

The Pre-BRA (Pre-pectoral Breast Reconstruction Evaluation) Feasibility Study: Protocol
KL Harvey, N Mills, P White, C Holcombe, S Potter
Appendix 2.

CASE REPORT FORM

Unit Name

REDCap Record ID*

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Record ID = * Unit code+### e.g. NBT001, NBT002 etc.

**Participant email
address**

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Pre-Op and Operative Data



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Participant Data

Participant withdrawn? Yes No

(Only tick 'yes' if the patient no longer wishes to participate in the study)

Participant questionnaire completion: (includes BREAST-Q PROMS and Pain Scores)

- Baseline* on paper, follow-ups** online
- Everything online
- Everything on paper - *PLEASE INFORM CENTRAL STUDY TEAM*

*Baseline defined as: baseline (pre-operative) BREAST-Q PROMS and 24-hours post-op pain score.

**Follow-ups defined as: 3-month and 18-month BREAST-Q PROMS and 1 week, 2 weeks and 3-months pain scores

IF the patient has chosen to complete baseline PROMS on paper and follow-ups online, please offer the participant:

- i. a PAPER copy of the Pre-Operative BREAST-Q AND
- ii. ask them to record 24-hour post-op pain score in person (/over the telephone if discharged)
 (These results need to be transcribed into REDCap by a member of the research team)
- iii. All other PROMS will be requested via email direct to the patient

IF the patient has chosen to complete all online PLEASE NOTE:

The patient's record including email address and date of surgery **must** be saved on REDCap on or before the day of surgery in order to generate electronic baseline (pre-operative) BREAST-Q and 24hours post-op pain score requests.

IF the patient has chosen to complete everything on paper, please offer the participant:

- i. a PAPER copy of the Pre-Operative BREAST-Q for completion prior to surgery
- ii. PAPER copies of the Post-operative BREAST-Q for completion at 3 and 18 months post-operatively (could be sent by post) AND
- iii. Ask them to record 24 hour post-op pain score in person (/over the telephone if discharged)
- iv. 1 week, 2 weeks and 3 months post-op pain scores can be collected by telephone call from a member of the research team.
 (These results need to be transcribed into REDCap by a member of the research team)

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Pre-BRA Section 1 - Pre-operative data

Co-morbidity data

Patient age (in years) on entering the study Years

Planned* date of primary mastectomy and reconstruction

(*Required to generate automatic electronic BREAST-Q PROMS and post-operative pain score requests via REDCap)

...../...../.....(DD/MM/YYYY)

Laterality of planned surgery?

Right breast Left Breast Bilateral

Indication for RIGHT mastectomy and planned reconstruction? (leave blank if n/a)

Risk reducing Malignancy

Indication for LEFT mastectomy and planned reconstruction? (leave blank if n/a)

Risk reducing Malignancy

Answer ONLY IF indication for surgery is malignancy: (leave blank if n/a)

RIGHT BREAST:

First operation for cancer
 Completion mastectomy*
 Local recurrence

LEFT BREAST:

First operation for cancer
 Completion mastectomy*
 Local recurrence

* i.e. Mastectomy performed following unsuccessful breast conservation surgery for example wide local excision (WLE) or therapeutic mammoplasty (TM)

Medical co-morbidities?

Yes No

Answer ONLY IF medical comorbidities present: (please tick all relevant)

Diabetes
 Asthma/ COPD
 Ischaemic heart disease
 Connective tissue disease
 Current steroid therapy
 Anticoagulant therapy (prior to surgery)
 Other co-morbidity

If other, please supply details:

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Prior and neo-adjuvant treatments

**Previous radiotherapy to ipsilateral breast or chest wall
 (MEETS RELATIVE EXCLUSION CRITERIA)**

Yes No

Neo-adjuvant chemotherapy prior to mastectomy and reconstruction?

Yes No

Previous surgery to ipsilateral breast?

No (Please go to Section 2))

Yes

(REDCap™ will open the following options, please tick all relevant and indicate date of surgery:)

Previous axillary surgery Year.....

Wide local excision Year.....

Augmentation Year.....

Reduction Year.....

