

Hong Kong Breast Cancer Registry Report No. 9

香港乳癌資料庫第九號報告

Published in 2017
2017年出版

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Report No. 9

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ABOUT HONG KONG BREAST CANCER FOUNDATION

The Hong Kong Breast Cancer Foundation (HKBCF), founded on 8 March 2005, is a non-profit charitable organisation dedicated to mitigating the threat of breast cancer to the local community through education, patient support, research and advocacy. HKBCF is operated by Hong Kong Breast Cancer Foundation Limited.

Mission

- Promote public awareness of breast cancer and the importance of breast health
- Support breast cancer patients on their road to recovery
- Advocate better breast health and cancer care in Hong Kong

關於香港乳癌基金會

香港乳癌基金會於2005年3月8日成立，是本港首間專注乳健教育、患者支援、研究及倡議的非牟利慈善組織，致力減低乳癌在本地的威脅，該基金會由香港乳癌基金會有限公司營運。

使命

- 提高公眾對乳癌的認識及推廣乳房健康的重要性
- 支援乳癌患者踏上康復之路
- 倡議改善本港乳健及乳癌防控和醫護方案



ABOUT THE HONG KONG BREAST CANCER REGISTRY

The Hong Kong Breast Cancer Registry (HKBCR) was established in 2007 by the Hong Kong Breast Cancer Foundation (HKBCF) and has since grown to become the most comprehensive and representative data collection and monitoring system for breast cancer in Hong Kong.

The territory-wide HKBCR aims to collect and conduct analysis on data from local breast cancer cases to provide comprehensive reporting on demographics, risk exposures, clinical examinations, treatments, clinical outcomes and psychosocial impacts on patients. These reports will allow patients, medical professionals and public health policy makers to better understand breast cancer in Hong Kong and stay informed with up-to-date facts regarding the disease. These reports will also provide insight and evidence to support our advocacy for better prevention, detection and treatment of breast cancer.

The HKBCR is steered by a committee composed of doctors, professionals from the legal, business management and public health fields, as well as breast cancer patients.

To enhance access to the valuable data collected through, and analysed by the HKBCR, the HKBCF launched Breast Cancer HK Online (BRCA Online, <http://brcaonline.hkbcf.org/>) in May 2014 – a virtual platform that facilitates easy access to HKBCR data output by registered medical professionals.

Data analysis and study findings by the HKBCR are published in the ***Hong Kong Breast Cancer Registry Report*** annually and in the ***HKBCR Bulletin***.

Read online: www.hkbcf.org/breastcancerregistry

The HKBCR is a member of the International Association of Cancer Registries (IACR).

Objectives

- To empower those affected by breast cancer with information about local breast cancer and the treatment paths of fellow patients.
- To facilitate medical professionals' decision making process on the treatment and care for breast cancer patients.
- To inspire policy changes for better prevention, detection, diagnosis and treatment of breast cancer and rehabilitation of patients.



關於香港乳癌資料庫

香港乳癌資料庫由香港乳癌基金會於2007年創立，迄今已發展為本港最全面及最有代表性的乳癌資料庫及監察系統。

香港乳癌資料庫旨在收集全港乳癌個案的數據，包括患者統計資料、罹患乳癌的高危因素、臨床病徵、治療方法、成效及對患者的身心影響等。這些數據的分析及研究結果將有助患者、醫護人員及公共衛生政策制定者進一步了解本港乳癌的實況及掌握最新資訊。同時，亦為我們在改善乳癌防控、檢測及治療方面提供寶貴的參考。

香港乳癌資料庫由醫生、法律界、管理專業、公共衛生專業人士及乳癌患者代表組成的委員會督導。

香港乳癌基金會於2014年5月推出「乳癌在線」網上平台 (<http://brcaonline.hkbcf.org/>)，讓醫護人員可以充分利用香港乳癌資料庫搜集及分析的乳癌數據結果，作為參考資料。

香港乳癌資料庫每年都會出版 **香港乳癌資料庫報告** 及 **香港乳癌資料庫簡報**。

請瀏覽以下網址：www.hkbcf.org/breastcancerregistry

香港乳癌資料庫是國際癌症資料庫協會的成員。

宗旨

- 為乳癌患者及康復者提供有關本地乳癌個案的資訊及其他患者的治療選擇，增強他們對抗乳癌的能力
- 為醫護人員提供參考，以助他們為病人作出適當的治療及護理決定
- 促進政策或制度的改變，改善本港乳癌防控、檢查、診斷、治療及護理的方案



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AN OVERVIEW OF THE HONG KONG BREAST CANCER REGISTRY ACTIVITIES

Breast cancer in Hong Kong

Breast cancer is the most common cancer among women in Hong Kong and has the third highest mortality rate among all female cancer deaths. In 2014, 3,868 women were diagnosed with invasive breast cancer, accounting for 26.6% of all female cancer cases. Recent figures showed that the cumulative lifetime risk of developing breast cancer has been rising, from 1 in 21 women in 2008 to 1 in 16 women in 2014. The number of new breast cancer cases in Hong Kong has tripled in the past 20 years. In 2014, 604 women died of breast cancer¹.

Hong Kong Breast Cancer Registry – Over 18,000 patients registered

As of February 2017, more than 18,000 breast cancer patients have registered with the Hong Kong Breast Cancer Registry (HKBCR), and are participating in our data collection and analysis. **For this report, only patients who were diagnosed from 2006 onwards were included.**

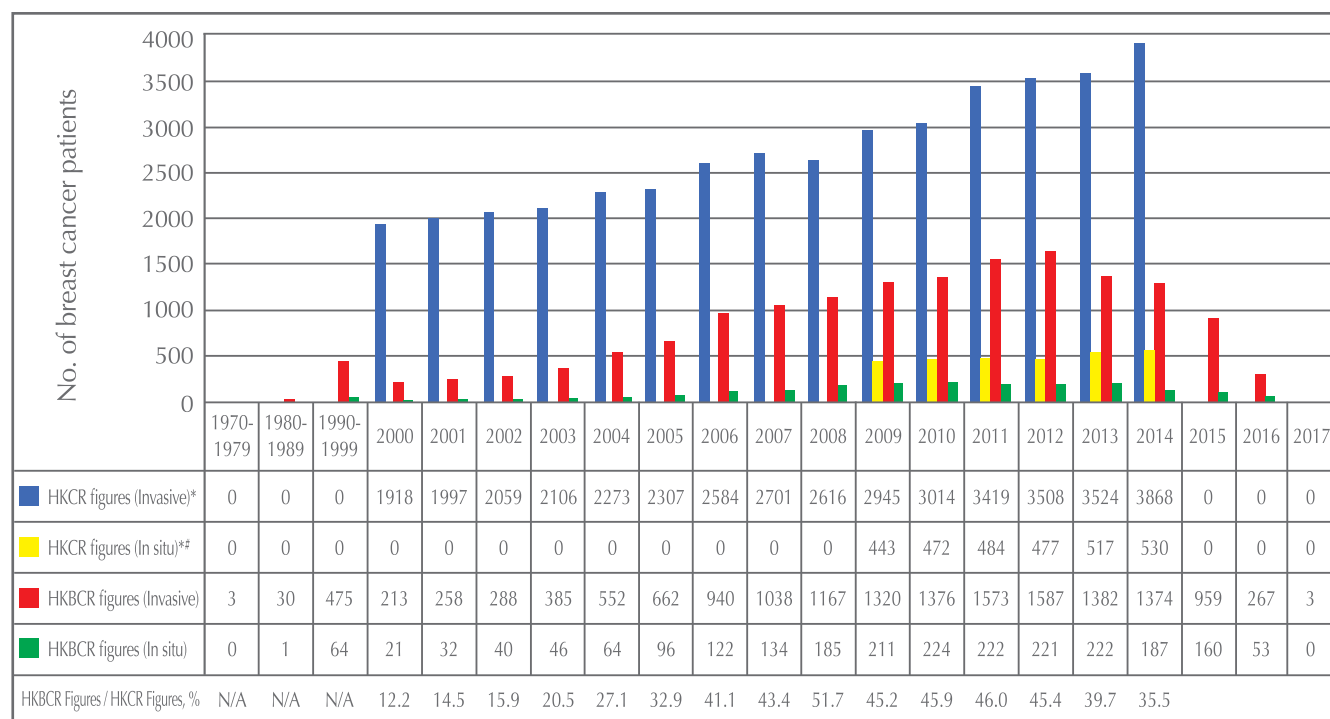


Figure I Distribution of year of diagnosis of HKBCR participants

HKCR figures: incidence of breast cancer recorded by the Hong Kong Cancer Registry, Hospital Authority

HKBCR figures: the number of patients/survivors who registered with the Hong Kong Breast Cancer Registry, Hong Kong Breast Cancer Foundation

* Data for years marked with "0" are not publicly available or not published by the Hong Kong Cancer Registry, Hospital Authority

For the number of in situ cancer cases, only data for 2009-2014 were publicly available and published by the Hong Kong Cancer Registry, Hospital Authority



Participating doctors / hospitals

The HKBCR aims to collect data on as many breast cancer cases as possible in order to present comprehensive report on breast cancer in Hong Kong. The success of the HKBCR relies heavily on the participation of breast cancer patients and the support of healthcare professionals. 53 public and private hospitals and clinics have joined as participating sites of the HKBCR.

