BreastSurgANZ QUALITY AUDIT

DATA DICTIONARY

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Prepared by: Royal Australasian College of Surgeons

Welcome to the BreastSurgANZ Quality Audit Data Dictionary

The BreastSurgANZ Quality Audit (BQA), formerly the National Breast Cancer Audit, is a quality assurance activity directed by the Breast Surgeons of Australia and New Zealand, Inc. (BreastSurgANZ) as a service for their Full Members. The aim of the audit is the improvement of care by surgeons for people with early and locally advanced breast cancer in Australia and Aotearoa New Zealand.

The audit was first established in 1998 as the National Breast Cancer Audit (NBCA) and has since grown in size, scope, resources and technology. In 2004, the audit was transferred to a web-based data entry system, allowing surgeons to access and view their data from any location and update their information in real time. The audit's online data entry system underwent a significant update in 2006 and provides surgeons with a user-friendly and secure system for contributing breast cancer data to the audit and monitoring their own practice. In 2009, the Minimum Dataset (MDS) was introduced to the website. The MDS provided a shorter alternative to the full dataset (FDS) while including all data items necessary for threshold calculations on key performance indicators. Surgeons could choose whether to provide minimum or full data. In 2023, the dataset has undergone a complete overhaul. The MDS and FDS have been combined. Data fields have been removed that were redundant and new fields added, to better reflect current management and patient care of breast cancer.

The primary intention of the BQA is to capture data on the management and treatment of early and locally advanced breast cancer in Australia and Aotearoa New Zealand. Early breast cancer is defined by the NHMRC below. However, the audit database has increased limits on fields, such as tumour size, which allow surgeons to enter cases which fall outside of this definition. The reason for this is to allow the BQA to collect as much breast cancer information as possible within the parameters of the dataset and as relevant to the performance thresholds measured by the audit. Capturing this broader scope of information makes the BQA data better represent the management of all cases of breast cancer, while still allowing for analysis of subsets such as early breast cancer. The focus of the BQA remains to audit practice by surgeons and thus the audit does not collect data for advanced or metastatic breast cancer.

Definition of early breast cancer

The BreastSurgANZ Quality Audit uses the definition of early breast cancer as stated in the NHMRC *Clinical Practice Guidelines for the Management of Early Breast Cancer.*

The Guidelines define early breast cancer as tumours of not more than 5 cm in diameter with either impalpable or palpable but not fixed lymph nodes and with no evidence of distant

metastases. This corresponds to tumours that are T 1-2, N 0-1, and M0 as currently defined by the International Union against Cancer (UICC).

Definition of an episode

An episode refers to the diagnosis and treatment period of a patient's early breast cancer. An episode may not have a surgical event associated with it (select no surgery in the procedures table). A second episode is recorded if there is a second primary or a recurrence 3 months after surgery with clear margins.

How to use this data dictionary

This document provides detailed information on the data items collected by the BQA. Items appear in the document in order of how to complete a patient's data entry. Please see the Table of Contents to find the item you are looking for. Entries in the data dictionary describe definitions of any relevant terms and explain how to answer the questions.

Supporting documents

Other materials produced by the BQA may be found at the College website http://www.surgeons.org/bqa. These include paper forms of the audit dataset, reports and research. Contact the Help Desk for further information about the audit +61 8 8219 0918 or breast.audit@surgeons.org.

Some notes about data entry

A case cannot be saved without entering the mandatory items such as gender or treating hospital. All other items in the dataset are required for completeness. We request you make a response to each one or the case will be labelled incomplete.

For surgical events, leaving this section blank does not imply there was no surgery. The audit does collect data on cases where there was no surgery, so please indicate if this was the case by ticking the no surgery or no axillary surgery options.

Please ensure that the form is submitted only after the final outcome for each data item is known. If items remain blank or are entered as 'unknown', these cases will be considered incomplete.

CONTENTS

ADDING A NEW PATIENT

Name

- Enter the first 3 letters of the patient's surname.
- If the patient's name contains a special character:
    - Apostrophe: omit it and use the first 3 alphabetic characters, e.g., OCO for O'Connell.
    - Prefix: record the letter following the space, e.g., DEV for De Ville.
    - Do not enter hyphens or periods e.g., enter STJ for St. John.
- If the patient has a two-letter surname, enter two letters only (no space).
- If the patient changes their name (due to marriage or divorce for example), for the purposes of maintaining the integrity of the database, it is important that you not duplicate the patient with a new record. Alter the name field of the original episode of treatment with the new three letter code and make a note of the previous name code in the comments field. Altering the record in this way allows for accurate data linkage with the National Death Index at a later date. When you alter the surname of a patient, this change affects all episodes of cancer treatment recorded for that patient. You will then be able to add follow-up or new episodes of cancer treatment as necessary.

DOB

- Enter the patient's 8-digit date of birth recorded as DDMMYYYY.
- Patients cannot be younger than 15 years of age.

PATIENT DETAILS

Name

- Automatically generated from 'adding a new patient'

DOB

- Automatically generated from 'adding a new patient'

Gender

Definition	Whether the patient is male or female
Obligation	Mandatory to save
Data field type	Radio Button
Data field options	Female Male
How to answer	Select the gender of your patient

Indigenous Status

Definition	Description of patient's indigenous origins.
Obligation	Mandatory to save
Data field type	Radio Button
Data field options	Non-Indigenous Indigenous Unknown
How to answer	Individual self-identification of indigenous status should be sought. Where this is not stated, select Unknown in preference to providing no answer.

Indigenous Origin

Definition	Description of patient's indigenous origins.
Obligation	Shown if: Indigenous Status field = 'Indigenous' Mandatory to save
Data field type	Drop down selection
Data field options	Aboriginal Torres Strait Islander Both Aboriginal and Torres Strait Islander Māori Pacific Peoples
How to answer	Individual self-identification of indigenous status should be sought.

Postcode

Definition	The residential postcode of the patient
Obligation	Mandatory to save
Data field type	Numerical (free text)
Data field options	XXXX
How to answer	The patient's residential postcode should be available from the patient's case notes. Postcode is not always readily available for Aotearoa New Zealand patients. If unknown enter 9999

Private / Public

Definition	Accommodation chargeable status elected by patient on admission.
Obligation	Mandatory to save
Data field type	Drop down selection
Data field options	Public Private Unknown

How to answer	At the time of, or as soon as practicable after admission to a public hospital, the patient must elect in writing to be treated as either: • a public patient or • a private patient in single accommodation or • a private patient in shared accommodation. This item is independent of patient's hospital insurance status. Private includes private-single and private-shared. Public patient: A person, eligible for Medicare, who, on admission to a recognised hospital or soon after: • receives a public hospital service free of charge or • elects to be a public patient or • whose treatment is contracted to a private hospital. Private patient: A person who, on admission to a recognised hospital or soon after: • elects to be a private patient treated by a medical practitioner of his or her choice or • elects to occupy a bed in a single room (where such an election is made, the patient is responsible for meeting certain hospital charges as well as the professional charges raised by any treating medical or dental practitioner) or • a person, eligible for Medicare, who chooses to be admitted to a private hospital (where such a choice is made, the patient is responsible for meeting all hospital charges as well as the professional charges raised by any treating medical or dental practitioner).