Other Year.....

Pre-BRA Section 2 - Assessment of suitability for pre-pectoral breast reconstruction

Smoking status (RELATIVE EXCLUSION if current smoker)

Non-smoker

Current smoker

Nicotine replacement/ vaping with nicotine

Recent ex-smoker (i.e. stopped at point of diagnosis)

Grade of ptosis

0 No ptosis

1 Mild - Nipple at level of IMF and above most of lower breast tissue

2 Moderate - Nipple below IMF, but higher than most of the breast tissue

3 Advanced - Nipple below IMF and at level of maximal breast projection

4 Severe - Nipple far below IMF and points towards the floor

Predicted implant vol (cc)

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(>600cc fixed volume **MEETS RELATIVE EXCLUSION CRITERIA**)

Anticipated adjuvant therapy (RELATIVE EXCLUSION if PMRT is anticipated)

Post-mastectomy radiotherapy?

- | | | |
|--|--------------------------------|--------------------------|
| Not required (risk reduction) <input type="checkbox"/> | Possible | <input type="checkbox"/> |
| No, previously received <input type="checkbox"/> | Probable | |
| Unlikely (e.g. DCIS only) <input type="checkbox"/> | (positive nodes, large tumour) | <input type="checkbox"/> |

Body Mass Index

Patient height (cm) Patient weight (kg)

BMI (REDCap™ calculates) **(RELATIVE EXCLUSION if >30)**

Manual BMI entry (*only answer if height/ weight values unknown*)

Suitability for pre-pectoral reconstruction

RELATIVE CONTRA-INDICATIONS:

- Previous breast/ chest wall radiotherapy or mantle radiotherapy
- Anticipated post-mastectomy radiotherapy
- BMI >30
- Current smoker (or nicotine dependent)
- Implant volume >600cc

What is your clinical impression of this patient's risk of experiencing a post-operative complication?

- They are at low risk (Defined as no relative contraindications)
- They are at moderate risk (Defined as 1 relative contra-indication)
- They are at high risk (Defined as >1 relative contraindication)
- They are high risk for another reason

Please supply details if you have specified another reason

.....

.....

.....

Are any additional surgical procedures planned at a later date? (*please select all that apply*)

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- Lipo-modelling
- Nipple reconstruction
- Contralateral symmetrising Reduction/ Mastopexy/ Augmentation
- No further procedures planned

Pre-BRA Section 3 - Modifications to Usual Patient Selection Criteria

Have you modified your usual patient selection criteria in order to offer this patient a pre-pectoral implant reconstruction?

Yes No

If you have answered "yes", please explain in what way:

.....

.....

.....

.....

Note: The study team are very interested in speaking to surgeons to explore any modifications made to their usual patient selection criteria.

Does the operating surgeon consent to be contacted for a brief telephone interview?

Yes No

Please supply the email address of the operating surgeon if yes:

.....

2.12 FINAL STUDY ENTRY CHECKLIST

- | | |
|--|--------|
| 2.8.1 Meets inclusion/exclusion criteria for the study | Yes/No |
| 2.8.2 Written consent to participate in the study | Yes/No |
| 2.8.3 Pre-op PROMs (Breast-Q) completed | Yes/No |

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Pre-BRA Section 4 - Operative data

Actual* date of primary mastectomy and reconstruction

...../...../.....(DD/MM/YYYY)

**If the planned (see section 1.) and actual dates of surgery differ, please contact central study team to confirm which date is correct. This is important for generating electronic BREAST-Q PROMS and post-operative pain score requests.*

ASA grade

- | | | |
|---|--|--------------------------|
| 1 | Normal healthy individual | <input type="checkbox"/> |
| 2 | Mild systemic disease that does not limit activities | <input type="checkbox"/> |
| 3 | Severe systemic disease that limits activities but is not incapacitating | <input type="checkbox"/> |
| 4 | Incapacitating systematic disease which is constantly life-threatening | <input type="checkbox"/> |

Name of operating Consultant surgeon

.....

Procedure performed in theatre with laminar flow system in situ?

