

# Synoptic breast imaging report

including imaging classification (1–5)

This document is an update of Chapter 6 and Appendix G contained in the NBCC *Breast imaging: a guide for practice, 2002*.<sup>1</sup>

## PURPOSE

The National Breast Cancer Centre (NBCC) *Synoptic breast imaging report* is a lesion-based synoptic report using a five-point classification system. It is recommended that the NBCC synoptic report be used for the reporting of all breast imaging.<sup>1</sup>

## OVERVIEW

A synoptic report contains a summary of essential information in a checklist format with standard language, descriptions and classification system.<sup>1</sup> Synoptic reporting may improve the content and completeness of reports, reduce the risk of misinterpretation of findings, improve communication between referring clinicians and radiologists and facilitate the transfer of information to databases for quality improvement activities and audit.

The NBCC *Synoptic breast imaging report* aims to improve communication by ensuring the imaging report contains all essential descriptors of lesions, correlating imaging findings with clinical findings, providing an imaging diagnosis and utilising a classification system based on clinical management.

The NBCC *Synoptic breast imaging report* is lesion based, tracking individual lesions and considering mammography and ultrasound characteristics for each lesion in the same section rather than reporting the imaging findings separately – requiring the radiologist to offer one classification finding per lesion.

The NBCC *Synoptic breast imaging report* has been designed as a checklist to be added to a narrative report. Alternatively, lesions could be described in the imaging characteristics sections and the standardised format could be used as a stand-alone report.

Endorsed by:



<sup>1</sup> National Breast Cancer Centre. *Breast imaging: a guide for practice, 2002*.  
National Breast Cancer Centre, Camperdown, NSW.

## BACKGROUND

The NBCC in collaboration with the Royal Australian and New Zealand College of Radiologists developed *Breast imaging: a guide for practice* to optimise the early and accurate diagnosis of breast abnormalities. The guide provides recommendations and suggestions for practice to improve the effectiveness and efficiency of the processes of referral to breast imaging services and the reporting of breast imaging results. The guide focuses on breast imaging that occurs outside the BreastScreen Australia Program.

The key recommendation of the guide is the introduction of a synoptic report and classification system suitable for the Australian setting designed to improve communication between the referring clinician and radiologist. A 1–5 classification system for imaging findings has been developed to help prevent interpretation errors and to effectively communicate the level of concern between the radiologist and referring doctor.

The use of diagnosis and classification codes is likely to reduce ambiguity in reports and may be used by individual radiologists for audit purposes. Standardised reporting is based on the use of standard language and descriptions with an agreed classification system. Such a standardised, management-based classification system for imaging findings should potentially prevent interpretation errors and improve the management of women with breast symptoms.

The NBCC *Synoptic breast imaging report including imaging classification (1–5)* aims to improve communication by increasing the number of reports containing all essential descriptions of the lesions, correlating imaging findings with clinical findings, and thereby clearly conveying the importance of individual clinical and radiological findings to referring clinicians. The guide utilises a classification system based on clinical management encouraging decision-orientated reporting. Reports generated in accordance with the synoptic standardised reporting system should contain enough information to assist the clinician in the absence of films.

The NBCC *Synoptic breast imaging report*, originally developed in 2002, has been revised to ensure acceptability and applicability to radiologists, referring clinicians and end users. The imaging classification system (1–5) remains unchanged.

***Breast imaging: a guide for practice*<sup>1</sup> includes the following recommendation:**

### Recommendation 6A

Synoptic reports have the potential to improve care for women and it is recommended that the 1–5 breast imaging classification system be used as part of every synoptic report:

1. No significant abnormality
2. Benign findings
3. Indeterminate/equivocal findings
4. Suspicious findings of malignancy
5. Malignant findings

For the full list of recommendations refer to *Breast imaging: a guide for practice*.<sup>1</sup>

# Synoptic breast imaging report

including imaging classification (1–5)

1. Patient identification details:
2. Reason for examination:
3. Breast density:
 

<input type="checkbox"/> <25% glandular	<input type="checkbox"/> 25–50% glandular
<input type="checkbox"/> 51–75% glandular	<input type="checkbox"/> >75% glandular
4. Number of significant imaging lesions:

	Lesion #1	Lesion #2	Lesion #3
5. Side:			
6. Mammography characteristics:			
Lesion type:			
Quadrant:			
7. Ultrasound characteristics:			
Lesion type:			
O'clock:			
8. Distance from nipple (in mm):			
9. Size (maximum diameter in mm):			
10. Combined imaging diagnosis/Differential diagnosis:			
11. Correlation with reason for referral:			
12. Imaging classification (1–5):			
13. Recommendation for further investigation:			

# Appendix A

## NBCC Synoptic breast imaging report

It is recommended that the proposed synoptic report be used for breast imaging. The use of synoptic reporting helps to ensure that reports are concise, comprehensive and easy to understand. The minimum data to be included in a breast imaging report is provided below.