Clinic Reference

Definition	Person identifier, allocated by the surgeon's practice to the patient being treated.
Obligation	Mandatory to save
Data field type	Free Text (can include letters, number and symbols)
Data field options	
How to answer	Enter the code used in your practice to identify patients in that particular clinic, a medical file number for example, a combination of letters and numbers, or the patients MRN. Aotearoa New Zealand surgeons are encouraged to use patient National Health Index number in this field. To preserve confidentiality, it is better to use an identifier which is not the patient's name. If you do not have a clinic reference code in your filing system, enter something that will help you to identify who

	that patient is in a tie break situation, without revealing the identity of the patient, i.e., do not use the patient's full name.

Hospital / Clinic

Definition	The treating hospital or clinic at which the patient received their surgery. If no surgery was performed, it is defined as the hospital where the patient received most of their treatment.
Obligation	Mandatory to save
Data field type	Drop down selection
Data field options	
How to answer	Select the hospital for which the surgery took place from the "Clinic/Hospital" drop-down list which should contain the values of 'My Hospitals' defined by the user. To add hospitals to the list, visit the "My Hospitals" section of the BQA portal. If a patient's initial treatment was at one hospital and subsequent treatment was at a different hospital, record the hospital where the most definitive surgery took place (e.g., mastectomy over CLE or re-excision).

Enrolled in trial

Definition	Indicates whether the patient is enrolled in a clinical trial.
Obligation	Required for completeness
Data field type	Radio button
Data field options	Yes No
How to answer	This item refers to clinical trials for any aspect of treatment captured by the audit. This could mean a surgical, radiation, drug, hormonal therapy, or sentinel node trial.

Breast care nurse

Definition	Indicates whether a Breast Care Nurse participates in the care of this patient after diagnosis.
Obligation	Mandatory to save
Data field type	Drop down selection
Data field options	Yes No Unknown
How to answer	A specialist breast nurse is defined by Cancer Australia as "a registered nurse who applies advanced knowledge of the health needs, preferences and circumstances of women with breast cancer to optimise the individual's health and well-being at various phases across the continuum of care, including diagnosis, treatment,

	rehabilitation, follow-up and palliative care. This advanced knowledge is based on an in-depth understanding of theory and research relevant to the field of breast cancer nursing." Specifically, "practice incorporates advanced knowledge and skills in supportive care, including providing specialised and tailored information and education, psychological support, and clinical care. The [Breast Care Nurse] adapts his/her practice according to the specific and changing needs of individual women, taking into account their multiple health needs, concerns and preferences for care. The [Breast Care Nurse] also facilitates effective interdisciplinary team functioning and continuity of care between different phases of the cancer journey, care settings, care plans and care providers. [Breast Care Nurses] demonstrate leadership within the specialty of breast cancer nursing, by providing expert advice and support to other health professionals, through reflective practice, and by contributing to continuous improvement and the advancement of knowledge about care for women with breast cancer." [1] A cancer nurse who is not specialised in the care of patients with breast cancer is not a Breast Care Nurse. [1] Specialist Breast Nurse Competency Standards and Associated Educational Requirements. National Breast Cancer Centre. 2005

Multi-disciplinary discussion

Definition	Indicates whether patient's management is discussed, and a treatment plan developed by a multidisciplinary team
Obligation	Mandatory to save
Data field type	Drop down selection
Data field options	Yes No Unknown
How to answer	Attendance by a general practitioner, specialist or consultant physician as a member of a case conference team, to lead and coordinate a multidisciplinary case conference on a patient with cancer to develop a multidisciplinary treatment plan, if the case conference is of at least 10 minutes, with a multidisciplinary team of at least 3 other medical practitioners from different areas of medical practice (which may include general practice), and, in addition, allied health providers

Patient ID (automatically created field)

Definition	Partially de-identifying code assigned to an individual patient.

Data field type	Alphanumeric Code XXXDDMMYYYY A concatenation of the first three letters of the patient's last name XXX together with their 8-digit date of birth recorded as DDMMYYYY.
How to answer	This is automatically generated using the first three letters of the patient's surname and the patient's date of birth.

Episode ID (automatically created field)

Definition	Unique number automatically assigned to each episode by the system.
Data field type	Numeric
How to answer	This is a number automatically created for each episode by the system, the same patient may have two or more episodes of cancer, and these will have different **episode IDs**. Users do not enter or edit the **episode ID**, but can view it on the website

Date created (automatically created field)

Definition	This field is a date stamp. It is created by the web server. It cannot be edited.
Data field type	Date/Time DD/MM/YYYY HH:MM
How to answer	You do not need to enter anything for this item, it is created automatically.

DIAGNOSIS

Invasive / In situ

Definition	Description of whether the cancer is invasive or in situ (DCIS/LCIS)
Obligation	Mandatory to save
Data field type	Radio button
Data field options	Invasive DCIS LCIS
How to answer	If the patient has both invasive and in situ components, mark it as invasive and complete the appropriate pathology items. The exception to this rule is if the case involves microinvasion only. If an in situ case involves microinvasion, mark the case as in situ and record the microinvasion in the comments section of the full dataset

Diagnosis Date

Definition	The date when the diagnosis of the breast cancer related to the current treatment episode is established.

Obligation	Mandatory to save
Data field type	Date
Data field options	DD/MM/YYYY
How to answer	The date upon which the cancer diagnosis was definitively made, based upon cytology, core biopsy or open biopsy (e.g., the date that the procedure was done). If this date is unavailable, or if no pathological test was done, then the date may be determined from the date of first surgery

Referral Source

Definition	Source from which the person was referred to the surgeon.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Symptomatic (from GP) Breast Screen Australia Breast Screen Aotearoa Private Screening Other
How to answer	Symptomatic patients are referred to a breast surgeon when presenting to a GP or other physician with symptoms such as a breast lump, pain, or discharge.

Previous breast cancer surgery

Definition	A patient's history of any previous surgery specifically for breast cancer
Obligation	Required for completeness
Data field type	Radio button
Data field options	No previous surgery Same breast Contralateral breast Both breasts Unknown
How to answer	Indicate whether the patient has had previous surgery for breast cancer

Previous radiotherapy

Definition	A patient's history of any radiotherapy specifically for breast cancer
Obligation	Required for completeness
Data field type	Radio button
Data field options	No previous radiotherapy Same breast Contralateral breast

	Both breasts Unknown
How to answer	Indicate whether the patient has had previous radiotherapy for breast cancer.

Menopausal status

Definition	The menopausal status of the patient.
Obligation	Required for completeness
Data field type	Radio button
Data field options	Pre Peri Post Male
How to answer	**Pre -** An individual who has not yet experienced the menopause. **Post -** An individual who has experienced the menopause and the occurrence of 12 months of spontaneous amenorrhoea. **Peri -** An individual who is either in the period just prior to the menopause or the subsequent 1 year of amenorrhoea following menopause. **Male -** Not female Individual self-identification of menopause should be sought. Where this is not stated but can be confidently imputed from the woman's age, select the appropriate category in preference to providing no answer.