Yes No

Type of skin prep used at time of surgery

- | | | | |
|---------------------------|--------------------------|------------------------|--------------------------|
| Iodine (Betadine) (brown) | <input type="checkbox"/> | Chlorhexidine (pink) | <input type="checkbox"/> |
| 2% Chlorprep | <input type="checkbox"/> | Other (please specify) | <input type="checkbox"/> |

.....

Planned antibiotic use

- | | | | |
|-------------------------------|--------------------------|----------------------|--------------------------|
| Prophylactic only (<24 hours) | <input type="checkbox"/> | 1-5 days | <input type="checkbox"/> |
| Extended course (5+ days) | <input type="checkbox"/> | Until drains removed | <input type="checkbox"/> |
| Other (please specify) | <input type="checkbox"/> | | |

.....

Antibiotics used, please include dose/ frequency (free text)

.....

Duration of procedure (knife to skin to dressings on)(Minutes)

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Did you adhere to the steps advised in The Theatre Implant Checklist or 'TIC List'?
 (REDCap™ displays "TIC" List) Please tick all steps which were completed in this
 case:

THE THEATRE IMPLANT CHECKLIST "TIC"

1 ON THE WARD

Has MRSA/MSSA status been confirmed and treated if positive?

2 INDUCTION

Has your patient received antibiotics at induction?

Has a conductive warming blanket been put in place?

Have NO ENTRY signs been put on the doors informing that implant surgery is under way?

Has the laminar flow been turned on?

Are the surgeons double gloved?

Is alcoholic skin prep being used?

3 IMPLANTATION

Has the implant cavity been washed out?

Have the surgeons changed their outer gloves?

Is a tunnelled drain required?

4 POST-OP

Are postoperative antibiotics prescribed if patient is high risk?

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(Image reproduced from Barr, S.P., et al., *Infection prevention in breast implant surgery - A review of the surgical evidence, guidelines and a checklist*. European Journal of Surgical Oncology, 2016. **42**: p. 591-603.)

	<u>Yes</u>	<u>No</u>
Patient received antibiotics at induction?	<input type="checkbox"/>	<input type="checkbox"/>
Conductive warming blanket been put in place?	<input type="checkbox"/>	<input type="checkbox"/>
NO ENTRY signs been put on the doors informing that implant surgery is under way?	<input type="checkbox"/>	<input type="checkbox"/>
Are the surgeons double gloved?	<input type="checkbox"/>	<input type="checkbox"/>
Is alcoholic skin prep being used?	<input type="checkbox"/>	<input type="checkbox"/>
Implant cavity washed out?	<input type="checkbox"/>	<input type="checkbox"/>
(Before implantation) Have the surgeons changed their outer gloves?	<input type="checkbox"/>	<input type="checkbox"/>
Is a tunnelled drain required?	<input type="checkbox"/>	<input type="checkbox"/>
Are post-operative antibiotics prescribed if patient is high risk?	<input type="checkbox"/>	<input type="checkbox"/>

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Regarding length of stay, is the patient planned for:

- Day case (i.e. home the same day as surgery)
- Overnight stay (i.e. home the day after surgery)
- Inpatient stay (>1 night)

Was surgery performed on: (please tick all that apply)

- Right breast Left breast

Right breast procedure:

- Implant reconstruction
- Other reconstruction
- Augmentation
- Reduction
- Mastopexy
- Other

Left breast procedure:

- Implant reconstruction
- Other reconstruction
- Augmentation
- Reduction
- Mastopexy
- Other

If other selected, please give details:

.....

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Pre-BRA Section 5a. RIGHT BREAST DATA

(Please only answer Section 5a. if you have performed a PRE-PECTORAL IMPLANT RECONSTRUCTION on the patient's RIGHT BREAST)

Pre-operative Planning: RIGHT BREAST

Right breast – What do you plan to do upfront i.e. prior to starting the operation?