List of participating clinics / hospitals

- Hong Kong Adventist Hospital*
- Hong Kong Baptist Hospital*
- Hong Kong Sanatorium and Hospital*
- Kwong Wah Hospital
- North District Hospital
- Our Lady of Maryknoll Hospital
- Pamela Youde Nethersole Eastern Hospital
- Pok Oi Hospital
- Prince of Wales Hospital
- Princess Margaret Hospital*
- Queen Mary Hospital*
- St. Paul's Hospital
- Tsuen Wan Adventist Hospital
- Tuen Mun Hospital
- Union Hospital
- United Christian Hospital
- Yan Chai Hospital
- 31 Private clinics

* Multiple participating sites

香港乳癌資料庫工作概覽

香港乳癌概況

乳癌是香港婦女最常見的癌症亦是第三位致命的癌症。在2014年，本港有3,868名婦女新確診入侵性乳癌，佔女性癌症個案的26.6%。統計顯示，香港婦女罹患乳癌的一生累積風險比率有所增加，由2008年的每21人中有1人，上升至2014年的每16人中有1人。在過去二十年，香港每年的乳癌新增個案就增加了三倍。在2014年，本港有604名婦女因乳癌而死亡¹。

香港乳癌資料庫 — 超過 18,000人登記加入

截至2017年2月，已經有超過18,000位乳癌患者登記加入香港乳癌資料庫，為我們提供數據以作分析及研究之用。
本報告書只包括了在2006年或以後確診的乳癌患者。

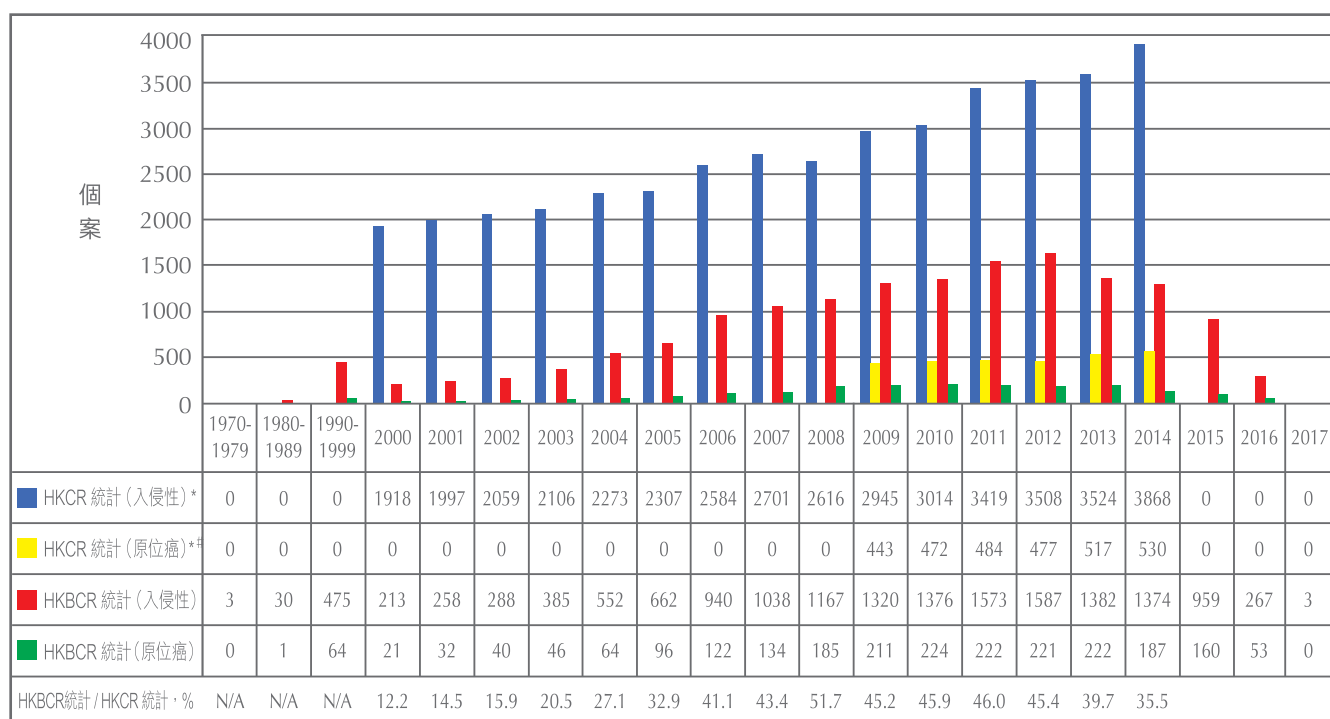


圖 I 香港乳癌資料庫參加者的確診年份分佈

HKCR統計：醫管局香港癌症資料統計中心收錄的乳癌個案數目

HKBCR統計：登記加入香港乳癌基金會香港乳癌資料庫的人數

* “0”代表醫管局香港癌症資料統計中心沒有收集或未有公布有關數據

除2009-2014年以外，醫管局香港癌症資料統計中心沒有公布原位癌個案數目



參與醫生 / 醫院

香港乳癌資料庫的目標為搜集本地乳癌個案的數據，以掌握香港整體的乳癌實況。香港乳癌資料庫的成功，有賴乳癌患者、康復者的參與和專業醫護人員的支持。目前，本港已有53間公立及私營醫院和診所成為乳癌資料庫的研究合作單位。

參與診所 / 醫院名單

- 香港港安醫院*
- 香港浸信會醫院*
- 香港養和醫院*
- 廣華醫院
- 北區醫院
- 聖母醫院
- 東區尤德夫人那打素醫院
- 博愛醫院
- 威爾斯親王醫院
- 瑪嘉烈醫院*
- 瑪麗醫院*
- 聖保祿醫院
- 荃灣港安醫院
- 屯門醫院
- 仁安醫院
- 基督教聯合醫院
- 仁濟醫院
- 31間私家診所

* 多於一間收集中心



About Hong Kong Breast Cancer Registry Report No. 9 (Published in 2017)

Between 2008 and February 2017, a total of 18,440 breast cancer patients registered with the HKBCR. **Only patients (n= 15,222) who were diagnosed from 2006 onwards were included in this report (referred to as “patient cohort” in this Report).** Of these patients, 3,824 (25.1%) registered at private clinics/hospitals and the remaining 11,398 (74.9%) were registered through public hospitals. Upon receiving written consent from participants, the HKBCR research staff gathered information including demographics, lifestyle, health background, breast screening habits, physical discomfort after treatment, and psychosocial impacts and lifestyle adjustments after diagnosis and therapy (Chapters 1 and 3 data) through standardized questionnaires. The HKBCR staff also collected data on cancer characteristics and treatment modality (Chapter 2 data) from patients’ medical records. Patient follow-up was conducted on an annual basis, and data regarding patient recurrence or metastasis was also collected, including date and site of disease recurrence.

The number of patients whose data were used for analysis in each chapters of this report is shown in Table 1. The patients included in this report that were diagnosed between 2006-2014 represented about 40% of the all breast cancer cases reported by the Hong Kong Cancer Registry in those years. Conclusions/observations are thus drawn from the data analysis of patient participants of the HKBCR only, which represent part of the breast cancer patient population. Increased participation from clinics/hospitals in Hong Kong has helped make the data more representative over the years. Since the beginning of HKBCR Reports, a trend of covering more and more patients from the public sector hospitals can be observed from Figure II, from 41.7% in Report No. 2 to 74.9% in this report, which is closer to the estimated percentage (75%) of breast cancer patients who use public health sector services.

Table I Number of patients whose data were used for analysis in different chapters of this report

Chapter	Number of patients
Chapter 1	14,905
Chapter 2	14,990
Patient Status follow up	13,235
Chapter 3	12,711

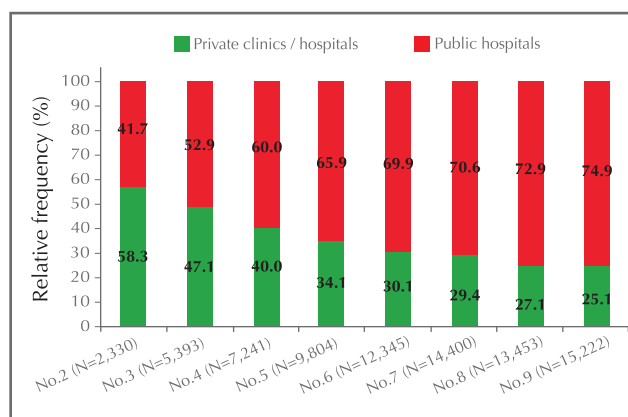


Figure II The sources of patient consent in HKBCR reports



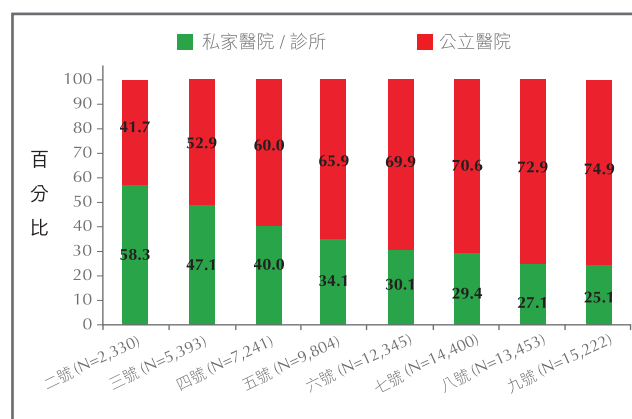
關於香港乳癌資料庫第九號報告（2017年出版）

由2008年開始至2017年2月為止，共有18,440名乳癌患者登記加入香港乳癌資料庫。**本報告書只包括了15,222名在2006年或以後確診的乳癌患者（本報告書簡稱為「受訪群組」）**。當中3,824（25.1%）從私家診所/醫院招募，其餘的11,398（74.9%）則透過公立醫院登記。香港乳癌資料庫的研究人員收到參加者的書面同意後，會向參加者發出問卷以收集資料，包括人口統計、生活模式、健康背景、乳房檢查習慣、治療後身體不適的狀況，以及接受診斷和治療後的心理影響和生活方式的調整（詳見報告第一章和第三章）。此外，研究人員亦會從個人病歷紀錄中擷取參加者的癌症特徵和治療方式等資料（詳見報告第二章）。參加者接受每年一次的跟進，以更新任何復發或腫瘤轉移的資料，包括日期及受影響的身體部位。

本報告書內不同章節所用作分析的患者數目列於表I。本報告書內於2006年到2014年期間確診的患者，大約佔這段期間醫管局香港癌症資料統計中心所匯報的所有乳癌病例的40%。因此所有「結論/觀察」都只是取自香港乳癌資料庫的參與者的數據，只代表部份的乳癌患者群組。多年來，參與的香港診所及醫院數量增加，令資料庫的數據更具代表性。自從香港乳癌資料庫的年度報告書出版以來，覆蓋的公立醫院患者越來越多，從第二號報告書的41.7%增加到本報告書的74.9%，接近使用公立醫療服務的乳癌患者估計比例（75%）。詳見圖II。

表I 本報告書內不同章節所用作分析的患者數目

章節	患者數目
第1章	14,905
第2章	14,990
患者現況	13,235
第3章	12,711



圖II 香港乳癌資料庫報告的患者來源分佈



HONG KONG BREAST CANCER REGISTRY PUBLICATIONS AND PRESENTATION

香港乳癌資料庫發表的刊物及簡報資料

Publications 刊物

Annual Report 年度報告

- | | |
|---|--------------------------|
| 1. Breast Cancer Facts in Hong Kong 2008 Report (September 2009) | 香港乳癌實況報告2008年(2009年9月出版) |
| 2. Breast Cancer Facts in Hong Kong Report No.2 (September 2010) | 香港乳癌實況第二號報告(2010年9月出版) |
| 3. Breast Cancer Facts in Hong Kong Report No.3 (September 2011) | 香港乳癌實況第三號報告(2011年9月出版) |
| 4. Hong Kong Breast Cancer Registry Report No.4 (September 2012) | 香港乳癌資料庫第四號報告(2012年9月出版) |
| 5. Hong Kong Breast Cancer Registry Report No.5 (September 2013) | 香港乳癌資料庫第五號報告(2013年9月出版) |
| 6. Hong Kong Breast Cancer Registry Report No. 6 (September 2014) | 香港乳癌資料庫第六號報告(2014年9月出版) |
| 7. Hong Kong Breast Cancer Registry Report No. 7 (September 2015) | 香港乳癌資料庫第七號報告(2015年9月出版) |
| 8. Hong Kong Breast Cancer Registry Report No. 8 (September 2016) | 香港乳癌資料庫第八號報告(2016年9月出版) |

