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# LCA Best Practice Immediate Breast Reconstruction Pathway

September 2015

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# 1 Purpose of the Document

This document provides LCA best practice principles and outlines the LCA best practice pathway for the provision of immediate breast reconstruction (IBR) as identified and mandated by the LCA Breast Pathway Group.

## 2 Background

The key aim of the work programme of the London Cancer Alliance (LCA) Breast Pathway Group, formed in November 2011, is to action the recommendations from the Model of Care<sup>1</sup> to reduce variation and improve access in breast cancer care and services across the LCA provider organisations. The Model of Care recommends all patients undergoing mastectomy should have the opportunity to discuss breast reconstruction options and have immediate breast reconstruction (IBR) if appropriate. Inclusion of an oncoplastic surgeon in the breast surgery team improves availability of IBR. Not all immediate breast reconstructive surgery can be offered by a surgeon trained in oncoplastics. Complex immediate breast reconstructive surgery, specifically free flap surgery, should be undertaken in specialist centres where breast surgeons can work collaboratively with dedicated plastic surgery and rehabilitation teams. Rapid-access pathways must be in place across provider networks between providers offering reconstructive surgery and those who do not provide the full range of breast cancer surgery options.<sup>1</sup>

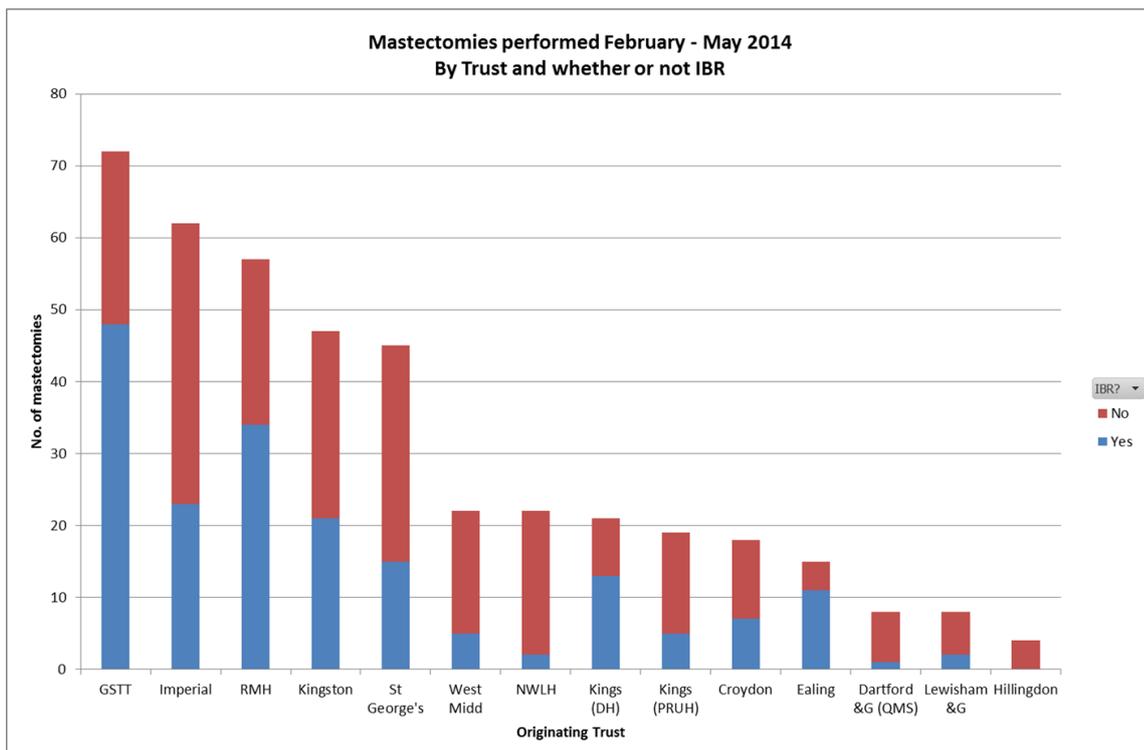
To understand the LCA baseline position regarding IBR, an audit was carried out between February and May 2014 of women undergoing mastectomy with or without IBR by originating Trust. Fourteen Trusts participated and a summary of the results are seen in Figures 1 and 2. The review identified wide variation (0-73%) in access to IBR (Figure 2).