One stage reconstruction Two-stage reconstruction

Intra-operative Detail

Right breast - Grade of primary operating surgeon

Consultant	<input type="checkbox"/>	SAS grade	<input type="checkbox"/>
Senior trainee (OPF/ST8+)	<input type="checkbox"/>	ST6/7	<input type="checkbox"/>
ST5 or below	<input type="checkbox"/>	Other	<input type="checkbox"/>

If other selected, please give details:

Right breast - Number of pre-pectoral implant-based reconstructions using this method/ technique the primary surgeon has **previously performed:**

In total (i.e. both supervised and unsupervised):

Less than 5	<input type="checkbox"/>	11-25	<input type="checkbox"/>
5-10	<input type="checkbox"/>	More than 25	<input type="checkbox"/>

Supervised:

Less than 5	<input type="checkbox"/>	11-25	<input type="checkbox"/>
5-10	<input type="checkbox"/>	More than 25	<input type="checkbox"/>

Right breast - Type of mastectomy

Skin sparing mastectomy	<input type="checkbox"/>	Skin and nipple preserving	<input type="checkbox"/>
Reduction (Wise) pattern	<input type="checkbox"/>	Other	<input type="checkbox"/>

If other selected, please give details:

.....

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Right breast - Location of incision

- | | | | |
|-------------------------------|--------------------------|-------------------------|--------------------------|
| Peri-areolar (nipple sparing) | <input type="checkbox"/> | Lateral | <input type="checkbox"/> |
| Inframammary | <input type="checkbox"/> | Elliptical removing NAC | <input type="checkbox"/> |
| Wise pattern | <input type="checkbox"/> | Other | <input type="checkbox"/> |

If other selected, please give details:

Right breast – Was infiltration in the mastectomy plane i.e. hydro-dissection used?

- | | | | |
|-----------------------------------|--------------------------|------------------------------|--------------------------|
| No | <input type="checkbox"/> | With saline only | <input type="checkbox"/> |
| With local anaesthetic +/- saline | <input type="checkbox"/> | LA and adrenaline +/- saline | <input type="checkbox"/> |

Right breast - Main instrument used for dissection of mastectomy skin flaps

- | | | | |
|------------------------------|--------------------------|--------------------|--------------------------|
| Blade | <input type="checkbox"/> | Scissors | <input type="checkbox"/> |
| Handheld monopolar diathermy | <input type="checkbox"/> | Diathermy scissors | <input type="checkbox"/> |
| Combination of methods | <input type="checkbox"/> | Other | <input type="checkbox"/> |

If other selected, please give details:

Right breast - Mastectomy dry weight (gms)

Feasibility of Pre-Pectoral Reconstruction

Right breast - Surgeon's assessment of skin flap quality

- | | |
|--|--------------------------|
| Good – healthy, well-perfused, no concerns noted at time of surgery | <input type="checkbox"/> |
| Average – intermediate – no obvious concerns at time of surgery | <input type="checkbox"/> |
| Poor – thin flaps, questionable vascularity; concerns at time of surgery | <input type="checkbox"/> |

Right breast - Did you complete the reconstruction as planned? (i.e. as per your answer to the first question of Section 5?)

- | | | | |
|-----|--------------------------|----|--------------------------|
| Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

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Right breast - What operation did you actually perform?

- i. Pre-pectoral approach considered safe and performed with fixed volume implant
- ii. Pre-pectoral reconstruction performed with variable volume implant (e.g. Becker)
- iii. Pre-pectoral reconstruction performed with a tissue expander
- iv. Pre-pectoral reconstruction abandoned

If you selected answer iv. please also answer the next two questions (“Why?” and “What did you do instead?”)

If you answered i, ii or iii please go straight to the third question down (“Right breast - type of implant coverage”)

Why was pre-pectoral approach abandoned?

.....

What procedure was performed instead

- No reconstruction
- Sub-pectoral reconstruction with tissue expander (no mesh)
- Sub-pectoral reconstruction with biological mesh
- Sub-pectoral reconstruction with synthetic mesh
- Other

If other selected, please give details:

Right breast - type of implant coverage

- No mesh or ADM coverage (subcutaneous implant only)
- Biological mesh (e.g. ADM)
- Synthetic mesh (e.g. TiLOOP)
- Complete dermal sling
- Dermal sling and biological mesh in combination

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Dermal sling and synthetic mesh in combination

Hybrid implant coverage (e.g. biological mesh at top/synthetic mesh at bottom)

Other

If 'Hybrid implant coverage' or 'other' selected, please supply details:

.....