Bulletin 簡報

- | | |
|---|--|
| 1. BCR Bulletin Issue 1 (May 2010)
<i>Study 1: Screening-detected breast cancer shows earlier stage than incidental self-detected cancer</i>
<i>Study 2: Unwrapping physical and psychosocial impacts of breast cancer on Hong Kong women</i> | 香港乳癌資料庫簡報第1期(2010年5月出版)
<u>研究一：相對於偶然的自行檢查，乳癌普查能更有效診斷出早期乳癌</u>
<u>研究二：揭示乳癌對香港婦女帶來的生理及心理影響</u> |
| 2. BCR Bulletin Issue 2 (October 2012)
<i>Socio-economic Disparities in Breast Cancer Screening Practice and Cancer Staging in Hong Kong</i> | 香港乳癌資料庫簡報第2期(2012年10月出版)
<u>經濟及社會狀況差異對乳癌普查習慣和癌症期數的影響</u> |
| 3. BCR Bulletin Issue 3 (April 2013)
<i>Impact of breast cancer by age in Hong Kong</i> | 香港乳癌資料庫簡報第3期(2013年4月出版)
<u>年齡對本港乳癌個案的影響</u> |
| 4. BCR Bulletin Issue 4 (December 2013)
<i>A Study on the Differences in the Cancer Characteristics Between Self-Detected and Screen-Detected Patients and the Treatments They Received</i> | 香港乳癌資料庫簡報第4期(2013年12月出版)
<u>患者在有癥狀下發現和在定期檢測發現乳癌的癌症特性及所接受治療的差異研究</u> |
| 5. BCR Bulletin Issue 5 (September 2014)
<i>Delay in Medical Consultation is More Common in Widows or Non-clerical / Labour Workers</i> | 香港乳癌資料庫簡報第5期(2014年9月出版)
<u>喪偶者或非文職/勞動工作者的延誤求醫情況較為普遍</u> |
| 6. BCR Bulletin Issue 6 (September 2015)
<i>Sentinel Node Biopsy in Hong Kong Breast Cancer Patients</i> | 香港乳癌資料庫簡報第6期(2015年9月出版)
<u>香港乳癌患者的前哨淋巴結切片</u> |
| 7. BCR Bulletin Issue 7 (September 2016)
<i>Breast Cancer in Hong Kong Elderly Patients</i> | 香港乳癌資料庫簡報第7期(2016年9月出版)
<u>香港年長患者的乳癌狀況</u> |



Articles published in medical journals 醫學期刊文章

1. Cheung P, Hung WK, Cheung C, Chan A, Wong TT, Li L, Chan SWW, Chan KW, Choi P, Kwan WH, Yau CC, Chan EYY, Law SCK and Kwan D. Early Data from the First Population-Wide Breast Cancer-Specific Registry in Hong Kong. *World J Surg.* 2012;36(4):723-9.
2. Chor JS, Lam HC, Chan A, Lee HM, Fok E, Griffiths S, Cheung P. Socioeconomic disparity in breast cancer detection in Hong Kong--a high income city: retrospective epidemiological study using the Breast Cancer Registry. *PLoS One.* 2014;9(10):e107630. doi: 10.1371/journal.pone.0107630.
3. Yeo W, Lee HM, Chan A, Chan EY, Chan MC, Chan KW, Chan SW, Cheung FY, Cheung PS, Choi PH, Chor JS, Foo WW, Kwan WH, Law SC, Li LP, Tsang JW, Tung Y, Wong LL, Wong TT, Yau CC, Yau TK, Zee BC. Risk factors and natural history of breast cancer in younger Chinese women. *World J Clin Oncol.* 2014;5(5):1097-106. doi: 10.5306/wjco.v5.i5.1097.
4. Chan SW, Cheung C, Chan A, Cheung PS. Surgical options for Chinese patients with early invasive breast cancer: Data from the Hong Kong Breast Cancer Registry. *Asian J Surg.* 2016 May 18. pii: S1015-9584(16)30032-X. doi: 10.1016/j.asjsur.2016.02.003.
5. Yau TK, Chan A, Cheung PS. Ductal carcinoma in situ of breast: detection and treatment pattern in Hong Kong. *Hong Kong Med J.* 2017;23(1):19-27. doi: 10.12809/hkmj154754.

Presentations 簡報資料

1. Screen-detected breast cancer showed earlier staging than incidental self- detected cancer, Dr. Polly Cheung (Breast Cancer Conference 2009, The Chinese University of Hong Kong)
2. Breast cancer facts in Hong Kong Report No.2, Dr. Hung Wai Ka (International Surgical Week 2011, Japan) (Nominated for Breast Surgery International Best Paper Award)
3. Risk factors for breast cancer in Hong Kong, Ms. Amy Chan (33rd Annual meeting of the International Association of Cancer Registries 2011, Mauritius)
4. Local data from the Hong Kong Breast Cancer Registry, Dr. Polly Cheung (Breast Cancer Conference 2011, The Chinese University of Hong Kong)
5. Breast cancer facts in Hong Kong, Dr. Carol Kwok (4th Global Chinese Breast Cancer Organizations Alliance Conference 2012, USA)
6. Hong Kong Breast Cancer Registry: Evidence for improving cancer control and treatment, Dr. Polly Cheung (Breast Cancer Conference 2015, The Chinese University of Hong Kong)
7. Pathological response rate: Analyzing the outcome of neoadjuvant chemotherapy for patients enrolled in Hong Kong Breast Cancer Registry, Dr. Carol Kwok (24th Annual Scientific Meeting of Hong Kong College of Radiologists 2016, Hong Kong)
8. Elders with Breast Cancer Tend to Delay Seeking Medical Care and Present with a Later Cancer Stage, Dr. Janice Tsang (Symposium on Elderly Primary Breast Cancer Women 2017, England)



ABSTRACTS OF REPORTS NO. 1-8

Report No. 1 (2009): Common risk factors for breast cancer in Hong Kong

The first HKBCR report revealed that age, physical activity, health profile, lifestyle, dietary habit and socioeconomic profile were important risk factors for breast cancer. One of the most noteworthy findings was the lower median age of diagnosis in Hong Kong in comparison with those generally reported in other countries. According to the Breast Cancer Facts in Hong Kong 2008 Report ("Report No. 1"), the median age at which breast cancer was diagnosed in Hong Kong was 47.6 years, significantly lower than the ages reported in the USA (61 years) and Australia (62 years).

81% of the patients in the cohort had bra cup size B or smaller and 64% had a breast size of 34 inches or below. This rebuked the common misconception that women with bigger breasts have a higher chance of getting breast cancer.

Report No. 1 has shown that the most prevalent risk factors for breast cancer among patients in Hong Kong are as follows:

- (1) Lack of exercise (< 3 hrs per week) (74%)
- (2) No breastfeeding (64%)
- (3) High level of stress (40%)
- (4) Use of oral contraceptives (38%)
- (5) Overweight / obese (34%)
- (6) No childbirth / first childbirth after age 35 (28%)
- (7) Early menarche (<12 years old) (17%)
- (8) Diet rich in meat / dairy products (15%)
- (9) Use of hormonal replacement therapy after menopause (14%)
- (10) Alcohol drinking (9%)
- (11) Late menopause (>55 years old) (8%)
- (12) Smoking (4%)

According to Report 1, most breast cancer cases were not inherited but were closely related to modifiable factors such as dietary habits, lifestyle, and stress level in the body. 52% of the patients bore at least 2 or 3 risk factors and less than 3% of patients had no known risk factor at all.

In order to reduce breast cancer risk, the Hong Kong Breast Cancer Foundation recommends women to act on the guidelines laid down by the American Cancer Society on Nutrition and Physical Activity for Cancer Prevention 2002:

- Maintain a healthy weight throughout life
- Adopt a physically active lifestyle
- Adopt a healthy diet, with emphasis on plant sources
- Drink no more than 1 alcoholic drink per day



Report No. 2 (2010): Private hospitals found higher ratio of in situ breast cancer

The HKBCR Report No. 2 ("Report No. 2") analysed the differences in cancer characteristics and treatment methods of breast cancer patients between different types of medical facilities.

The 2,130 patients, based on the type of medical care received, were classified into three categories: total private medical care (23.1%); total public medical care (24.0%); mix of private and public medical care (52.9%).

The distribution of cancer stage at the time of diagnosis was studied and a significant discrepancy between the patients diagnosed early at stage 0 (in situ breast cancer) in private medical care (13.6%) and public medical care (5.7%) was identified. The tumour size of invasive breast cancer was generally found to be larger in patients receiving full care at public medical facilities.

The mastectomy rate of patients who were treated in public medical sector was twice as high as that in the private medical sector. The ratio of patients that received breast reconstruction was also lowest in the public medical sector group. The reason could be related to patients' age and tumour size.

There were no difference in the patterns of using the chemotherapy drugs anthracycline, taxane and other drugs between private and public sectors. Also there was no obvious difference in the pattern of use of the endocrine therapy drug tamoxifen (the most common form of endocrine therapy) between different medical sectors across different cancer stages.

Findings of this report highlighted the higher number of advanced breast cancer cases observed in the public sector which need to be addressed and further investigated.



Report No. 3 (2011): Lower income districts recorded higher rate of advanced stage breast cancer and lower breast cancer screening rate

Regular breast screening using mammography has been proven to be an effective tool for detecting breast cancer at an early stage and reducing mortality. According to Report No. 3, the median tumour size of breast cancer detected through screening was 1.4 cm, one-third smaller than the tumours self-detected by patients by chance (2.1 cm). This demonstrated that patients benefited from regular breast screening.

Report No. 3 also showed disparities in breast screening rates and in breast cancer characteristics across different districts in the territory of Hong Kong.

In Wanchai, the district with the highest household income, half of the breast cancer patients had regular mammography screening before diagnosis. In the poorer districts of Kwun Tong and Sham Shui Po, 80% of the patients had never had mammograms, the highest among all other districts. The rates of patients who had never had mammography screening were also high in Kwai Tsing, North District, Tuen Mun and Tai Po (about 70%). According to the Census and Statistics Department statistics in 2008, these districts had lower household incomes, compared to the overall median household income of HK\$18,000.

The overall rate of advanced-stage cases (stages III and IV) in the patient cohort was 12.4%. The districts with higher rates of advanced-stage cases included Wong Tai Sin (17.8%), North District (16.0%), Sham Shui Po (15%), Kwun Tong (14.4%) and Kwai Tsing (14.4%). The number of advanced-stage breast cancer patients receiving treatment at public hospitals (16.7%) was twice the number of patients in private hospitals (7.4%).