Gestational status

Definition	Whether the patient is currently, or has recently been, pregnant.
Obligation	Shown if: Menopausal Status = 'Pre' or 'Peri' Required for completeness
Data field type	Drop down selection
Data field options	Currently pregnant Recently pregnant (last 12 months) Not pregnant (now or last 12 months)
How to answer	A patient is considered **currently pregnant** if they were diagnosed with breast cancer during pregnancy. A patient should be categorised as **recently pregnant** if they were pregnant at any time in the 12 months previous to diagnosis with breast cancer. If neither applies to the patient, the patient is categorised as **not pregnant.**

Laterality

Definition	The breast in which the principal tumour is located. The principal breast cancer is the tumour present in the current treatment episode and which the surgeon deems to be the indicator for prognosis and treatment. It is the most prognostically significant tumour.
Obligation	Required for completeness
Data field type	Radio buttons
Data field options	Left Right Unknown
How to answer	Select whether the principal tumour is located in the left or right breast. In the case of bilateral synchronous cancer, enter each breast as a separate episode. Enter follow up under the episode for the most prognostically significant laterality.

Position of principal tumor

Definition	The position within the breast of the principal (most prognostically significant) tumour
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Unknown Superolateral Inferolateral Superomedial Inferomedial Axillary tail Lateral Medial Superior Inferior Central >1 quadrant
How to answer	Anatomical positions offered in the options are relative to the centre of the breast, so will be a mirror image in the opposite breast. Anatomic positions refer to the human body in a standing position, so for example “Superior” is towards the sky. Some pathology reports or surgeons will refer to the position of the tumour by another method such as an o’clock reading or in plain English such as “upper outer quadrant”. **Unknown –** not known or inadequately described.

	Superolateral – The upper outer quadrant [Or- 1 or 2 o'clock left breast, 10 or 11 o'clock right breast] **Inferolateral –** The lower outer quadrant [Or – 4 or 5 o'clock left breast, 7 or 8 o'clock right breast] **Superomedial –** The upper inner quadrant [Or- 10 or 11 o'clock left breast, 1 or 2 o'clock right breast] **Inferomedial –** The lower inner quadrant [Or- 7 or 8 o'clock left breast, 4 or 5 o'clock right breast] **Axillary tail –** The area of the axilla **Lateral –** The side of the breast furthest from the midline of the body, closer to the arm. [Or- 3 o'clock on left breast, 9 o'clock right breast, outer quadrant] **Medial –** The side of the breast closest to the midline of the body, towards the sternum. [Or- 9 o'clock on the left breast, 3 o'clock right breast, inner quadrant] **Superior –** The area of the breast closest to the chin [Or- 12 o'clock, upper quadrant] **Inferior –** The area of the breast closest to the feet [Or- 6 o'clock, lower quadrant] **Central –** The centre area of the breast **>1 quadrant –** The tumour is larger than one quadrant of the breast

Germline mutations identified through DNA sequencing

Definition	The presence of mutations such as BRCA 1 and 2 that have been identified through DNA sequencing
Obligation	Required for completeness
Data field type	Radio buttons
Data field options	Yes No Pending Not performed
How to answer	Indicate whether the patient has had DNA sequencing performed to detect genetic mutations e.g., BRCA 1 or 2. If the results are pending, episode will remain incomplete until 'yes' or 'no' is selected.

Inflammatory breast cancer

Definition	Inflammatory breast cancer is a rare and aggressive form of breast cancer that occurs when malignant cells block the skin and lymph vessels of the breast
Obligation	Shown if: Invasive/In situ = 'Invasive'. Required for completeness

Data field type	Radio buttons
Data field options	Yes No
How to answer	The clinical diagnosis of inflammatory breast cancer

NEOADJUVANT THERAPY

Shown if: Diagnosis: Invasive/DCIS/LCIS = 'Invasive'

Were neoadjuvant therapies performed

Definition	Did the patient undergo the administration of therapy prior to surgery or any definitive treatment
Obligation	Shown if: Diagnosis: Invasive/DCIS/LCIS = 'Invasive' Required for completeness
Data field type	Radio buttons
Data field options	Yes No Referred but not used
How to answer	Indicate if the patient underwent therapy prior to surgery or any definitive surgery

Neoadjuvant therapies

Definition	The administration of a therapy/ies prior to, or as an alternative to, surgery
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Radio buttons
Data field options	Yes or No for each therapy below. Radiotherapy Chemotherapy SERMs Ovarian Function Suppression Aromatase Inhibitors Anti HER2 Immunotherapy
How to answer	Choosing **'yes'** implies that the therapy/ies was received prior to primary treatment by surgery

Area/s targeted by radiotherapy

Definition	Did the patient undergo the administration of therapy prior to surgery or any definitive treatment
Obligation	Shown if: Neoadjuvant therapies: Radiotherapy = 'Yes' Required for completeness

Data field type	Drop down selection
Data field options	Breast Axilla Supraclavicular Internal mammary chain Chest Wall
How to answer	Indicate the area/s the patient received neoadjuvant radiotherapy (more than one selection allowed)

Pre-neoadjuvant invasive tumor size (mm)

Definition	The maximum diameter in millimetres of the furthest points of extension of the invasive tumour cells.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Numerical (free text)
Data field options	0 - 250
How to answer	This refers to the size of the invasive component of the tumour only, based on clinical or radiological findings. In the instance of multiple tumours, record the maximum diameter of the principal tumour.

Pre-neoadjuvant total extent of lesion (mm)

Definition	The maximum diameter in millimetres of the furthest points of extension of the whole lesion including DCIS/LCIS which extends beyond the invasive component.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Numerical (free text)
Data field options	0 - 250
How to answer	The total extent includes any associated DCIS seen beyond the margin of the invasive carcinoma. If there are multiple foci of invasive carcinoma within a background of DCIS, record the largest invasive carcinoma as the invasive tumour size and the entire lesion size (i.e. invasive foci and associated DCIS) as total extent. For more than one invasive component arising in separate areas of DCIS, report *invasive tumour size* and *total extent of lesion* on the most prognostically significant tumour. LCIS would only be taken into account if pleomorphic. If an invasive case contains no DCIS/LCIS component, leave this field blank.