Right breast - type of implant coverage, if you selected 'Biological mesh' please select which type:

BRAXON Artia

Surgimend Fortiva

Strattice Cellis

Veritas Exaflex Pocket

MESO Native

Tutomesh

Other biological ADM/ mesh (please state)

.....

Right breast - type of implant coverage, if you selected 'synthetic mesh' please select which type:

TiLOOP Galaflex

TIGR

Other (please state)

Right breast - Breast prosthesis details

Fixed volume implant

Size (ccs).....

OR

Temporary tissue expander

Vol of saline inserted (mls).....

Size when fully expanded (ccs).....

OR

Combined implant (Beckers)

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Silicone component (g)..... Vol of saline inserted (mls).....

Size when fully expanded (ccs).....

Right breast – shape of implantRound Anatomical **Right breast – texture of implant**Smooth Textured/ Microtextured Polyurethane **Right breast – Was the prosthesis bathed/washed prior to insertion?**Yes No

If 'Yes' selected which wash was used?

Saline Antiseptic Antibiotics Other (please give details)

.....

Right breast – Was the cavity washed or irrigated prior to insert of implant?Yes No

If 'Yes' selected what irrigation fluid was used?

Saline Antiseptic Antibiotics Other (please give details)

.....

Surgeon glove change prior to handling the implant?Yes No **Right Breast - Were the skin edges freshened/excised prior to wound closure?**Yes No **Right breast – Type of axillary surgery**None

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SLNB/targeted sample post NAC

Axillary sample (failed SLNB)

Axillary clearance

SLNB + ANC (e.g. positive OSNA)

Right breast – Number of (tunnelled) drains used (per side if bilateral case)

None One Two

Right breast – intra-operative analgesia used

Local/regional block (e.g. pectoral or serratus block)

Infiltration of LA as part of hydro dissection/tumescence

Infiltration of LA into wounds prior to starting case

Infiltration of LA into wounds at the end of the case

LA inserted down drains

Intra-pocket LA catheter (continuous infusion of LA post-op)

LA not used

Other

Right breast dressings used (please select as many as apply)

Occlusive adhesive dressing (e.g. Opsite)

Skin glue (e.g. Liquiband)

Skin closure system - skin glue and tape (e.g. Dermabond Prineo dressing)

Negative pressure dressing e.g. PICO

Other

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Pre-BRA Section 5b. LEFT BREAST DATA

(Please only answer Section 5b. if you have performed a PRE-PECTORAL IMPLANT RECONSTRUCTION on the patient's LEFT BREAST)

Pre-operative Planning: LEFT BREAST

Left breast – What do you plan to do upfront i.e. prior to starting the operation?

One stage reconstruction Two-stage reconstruction

Intra-operative Detail

Left breast - Grade of primary operating surgeon

Consultant	<input type="checkbox"/>	SAS grade	<input type="checkbox"/>
Senior trainee (OPF/ST8+)	<input type="checkbox"/>	ST6/7	<input type="checkbox"/>
ST5 or below	<input type="checkbox"/>	Other	<input type="checkbox"/>

If other selected, please give details:

Left breast - Number of pre-pectoral implant-based reconstructions using this method the primary surgeon has **previously performed**:

In total (i.e. both supervised and unsupervised):

Less than 5	<input type="checkbox"/>	11-25	<input type="checkbox"/>
5-10	<input type="checkbox"/>	>25	<input type="checkbox"/>

Supervised:

Less than 5	<input type="checkbox"/>	11-25	<input type="checkbox"/>
5-10	<input type="checkbox"/>	>25	<input type="checkbox"/>

Left breast - Type of mastectomy

Skin sparing mastectomy	<input type="checkbox"/>	Skin and nipple preserving	<input type="checkbox"/>
Reduction (wise) pattern	<input type="checkbox"/>	Other	<input type="checkbox"/>

If other selected, please give details:

.....