Based on Hospital Episode Statistics (HES) data for 2013-2014 (Fig 3a and 3b) the national reconstruction rate is 24.2% with a regional variation of 12.9 - 60.5 %. Within the LCA, again based on HES data, the average rate of IBR is 41.5%.

While it is understood that not all women may want IBR, the LCA breast pathway group agreed to develop a best practice pathway ([Appendix 1](#)) and outline the principles for providing IBR to women ([Appendix 2](#)) to be implemented throughout the provider organisations.

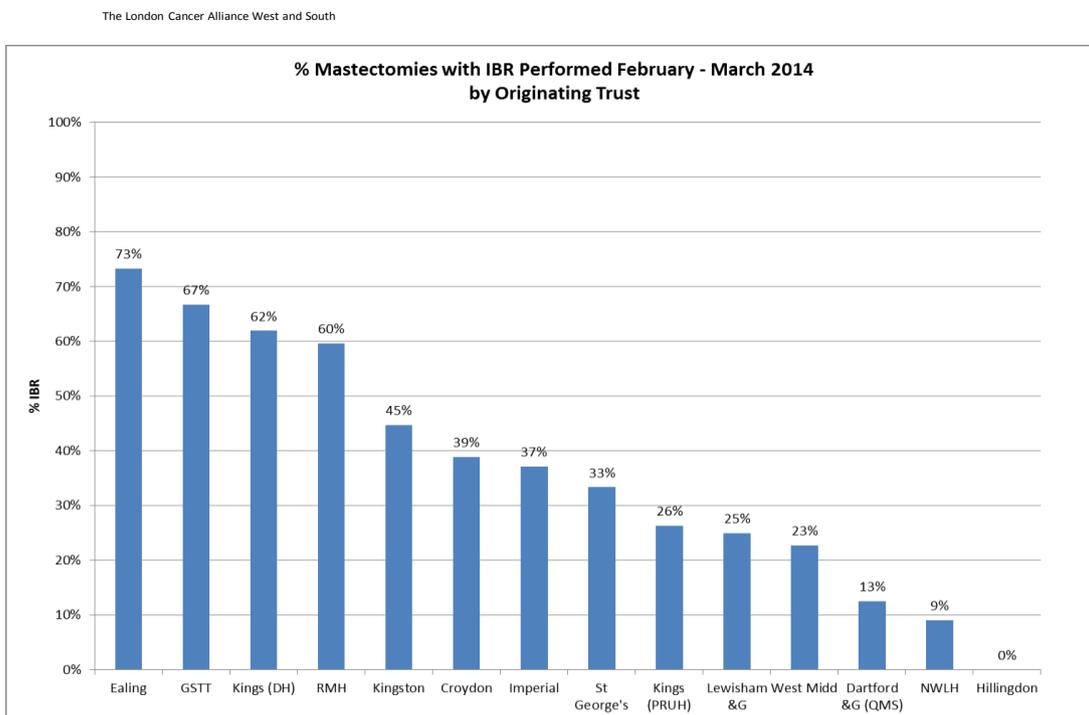
[Appendix 3](#) outlines the presence of oncoplastic surgeons in the LCA MDTs and links with dedicated plastic surgical units.