Histological type of tumor

Definition	The microscopic appearance of the invasive breast cancer cells. This question refers to the principal tumour.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Ductal NOS Basal-like Invasive lobular Mixed type Tubular Medullary Mucinous Other neoplasm Unknown
How to answer	As recorded in the pathology report. **Basal-like:** Typically, these tumours are high grade, mitotically active lesions, often with central necrosis or scarring and are ER/PR negative and HER2 negative on immunohistochemistry. Immunopositivity for a variety of other "basal" markers including CK5/6 and CK14, and EGFR may be useful in establishing the diagnosis. It is important to identify patients with this cancer type as it has been associated with BRCA1 germline mutations and, therefore, an increased risk of both breast and ovarian cancer [2]. Other Neoplasm may include other special types not listed here such as Cribriform and papillary. [2] Description provided by pathologist A/Prof J.Harvey

Histological grade of tumor

Definition	The degree of differentiation of the breast cancer or the degree to which it resembles normal tissue as assessed by the pathologist according to three components of the tumour.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Grade 1 Grade 2 Grade 3 Unknown

How to answer	Histological grade should reflect what is described in the pathology report in accordance with the Pathology Reporting Guidelines. Invasive carcinomas of all types, including invasive lobular carcinoma, should be graded using the Elston and Ellis modification of the Bloom and Richardson grading system. If the carcinoma is too small to be graded and the pathology report reads "not assessable" then select **Unknown**. The histological grade is calculated by adding the three scores (mitosis score, nuclear score and tubular differentiation score): **Grade 1 -** Total score of 3 – 5 **Grade 2 -** Total score of 6 or 7 **Grade 3 -** Total score of 8 or 9

Oestrogen receptor

Definition	The presence or absence of oestrogen receptors (ER) on the tumour cells. ER are prognostic indicators. They are an intracellular receptor protein that binds oestrogens and antioestrogens and mediate their effects by binding to DNA and altering the expression of specific genes.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Positive Low positive Negative
How to answer	As stated in pathology report. **Positive –** ≥ 11% **Low positive –** 1 – 10 % **Negative –** <1% For cases with multiple tumours in the breast, if any tumour is positive record positive regardless of whether this is the principal tumour.

Progesterone receptor

Definition	The presence or absence of progesterone receptors (PR) on the tumour cells. PR are prognostic indicators. They are intracellular receptor proteins that bind progestins and antiprogestins.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Positive Negative

How to answer	As stated in pathology report.

HER2 receptor

Definition	The presence or absence of Human Epidermal Growth Factor Receptor 2 (HER2) receptors on the tumour cells. HER2, one of the many proteins on a cell's surface that signals the cell to divide and helps control normal cell growth, cell division, and cell survival.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Amplified Low Negative
How to answer	Report results obtained in pathology report. Two main types of tests; immunohistochemistry (IHC) or in situ hybridization (ISH). ****AUSTRALIA**** **Amplified -** IHC score 3+, ISH amplified **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0 ****NEW ZEALAND**** **Amplified -** IHC score 3+ **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

Ki67 Biomarker status

Definition	The percentage of the total sample that has active Ki-67 proteins. Ki67 is a valuable biomarker in breast cancer. The expression of Ki67 is strongly associated with tumour cell proliferation and growth.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Not done/no results available

	≤ 10 % 11 – 30 % 31 – 50 % > 50 %
How to answer	As stated in pathology report, this is the percentage of the total sample that has active Ki-67 proteins.

Tumor-Infiltrating Lymphocytes (TILs) Biomarker status

Definition	The presence of tumour-infiltrating lymphocytes (TILs) is believed to be predictive of response to immunotherapy, chemotherapy, and other targeted therapies in addition to their role as a prognostic biomarker. TILs in the tumour and the surrounding microenvironment are thought to reflect ongoing anti-tumour host immune response.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	Not done/no results available ≤ 10 % 11 – 30 % > 30 %
How to answer	As stated in pathology report, this is the percentage of lymphocytes that directly oppose and/or surround tumour cells.

Pre-treatment Nodal Staging

Definition	Clinical categorisation includes nodes detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed histologic macro metastasis based on fine needle aspiration biopsy, core needle biopsy or sentinel node biopsy.
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	cNX cN0 cN1 cN2 cN3
How to answer	**cNX –** is used sparingly in cases where regional lymph nodes cannot be assessed (previously surgically removed) or where there is no documentation of physical examination of the axilla. **cN0 –** Axilla that is negative solely by physical examination. Even when regional lymph nodes have been previously removed, if no

	disease is identified in the nodal basin by imaging or clinical examination. **cN1 –** Metastases to one or more movable ipsilateral Level I, II axillary lymph nodes **cN2** • Metastases to Level I, II axillary lymph nodes that are fixed to each other (matted) or to other structures. • Metastasis only in clinically detected ipsilateral internal mammary nodes and in the absence of clinically evident level I, II axillary lymph node metastasis. **cN3** • Metastasis in ipsilateral infraclavicular (level III axillary) lymph node/s with or without level I, II axillary lymph node involvement. • Metastasis in clinically detected ipsilateral internal mammary lymph node/s and clinically evident axillary lymph node/s. • Defined as metastasis in ipsilateral supraclavicular lymph node/s with or without axillary or internal mammary lymph node involvement [3]. [3] AJCC Breast Cancer Staging Manual, Eighth Edition, The American College of Surgeons, Last Updated 25/01/2018

SURGICAL EVENTS

Add Breast Surgery Procedure

Definition	The type of breast surgical procedure/s carried out
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	**No Breast Surgery** **Open Biopsy** **CLE** • CLE Only • CLE + Therapeutic mammaplasty • CLE + Simultaneous parenchyma reshaping • CLE + Local perforator flap **Re-excision** • Re-excision Only • Re-excision + Therapeutic mammaplasty • Re-excision + Simultaneous parenchyma reshaping

	• Re-excision + Local perforator flap **Total Mastectomy** • Simple Mastectomy • Nipple Sparing • Skin Sparing **Reconstruction** • Prosthetic - Direct to implant - Pre-pectoral • Prosthetic - Direct to implant - Retro-pectoral • Prosthetic - Tissue expander - Pre-pectoral • Prosthetic - Tissue expander - Retro-pectoral • Autologous – Latissimus • Autologous - TRAM flap • Autologous - DIEP flap • Autologous – Other • Prosthetic & Autologous - Direct to implant - Latissimus • Prosthetic & Autologous - Direct to implant - TRAM flap • Prosthetic & Autologous - Direct to implant - DIEP flap • Prosthetic & Autologous - Direct to implant - Other • Prosthetic & Autologous - Tissue expander - Latissimus • Prosthetic & Autologous - Tissue expander - TRAM flap • Prosthetic & Autologous - Tissue expander - DIEP flap • Prosthetic & Autologous - Tissue expander – Other **Contralateral Breast Procedure** • Simple mastectomy • Mastectomy & Reconstruction • Augmentation • Mastopexy • Reduction
How to answer	This item requires the user to select the type of breast surgery and then to enter the date the surgery was done. The database allows you to enter multiple events of any type of surgery. Missing data is not assumed to mean No surgery. The audit does collect data on cases where no surgery for the primary breast cancer was performed. If this is the case, please tick the **No surgery** option. **Open biopsy including localisation** Surgical procedure in which a sample of breast tissue for histological examination is obtained in a conventional surgical procedure, using an open incision. This field combines both incisional and excisional biopsies. **Complete local excision** The complete excision of an entire tumour mass, surrounded on every aspect by a margin of normal breast tissue, confirmed by histological examination of the margins. This includes wide local excision, segmentectomy, quadrantectomy, and lumpectomy.