In conclusion, regular breast screening was associated with breast cancer of less advanced stage. Hence, more work is required to promote breast cancer awareness and screening, especially in low-income districts. The Hong Kong Breast Cancer Foundation's Breast Health Centre (BHC) reaches out to communities to educate women about regular screening for breast cancer and the importance of early detection. The BHC also provides affordable yet professional and quality breast cancer screening and diagnostic services.



Report No. 4 (2012): Unhealthy lifestyle prevails in young breast cancer patient

According to results of the HKBCR Report No. 4, most breast cancers were diagnosed in women aged between 40 and 70 in Hong Kong (79.7%). The patient cohort also included 14% of patients who were under 40 years old when diagnosed and 5.1% of patients who were over 70 years old.

Data analysis of Report No. 4 showed that lifestyle-related risk factors such as lack of exercise (85.4%), high level of stress (46.0%), and dairy/meat-rich diets (20.3%) were prevalent in young patients (who were under 40 years of age). Hormone related factors also prevailed among young patients including the absence of childbirth (43.4%), lack of breastfeeding experience (74.6%), and early menarche (19.5%).

More young patients were diagnosed at early breast cancer stage (76.6%), however young patients were more likely to have breast cancer with more aggressive biological features and recognised prognostic factors, including higher nuclear grade (Grade 3) of tumours (45.2%), presence of lymphovascular invasion (40.8%), presence of multifocality (15.3%), higher expression of human epidermal growth factor receptor 2 (HER2) (28.7%), and triple negative disease (absence of endocrine receptors) (13.0%). Also a higher proportion of young patients received breast-conserving surgery (45.3%), chemotherapy (68.3%), mastectomy and reconstruction (20.3%), radiotherapy (67.8%) and targeted therapy (7.2%).

Analysis of the psychological impact of breast cancer on patients revealed that young patients were less likely to accept the diagnosis calmly or positively (16.2%), and were more likely to worry about recurrence all the time (12.3%). The number of patients that changed their lifestyle after diagnosis was also higher in young patients, such as changing dietary habit (71%) and doing more exercise (59%).

In conclusion, patients under 40 encountered more prevalent risk factors for breast cancer and experienced more aggressive cancer with greater fear of disease recurrence, which could profoundly influence the quality of life in these young patients.



Report No. 5 (2013): Regular mammogram screening reduces the need for total mastectomy and chemotherapy

The HKBCR Report No. 5 compared the breast cancer characteristics and treatments of two breast cancer patient cohorts aged 40 or above, one consisting of patients diagnosed by regular mammograms without presenting symptom(s) (regular screening group) and the second consisting of those with presenting symptoms who did not undergo regular screening (self-detected group).

Results showed that 40% of the regular screening group were in situ cancer, compared to 8% in the self-detected group, meaning the proportion of “stage 0” cancer cases was nearly five times higher in the regular screening group. The mean invasive tumour size found in the regular screening group was also smaller than that in the self-detected group, with median diameters of 1.3 cm vs. 2.3 cm, respectively.

Less than half (46%) of the patients in the regular screening group received a total mastectomy, while two-thirds (67%) of those in the self-detected group received the same surgery. There were also significantly more patients in the self-detected group (66%) who required chemotherapy, compared to the regular screening group (25%).

In summary, the tumour sizes of the patients with breast cancer detected through regular screening were generally smaller and could be diagnosed at earlier stages. The chance of these patients requiring total mastectomy and/or chemotherapy treatment was also lower. Therefore, women should conduct regular breast cancer screening to maximize the chance of early detection of the disease and less aggressive treatment methods.



Report No. 6 (2014): Delay in medical consultation leads to more serious breast disease

The HKBCR Report No. 6 assessed the magnitude of delay in seeking medical care from the onset of symptom(s) and factors associated with such delay. “Self delay” refers to patients’ delay in seeking first medical consultation after the onset of symptoms and “care delay” is defined as medical systems’ delay in diagnosis or/and treatment.

According to the findings, the median time of “self-delay” was 40.0 days and 32.5% of the patients waited three or more months before seeking medical consultation. For “care delay”, the median time was 20.0 days and 80.9% of the patients started their first treatments in less than one month from the diagnosis of cancer which is within international standards. 45.7% of the patients had their first treatments at least three or more months after the first sign or symptom.

“Self-delay” had significant negative impact on the disease. Those who delayed their consultation for three or more months were 50% more likely to have larger tumours at diagnosis, and were 30% more likely to be node-positive, thus the tumours are 70% more likely to be diagnosed as stage III to IV cancer.

Three factors, namely occupation, marital status, and having a history of benign breast conditions, were found to be strongly associated with “self-delay”. Non-clerical (low-skilled) or labour workers were found to be about 60% more likely to “self-delay” than those who were unemployed; patients who were widowed were also more likely to “self-delay” than those who were unmarried; and patients with previous benign breast conditions had an almost 50% higher tendency to “self-delay”.

Overall, the clinical and financial implications point to a bigger, unresolved public health problem in Hong Kong.

Widows or patients who are non-clerical or labour workers should be viewed as the target groups for increasing breast health awareness. More specifically, they should be made aware of breast cancer symptoms. Women should take notice of any changes in their breasts and seek medical advice as soon as possible. Breast cancer is completely curable if detected in the early stage.



Report No. 7 (2015): Sentinel Node Biopsy in Hong Kong Breast Cancer Patients

The HKBCR Report No. 7 investigated the changes in the pattern of sentinel node biopsy (SNB) usage over time in Hong Kong. The benefits of using SNB to replace routine axillary dissection (AD) is that it removes the risk of unnecessary extensive lymph node removal, and thereby significantly decreases the risks of post-surgical complications of AD such as lymphoedema and thus significantly improve the patients' quality of life.

According to the findings, the use of SNB increased from 45.7% in 2006 to 76.6% in 2012. In particular, more patients with negative clinical nodal status received SNB alone than their counterparts with positive clinical nodal status (44.0% vs. 11.4%). The proportion of clinically node negative patients receiving SNB (including both SNB alone and SNB followed by AD) showed a positive linear trend over the study period and the proportion increased from 45.7% in 2006 to 76.6% in 2012.

SNB (including both SNB alone and SNB followed by AD) was more commonly used in patients with smaller tumours and the proportion showed a positive linear trend over the study period. For tumours ≤ 2 cm, the use of SNB (including both SNB alone and SNB followed by AD) increased from 50.2% in 2006 to 80.6% in 2012 and that proportion increased from 34.2% in 2006 to 54.2% in 2012 for patients with tumours that were larger than 2cm, but no more than 5cm.

SNB (including SNB alone and SNB followed by AD) was more commonly used by over 40.0% of patients with early-stage breast cancer and the use of SNB increased over the study period. In addition, the proportions of patients who received unnecessary AD (with or without SNB) decreased over the study period, from 44.8% in 2006 to 28.9% in 2012.

In summary, SNB has become a method of choice for more surgeons and patients over the study period. Both surgeons' clinical and patients' personal decisions affect the use of SNB to replace AD as the first nodal surgery in determining the extent of diseases. Surgeons have responsibilities to explain to their patients about SNB and its well-established reliability for determining the nodal status in early stage breast cancer. More efforts should be put into educating breast cancer patients about the benefits of SNB over AD.



Report No. 8 (2016): Elderly with Breast Cancer Tend to Delay Seeking Medical Care and Present with a Later Cancer Stage

The HKBCR Report No. 8 studied breast cancer in local elderly patients. Breast cancer risk increases with age and it is anticipated that the number of elderly affected by breast cancer will increase with time.

According to the findings, upon the onset of symptoms, more elderly patients delayed for more than a year in seeking medical consultation (17.7% vs. 10.8% for patients of all ages; $p=0.005$). These elderly patients were tended to be diagnosed with stage III or IV disease, compared to the elderly patients who sought medical consultation within three months (29.7% vs. 14.5%; $p=0.068$). Compared to patients of all ages, invasive tumours in elderly patients exhibited more favorable biological features, including more grade 1 tumours (26.5% vs. 19.2%; $p<0.001$) and absence of lymphovascular invasion (75.6% vs. 68.1%; $p<0.001$). More invasive tumours in elderly patients were estrogen receptor positive (83.0% vs. 78.1%; $p=0.001$), progesterone receptor positive (70.8% vs. 66.0%; $p=0.006$) and human epidermal growth factor receptor 2 negative (83.6% vs. 78.7%; $p=0.001$) as compared to patients of all ages. Elderly patients received more mastectomies (81.7% vs. 57.3% for patients of all ages; $p<0.001$) but less chemotherapy and radiotherapy. Furthermore, elderly patients with more comorbidities received more conservative treatment.

In conclusion, our study results demonstrated that elderly patients tended to delay in seeking medical consultation yet they received less aggressive cancer modalities as compared to patients of all ages. Comorbidity may have association with the treatment choices among elderly patients. Although age is an important factor to consider in decision-making for cancer treatment, it must not be the sole guiding principle.



第一至八號報告摘要

第一號報告 (2009)：本港常見乳癌高危因素

香港乳癌資料庫首份報告揭示了個人年齡、運動習慣、健康紀錄、生活方式、飲食習慣和經濟及社會條件都是乳癌高危因素。其中值得注視的分析結果是本港乳癌患者比海外患者的發病年齡中位數較低。根據《香港乳癌實況報告2008年》（第一號報告），患者確診年齡中位數為47.6歲，明顯低於美國的61歲和澳洲的62歲。

受訪群組中有81%患者杯罩尺碼為B級或更小，64%的胸圍尺寸為34吋或以下。這些數據澄清了坊間有關胸大婦女患上乳癌機會較高的誤解。

第一號報告亦找出本港乳癌患者共通的乳癌高危因素：

- (1) 運動不足（每周<3小時）（74%）
- (2) 沒有餵哺母乳經驗（64%）
- (3) 高度精神壓力（40%）
- (4) 服用口服避孕藥（38%）
- (5) 超重 / 肥胖（34%）
- (6) 不曾生育 / 35歲後首次生育（28%）
- (7) 提早初經（<12歲）（17%）
- (8) 多吃肉類 / 奶類製品（15%）
- (9) 更年期後使用荷爾蒙補充劑（14%）
- (10) 飲酒（9%）
- (11) 延遲更年期（>55歲）（8%）
- (12) 吸煙（4%）

報告又指出本港大部分乳癌個案都不是遺傳的，而是跟可改變的因素有關，例如飲食習慣、生活模式和精神壓力水平。52%的患者均具有以上兩或三項高危因素；只有不足3%患者完全沒有已知高危因素。