### 1. PATIENT IDENTIFICATION DETAILS:

### 2. REASON FOR EXAMINATION:

- *The reason for the examination should be included on the referral. Further information can also be obtained from the woman.*
- *This should prompt the radiologist to correlate findings with any clinical signs/symptoms, even if the findings relate to normal breast tissue, fatty lobule, etc.*

### 3. BREAST DENSITY:

*Breast composition should be described for all patients using the following patterns*

- < 25% glandular
- 25–50% glandular
- 51–75% glandular
- >75% glandular

### 4. NUMBER OF SIGNIFICANT IMAGING LESIONS:

*A significant lesion is an abnormality detected on the clinical examination or breast imaging that requires further investigation. The standard report format has the ability to track up to three (3) significant lesions.*

### Imaging characteristics of lesion #1:

### 5. SIDE: *Right or left*

### 6. MAMMOGRAPHY CHARACTERISTICS:

*State only if present and a significant finding*

*Not necessary to state if not present*

- Lesion type -
  - *Not performed*
  - *Lesion not visualised*
  - *Mass: if present give description of characteristics (see p6)*
  - *Calcification: if present give description of characteristics (see p6)*
  - *Architectural distortion*
  - *Asymmetric density*
- Quadrant -
  - *Specify the most accurate location, use location in breast, eg UO, UI, LO, LI, U central, L central*  
*- seen on one view only - specify upper, inner, outer, lower*

### 7. ULTRASOUND CHARACTERISTICS:

*State only if present and a significant finding*

*Not necessary to state if not present*

- Lesion type -
  - *Not performed*
  - *Lesion not visualised*
  - *Mass if present give description of characteristics (see p6)*
  - *Distortion*
  - *Calcification without mass*
- O'clock -
  - *Subareolar/central and axillary tail do not require o'clock*
  - *Multicentric/widespread - indicate which regions are involved*

## 8. DISTANCE FROM NIPPLE (SONOGRAPHIC OR MAMMOGRAPHIC):

- *In millimetres*

## 9. SIZE (MAXIMUM DIAMETER IN MILLIMETRES):

*Use the most accurate maximum diameter of mass and maximum extent of abnormality for calcification and distortion. Usually, ultrasound will give the most accurate size measurement for masses.*

## 10. COMBINED IMAGING DIAGNOSIS/DIFFERENTIAL DIAGNOSIS:

*Give a single imaging diagnosis, if possible, based upon both mammographic and ultrasound findings. If there is a differential, this should be given, indicating the most likely diagnosis.*

## 11. IMAGING FINDINGS CORRELATE WITH REASON FOR REFFERAL?

*Yes / No*

## 12. CLASSIFICATION:

*It is recommended that the classification apply to all reported lesions, and the levels of suspicion range from 1 - 5 as follows*

### 1. No significant abnormality

- *There is no significant imaging abnormality*
- *Standard-format checklist is not required*
- *If there is a clinical symptom, and there are no imaging abnormalities to explain it this should be stated in the report*
- *This classification does not preclude biopsy of any clinically suspicious area*

### 2. Benign findings

- *No further imaging is required*
- *Standard-format checklist is optional*
- *Correlation of findings with clinical symptoms, if present, should be stated in the report*
- *This classification does not preclude biopsy of any clinically suspicious area*

### 3. Indeterminate/equivocal findings

- *Requires further investigation, usually with percutaneous needle biopsy (fine needle aspiration (FNA) cytology and/or core biopsy)*
- *Management should be based on the outcome of the triple test*
- *There may be a limited role for early follow-up (eg inflammation)*
- *Further investigation will almost always resolve the indeterminate nature of the lesion*
- *Correlation of findings with clinical symptoms, if present, should be stated in the report*
- *This classification does not preclude biopsy of any clinically suspicious area*

#### 4. Suspicious findings of malignancy

- Requires further investigation with percutaneous needle biopsy sampling
- May require excisional biopsy
- Correlation of findings with clinical symptoms, if present, should be stated in the report

#### 5. Malignant findings

- Requires further investigation even if percutaneous needle biopsy sampling is benign
- Correlation of findings with clinical symptoms, if present, should be stated in the report

When reporting the classification, both the number and the description of the classification should be stated, for example, 'Category 2: Benign findings' or 'Category 3: Indeterminate/equivocal findings'.

### 13. RECOMMENDATION FOR FURTHER IMAGING/INVESTIGATION:

Lesion #2: as per lesion #1

Lesion #3: as per lesion #1

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## DESCRIPTORS FOR MAMMOGRAPHY AND ULTRASOUND FINDINGS

These descriptors are recommended for use in the narrative report and are optional for the synoptic report. Use only if present. Do not give negative findings.

### Mammography characteristics of abnormalities

- Mass
  - Shape: round/ovoid, lobulated, irregular
  - Margins: sharply defined, poorly defined, spiculated
  - Associated with calcifications: present/not present. If present, do calcifications extend beyond the mass
- Significant calcification:
  - Distribution: single cluster, multiple clusters, ductal, segmental, widespread
  - Shape: pleomorphic, granular, casting/linear/branching
  - Associated with mammographic density, present/not present
- Architectural distortion
- Asymmetric density
- Other findings: specify

### Ultrasound characteristics of abnormalities

- Mass:
  - Echotexture: cyst, solid, complex
  - Shape: round/oval, lobulated, irregular
  - Margins: sharply defined, poorly defined, spiculated
  - Surrounding tissues: normal/abnormal
  - Calcification: present/not present
- Architectural distortion
- Calcification not in mass
- Other findings: specify

## Membership of the NBCC Synoptic report for breast imaging Working Group

This guide was developed by a multidisciplinary working group convened by NBCC:

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