	The CLE subtypes map to Australian Medicare Benefits Scheme items as below. BQA option: CLE + Therapeutic mammaplasty = MBS item 31514: defined as "Breast, malignant tumour, complete local excision of, with simultaneous ipsilateral pedicled breast reduction, including repositioning of the nipple". BQA option: CLE + Simultaneous parenchyma reshaping = MBS item 31513: defined as "Breast, malignant tumour, complete local excision of, with simultaneous reshaping of the breast parenchyma using techniques such as round block or rotation flaps". BQA option: CLE + Local perforator flap = MBS item 45537: defined as "Perforator flap, such as a thoracodorsal artery perforator (TDAP) flap or a lateral intercostal artery perforator (LICAP) flap, or similar, raising on a named source vessel, for reconstruction of a partial mastectomy defect". **Re-excision** A secondary surgical procedure conducted to obtain a rim of normal breast tissue around the periphery of the previously removed primary tumour. **Total mastectomy** The surgical removal of the breast. **Reconstruction** The use of a prosthesis or tissue from other parts of the body to re-build a breast. *Reconstruction Type* • Prosthetic • Autologous • Prosthetic & Autologous *Reconstruction Location* • Pre-pectoral • Retro-pectoral *Reconstruction Method* • Tissue expander: implies a 2-stage procedure i.e. a tissue expander first and then implant in a second operation. The date of the second operation is not required. • Direct to implant: implies a 1-stage process where an implant was inserted without using a tissue expander first.

	Reconstruction Flap • Latissimus • TRAM flap • DIEP flap • Other **Contralateral Breast Procedure** Where a procedure was performed on the opposite breast with no cancer. If a contralateral breast also had breast cancer, a second episode should be added to record treatment.

Add Axillary Surgery Procedure

Definition	The surgical excision of the axillary contents (fat and lymph nodes) en bloc with mastectomy or as an independent procedure.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	No Axillary Surgery Sentinel Node Biopsy Sampling Axillary Clearance – Level 1 Axillary Clearance – Level 2 Axillary Clearance – Level 3 Targeted Axillary Dissection
How to answer	This item requires the user to select the type of axillary surgery and then to enter the date the surgery was done. Each patient episode can have multiple axillary surgeries and can have the same axillary surgery entered more than once. Missing data is not assumed to mean No axillary surgery the audit does collect data on cases where no axillary surgery was performed. If this is the case, please complete the **No axillary surgery** field which appears as a tick box. **Sentinel Node Biopsy** The identification and excision of the sentinel lymph node (the first node(s) draining the primary tumour in the regional lymphatic basin) from patients with invasive breast cancer. This can be a standalone procedure or performed as part of a TAD. If a previously marked node/s is removed, please also check the TAD box. **Sampling** The removal of up to four palpable lymph nodes to examine for the presence of cancer cells.

	Axillary Clearance - Level 1 The excision of a single, low axillary node or the excision of the axillary contents up to the inferior border of the pectoralis minor muscle **Axillary Clearance - Level 2** Excision of the axillary contents up to the superior border of the pectoralis minor muscle **Axillary Clearance - Level 3** Excision of the axillary contents up to the apex of the axilla **Targeted Axillary Dissection** Surgical oncologists specifically locate a lymph node that contained cancer before chemotherapy, remove it during surgery, and check it to see if there is remaining cancer in the lymph node. Use this field if a node/s biopsy proven positive prior to chemotherapy, was marked (e.g., radiological clip marker) and then removed during surgery. Whilst the definition of TAD includes a SNB, please also mark the SNB box if lymphatic mapping was also performed during the surgical episode.

INVASIVE PATHOLOGY

Pathological invasive tumor size (mm)

Definition	The maximum diameter in millimetres of the furthest points of extension of the invasive tumour cells.
Obligation	Shown if: Diagnosis: Invasive/DCIS/LCIS = 'Invasive' Required for completeness
Data field type	Numerical (free text)
Data field options	0 - 250
How to answer	This refers to the size of the invasive component of the tumour only, as recorded in the pathology report. In the instance of multiple tumours, record the maximum diameter of the principal tumour. If there is a **pathological complete response**, please check the box and '0' will automatically be added to the pathological invasive tumour field.

Total extent of lesion (mm)

Definition	The maximum diameter in millimetres of the furthest points of extension of the whole lesion including DCIS/LCIS which extends beyond the invasive component
Obligation	Shown if: • Diagnosis: Invasive/DCIS/LCIS = 'Invasive' **AND**

	• Were neoadjuvant therapies performed = 'No' or 'Referred but not used' Required for completeness
Data field type	Numerical (free text)
Data field options	1 - 250
How to answer	The total extent includes any associated DCIS seen beyond the margin of the invasive carcinoma. If there are multiple foci of invasive carcinoma within a background of DCIS, record the largest invasive carcinoma as the invasive tumour size and the entire lesion size (i.e. invasive foci and associated DCIS) as total extent. For more than one invasive component arising in separate areas of DCIS, report *invasive tumour size* and *total extent of lesion* on the most prognostically significant tumour. LCIS would only be taken into account if pleomorphic. If an invasive case contains no DCIS/LCIS component, leave this field blank.

Residual DCIS tumor size (mm)

Definition	The maximum diameter in millimetres of the furthest points of extension of the DCIS tumour cells after neoadjuvant therapy.
Obligation	Shown if: • Diagnosis: Invasive/DCIS/LCIS = 'Invasive' **AND** • Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Numerical (free text)
Data field options	0 - 250
How to answer	This refers to the size of the DCIS component of the tumour only, as recorded in the pathology report.

Histological type of tumor

Definition	The microscopic appearance of the invasive breast cancer cells. This question refers to the principal tumour.
Obligation	Shown if: Pathological invasive tumour size > 0 Required for completeness
Data field type	Drop down selection
Data field options	Ductal NOS Basal-like Invasive lobular Mixed type

	Tubular Medullary Mucinous Other neoplasm Unknown
How to answer	As recorded in the pathology report. **Basal-like:** Typically, these tumours are high grade, mitotically active lesions, often with central necrosis or scarring and are ER/PR negative and HER2 negative on immunohistochemistry. Immunopositivity for a variety of other "basal" markers including CK5/6 and CK14, and EGFR may be useful in establishing the diagnosis. It is important to identify patients with this cancer type as it has been associated with BRCA1 germline mutations and, therefore, an increased risk of both breast and ovarian cancer [2]. Other Neoplasm may include other special types not listed here such as Cribriform and papillary. [2] Description provided by pathologist A/Prof J.Harvey

Histological grade of tumor

Definition	The degree of differentiation of the breast cancer or the degree to which it resembles normal tissue as assessed by the pathologist according to three components of the tumour.
Obligation	Shown if: Pathological invasive tumour size > 0 Required for completeness
Data field type	Drop down selection
Data field options	Grade 1 Grade 2 Grade 3 Unknown
How to answer	Histological grade should reflect what is described in the pathology report in accordance with the Pathology Reporting Guidelines. Invasive carcinomas of all types, including invasive lobular carcinoma, should be graded using the Elston and Ellis modification of the Bloom and Richardson grading system. If the carcinoma is too small to be graded and the pathology report reads "not assessable" then select **Unknown**. The histological grade is calculated by adding the three scores (mitosis score, nuclear score and tubular differentiation score): **Grade 1:** Total score of 3 – 5 **Grade 2:** Total score of 6 or 7 **Grade 3:** Total score of 8 or 9

Vascular/Lymphatic Invasion

Definition	Tumour cells observed within the lumen of blood or lymphatic vessels.
Obligation	Shown if: Pathological invasive tumour size > 0 Required for completeness
Data field type	Radio button
Data field options	Present Absent Unknown
How to answer	As reported in pathology report or noted by surgeon.