**Fig 1: LCA audit of women undergoing mastectomy by originating Trust February and May 2014**



Source – HES extract October2013 to September 2014

**Fig 2: LCA audit of women undergoing mastectomy by originating Trust February and May 2014**

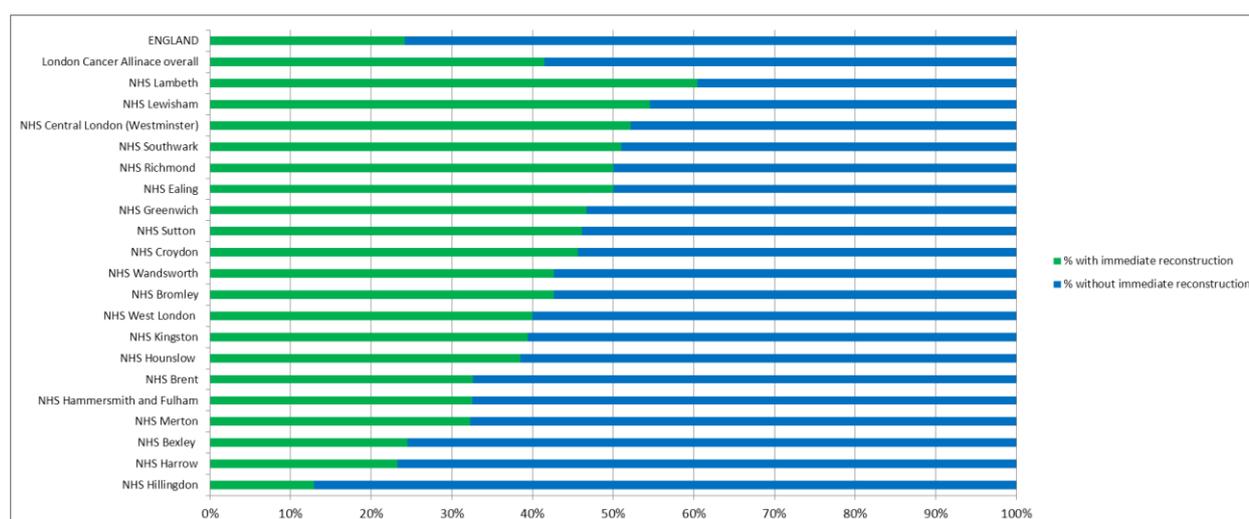


Source – HES extract October2013 to September 2014

**Fig 3a: Mastectomy patients receiving immediate reconstruction – by CCG**

		Oct-13 to Sept 14			Change from previous quarter
		Number of mastectomies	Number with immediate breast reconstruction	% with immediate breast reconstruction	
08K	NHS Lambeth	81	49	60.5%	1.8%
08L	NHS Lewisham	88	48	54.5%	7.6%
09A	NHS Central London (Westminster)	46	24	52.2%	-3.8%
08Q	NHS Southwark	51	26	51.0%	-9.4%
07W	NHS Ealing	94	47	50.0%	14.6%
08P	NHS Richmond	60	30	50.0%	3.1%
08A	NHS Greenwich	45	21	46.7%	11.7%
08T	NHS Sutton	39	18	46.2%	36.9%
07V	NHS Croydon	92	42	45.7%	-0.8%
08X	NHS Wandsworth	75	32	42.7%	0.8%
07Q	NHS Bromley	68	29	42.6%	-8.0%
08Y	NHS West London	50	20	40.0%	10.2%
08J	NHS Kingston	66	26	39.4%	-4.2%
07Y	NHS Hounslow	78	30	38.5%	4.6%
07P	NHS Brent	49	16	32.7%	-5.9%
08C	NHS Hammersmith and Fulham	40	13	32.5%	-7.0%
08R	NHS Merton	65	21	32.3%	1.7%
07N	NHS Bexley	53	13	24.5%	0.2%
08E	NHS Harrow	43	10	23.3%	2.7%
08G	NHS Hillingdon	85	11	12.9%	-6.5%
	<b>London Cancer Alliance overall</b>	<b>1268</b>	<b>526</b>	<b>41.5%</b>	<b>2.6%</b>
	<b>ENGLAND</b>	<b>16485</b>	<b>3991</b>	<b>24.2%</b>	<b>1.5%</b>

Source – HES extract October2013 to September 2014

**Fig 3b: Mastectomy patients receiving immediate reconstruction – by CCG**

Source – HES extract October2013 to September 2014

*Diagnosis – C50 (Invasive Breast Cancer) or D05 (In-situ breast cancer), having Mastectomy (B27) with/without immediate reconstruction (JA16Z) (Mastectomy with breast reconstruction)*

### 3 Case for Change

Breast reconstruction is associated with better psychological outcomes.<sup>2,3</sup> With the use of skin and nipple sparing techniques, IBR has superior outcomes in terms of cosmesis and is more cost effective than delayed breast reconstruction<sup>4</sup>. Delayed breast reconstruction has traditionally been favoured when post mastectomy radiation is needed. Irradiating implant based reconstruction results in high rates of painful capsular contracture and implant loss<sup>5</sup>. Whilst there is no high level evidence, recent meta-analyses have indicated that there is no significant increase in complications in irradiating autologous flaps<sup>6</sup>. In part this may be due to improved radiation techniques and increased experience and planning of autologous flaps. The need for post mastectomy radiotherapy should not be regarded as an absolute contraindication to IBR.