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Left breast - Location of incision

- | | | | |
|-------------------------------|--------------------------|-------------------------|--------------------------|
| Peri-areolar (nipple sparing) | <input type="checkbox"/> | Lateral | <input type="checkbox"/> |
| Inframammary | <input type="checkbox"/> | Elliptical removing NAC | <input type="checkbox"/> |
| Wise pattern | <input type="checkbox"/> | Other | <input type="checkbox"/> |

If other selected, please give details:

.....

Left breast – Was infiltration in the mastectomy plane/hydro-dissection used?

- | | | | |
|-----------------------------------|--------------------------|------------------------------|--------------------------|
| No | <input type="checkbox"/> | With saline only | <input type="checkbox"/> |
| With local anaesthetic +/- saline | <input type="checkbox"/> | LA and adrenaline +/- saline | <input type="checkbox"/> |

Left breast - Main instrument used for dissection of mastectomy skin flaps

- | | | | |
|------------------------------|--------------------------|--------------------|--------------------------|
| Blade | <input type="checkbox"/> | Scissors | <input type="checkbox"/> |
| Handheld monopolar diathermy | <input type="checkbox"/> | Diathermy scissors | <input type="checkbox"/> |
| Combination of methods | <input type="checkbox"/> | Other | <input type="checkbox"/> |

If other selected, please give details:

.....

Left breast - Mastectomy dry weight (gms)

Feasibility of Pre-Pectoral Reconstruction

Left breast - Surgeon's assessment of skin flap quality

- | | |
|--|--------------------------|
| Good – healthy, well-perfused, no concerns noted at time of surgery | <input type="checkbox"/> |
| Average – intermediate – no obvious concerns at time of surgery | <input type="checkbox"/> |
| Poor – thin flaps, questionable vascularity; concerns at time of surgery | <input type="checkbox"/> |

Left breast - Did you complete the reconstruction as planned? (i.e. as per your answer to the first question of Section 3b?)

- | | | | |
|-----|--------------------------|----|--------------------------|
| Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

Left breast – if 'no', what operation did you actually perform?

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- i. Pre-pectoral approach considered safe and performed with fixed volume implant
- ii. Pre-pectoral reconstruction performed with variable volume implant (e.g. Becker)
- iii. Pre-pectoral reconstruction performed with a tissue expander
- iv. Pre-pectoral reconstruction abandoned

If you selected answer iv. please also answer the next two questions (“Why?” and “What did you do instead”)

If you answered i, ii or iii please go straight to the third question down (“Left breast - type of implant coverage”)

Why was pre-pectoral approach abandoned?

.....

.....

.....

What procedure was performed instead

- No reconstruction
- Sub-pectoral reconstruction with tissue expander (no mesh)
- Sub-pectoral reconstruction with biological mesh
- Sub-pectoral reconstruction with synthetic mesh
- Other

Left breast - type of implant coverage

- No mesh or ADM coverage (subcutaneous implant only)
- Biological mesh (e.g. ADM)
- Synthetic mesh (e.g. TiLOOP)
- Complete dermal sling
- Dermal sling and biological mesh in combination
- Dermal sling and synthetic mesh in combination

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Hybrid implant coverage (e.g. biological mesh at top/synthetic mesh at bottom)

Other

If 'Hybrid implant coverage' or 'other' selected, please supply details:

Left breast - type of implant coverage, if you selected 'Biological mesh' please select which type:

BRAXON

Artia

Surgimend

Fortiva

Strattice

Cellis

Veritas

Exaflex Pocket

MESO

Native

Tutomesh

Other biological ADM/ mesh (please state)

Left breast - type of implant coverage, if you selected 'synthetic mesh' please select which type:

TiLOOP

Galaflex

TIGR

Other (please state)

Left breast - Breast prosthesis details

Fixed volume implant

Size (ccs).....

OR

Temporary tissue expander

Vol of saline inserted (mls).....

Size when fully expanded (ccs).....

OR

Combined implant (Beckers)

Silicone component (g)..... Vol of saline inserted (mls).....

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Size when fully expanded (ccs).....

Left breast – shape of implant

Round Anatomical

Left breast – texture of implant

Smooth Textured/ Microtextured

Polyurethane I don't know

Left breast – Was the prosthesis bathed/washed prior to insertion?