要減低患乳癌的風險，香港乳癌基金會建議婦女參考美國癌症協會2002年制定的防癌營養和運動指引：

- 保持健康體重
- 恒常做適量運動
- 飲食健康，多菜少肉
- 若要飲酒，每日不超過一杯



第二號報告 (2010)：私營醫院的原位癌個案比率較高

《香港乳癌實況第二號報告》分析公私營醫療機構的乳癌個案在癌症特徵和治療方法方面是否存有差異。

研究將群組中2,130名患者按其使用醫療服務的類別分為三組：私營醫療服務 (23.1%)；公營醫療服務 (24.0%)；混合使用公私營醫療服務 (52.9%)。

在確診癌症期數方面，私營醫療服務使用者組別中的原位癌0期個案比率最高 (13.6%)；公營醫療服務組別中的0期個案僅佔5.7%。另外，在公營醫療服務組別中入侵性乳癌患者的腫瘤顯著較大。

使用公營醫療服務的患者，接受全乳切除手術比使用私營服務患者高出一倍。公營醫療服務使用者接受乳房重建的比率較低，原因可能與患者年齡和腫瘤大小有關。

在化療方面，不論是使用公營或私營醫療服務的患者，使用anthracycline、taxane和其他藥物的模式分別不大。常用的內分泌治療藥物tamoxifen的使用模式在不同組別中沒有差異。

報告亦發現公營醫療服務組別的晚期乳癌個案比率較高，箇中原因有待探討。



第三號報告(2011)：低收入地區的晚期乳癌個案比率較高，而乳癌普查率則偏低

定期接受乳房X光造影檢查作為乳癌普查的做法，醫學上證實可有效偵測早期乳癌和減低乳癌患者的死亡率。根據《香港乳癌實況第三號報告》，經由例行乳癌普查偵測的乳癌腫瘤大小中位值為1.4厘米，比患者自己無意中發現的腫瘤(2.1厘米)小三分之一。這反映有乳房檢查習慣的好處。

第三號報告揭示了本港不同地區的乳癌普查率和乳癌個案特徵存有差異。

在灣仔區，是全港住戶入息中位數最高的地區，半數乳癌患者在確診前有定期接受乳房X光造影檢查的習慣。居住在觀塘和深水埗等貧窮地區的乳癌患者，從來沒有做過乳房X光造影檢查的比率高達八成，其他收入偏低地區如葵青、新界北區、屯門和大埔也有七成。各區收入是參照政府統計處的2008年人口普查統計，全港總體住戶入息中位數為18,000元。

報告研究群組中整體的晚期(第III及IV期)乳癌個案佔12.4%，這比率在低收入地區普遍偏高，如黃大仙(17.8%)、新界北區(16.0%)、深水埗(15%)、觀塘(14.4%)和葵青(14.4%)。若以醫療機構類別分析，公立醫院的晚期乳癌個案比(16.7%)私營醫院高出一倍多(7.4%)。

總括而言，研究顯示定期檢查與確診時乳癌期數有關，因此，在低收入地區加強乳健教育工作和推廣乳癌普查至為重要。香港乳癌基金會乳健中心深入社區指導婦女檢查乳房，以及教育婦女認識及早發現乳癌的重要性。乳健中心亦提供專業、優質而收費大眾化的乳健檢查和診斷服務。



第四號報告 (2012)：年輕乳癌患者多有不健康生活習慣

根據《香港乳癌資料庫第四號報告》的分析結果，本港乳癌患者確診乳癌的年齡大多數介乎40至70歲之間（79.7%），而群組中有14%患者在40歲前已確診乳癌，另外5.1%患者則為70歲以上。

第四號報告的數據分析顯示，年輕乳癌患者（40歲前確診）普遍擁有多項與生活習慣相關的高危因素，如運動不足（85.4%）、高度精神壓力（46.0%）和飲食以肉類或乳類製品為主（20.3%）。至於與荷爾蒙有關的乳癌高危因素，在年輕患者中亦較常見，如不曾生育（43.4%）、沒有餵哺母乳經驗（74.6%）或提早初經（19.5%）等。

此外，較多年輕患者罹患早期乳癌（76.6%），但年輕患者的腫瘤特性則較惡，包括腫瘤分級較高（第3級）（45.2%）、出現淋巴血管入侵現象（40.8%）及腫瘤多灶性（15.3%）、第二型人類上皮生長因子受體呈陽性（28.7%）及三陰性（缺乏內分泌受體）（13.0%）的比率較高。治療方面，年輕患者明顯較多接受乳房保留手術（45.3%）、化學治療（68.3%）、乳房切除及重建手術（20.3%）、放射治療（67.8%）及靶向治療（7.2%）。

至於乳癌對患者的心理影響方面，年輕患者能冷靜或積極接受確診乳癌的比率較低（16.2%），且經常憂慮乳癌復發（12.3%）。然而，較多年輕患者在確診乳癌後會在生活模式方面有正面的轉變，如改變飲食習慣（71.0%）及多做運動（59.0%）等。

總括而言，40歲以下的患者普遍具有較多罹患乳癌的高危因素，而且腫瘤較惡，憂慮復發的恐懼也較大，對生活質素可能造成深遠的影響。



第五號報告 (2013)：定期乳房X光造影檢查減低全面乳房切除和化療的需要

《香港乳癌資料庫第五號報告》比較了兩組40歲以上乳癌患者的乳癌特徵和治療情況，一組沒有顯露病徵的患者在定期乳房X光造影時確診（定期接受影像檢查組），另一組呈現病徵的患者是沒有進行定期檢查的（自我檢查組）。

結果顯示，40%的定期接受影像檢查組患者的乳癌屬於原位癌症，自我檢查組則為8%，等於說定期接受影像檢查組的「0期」癌症病例幾乎是自我檢查組的五倍。定期接受影像檢查組之中，入侵性腫瘤大小的平均值也小於自我檢查組，直徑中位數分別是1.3厘米與2.3厘米。

定期接受影像檢查組中接受全面乳房切除的患者少於半數（46%），而自我檢查組患者接受同類手術的比例達到三分二（67%）。此外，與定期接受影像檢查組患者（25%）相比，自我檢查組有較多患者（66%）需要接受化療。

歸納而言，通過定期接受影像檢查而檢測得乳癌的患者的腫瘤一般較小，並且可以在初期確診。這些患者需要全面切除乳房和 / 或接受化學治療的可能性也較低。因此，婦女應該定期接受乳房影像檢查，以增加早期確診病症及接受較少入侵性的治療的機會。



第六號報告 (2014)：「延誤求醫」的患者病情顯著較嚴重

《香港乳癌資料庫第六號報告》評估乳癌患者在發現乳癌病癥後延誤求醫的嚴重程度和相關因素，「延誤求醫」指患者發現病癥後耽誤初次就醫的時間，而「延誤診治」即醫療系統因素令患者延遲接受診斷和 / 或治療。

分析顯示，「延誤求醫」的時間中位數為40.0天，約32.5%的患者等待三個月或以上才求醫。至於「延誤診治」的時間中位數是20.0天，80.9%患者在確診後一個月內開始首次治療，符合國際標準。45.7%患者在初次發現病徵至少三個月或以上後才接受首次治療。

「延誤求醫」對病情產生顯著的負面影響，「延誤求醫」三個月或以上的患者，在確診時有較大腫瘤和陽性淋巴結的機會分別高出50%和30%；「延誤求醫」患者確診時癌症期數較高（第三至第四期）的可能性亦高出70%。

乳癌患者的「職業」、「婚姻狀況」和「曾出現良性乳房狀況」等三項特徵，都與「延誤求醫」有顯著關係。從事非文職（基層工作）或勞動工作的患者，較沒有工作者「延誤求醫」的機會高出近六成；喪偶的患者「延誤求醫」的可能性，較從未結婚者高；曾經有良性乳房狀況的患者傾向「延誤求醫」的機會亦高五成。

整體上，「延誤求醫」導致較複雜的治療和較高的醫療開支，同時帶來未解決的香港公共健康問題。

喪偶者或非文職 / 勞動工作者應被視為特定的婦女群組，加強關注該群組的乳房健康教育，特別是針對婦女對乳癌病徵的認識，婦女應注意乳房健康和留意乳房的變化，若乳癌徵狀持續應盡快求醫，只要及早發現，乳癌是可以治癒的。



第七號報告 (2015)：香港乳癌患者的前哨淋巴結切片檢查

《香港乳癌資料庫第七號報告》就香港過去在前哨淋巴結切片檢查的使用模式上的變化進行調查。以前哨淋巴結切片檢查來取代常規的腋下淋巴切除術，好處是前者可以免卻不必要地廣泛切除淋巴結的風險，從而大大減低腋下淋巴切除術引發術後併發症的風險，例如淋巴水腫，因此能顯著改善患者的生活質素。

根據研究發現，使用前哨淋巴結切片檢查的比例從2006年的45.7%增加到2012年的76.6%。尤其值得注意的是，臨床淋巴結呈陰性的患者接受前哨淋巴結切片檢查的比例顯著比呈陽性的患者為高（44.0%比11.4%）。臨床淋巴結呈陰性的患者接受前哨淋巴結切片檢查（包括只接受前哨淋巴結切片檢查和接受前哨淋巴結切片檢查之後接受腋下淋巴切除術）的比例在研究時段內有正線性上升趨勢，比例從2006年45.7%上升到2012年的76.6%。

腫瘤尺寸較小的患者較普遍採用前哨淋巴結切片檢查（包括只接受前哨淋巴結切片檢查和接受前哨淋巴結切片檢查之後接受腋下淋巴切除術），相關比例在研究時段內呈正線性上升趨勢。就腫瘤 ≤ 2 厘米的患者而言，採用前哨淋巴結切片檢查（包括只接受前哨淋巴結切片檢查和接受前哨淋巴結切片檢查之後接受腋下淋巴切除術）的比例從2006年的50.2%上升至2012年的80.6%，而介乎2-5厘米的腫瘤患者的比例則從2006年的34.2%上升至2012年的54.2%。

超過40.0%的早期乳癌患者使用前哨淋巴結切片檢查（包括只接受前哨淋巴結切片檢查和接受前哨淋巴結切片檢查之後接受腋下淋巴切除術），較為普遍，相關比例在研究時段內也有所增加。此外，在研究時段內，接受不必要腋下淋巴切除術（無論有沒有接受前哨淋巴結切片檢查）的患者比例不斷減少，從2006年的44.8%下降到2012年的28.9%。

總結而言，在研究時段內，愈來愈多外科醫生和患者採用前哨淋巴結切片檢查。外科醫生的臨床決定和患者的個人決定，都影響是否使用前哨淋巴結切片檢查來取代腋下淋巴切除術作為斷定癌症的擴散程度的首個淋巴結手術。外科醫生有責任向患者解釋前哨淋巴結切片檢查，以及其在用於斷定早期乳癌患者的淋巴結狀況的公認可靠性。香港乳癌基金會將盡更大努力教育乳癌患者有關以前哨淋巴結切片檢查取代腋下淋巴切除術的好處。