The results of the IBR audit were presented at the 17 September 2014 LCA breast clinical forum to participating Trusts. The results and ensuing discussions highlighted a number of issues and a summary is as follows:

- Imperial College Healthcare NHS Trust (ICHT) receives referrals for autologous breast reconstruction from Ealing, West Middlesex and London North West Hospitals (LNWH). Ealing manages to achieve high IBR whereas LNWH and to a lesser extent West Middlesex does not. Shared learning needs to take place
- ICHT reports capacity issues in outpatient department facilities and plastic surgeon availability. However, this will improve with the appointment of an additional plastic surgeon. A room for the breast CNS team to work out of is at present being sourced.
- A dedicated plastic surgeon was been allocated to Princess Royal University Hospital (PRUH) in Q3 of 2014 which should help improve rates.
- Hillingdon reported the lowest IBR rates, although data submitted was incomplete. A plastic surgeon does attend Hillingdon MDT but the need for post mastectomy radiotherapy was regarded as a contraindication to IBR by the plastics team.
- Queen Mary Sidcup (QMS) refers to East Grinstead and the referral pathway is established. QMS have agreed to investigate the poor uptake and establish a pathway.

#### 3.1 Impact of the pathway

It is expected that implementation of the IBR best practice pathway will:

1. Ensure IBR is offered to all women unless contraindication is identified.
2. Ensure all units have a nominated plastic surgeon/plastic surgical team to provide free flaps or IBR.
3. Act as a standard operating procedure (SOP) for referral to an appropriate plastic surgical team.
4. Reduce variation in IBR across the LCA.

##### 3.1.1 Role of oncoplastics and plastic surgeon input

###### **Oncoplastic surgeon**

An oncoplastic surgeon is a breast surgeon who performs oncologic therapeutic procedures combined with reconstruction techniques. They may not have specialist expertise for free flaps requiring microvascular surgery.

###### **Plastic surgeon**

A plastic surgeon will provide breast reconstruction for women where there is no oncoplastic surgical input or in cases requiring free flaps. This will be in conjunction with a breast surgeon who will perform the therapeutic surgery.

Given these specific roles respectively, patients who undergo breast reconstruction either immediate or delayed, must have their reconstruction options/decisions discussed and agreed by an oncoplastic surgeon at an MDT. There must be formal lines of communication between oncoplastic and plastic surgeons as to the most appropriate reconstruction for the patient **prior** to discussions with the patient.

## 4 Implementation and Monitoring Compliance

### 4.1 Dissemination

The LCA Breast Pathway Group will write a letter to all Trusts requesting implementation of this best practice IBR pathway by October 2015 and these will be inserted into the breast clinical guidelines for adoption. The pathway will be presented at the 4 November 2015 LCA Breast Clinical Forum. The forum is widely attended by representatives from breast MDTs from across the LCA provider organisations. The pathway has been reviewed and approved by the LCA Clinical Director, Mr Nicholas Hyde, on behalf of the LCA Clinical Board.

### 4.2 Timeline for implementation

Trusts began to implement the pathway from 1 August 2015, and the key deliverables expected to be implemented are:

- Develop and sign off of best practice IBR pathway
- Gap analysis and action plan for compliance
- Letter to all Trusts requesting implementation of best practice IBR pathway

### 4.3 Monitoring compliance

The pathway group will be monitoring compliance via regular reporting cycles which will form part of the quality metrics that underline the LCA Quality Assurance Framework. Provider Trusts that do not comply with the timeline outlined above will be monitored via the pathway group's exception report and may be asked to provide an action plan ensuring implementation.