Yes No

If 'Yes' selected which wash was used?

Saline Antiseptic

Antibiotics Other (please give details)

.....

Left breast – Was the cavity washed or irrigated prior to insert of implant?

Yes No

If 'Yes' selected what irrigation fluid was used?

Saline Antiseptic

Antibiotics Other (please give details)

.....

Left Breast - Surgeon glove change prior to handling the implant?

Yes No

Left Breast - Were the skin edges freshened/excised prior to wound closure?

Yes No

Left breast – Type of axillary surgery

None (Please go to question 3.36)

SLNB/targeted sample post NAC Axillary sample (failed SLNB)

Axillary clearance SLNB + ANC (e.g. positive OSNA)

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Left breast – Number of (tunnelled) drains used

None One Two

Left breast – intra-operative analgesia used

- Local/regional block (e.g. pectoral or serratus block)
- Infiltration of LA as part of hydro dissection/tumescence
- Infiltration of LA into wounds prior to starting case
- Infiltration of LA into wounds at the end of the case
- LA inserted down drains
- LA not used
- Intra-pocket LA catheter (continuous infusion of LA post-op)
- Other

Left breast dressings used (select as many as apply)

- Occlusive adhesive dressing (e.g. Opsite)
- Skin glue (e.g. Liquiband)
- Skin closure system - skin glue and tape (e.g. Dermabond Prineo dressing)
- Negative pressure dressing e.g. PICO
- Other

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Pre-BRA Section 6 – Modifications to Usual Operative Technique

Were any modifications made to the operative technique used in this case?

Yes No

If you have answered “yes”, please provide details about:

i. What was modified and how? (e.g. mesh sutured in a different way)

.....

ii. Why was the modification made? (e.g. difficulty accessing mesh)

.....

Please Note: The study team are very interested in speaking to surgeons to explore any modifications made to the procedure.

Does the operating surgeon consent to be contacted for a brief telephone interview?

Yes No

Please supply the email address of the operating surgeon if yes:

.....

Pre-BRA Section 7 – Peri Discharge

Length of Stay

Was the patient managed as a day case?

(defined as: discharged on the same day as surgery)

Yes No

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Date of discharge (DD/MM/YYYY)/...../.....

Length of post-operative stay..... (no. of post-operative days in hospital, calculated from date of surgery (= Day 0) to date of discharge)

(REDCap will auto-populate using the answers from date of surgery and the answer above)

END OF PRE-OPERATIVE AND OPERATIVE DATA SECTION

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Pain Scores



Please NOTE:

If the participant does not wish to complete pains core data entry online via email link they must be collected in person/ via telephone call and transcribed into REDCap's "Pain scores" section by the research team

Pain score at 24 hours' post-reconstruction	(0 - 10)*
Pain score at 1-week post-reconstruction:	(0 - 10)
Pain score at 2 weeks' post-reconstruction:	(0 - 10)
Pain score at 3 months' post-reconstruction:	(0 - 10)

* 0-10 Numeric pain rating scale, where:

0= No pain, 5= Moderate pain, 10= worst possible pain

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3 Month Data



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Pre-BRA Section 8 – Oncological outcome and adjuvant treatment data

Not applicable – risk reducing surgery (No further questions in Section 8)

RIGHT BREAST

(Only answer the following questions if you operated for malignancy on the patient's **right breast**)

Right breast – if neoadjuvant chemotherapy – complete pathological response?

Yes No

Right breast - Invasive status

Invasive DCIS

Right breast – Focality

Unifocal Multifocal

Right breast - Grade of DCIS or invasive carcinoma

(from core biopsy if complete pathological response)

1 – Low grade (DCIS) or well-differentiated (invasive)

2 – Intermediate grade (DCIS) or moderately differentiated (invasive)

3 – High grade (DCIS) or poorly differentiated (invasive)

Right breast - Lymph node involvement

Total number of involved nodes (macromets only)

Total number of lymph nodes in pathology specimen.....

