

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

E. Relations with other people

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

F. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10
Does not interfere										Completely Interferes

PROMIS–29 Profile v1.0

Please respond to each question or statement by marking one box per row.

	Physical Function	**Without any difficulty**	**With a little difficulty**	**With some difficulty**	**With much difficulty**	**Unable to do**
1	Are you able to do chores such as vacuuming or yard work?.....	☐	☐	☐	☐	☐
2	Are you able to go up and down stairs at a normal pace?	☐	☐	☐	☐	☐
3	Are you able to go for a walk of at least 15 minutes?	☐	☐	☐	☐	☐
4	Are you able to run errands and shop?.....	☐	☐	☐	☐	☐
	Anxiety **In the past 7 days…**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
5	I felt fearful.....	☐	☐	☐	☐	☐
6	I found it hard to focus on anything other than my anxiety	☐	☐	☐	☐	☐
7	My worries overwhelmed me.....	☐	☐	☐	☐	☐
8	I felt uneasy	☐	☐	☐	☐	☐
	Depression **In the past 7 days...**	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
9	I felt worthless.....	☐	☐	☐	☐	☐
10	I felt helpless	☐	☐	☐	☐	☐
11	I felt depressed	☐	☐	☐	☐	☐
12	I felt hopeless	☐	☐	☐	☐	☐
	Fatigue **During the past 7 days…**	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
13	I feel fatigued	☐	☐	☐	☐	☐
14	I have trouble starting things because I am tired.....	☐	☐	☐	☐	☐
	In the past 7 days…					
15	How run-down did you feel on average? ...	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
16	How fatigued were you on average?.....	☐	☐	☐	☐	☐

PROMIS–29 Profile v1.0

Sleep Disturbance

	In the past 7 days…	Very poor	Poor	Fair	Good	Very good
17	My sleep quality was.....	☐	☐	☐	☐	☐
	In the past 7 days…	**Not at all**	**A little bit**	**Somewhat**	**Quite a bit**	**Very much**
18	My sleep was refreshing.....	☐	☐	☐	☐	☐
19	I had a problem with my sleep	☐	☐	☐	☐	☐
20	I had difficulty falling asleep	☐	☐	☐	☐	☐

Satisfaction with Social Role

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
21	I am satisfied with how much work I can do (include work at home)	☐	☐	☐	☐	☐
22	I am satisfied with my ability to work (include work at home)……	☐	☐	☐	☐	☐
23	I am satisfied with my ability to do regular personal and household responsibilities	☐	☐	☐	☐	☐
24	I am satisfied with my ability to perform my daily routines.....	☐	☐	☐	☐	☐

Pain Interference

	In the past 7 days…	Not at all	A little bit	Somewhat	Quite a bit	Very much
25	How much did pain interfere with your day to day activities?.....	☐	☐	☐	☐	☐
26	How much did pain interfere with work around the home?	☐	☐	☐	☐	☐
27	How much did pain interfere with your ability to participate in social activities?	☐	☐	☐	☐	☐
28	How much did pain interfere with your household chores?	☐	☐	☐	☐	☐

Pain Intensity

In the past 7 days…

29	How would you rate your pain on average?.....	☐ 0 **No pain**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10 **Worst imaginable pain**

PHQ-9/GAD 7

Study ID:_____

PHQ-9

Over the **last 2 weeks**, how often have you been bothered by any of the following problems *(circle **one** number on each line).*

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
1. Little interest or pleasure in doing things.....	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much.....	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating.....	0	1	2	3
6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down.....	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television.....	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.....	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

General Anxiety Scale (same instructions and response format)

10. Feeling nervous, anxious or on edge ……..	0	1	2	3
11. Being unable to stop or control worrying….	0	1	2	3

Study ID:_____

How often during the past 2 weeks were you bothered by...	**Not at all**	**Several days**	**More than half the days**	**Nearly everyday**
12. Worrying too much about different things…	0	1	2	3
13. Having trouble relaxing……	0	1	2	3
14. Being so restless that it is hard to sit still….	0	1	2	3
15. Becoming easily annoyed or irritable……	0	1	2	3
16. Feeling afraid, as if something awful might happen……	0	1	2	3