The LCA Breast Pathway Group can assist providers by supporting implementation where necessary and can escalate to the Clinical Board and Members' Board to gain traction if there are barriers which are prohibiting implementation.

### 4.4 Pathway metrics and focus for data collection

The LCA recognises the need to utilise existing data sources when monitoring compliance against best practice pathways. However, the only data source available is HES data for mastectomy patients receiving IBR by CCG. For the period October 2013 to September 2014 the IBR rates for England were 24.2% whilst the LCA average was 41.5%. An LCA audit undertaken between February and May 2014 showed a Trust variance 0 to 73%. The breast pathway group concluded the LCA baseline compliance target should therefore be set at 41.5% with a mandate to move upwards annually as the best practice pathway is implemented.

The pathway group encourages providers to capture the following data items to ensure completeness:

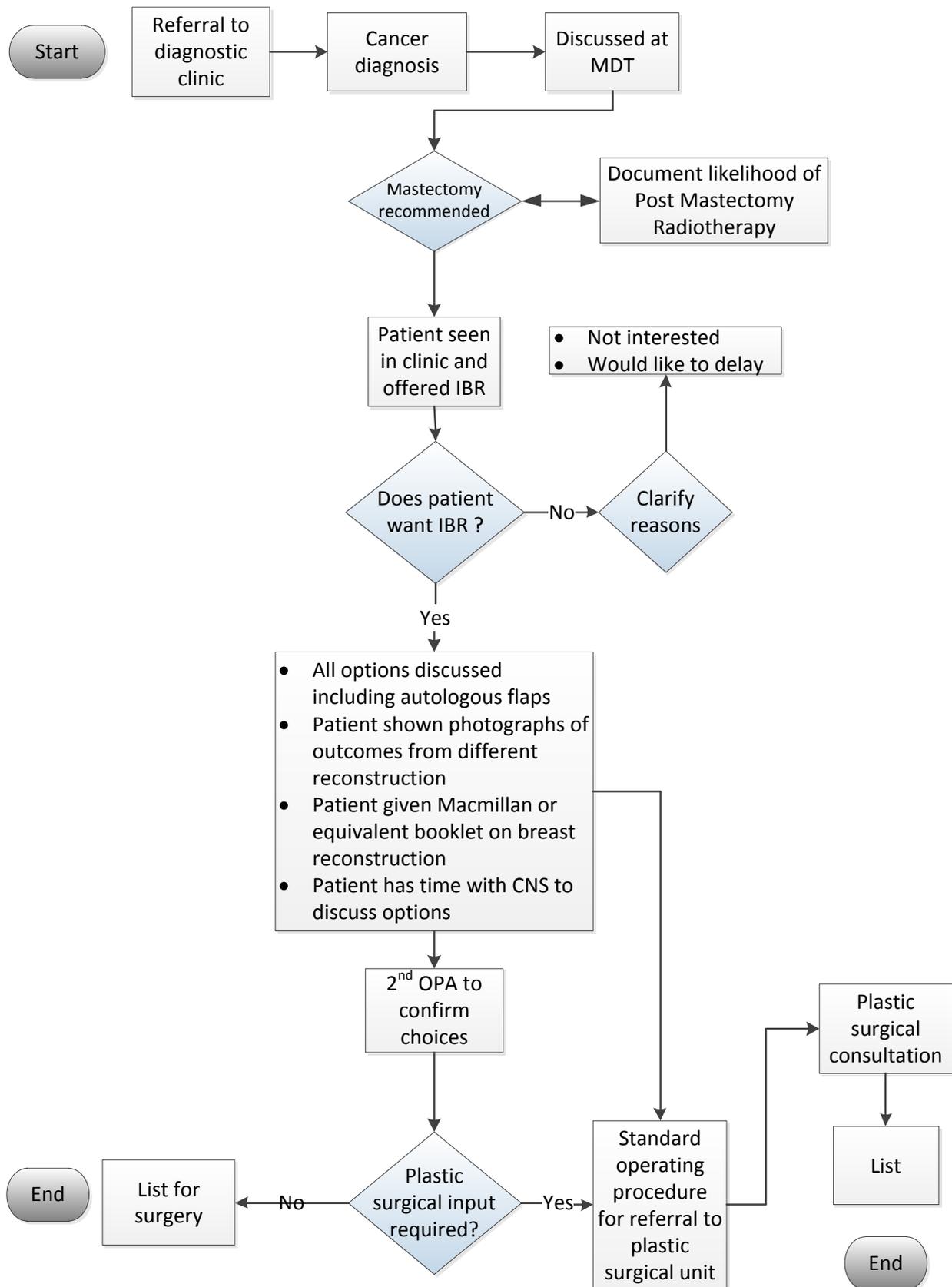
HES data items:

