Ductal carcinoma in situ
in women in New South Wales: 1995-2000

Summary Report
Ductal carcinoma in situ in women in New South Wales: 1995-2000, summary report was prepared Anne Kricker and Dr Chris Goumas on behalf of the National Breast Cancer Centre:

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FACTS AND FIGURES ABOUT DUCTAL CARCINOMA IN SITU IN WOMEN IN NEW SOUTH WALES IN 1995-2000

This summary presents information about women diagnosed with ductal carcinoma in situ (DCIS) in New South Wales (NSW) in 1995-2000. It describes aspects of the epidemiology and pathology of the disease, as well as its surgical management. The full report is available following this link www.nbcc.org.au/resources/index.html or by contacting the National Breast Cancer Centre, Locked Bag 16 Camperdown NSW 1450 Australia. Website: www.nbcc.org.au Email: directorate@nbcc.org.au

Where does the information come from?

Before the introduction of mammographic screening, information on the diagnosis of DCIS was not reported in a standard fashion. The increased notification of DCIS has mirrored the uptake of mammographic screening services mainly because DCIS is principally diagnosed on mammograms. Currently, State and Territory cancer registries receive notifications of DCIS diagnoses from pathologists.

The information in this manuscript and in the full report was collected using the records of the NSW Central Cancer Registry (CCR). During the time of the study, the NSW CCR was managed and operated by the Cancer Council NSW under contract to the NSW Health Department. Data abstracted from the pathology reports for all women registered with DCIS in 1995-2000 serve as the basis of the information presented herein.

Key Findings

- From 1995-1997 to 1998-2000, the age-standardised incidence of DCIS increased by 16% from 9.2 new cases per 100,000 women to 10.7 new cases per 100,000 women. Most (65%) were detected through BreastScreen NSW, the population-based mammographic screening program.
Most (60%) women diagnosed in 1998-2000 has DCIS smaller than 2 cm in diameter. Just over half (54%) the women diagnosed in the same period had high-grade DCIS.

The proportion of women who had breast conserving surgery for DCIS increased from 64% in 1996-1997 to 76% in 1998-2000. Mastectomy was more common in women aged 30-39 years (59%) compared to women of other ages.

**How many women were diagnosed with DCIS?**

During the period from 1995-2000, 2109 women were diagnosed with DCIS in NSW. This is an average of about 350 cases a year. The age-adjusted incidence in 1995-1997 was 9.2 new cases per 100,000 women. This increased by 16% in 1998-2000 to 10,7 new cases per 100,000 women.

Rural areas of NSW had a lower age-adjusted incidence (8.3 new cases per 100,000 women) compared to urban areas (11.4 new cases per 100,000 women). Changes in rates were also different for urban and rural areas across the study period. While incidence rates increased by 21% in urban areas from 1995-1997 to 1998-2000, the incidence rates in rural areas did not change.

Age-adjusted incidence increased significantly in 1995-2000 with increasing socioeconomic status (SES) of residential locations in the Sydney Statistical Division. Rates varied from 8.3 new cases per 100,000 women in low SES areas to 13.1 new cases per 100,000 women in high SES areas. No similar trends were apparent outside of the Sydney region.

**At what age were women diagnosed with DCIS?**

Just over half (54%) of women with DCIS were aged 50-69 years (Figure 1). This is the target age group for BreastScreen NSW, the population-based mammographic screening program. BreastScreen detected 65% of the DCIS reported to the NSW CCR in women aged 40-79 years. Roughly similar proportions (about 20%) of women aged 40-49 and aged 70 years and older were diagnosed with DCIS. Only 4% were younger than 40 years.
How was DCIS reported?

The Australian Cancer Network Working Party (2000) developed recommendations on pathology reporting in the publication entitled “The pathology reporting of breast cancer: A guide for pathologists, surgeons and radiologists” emphasising the key aspects of reporting size and grade, since these impact on treatment options and prognosis. In 1998-2000, 95% of pathology reports reported the grade of DCIS while 81% reported the size.

Most (62%) of the DCIS reported in the period 1995-2000 were less than 2 cm in diameter (Figure 2). Age was statistically significantly related to the size of DCIS. Compared to women aged 40 years and older, women aged 20-39 years were more likely to have DCIS of 3 cm or larger (26% versus 16%). In addition, women in the younger age group (20-39 years) were twice as likely to have DCIS of at least 2 cm diameter compared to women aged 50-69 years.
Most DCIS reported in 1998-2000 were high grade (54%). Less than a third (29%) were medium grade and only a small proportion (17%) were low grade (Figure 3). Moreover, larger size increased the odds that DCIS was of a higher grade. Women with low grade DCIS had about half the odds of the DCIS being at least 2 cm in size compared to those with high grade DCIS.

![Figure 3. Distribution of grade of DCIS in women in NSW in 1998-2000.](image)

**How were women with DCIS managed surgically?**

In 1995-1997, 64% of women with DCIS were managed surgically using breast conserving surgery. In 1998-2000, this proportion increased to 76%. Women with larger DCIS or those with higher grades were more likely to undergo mastectomy than breast conservation. Moreover, women aged 20-39 years were less likely to be managed using breast conservation surgery compared to women aged 50-69 years (59% versus 78%), consistent with the finding that younger women were more likely to have larger DCIS.

Twenty percent of pathology reports over the entire study period mentioned lymph node examination. Removal of lymph nodes was more common with mastectomy (51%) than with breast conservation surgery (6%).