第八號報告 (2016)：年長乳癌患者延誤診治晚期癌症倍增

《香港乳癌資料庫第八號報告》研究本地年長患者的乳癌情況。乳癌風險隨年齡增長而上升，預計罹患乳癌的年長患者也會按隨時間遞增。

根據研究結果顯示，患者在自己無意中發現癌症後，相比所有年齡患者，較多年長患者會在出現病徵後等待超過一年才首次求診 (10.8% vs. 17.7%; $p=0.005$)。這些延誤求醫的年長患者，相比在三個月內求醫的年長患者有較大機會被確診為第三或四期癌症 (29.7% vs. 14.5%; $p=0.068$)。與所有年齡患者比較，年長乳癌患者的入侵性腫瘤在生物學角度上較好，包括較多腫瘤級別屬於一級 (26.5% vs. 19.2%; $p<0.001$) 及沒有出現淋巴管入侵 (75.6% vs. 68.1%; $p<0.001$)。較多年長患者的入侵性腫瘤的雌激素受體呈陽性 (83.0% vs. 78.1%; $p=0.001$)、黃體素受體呈陽性 (70.8% vs. 66.0%; $p=0.006$) 和第二型人類上皮生長因子受體呈陰性 (83.6% vs. 78.7%; $p=0.001$)。相比有年齡患者，一般年長患者普遍接受乳房切除手術 (81.7% vs. 57.3%; $p<0.001$)，但較少接受化學治療和放射性治療。再者，研究亦顯示患有較多並存病的年長患者多接受較保守的治療方法。

總括而言，研究結果指出年長患者較傾向於延誤診治，不過與所有年齡患者相比，他們較多接受入侵性較低的乳癌治療方案。數據亦顯示並存病可能與年長患者接受的治療方案有關。雖然在決定癌症治療方案時，年齡是重要的考慮因素之一，但卻不應該是唯一因素。

FOREWORD

We are celebrating the 10th year anniversary of the Hong Kong Breast Cancer Registry (HKBCR). Since its establishment, the Registry is increasingly recognized as an effective surveillance tool for breast cancer cases in the Territory. As of February 2017, there are near 18,000 breast cancer patients enrolled into the Registry, which makes it the most comprehensive of Hong Kong breast cancer data collection and monitoring system. The registry covers almost 50% of all patients diagnosed annually. Among these patients, 26% of cases are recruited from the private sector, while the remaining 74% are recruited from public hospitals. The continuing collaboration with participating doctors from both the public and private health care sectors strengthens our determination to increase our coverage of breast cancer cases to improve the representation of the Hong Kong Breast Cancer Registry.

According to the latest Registry's statistics, most of our patients reside in Kowloon (22.7%) and New Territories (59.7%). It was observed that in these areas, less than 18% of breast cancer patients had regular mammogram screenings, and 70% had never had one. To better serve these populations who have less awareness about breast cancer, a Breast Health Centre in Kowloon was called for. We are excited about the building of a new Kowloon Centre: the Hong Kong Breast Cancer Foundation Jockey Club Breast Health Centre (Kowloon) in Ngau Chi Wan, on a land granted and leased by the HKSAR government, with the building cost and charity program funded by the Hong Kong Jockey Club Charities Trust. The building of the new centre signifies the recognition of our work at the Hong Kong Breast Cancer Foundation and its positive impact to the territory.

With the evolving treatment concept for breast cancer, the usage and effectiveness of neoadjuvant chemotherapy in breast cancer was researched, based on local data. It is hoped that the findings of this report can shed light on this new trend of management and assist local healthcare professionals in their decision making for their patients.

I would like to pay a particular tribute to participating doctors, patients, the HKBCR Steering Committee members, researchers, and donors, for their unwavering support. Without these, the HKBCR would not have accomplished its goals and objectives over the last 10 years.



Dr. Polly Cheung
Chairman, Hong Kong Breast Cancer Registry Steering Committee
Founder, Hong Kong Breast Cancer Foundation



前言

今年是香港乳癌資料庫成立十周年。迄今，資料庫能有效地監察本地的乳癌個案，並獲持續提升其認受性。截至2017年2月，資料庫已經有接近18,000位乳癌患者登記加入，是香港目前最全面的乳癌數據搜集及監察系統，覆蓋每年確診患者的數目近50%，當中有26%的患者來自私營機構，74%各公營機構。多年來得到各私營及公營機構的醫生合作參與，加強我們的決心去繼續努力覆蓋更多乳癌個案，從而提升香港乳癌資料庫的代表性。

根據資料庫的最新數據，大部分患者居住在九龍（22.7%）及新界（59.7%）。我們觀察這些地區的患者，只有少於18%在確診前有定期接受乳房X光造影檢查的習慣，而有70%是從來沒有接受過，對於乳癌的預防意識比較低。為了顧及這地區的需要，位於牛池灣的香港乳癌基金會賽馬會乳健中心（九龍）因此誕生。此乳健中心獲得香港政府撥地及香港賽馬會慈善信託基金資助建築及運作成本，全新的乳健中心標誌各界認同香港乳癌基金會對社會的貢獻。

隨著乳癌治療理念的演變，今年我們利用本地的乳癌數據進行研究，研究手術前的前置化療的採用及其有效性。指望研究結果可以揭示有關乳癌治療的新趨勢，並協助本地的醫護人員為患者提供更適合的治療方案。

藉此特別鳴謝參與的醫生、患者、乳癌資料庫督導委員會成員、研究人員和捐獻者。過去十年，香港乳癌基金會能夠完成目標，全賴大家的支持。

張淑儀醫生
香港乳癌資料庫督導委員會主席
香港乳癌基金會創會人

REPORT HIGHLIGHTS

- This report covered 15,222 breast cancer patients who were diagnosed from 2006 onwards.
- The mean and median ages of the patients at diagnosis were 51.9 and 51.0 years old, respectively.
- Around two-thirds (66.0%) of our patients were aged between 40-59 years old.

Risk factors

- The 10 most common risk factors* for developing breast cancer and the respective % of patients having that risk factor in our patient cohort:

	%
Lack of exercise (<3 hours / week)	77.7
No breastfeeding	65.8
Being overweight / obese (BMI \geq 23.0)	38.6
High level of stress (>50% of time)	37.1
No childbirth / First live birth after age 35	26.2
Diet rich in meat / dairy products	14.5
Family history of breast cancer	14.2
Early menarche (<12 years old)	12.6
Drinking alcohol	4.9
Use of hormonal replacement therapy	3.9

* These factors are identified as convincing causes or probable risk factors for breast cancer development by international cancer research groups.

Screening habits

- The overall patients' breast screening habits were poor. Less than half of the patients attended regular clinical breast examination and less than a quarter of patients performed regular breast self-examination or mammography screening.
- Breast screening habit was less with increasing age.
- Patients who attained a lower educational level or lower household monthly income were less likely to conduct frequent breast screening than those with higher educational levels or higher incomes.
- Over 60% of our patients aged 40 or above have never performed mammography screening before cancer diagnosis.

Cancer characteristics, histological and biological characteristics

- The primary method of first breast cancer detection in the patient cohort was self detection by chance (83.2%). More stage 0 or I cancers (34.6% and 13.4% respectively) were detected by mammography screening than stage III or IV cancers (3.0% and 2.1% respectively).
- After the onset of symptoms, a quarter (25.4%) of the patients who self-detected their cancers by chance waited three or more months before seeking first medical consultation.
- Among our patients in the cohort, 12.0% were diagnosed with in situ cancers, 68.4% were diagnosed with early stage cancers (stages I-IIIB), and 16.4% were diagnosed with stage III or IV cancers.
- The mean size of invasive breast cancers for our patient cohort was 2.2 cm (standard deviation: \pm 1.5 cm). Tumours larger than 2.0 cm in size were found in 47.2% of our patients. In our patient cohort, screen-detected cancers were significantly smaller than cancers that were self-detected by chance (mean: 1.5 vs. 2.5 cm).
- The mean size of in situ cancers for our patient cohort was 2.0 cm (standard deviation: \pm 1.6 cm). Tumours larger than 2.0 cm in size were found in 35.3% of our patients.
- The following table shows the histological and biological characteristics of invasive and in situ cancers in the patient cohort.

	Invasive tumours %	In situ tumours %
Histological type		
Ductal	86.2	93.2
Others	13.8	6.8
Biological characteristics		
ER+	78.5	81.0
PR+	66.4	72.3
HER2+	21.1	27.1
Ki-67 index \geq 14%	59.9	34.4
ER-PR-HER2-	11.6	—
Lymphovascular invasion	28.2	—

ER+/-: estrogen receptor positive/negative

PR+/-: progesterone receptor positive/negative

HER2+/-: human epidermal growth factor receptor 2 positive/negative



Treatment

- 14.7% of our patients received care solely at private medical facilities, 49.9% received care solely at public medical facilities, while one-third (35.4%) received care at both private and public medical facilities.
- Combinations of treatments are usually used for treating breast cancer effectively. In general, the number of treatments received by our patients increased with increasing cancer stage.

	Total %	Treatment in private sector %	Treatment in public sector %	Stage					
				0 %	I %	IIA %	IIB %	III %	IV %
Surgery	98.0	51.6	48.4	99.3	100.0	99.8	99.9	99.1	62.9
Breast-conserving surgery	36.0	64.0	36.0	53.0	47.3	34.8	23.8	13.5	8.6
Mastectomy	64.0	44.6	55.4	47.0	52.7	65.2	76.2	86.5	91.4
Radiotherapy	61.8	11.9	88.1						
In patients with breast-conserving surgery	94.2	16.6	83.4	94.0	95.0	93.7	95.3	96.1	84.2
In patients with mastectomy	44.6	6.3	93.7	3.3	12.8	34.5	75.3	93.1	62.7
Chemotherapy	67.9	13.5	86.5	—	38.2	79.4	90.4	93.6	85.1
Endocrine therapy	67.4	9.5	90.5	11.7	76.5	73.8	77.1	74.0	78.4
Anti-HER2 targeted therapy*	58.3	11.3	88.7	—	40.9	61.8	65.4	71.3	72.0

* Among patients with human epidermal growth factor receptor 2 (HER2) positive only

Physical discomfort after treatment

- Among all types of treatments, chemotherapy was the most distressing treatment for patients where 52.0% of our patients reported having severe discomfort during or after chemotherapy.