- Diagnosis – C50 (Invasive Breast Cancer)
- D05 (In-situ breast cancer), having Mastectomy (B27) with/without immediate reconstruction and JA16Z (*Mastectomy with breast reconstruction*)

## 4.5 LCA support for implementation

The LCA recognises the challenges that Trusts may face when implementing the pathway and can offer support via the pathway group and via the Clinical Board and Members' Board. The line of communication for escalating implementation issues will be through the LCA Breast Pathway Group project manager.

## Appendix 1: IBR Best Practice Pathway



## Appendix 2: Best Practice Principles for Women Having a Mastectomy Requesting IBR

1. All MDTs should have an oncoplastic breast surgeon
2. All women who are advised to have a mastectomy should be offered IBR with a caveat for those with significant co-morbidities.
  - If the surgery is not available on site this should not be regarded as an obstacle.
  - The patient should be reassured that IBR does not significantly delay adjuvant treatment or interfere with the detection of recurrence.
  - If a women wishes to have IBR the pathway should be such that the surgery will not lead to delays or breaches of 31/62 day targets.
  - The potential need for chest wall radiotherapy is not a contraindication.
3. If a woman expresses desire for an IBR then the breast surgeon should discuss all reconstructive options (implant vs autologous) with the patient in the presence of a CNS. The patient may require additional time/need further appointments before making a decision. Visual aids (photographs/patient information booklets) should be available for patients.
4. The MDT clinic letter on all women having a mastectomy should record on all women having a mastectomy whether the option was for IBR/delayed reconstruction or not wishing to have a reconstruction.
5. All MDTs should have a nominated plastic surgeon/plastic unit for referral.
  - Plastics team should be supported by a CNS.
6. Patients who undergo breast reconstruction either immediate or delayed, must have their reconstruction options/decisions discussed and agreed by an oncoplastic surgeon at an MDT. There must be formal lines of communication between oncoplastic and plastic surgeons as to the most appropriate reconstruction for the patient **prior** to discussions with the patient.
7. All units should have SOP/pathway for referral to plastic surgeon in a timely fashion. Proformas can be used to refer. All relevant clinical information including imaging and pathology must accompany the referral in order to minimise discussion at the Plastics MDT.
8. If the reconstructive surgery is performed in a different hospital then procedures should be in place for the oncological surgery to be performed by the referring breast surgeon's team. This may lead to scheduling problems due to job plans and if so, arrangements should be in place in the plastic surgical unit for an appropriately trained breast surgeon to perform the mastectomy +/- axillary surgery. If the ablative breast surgery is being performed by a different team then the case should go through the local MDM with review of imaging and histology.
9. If it is likely that a woman requires chest wall radiotherapy then this poses challenges to the reconstructive process. Patients need to be advised of the possible complications of irradiating a reconstructed breast. The potential need for chest wall radiotherapy is not a contraindication. Data on the rate of complications are limited to single centre relatively small retrospective reports and meta-analyses.
  - The cosmetic impact of radiation is particularly marked in the setting of implant only reconstruction due to capsular contracture. There is a wide variation (15-50%) in reported rate of capsular contracture post radiotherapy (RT)<sup>7</sup>.
  - Short term data suggests that Acellular Dermal Matrix (ADM) and implants have less risk of capsular contracture

- Autologous reconstructions are also subjected to complications following RT (fat necrosis 10-15%), flap shrinkage and fibrosis (30-%)<sup>6</sup>
  - The cosmetic deterioration due to RT needs to be weighed against potential benefits of IBR.
    - Skin sparing techniques
    - Not having to have flat chest for prolonged period of time (often up to 18 month wait for a delayed reconstruction)
10. Arrangements should be in place to ensure that the patient is discussed post operatively in the appropriate MDT of the referring trust and appropriate out-patients appointments made.
- Units should be encouraged to audit and prospectively evaluate complication rates and reconstruction outcomes with patient reported outcome measures (PROMS).