Number of lymph nodes examined

Definition	The total number of surgically excised axillary nodes examined histopathologically, including those excised by sentinel node biopsy.
Obligation	Required for completeness
Data field type	Numerical (free text)
Data field options	0-39
How to answer	As recorded in the pathology report. The total number of examined nodes from axillary dissection AND sentinel node biopsy. Missing data implies the number of nodes examined is unknown, it does not imply the number was zero. If no axillary surgery was performed, enter **0**. The BQA system does not accept numbers over 40 in this field. If there were more than 40 nodes examined, record 40 in this field and make a note in the comments section. A case with "40" in this field will be interpreted as having "40 or more" nodes examined.

Number of positive lymph nodes

Definition	The total number of malignant or positive axillary nodes
Obligation	Required for completeness
Data field type	Numerical (free text)
Data field options	0 - 39
How to answer	As recorded in the pathology report. The total number of positive nodes from axillary dissection **AND** sentinel node biopsy. Missing data implies the number of positive nodes is unknown, it does not imply the number was zero. If no axillary surgery was performed, enter **0** for nodes examined and nodes positive.

	'Number of positive nodes' cannot be more than the 'Number of lymph nodes examined'. The BQA system does not accept numbers over 40 in this field. If there were more than 40 nodes positive, record 40 in this field and make a note in the comments section. A case with "40" in this field will be interpreted as having "40 or more" nodes positive.

Type of nodal metastases

Definition	The predominant type of nodal metastases
Obligation	Shown if: Number of positive lymph nodes > 0 Required for completeness
Data field type	Drop down selection
Data field options	Micro only Macro Extra-nodal spread
How to answer	Enter the most significant finding.

Number of negative nodes with treatment effect

Definition	The number of nodes that were affected by neoadjuvant therapy
Obligation	Shown if: • Diagnosis: Invasive/DCIS/LCIS = 'Invasive' **AND** • Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Numerical (free text)
Data field options	0 - 39
How to answer	As stated on the pathology report

Invasive Tumour: Distance to closest circumferential margin

Definition	The distance of the invasive component from the closest circumferential (radial) margin
Obligation	Shown if: Pathological invasive tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever radial margin is closest to any invasive component of that breast, i.e., not necessarily for the most clinically significant tumour.

	Record final margin after completion of all surgical procedures. If re-excision occurs add this to original margin. If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as **0mm**

Invasive Tumour: Distance to closest vertical margin

Definition	The distance of the invasive component from the closest vertical margin
Obligation	Shown if: Pathological invasive tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever vertical margin is closest to any invasive component of that breast, i.e., not necessarily for the most clinically significant tumour. This is recorded after completion of all surgical procedures. If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm

DCIS Tumour: Distance to closest circumferential margin

Definition	The distance from the DCIS component to the closest circumferential (radial) margin
Obligation	Shown if: Residual DCIS tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever circumferential (also called radial) margin is the closest to any DCIS component of that breast, i.e., not necessarily for the most clinically significant tumour.

	This is recorded after completion of all surgical procedures. If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm.

DCIS Tumour: Distance to closest vertical margin

Definition	The distance of the DCIS component from the closest vertical margin
Obligation	Shown if: Pathological invasive tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever vertical margin is closest to any DCIS component of that breast, i.e., not necessarily for the most clinically significant tumour. This is recorded after completion of all surgical procedures. If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm.

Oestrogen receptor

Definition	The presence or absence of oestrogen receptors (ER) on the tumour cells. ER are prognostic indicators. They are an intracellular receptor protein that binds oestrogens and antioestrogens and mediate their effects by binding to DNA and altering the expression of specific genes.
Obligation	Shown if: Pathological invasive tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	Positive Low positive Negative Not done
How to answer	As stated in pathology report.

	Positive – ≥ 11% **Low positive –** 1 – 10 % **Negative –** <1% For cases with multiple tumours in the breast, if any tumour is positive record positive regardless of whether this is the principal tumour.

Progesterone receptor

Definition	The presence or absence of progesterone receptors (PR) on the tumour cells. PR are prognostic indicators. They are intracellular receptor proteins that bind progestins and antiprogestins.
Obligation	Shown if: Pathological invasive tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	Positive Negative Not done
How to answer	As stated in pathology report.

HER2 receptor

Definition	The presence or absence of Human Epidermal Growth Factor Receptor 2 (HER2) receptors on the tumour cells. HER2, one of the many proteins on a cell's surface that signals the cell to divide and helps control normal cell growth, cell division, and cell survival.
Obligation	Shown if: Pathological invasive tumor size > 0 Required for completeness
Data field type	Drop down selection
Data field options	Amplified Low Negative Not done
How to answer	Report results obtained in pathology report. Two main types of tests; immunohistochemistry (IHC) or in situ hybridization (ISH). ****AUSTRALIA**** **Amplified -** IHC score 3+, ISH amplified **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

	****NEW ZEALAND**** **Amplified -** IHC score 3+ **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

Ki67 Biomarker status

Definition	The percentage of the total sample that has active Ki-67 proteins. Ki67 is a valuable biomarker in breast cancer. The expression of Ki67 is strongly associated with tumour cell proliferation and growth.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Not done/no results available ≤ 10 % 11 – 30 % 31 – 50 % > 50 % Not done/no results available
How to answer	As stated in pathology report, this is the percentage of the total sample that has active Ki-67 proteins.

Tumor-Infiltrating Lymphocytes (TILs) Biomarker status

Definition	The presence of tumour-infiltrating lymphocytes (TILs) is believed to be predictive of response to immunotherapy, chemotherapy, and other targeted therapies in addition to their role as a prognostic biomarker. TILs in the tumour and the surrounding microenvironment are thought to reflect ongoing anti-tumour host immune response.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Not done/no results available ≤ 10 % 11 – 30 % > 30 % Not done/no results available
How to answer	As stated in pathology report, this is the percentage of lymphocytes that directly oppose and/or surround tumour cells.