Right breast - Invasive lesion size (mm)

(largest lesion if multifocal)

Right side - Planned delayed axillary clearance

Yes No

LEFT BREAST

(Only answer the following questions if you operated for malignancy on the patient's **left breast**)

Left breast – if neoadjuvant chemotherapy – complete pathological response?

Yes No

Left breast - Invasive status

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Invasive DCIS

Left breast – Focality

Unifocal Multifocal

**Left breast - Grade of DCIS or invasive carcinoma
 (from core biopsy if complete pathological response)**

1 – Low grade (DCIS) or well-differentiated (invasive)

2 – Intermediate grade (DCIS) or moderately differentiated (invasive)

3 – High grade (DCIS) or poorly differentiated (invasive)

Left breast - Lymph node involvement

6.13.1 Total number of involved nodes (macromets only)

6.13.2 Total number of lymph nodes in pathology specimen.....

Left breast - Invasive lesion size (mm)

(largest lesion if multifocal)

Left side - Planned delayed axillary clearance

Yes No

PLANNED ADJUVANT THERAPY

(Answer the following questions for **all cases of malignancy**)

Chemotherapy

Yes No Already received

Radiotherapy

Right side

to chest wall Yes No

to axilla Yes No

to SCF* Yes No

to IMC** Yes No

Left side

to chest wall Yes No

to axilla Yes No

to SCF* Yes No

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to IMC** Yes No

(*Supraclavicular fossa, ** internal mammary chain)

Endocrine therapy Yes No

Anti-Her2 therapy Yes No

Date of FIRST adjuvant treatment

(i.e. date of first dose of chemotherapy, if applicable or 1st fraction of radiotherapy)

(DD/MM/YYYY).....

Pre-BRA Section 9– Complication(s) at 3 Months

Post-operative complication experienced IN THE FIRST 3 MONTHS?

Yes No

Readmission to hospital IN THE FIRST 3 MONTHS

Was the patient readmitted to hospital to manage a complication in the first 3 months post-operatively?

Yes No Date (DD/MM/YYYY)

If 'Yes' selected, please give reason for readmission:

.....

Re-operation for complications IN THE FIRST 3 MONTHS

Did the patient undergo an unplanned re-operation (i.e. following a complication) in the first 3 months post-operatively?

Yes No Date (DD/MM/YYYY)

If 'Yes' selected, please give reason for re-operation:

.....

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Breast Complication Details:

Please indicate if a complication was experienced, indicate which side was affected and the date it was first noticed

	Right	Left	Bilateral	Date (DD/MM/YYYY)
Seroma?				
No aspiration required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Requiring aspiration 1-2 times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Requiring aspiration 3 or more times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Haematoma?				
Minor - Managed conservatively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 1 - Requiring aspiration in clinic (+/-USS, no GA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 2 - Requiring evacuation <u>in theatre</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wound infection?				
Minor - Requiring oral antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 1 - Requiring admission for IV antibiotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 2 - Requiring surgical drainage or debridement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mastectomy skin flap necrosis?				
Minor – Managed conservatively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 1 – Requiring surgical debridement in clinic (no GA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 2 – Requiring surgical debridement <u>in theatre</u> (GA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nipple necrosis?				
Minor – Managed conservatively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 1 – Requiring surgical debridement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major 2 – Total NAC loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Right	Left	Bilateral	Date (DD/MM/YYYY)
Wound dehiscence?				
Minor – Managed conservatively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Major – Requiring return to theatre for re-suturing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implant loss?				
Total implant loss i.e. any unplanned removal of the implant or expander for infection, without replacement of the prosthesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OR Implant salvage i.e.				
i. Implant removed, washed and replaced with fixed volume/ final implant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OR ii. Implant removed, washed and replaced with a tissue expander	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(If “ Implant salvage ” selected, additional question: Was implant salvage a success? (i.e. implant still in place at 3 months)				
	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Mechanical implant problem? (e.g. deflation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other complication?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Details.....				

Pre-BRA Section 10 – Learning from Post-Operative Problems

Would the operating surgeon consider changing or modifying their **surgical technique** as a result of this complication? Yes No

Please supply as much detail as possible:

.....

.....