## Appendix 3: IBR Pathway Provision Across LCA Trusts

Trust	Oncoplastic presence at MDT	Local plastic unit	Plastic surgeon
Chelsea & Westminster NHS Foundation Trust	No breast surgery		
Croydon Health Services NHS Trust	Oncoplastic surgeons	SGH	Plastic surgery representation at MDM from St George's by Mr J Lohn and Miss Ali, who do alternate weeks. They also run a clinic at Croydon weekly prior to the MDM.
Epsom and St Helier University Hospitals NHS Trust	No breast surgery		
Guy's and St Thomas' NHS Foundation Trust	Oncoplastic surgeons	On site	A team of plastic surgeons attend the MDM in rotation: Mr Mark Ho-Asjoe Mr Paul Roblin Mr Jian farhadi Mr Constantinides Joannis Mr David Ross Ms Victoria Rose
Imperial College Healthcare NHS Trust	Oncoplastic surgeons	On site	Mr Simon Wood Mr Navid Jallali Ms Marlene See Ms Judith Hunter
King's College Hospital NHS Foundation Trust (Denmark Hill site)	Oncoplastic surgeons	GSST	Mr Ross Mr Roblin Mr Farhadi
King's College Hospital NHS Foundation Trust (PRUH site)	Oncoplastic surgeons	GSST	At PRUH a plastic surgeon does a clinic at PRUH one week and a list the following week. The model extends from St Thomas', through Denmark Hill to PRUH Mr Mark Ho-Asjoe, Consultant Plastic Surgeon, Guys and St Thomas
Kingston Hospital NHS Foundation Trust	Oncoplastic surgeons	RMH	Mr Paul Harris Mr Stuart James Mr Kelvin Ramsay Mr Kieran Power
Lewisham and Greenwich NHS Trust (Lewisham site)	No breast surgery only OPA.	GSST	Surgery done at GSST
Lewisham and Greenwich NHS Trust (QEH site)	Level I oncoplastic surgeons at QEH; all mastectomy patients considering IBR	GSST	Ms PariNaz Mohanna, plastic surgeon from St Thomas', has fortnightly clinics at Lewisham and Greenwich, Queen Elizabeth Hospital site and any patients in between are seen at St Thomas'. However, for the last 1 year, are referring directly to

Trust	Oncoplastic presence at MDT	Local plastic unit	Plastic surgeon
	are discussed at Guy's MDT		Guys' MDT which is attended by St Thomas' plastic surgeons. The arrangement is for Guy's breast team to carry out implant and ADM reconstructions. Microvascular flaps [DIEPs, etc.] are carried out by the plastic surgeons at St Thomas'.
London North West Healthcare NHS Trust (NWP site)	Oncoplastic surgeons	Imperial	IBR provided by plastics at Imperial by defined pathway.
London North West Healthcare NHS Trust (Ealing site)	Oncoplastic surgeons	Imperial	IBR provided by plastics at Imperial by defined pathway.
St George's University Hospitals NHS Foundation Trust	Oncoplastic surgeon	On site	Miss Farida Ali
The Hillingdon Hospital NHS Foundation Trust	Oncoplastic surgeon	Royal Free Hospital	Mr Jag Chana
The Royal Marsden NHS Foundation Trust	Oncoplastic surgeons	On site	Mr Paul Harris Mr Stuart James Mr Kelvin Ramsay Mr Kieran Power
West Middlesex University Hospital NHS Trust	Oncoplastic surgeons	Imperial	IBR provided by plastics at Imperial by defined pathway.
Dartford and Gravesham NHS Trust (QMS site)	No	Queen Victoria Hospital, East Grinstead Video link facility to discuss cases. Occasional referral to Guy's and St Thomas'	Mr Martin Jones (East Grinstead)

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