Treatment	Severe discomfort (% of patients)	Top complaints (% of patients)
Chemotherapy	52.0	Vomiting (18.1), Loss of appetite (15.2), Hair loss (11.5)
Radiotherapy	13.2	Dry skin (13.1), Skin burns (10.6)
Surgery	9.2	Wound pain (16.4)
Endocrine therapy	8.3	Hot flushes (13.1)
Anti-HER2 targeted therapy	6.2	Fatigue (5.1)

Psychosocial impact of diagnosis and treatment

- At the time of diagnosis, 45.3% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.9% of the cohort could not accept their diagnosis.
- Half (52.3%) of our breast cancer survivors reported having a positive change in their outlook on life and 42.6% reported having a positive change in their self-image.
- 82.0% of the patients reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.3%) was the most common lifestyle change, followed by increased exercise (61.7%).
- 54.9% of the patients managed their negative emotions by direct verbal expression, while 32.9% diverted their attention away from negative emotions.
- Around half (54.8%) of our patients always or sometimes worried about recurrence.



CHAPTER 1
PREVENTION AND
EARLY DETECTION
OF BREAST CANCER



CHAPTER 1

PREVENTION AND EARLY DETECTION OF BREAST CANCER

It is well established that the risk of breast cancer is significantly linked to health factors and lifestyle behaviours. In this chapter, using the demographics and socioeconomic data collected from the 14,905 Hong Kong breast cancer patients including lifestyle and patient health

background, we will examine whether these established risk factor associations exist in the local context. These analyses would shed light on the cause of breast cancer in Hong Kong.

KEY FINDINGS

- ▶ The mean and median ages of our patients at diagnosis were 51.9 and 51.0 years old, respectively.
- ▶ Around two-thirds (66.0%) of our patient cohort were aged between 40 to 59 years old.

Risk factors

- ▶ The 10 most common risk factors for developing breast cancer (identified by international cancer research groups) and the respective % of patients having that risk factor in our patient cohort:

Risk factor	Number	(%)
Lack of exercise (<3hrs / week)	11,588	(77.7)
No breastfeeding	9,813	(65.8)
Being overweight / obese	5,758	(38.6)
High level of stress (>50% of time)	5,527	(37.1)
No childbirth / First live birth after age 35	3,899	(26.2)
Diet rich in meat / dairy products	2,155	(14.5)
Family history of breast cancer	2,115	(14.2)
Early menarche (<12 years old)	1,878	(12.6)
Drinking alcohol	729	(4.9)
Use of hormonal replacement therapy	575	(3.9)

Screening habits

- ▶ The overall patients' breast screening habits were poor. Less than half of the patients attended regular clinical breast examination and less than a quarter of patients performed regular breast self-examination or mammography screening.
- ▶ Breast screening habit was less with increasing age.
- ▶ Less patients who attained a lower educational level conducted regular breast screening habits than those with higher educational levels.
- ▶ Patients who had a lower household monthly income were also less likely to conduct frequent breast screening than those with higher incomes.
- ▶ Over 60% of our patients aged 40 or above have never performed mammography screening before cancer diagnosis.

1.1 Demographics

1.1.1 Age at time of diagnosis

Breast cancer risk generally increases with age¹⁻². Table 1.1 shows the lifetime risk of developing breast cancer for women in different age groups¹. In Hong Kong the highest incidence rates were observed in women aged 60 to 65. Although patients over 70 had a lower incidence of breast cancer than those aged 60 to 65, in 2014 it was demonstrated that they still contributed to 15% (673 cases) of all newly diagnosed cases¹.

Table 1.1 Lifetime risk of breast cancer in Hong Kong women (averaged data from 2009 to 2013)¹

Age	Lifetime risk
Before 30	1 in 2,862
Before 35	1 in 709
Before 40	1 in 246
Before 45	1 in 107
Before 50	1 in 58
Before 55	1 in 39
Before 60	1 in 30
Before 65	1 in 24
Before 70	1 in 20
Before 75	1 in 18

In our patient cohort, the age at time of diagnosis ranged from 18 to 101 years; with two-thirds of the patients being aged 40 to 59 (Figure 1.1), and the median being 51 years old.

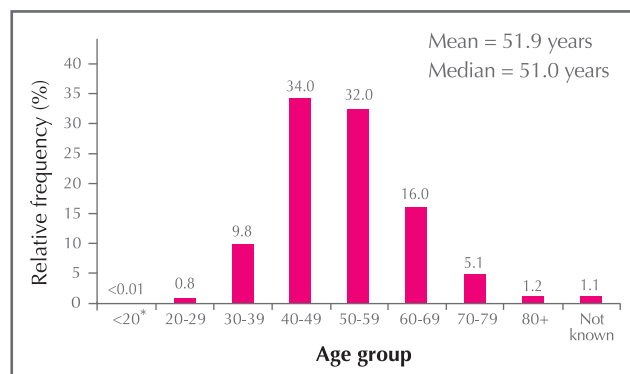


Figure 1.1 Distribution of age at diagnosis (N=14,905)

* Only one patient in our cohort belonged to the <20 age group.

1.1.2 Occupation

Although international studies showed that there is no evidence that occupation is related to breast cancer³, some suggested that a certain degree of association existed between night shift work and breast cancer⁴. It has been argued that night shift work results in a disrupted circadian rhythm due to exposure to artificial light at night, leading to a cascade of disrupted essential pathways⁴. A local study found that the average working hours among females in the general population was 43.2 hours per week⁵.

In our Registry, around half (56.8%) of the patients were working at the time of cancer diagnosis; the median working hour being 47.0 per week. Among them, 747 (8.8%) had night shift duties, and the median no. of nights they worked in a year was 60.

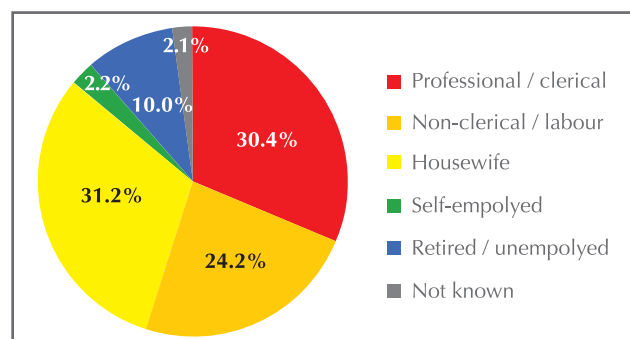


Figure 1.2 Occupation of our patient cohort (N=14,905)

1.1.3 Educational level and household monthly income

Literature suggest that given that they are living in the same city, women with lower educational level or household income are linked to lower level of breast cancer awareness and breast screening habits^{6,7}.

Around two-thirds (69.6%) of our patient cohort have attained secondary school level or above, while 29.5% had primary school level or below (Figure 1.3). Less patients who attained a lower educational level conducted regular breast screening than those with higher educational levels (Section 1.3).

Around one-third (35.8%) of our patient cohort had a monthly household income of 30,000 HKD or higher, while 19.1% had a monthly household income less than 10,000 HKD (Figure 1.4). Patients who had a lower household monthly income were also less likely to conduct frequent breast screening than those with higher incomes (Section 1.3).

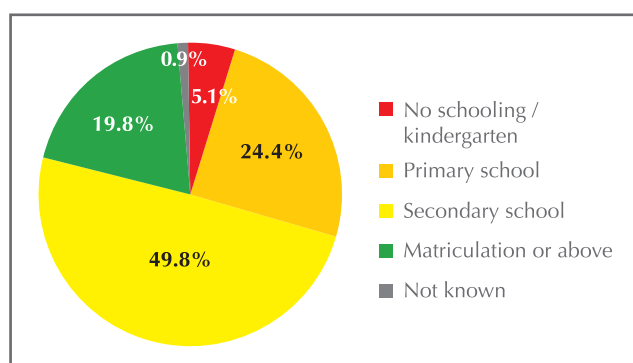


Figure 1.3 Educational level of our patient cohort (N=14,905)

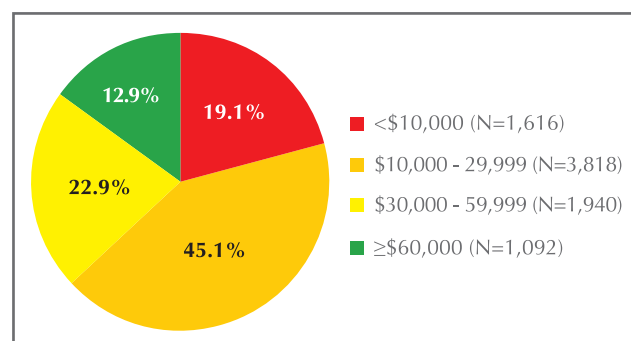


Figure 1.4 Monthly household income (HKD) of our patient cohort (N=8,466)

1.1.4 District of residence

Over half (59.7%) of the patients in the cohort resided in the New Territories at the time of cancer diagnosis, while 22.7% resided in Kowloon, and 13.7% resided on Hong Kong Island (Figure 1.5). Patients living in Kowloon or the New Territories conducted breast screening less frequently in comparison to those living on Hong Kong Island (Section 1.3).

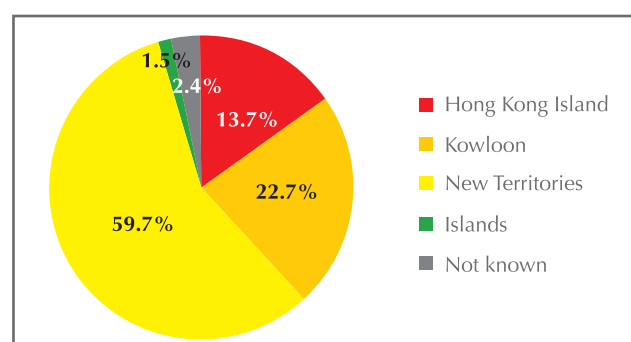


Figure 1.5 Distribution of residential districts of our patient cohort (N=14,905)

1.1.5 Bra size and cup size

Some studies have suggested that there is certain degree of association between larger breast size and breast cancer⁸⁻¹⁰. Nevertheless, these studies are mainly conducted on women in Western countries, and such evidence is lacking in Hong Kong.

61.1% of our patient cohort had bra size of 34 inches or more while 17.4% of them had 38 inches or more (Figure 1.6). For breast cup size, half (50.2%) of our patients had cup B or smaller breasts while only 4.1% had cup D or above (Figure 1.7).