Residual Cancer Burden (RCB) Score

Definition	Residual Cancer Burden Score considers residual disease in the tumour bed and lymph nodes following neoadjuvant therapy
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Numerical (free text)
Data field options	
How to answer	As stated in pathology report If pathological complete response, enter **0**

Residual Cancer Burden (RCB) Index

Definition	The residual cancer burden index categorizes patients with breast cancer into four groups (RCB 0 – IV) based on level of residual disease after neoadjuvant therapy
Obligation	Shown if: Were neoadjuvant therapies performed = 'Yes' Required for completeness
Data field type	Drop down selection
Data field options	RCB-0 RCB-I RCB-II RCB-III RCB-IV Not done
How to answer	As stated on the pathology report **RCB-0 -** pathological complete response

Gene Profile test performed

Definition	Record of tumour gene expression profiling testing
Obligation	Shown if: Were neoadjuvant therapies performed = 'No' Required for completeness
Data field type	Radio button selection
Data field options	Yes No
How to answer	Record if the patient underwent gene profile testing e.g. prosigna or oncotype dx or DCISion for DCIS.

Adjuvant therapies

Definition	The administration of a therapy/ies after surgery
Obligation	Required for completeness
Data field type	Radio buttons
Data field options	Yes or No or Referred but not used for each therapy below

	Radiotherapy Chemotherapy SERMs Ovarian Function Suppression Aromatase Inhibitors Anti HER2 Immunotherapy
How to answer	This item refers to therapy AFTER surgery and should be filled in regardless of neo-adjuvant therapy status. **Yes =** the patient received the treatment **No =** the patient was not referred and therefore did not receive the treatment **Referred but not used =** the surgeon referred or prescribed the treatment, but it was not received for some reason

Area/s targeted by radiotherapy

Definition	The area/s the patient underwent the administration of radiotherapy after surgery
Obligation	Shown if: Adjuvant therapies: Radiotherapy = 'Yes' Required for completeness
Data field type	Drop down selection/s
Data field options	Breast Axilla Supraclavicular Internal mammary chain Chest Wall
How to answer	Indicate the area/s the patient received adjuvant radiotherapy (more than one selection allowed)

Refused Treatment

Definition	The treatment/s which the patient refused
Obligation	Required for completeness
Data field type	Drop down selection/s
Data field options	No Breast conserving surgery Mastectomy Axillary Surgery Radiotherapy Chemotherapy Hormone therapy Unspecified refusal Reconstruction Anti HER2 Immunotherapy

	Neoadjuvant Therapy
How to answer	Indicate the treatment/s the patient refused (more than one selection allowed)

DCIS PATHOLOGY

DCIS tumour size

Definition	The maximum diameter of the furthest points of extension of the tumour cells.
Obligation	Required for completeness
Data field type	Numerical (free text)
Data field options	1 - 250
How to answer	This item refers only to the amount of tumour that is DCIS, as recorded in pathology report. In the instance of bilateral cancer or two or more tumours, record the maximum diameter of the principle or most prognostically significant tumour. In cases where there are both invasive and DCIS tumours, the case should be considered invasive, and this question will not be shown

Histological grade of lesion

Definition	The degree of differentiation of the breast cancer or the degree to which it resembles normal tissue as assessed by the pathologist according to three components of the tumour.
Obligation	Required for completeness
Data field type	Radio button
Data field options	Low Intermediate High
How to answer	Histological grade should reflect what is described in the pathology report.

Necrosis present

Definition	Two categories of necrosis are recognised with DCIS: focal necrosis with no central necrosis and central necrosis in ducts
Obligation	Required for completeness
Data field type	Radio button
Data field options	No Necrosis Necrosis
How to answer	Select the appropriate level of necrosis as reported in the pathology report.

DCIS dominant pattern

Definition	The characteristic appearance of the lesion under the microscope. Architecture refers to the way in which the tumour cells grow in relation to each other and how closely the growth pattern resembles normal breast structures.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Solid Cribriform Micropapillary Encapsulated papillary carcinoma Unknown
How to answer	The dominant pattern is the form most widely seen in the lesion, as noted in the pathology report.

Number of lymph nodes examined

Definition	The total number of surgically excised axillary nodes examined histopathologically, including those excised by sentinel node biopsy.
Obligation	Required for completeness
Data field type	Numerical (free text)
Data field options	0-39
How to answer	As recorded in the pathology report. The total number of examined nodes from axillary dissection AND sentinel node biopsy. Missing data implies the number of nodes examined is unknown, it does not imply the number was zero. If no axillary surgery was performed, enter 0 The BQA system does not accept numbers over 40 in this field. If there were more than 40 nodes examined, record 40 in this field and make a note in the comments section. A case with “40” in this field will be interpreted as having “40 or more” nodes examined.

DCIS Tumor: Distance to closest circumferential margin

Definition	The distance from the DCIS component to the closest circumferential (radial) margin
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured

How to answer	This element must be entered for whichever circumferential (also called radial) margin is the closest to any DCIS component of that breast, i.e., not necessarily for the most clinically significant tumour. This is recorded after completion of all surgical procedures If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm.

DCIS Tumour: Distance to closest vertical margin

Definition	The distance from the DCIS component to the closest vertical margin
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever vertical margin is closest to any DCIS component of that breast, i.e., not necessarily for the most clinically significant tumour. This is recorded after completion of all surgical procedures. If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm.

Oestrogen receptor

Definition	The presence or absence of oestrogen receptors (ER) on the tumour cells. ER are prognostic indicators. They are an intracellular receptor protein that binds oestrogens and antioestrogens and mediate their effects by binding to DNA and altering the expression of specific genes.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Positive Low positive Negative Not done

How to answer	As stated in pathology report. **Positive –** ≥ 11% **Low positive –** 1 – 10 % **Negative –** <1% For cases with multiple tumours in the breast, if any tumour is positive record positive regardless of whether this is the principal tumour.

Progesterone receptor

Definition	The presence or absence of progesterone receptors (PR) on the tumour cells. PR are prognostic indicators. They are intracellular receptor proteins that bind progestins and antiprogestins.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Positive Negative Not done
How to answer	As stated in pathology report.

HER2 receptor

Definition	The presence or absence of Human Epidermal Growth Factor Receptor 2 (HER2) receptors on the tumour cells. HER2, one of the many proteins on a cell's surface that signals the cell to divide and helps control normal cell growth, cell division, and cell survival.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Amplified Low Negative Not done
How to answer	Report results obtained in pathology report. Two main types of tests; immunohistochemistry (IHC) or in situ hybridization (ISH). ****AUSTRALIA**** **Amplified -** IHC score 3+, ISH amplified **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

	****NEW ZEALAND**** **Amplified -** IHC score 3+ **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

Gene Profile test performed

Definition	Record of tumour gene expression profiling testing
Obligation	Required for completeness
Data field type	Radio button selection
Data field options	Yes No
How to answer	Record if the patient underwent gene profile testing e.g. prosigna or oncotype dx or DCISion for DCIS.

Adjuvant therapies

Definition	The administration of a therapy/ies after surgery
Obligation	Required for completeness
Data field type	Radio buttons
Data field options	Yes or No or Referred but not used for each therapy below Radiotherapy SERMs Aromatase Inhibitors
How to answer	This item refers to therapy AFTER surgery and should be filled in regardless of neo-adjuvant therapy status. **Yes =** the patient received the treatment **No =** the patient was not referred and therefore did not receive the treatment **Referred but not used =** the surgeon referred or prescribed the treatment, but it was not received for some reason.

Area/s targeted by radiotherapy

Definition	The area/s the patient underwent the administration of radiotherapy after surgery
Obligation	Shown if: Adjuvant therapies: Radiotherapy = 'Yes' Required for completeness
Data field type	Drop down selection/s
Data field options	Breast Axilla Supraclavicular

	Internal mammary chain Chest Wall
How to answer	Indicate the area/s the patient received adjuvant radiotherapy (more than one selection allowed)

Refused Treatment

Definition	The treatment/s which the patient refused
Obligation	Required for completeness
Data field type	Drop down selection/s
Data field options	No Breast conserving surgery Mastectomy Axillary Surgery Radiotherapy Chemotherapy Hormone therapy Unspecified refusal Reconstruction Anti HER2 Immunotherapy Neoadjuvant Therapy
How to answer	Indicate the treatment/s the patient refused (more than one selection allowed)

LCIS PATHOLOGY

LCIS dominant pattern

Definition	The characteristic appearance of the lesion under the microscope. Architecture refers to the way in which the tumour cells grow in relation to each other and how closely the growth pattern resembles normal breast structures.
Obligation	Required for completeness
Data field type	Drop down selection
Data field options	Pleomorphic Florid Classic
How to answer	The dominant pattern is the form most widely seen in the lesion, as noted in the pathology report.

LCIS tumour size

Definition	The maximum diameter of the furthest points of extension of the tumour cells.
Obligation	Shown if: LCIS dominant pattern = ‘Pleomorphic’ Required for completeness

Data field type	Numerical (free text)
Data field options	1 - 250
How to answer	This item refers only to the amount of tumour that is LCIS, as recorded in pathology report. In the instance of bilateral cancer or two or more tumours, record the maximum diameter of the principle or most prognostically significant tumour. In cases where there are both invasive and LCIS tumours, the case should be considered invasive and this question will not be shown

Number of lymph nodes examined

Definition	The total number of surgically excised axillary nodes examined histopathologically, including those excised by sentinel node biopsy.
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Numerical (free text)
Data field options	0-39
How to answer	As recorded in the pathology report. The total number of examined nodes from axillary dissection AND sentinel node biopsy. Missing data implies the number of nodes examined is unknown, it does not imply the number was zero. If no axillary surgery was performed, enter 0. The BQA system does not accept numbers over 40 in this field. If there were more than 40 nodes examined, record 40 in this field and make a note in the comments section. A case with "40" in this field will be interpreted as having "40 or more" nodes examined.

LCIS Tumour: Distance to closest circumferential margin

Definition	The distance from the LCIS component to the closest circumferential (radial) margin
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever circumferential (also called radial) margin is the closest to any LCIS component of that breast, i.e., not necessarily for the most clinically significant tumour. This is recorded after completion of all surgical procedures

	If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm.

LCIS Tumour: Distance to closest vertical margin

Definition	The distance from the LCIS component to the closest vertical margin in mm
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Drop down selection
Data field options	0mm 0.1mm – 2 mm >2 mm Unknown or not measured
How to answer	This element must be entered for whichever vertical margin is closest to any LCIS component of that breast, i.e., not necessarily for the most clinically significant tumour. This is recorded after completion of all surgical procedures. If the skin has been excised, e.g., by mastectomy, then the reported superficial or skin margins are to be recorded as clear (even if the pathologist reports involved superficial /skin margins). Involved margins should be reported as 0mm.

Oestrogen receptor

Definition	The presence or absence of oestrogen receptors (ER) on the tumour cells. ER are prognostic indicators. They are an intracellular receptor protein that binds oestrogens and antioestrogens and mediate their effects by binding to DNA and altering the expression of specific genes.
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Drop down selection
Data field options	Positive Low positive Negative Not done
How to answer	As stated in pathology report. **Positive –** ≥ 11%

	Low positive – 1 – 10 % **Negative –** <1% For cases with multiple tumours in the breast, if any tumour is positive record positive regardless of whether this is the principal tumour.

Progesterone receptor

Definition	The presence or absence of progesterone receptors (PR) on the tumour cells. PR are prognostic indicators. They are intracellular receptor proteins that bind progestins and antiprogestins.
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Drop down selection
Data field options	Positive Negative Not done
How to answer	As stated in pathology report.

HER2 receptor

Definition	The presence or absence of Human Epidermal Growth Factor Receptor 2 (HER2) receptors on the tumour cells. HER2, one of the many proteins on a cell's surface that signals the cell to divide and helps control normal cell growth, cell division, and cell survival.
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Drop down selection
Data field options	Amplified Low Negative Not done
How to answer	Report results obtained in pathology report. Two main types of tests; immunohistochemistry (IHC) or in situ hybridization (ISH). ****AUSTRALIA**** **Amplified -** IHC score 3+, ISH amplified **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

	****NEW ZEALAND**** **Amplified -** IHC score 3+ **Amplified -** IHC score 2+, ISH amplified **Low -** IHC score 2+, ISH not amplified **Low -** IHC score 1+ **Negative -** IHC score 0

Gene Profile test performed

Definition	Record of tumour gene expression profiling testing
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Radio button selection
Data field options	Yes No
How to answer	Record if the patient underwent gene profile testing e.g. prosigna or oncotype dx or DCISion for DCIS.

Adjuvant therapies

Definition	The administration of a therapy/ies after surgery
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Radio buttons
Data field options	Yes or No or Referred but not used for each therapy below Radiotherapy SERMs Aromatase Inhibitors
How to answer	This item refers to therapy AFTER surgery and should be filled in regardless of neo-adjuvant therapy status. **Yes =** the patient received the treatment **No =** the patient was not referred and therefore did not receive the treatment **Referred but not used =** the surgeon referred or prescribed the treatment, but it was not received for some reason.

Area/s targeted by radiotherapy

Definition	The area/s the patient underwent the administration of radiotherapy after surgery
Obligation	Shown if: • LCIS dominant pattern = 'Pleomorphic' • Adjuvant therapies: Radiotherapy = 'Yes'

	Required for completeness
Data field type	Drop down selection/s
Data field options	Breast Axilla Supraclavicular Internal mammary chain Chest Wall
How to answer	Indicate the area/s the patient received adjuvant radiotherapy (more than one selection allowed)

Refused Treatment

Definition	The treatment/s which the patient refused
Obligation	Shown if: LCIS dominant pattern = 'Pleomorphic' Required for completeness
Data field type	Drop down selection/s
Data field options	No Breast conserving surgery Mastectomy Axillary Surgery Radiotherapy Chemotherapy Hormone therapy Unspecified refusal Reconstruction Anti HER2 Immunotherapy Neoadjuvant Therapy
How to answer	Indicate the treatment/s the patient refused (more than one selection allowed)