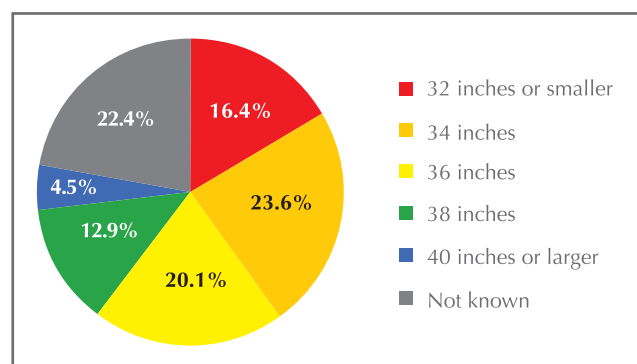


Figure 1.6 Bra size of our patient cohort (N=14,905)

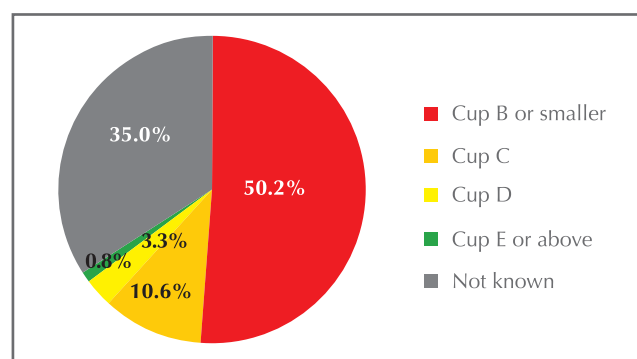


Figure 1.7 Bra cup size of patient cohort (N=14,095)

1.2 Risk factors and health background

1.2.1 Tobacco smoking

IARC has classified tobacco smoking as a probable cause of breast cancer⁴. However, a causal relationship between active or passive smoking and breast cancer is yet to establish¹¹. A study found that, in 2016, 3.2% of Hong Kong women in the general population had daily smoking habit¹².

Of our patient cohort, 710 (4.8%) reported they had ever smoked prior to cancer diagnosis and they had smoking habit for a mean duration of 18.6 years (range: 1 to 70 years). Among these smokers, 37.1% had quit smoking for a year or longer prior to cancer diagnosis, 4.6% had quit for less than a year, and 58.3% were still smoking at the time of cancer diagnosis. Among those who had quit smoking for less than a year or were still smoking, they consumed a mean of 3.7 packs of cigarette (range: 0.2 to 21 packs) per week in the preceding 12 months prior to cancer diagnosis.

1.2.2 Alcohol drinking

WHO has classified alcoholic beverages as Group 1 carcinogens for breast cancer to people of all ages^{4,13}. The risk of breast cancer increases with the amount of alcohol consumed; every 10g ethanol (one standard drink, approximately equals to a 330ml can of beer or a 100ml glass of table wine or a 30ml glass of high strength spirit) increased the risk of breast cancer by 10%¹³. A study found that, in 2016, 10.4% of Hong Kong women in the general population drank alcoholic beverages at least once a week¹⁴.



Patients in the cohort were asked about their alcoholic drinking habits prior to cancer diagnosis. Patients who consumed alcoholic beverages rarely or occasionally (i.e. less than 5 alcoholic drinks in a 12-month period) were not considered as habitual alcohol consumers in the study.

4.9% of patients had been habitual alcohol consumers at some point in their life and they maintained this habit for a mean duration of 14.3 years (range: 0.3 to 63 years). Among these consumers, 20.4% had stopped habitual alcohol consumption for a year or longer prior to cancer diagnosis, 5.2% had stopped for less than a year, and 74.3% were still habitual alcohol drinkers at the time of cancer diagnosis. Among those who had stopped drinking alcoholic beverages for less than a year or were still drinking alcohol frequently, they consumed a mean of 7.0 glasses (range: 0.3 to 73.5 glasses) per week in the preceding 12 months prior to cancer diagnosis. Commonly consumed alcohol beverages were red wine (30.2%) and beer (25.7%).

1.2.3 Dietary and exercise habits and stress level

Most findings on the effect of dietary factors on breast cancer risk have been inconclusive and inconsistent. However, a link between physical activity and prevention of postmenopausal breast cancer has been found¹³. Since an increase in body fat is also found to increase breast cancer risk in postmenopausal women, women are encouraged to reduce lifetime weight gain by limiting calories intakes and participate in regular physical exercise to maintain a healthy weight and level of body fat.

Around two-thirds (68.3%) of our patients were having a balanced diet, while 14.5% of them ate a meat rich/dairy product rich diet. Nearly half of our patient never exercised, only around one-fifth (18.9%) of our patient cohort exercised 3 hours or more per week in the year prior to the time of diagnosis (Table 1.2).

The current studies on stress as a risk factor for breast cancer are non-conclusive and require further investigation. However, some researchers suggest that people with prolonged stress exposure may adopt other risky habits such as smoking or drinking alcohol; which may increase their risk for cancer. Of our patient cohort, 37.1% said that they experienced high levels of stress in the year prior to cancer diagnosis (Table 1.2).

Table 1.2 Dietary habits, exercise habits and stress level at the time of diagnosis (N=14,905)

	Number	(%)
Dietary habit		
Meat rich / dairy product rich	2,155	14.5
Vegetable rich / Vegetarian	2,208	14.8
Balanced diet	10,182	68.3
Not known	360	2.4
Exercise		
Never	7,145	47.9
< 3 hours per week	4,443	29.8
≥ 3 hours per week	2,824	18.9
Not known	493	3.3
Stress level		
High level*	5,527	37.1
Moderate level**	4,139	27.8
Low level	5,070	34.0
Not known	169	1.1

* High level: defined as more than 50% of the time

** Moderate level: defined as 25-50% of the time

1.2.4 Height, weight and body mass index

Body mass index (BMI) is a heuristic method of estimating human body fat based on an individual's height and weight. It is calculated by dividing weight in kilograms by height in metres squared (kg/m^2). Overweight and obesity for Asian women were defined as having BMI of 23–24.9 and 25 or over, respectively. Obesity has been considered a risk factor for breast cancer¹⁵. A study found that, in 2016, 16.3% and 14.2% of Hong Kong women in the general population were classified as overweight and obese, respectively¹⁶.

The average height of our patient cohort was 157.9 cm with a standard deviation of 5.8 cm, while the average weight was 57.4 kg with a standard deviation of 9.4 kg. Of our patient cohort, 37.7% were overweight or obese at the time of cancer diagnosis (Table 1.3).

Table 1.3 Body mass index at the time of diagnosis (N=14,905)

BMI	Number	(%)
≥ 25.0 (Obese)	3,217	21.6
23.0–24.9 (Overweight)	2,541	17.0
18.5–22.9 (Normal weight)	6,072	40.7
< 18.5 (Underweight)	983	6.6
Not known	2,092	14.0

1.2.5 Family history of breast cancer

Breast cancer risk is found to be higher among women who have one first-degree relative with breast cancer, when compared to women with no first-degree relatives with the disease. The risk is even higher among women having more first-degree relatives affected by breast cancer, or having relatives who are affected before the age of 50^{17,18}. Only 14.2% of our patient cohort had family histories of breast cancer (Table 1.4)

Table 1.4 Family history of our patient cohort at the time of diagnosis (N=14,905)

Family history of breast cancer	Number	(%)
No	12,588	84.5
Yes		
First-degree relative(s)	1,529	10.3
Non first-degree relative(s)	586	3.9
Details not known	32	0.2
Family history not known	170	1.1

1.2.6 Personal history of tumours

International studies have found that breast cancer risk is higher in women with previous histories of certain types of cancer, including Hodgkin lymphoma, melanoma, lung adenocarcinoma, bowel cancer, uterus cancer, chronic lymphocytic leukaemia, or any type of cancer in childhood^{19–24}. On the other hand, breast cancer risk is found to be lower in cervical squamous cell carcinoma survivors^{23, 24}. Of our patient cohort, 1.7% suffered from other types of malignant tumours (Table 1.5) prior to breast cancer diagnosis. Among them, the most common tumour was thyroid cancer (Table 1.6).

Table 1.5 Personal histories of tumours of our patient cohort at the time of diagnosis (N=14,905)

History of tumours	Number	(%)
No	12,163	81.6
Benign tumour	2,183	14.7
Malignant tumour	253	1.7
Nature of previous tumours not known	59	0.4
History of tumours not known	247	1.7



Table 1.6 Origins of malignant tumours reported by our patient cohort (N=253)

Type of malignant tumours	Number	(%)
Thyroid	41	16.2
Colorectum	36	14.2
Uterine corpus	31	12.3
Cervix	21	8.3
Ovaries	15	5.9
Lung	12	4.7
Nasopharynx	12	4.7
Blood	9	3.6
Small intestines	6	2.4
Liver	5	2.0
Bone	4	1.6
Esophagus	4	1.6
Skin	4	1.6
Stomach	4	1.6
Urological sites	4	1.6
Brain	2	0.8
Endodermal sinus	2	0.8
Muscle	2	0.8
Tongue	2	0.8
Others*	6	2.4
Not known	46	18.2

* Others include: fallopian tube, neck, oral cavity and salivary gland.

1.2.7 History of benign breast condition and precancerous breast lesion

Several studies have found that women with some types of benign breast condition or precancerous breast lesion have an increased risk of getting breast cancer. Benign breast condition can be classified into three categories: non-proliferative lesions, proliferative lesions without atypia, and atypical hyperplasia. Non-proliferative lesions, such as fibroadenoma or other fibrocystic diseases, are generally not associated with increasing the risk of breast cancer²⁵. On the other hand, proliferative lesions without atypia, such as papilloma or papillomatosis, and atypical ductal or lobular hyperplasia are linked to an increased risk of breast cancer²⁵. Lobular carcinoma in situ (LCIS) is a form of precancerous breast lesion that also increases a woman's risk of getting breast cancer.

Of our patient cohort, 14.6% had previous history of benign breast disease and among them, 0.2% had papillomatosis and 0.4% had atypia ductal hyperplasia. One patient suffered from LCIS prior to breast cancer diagnosis (Table 1.7).

Table 1.7 History of breast disease at the time of diagnosis

	Number	(%)
History of previous breast disease	2,179	14.6
Type of previous breast disease		
Fibroadenoma	1,027	47.1
Fibrocystic disease	90	4.1
Papilloma	31	1.4
Papillomatosis	4	0.2
Atypical ductal hyperplasia	9	0.4
Lobular carcinoma in situ	1	<0.1
Others (Gynaecomastia, other benign tumours)	935	42.9
Not known	117	5.4

1.2.8 Early menarche, late menopause and reproductive history

Life events such as early menarche (<12 years old), late natural menopause (> 55 years old), not bearing children, and late first pregnancy (>35 years old) all increase the lifetime exposure to the hormone estrogen, and thus increase the risk of breast cancer. On the other hand, late menarche, early menopause, bearing children, and early pregnancy all reduce the risk of breast cancer¹³.

In our patient cohort, the mean age at menarche was 13.3 years, and the mean age of menopause was 49.7 years. 12.6% of our patient cohort experienced early menarche. Around half (51.5%) of our patient cohort were post-menopausal and among them, 5.4% experienced late menopause. One-fifth (22.2%) of our patient cohort were nulliparous at the time of cancer diagnosis, and only 4.0% had their first child after the age of 35 (Table 1.8). Of our patients that experienced child birth(s), the mean age at which they had their first live child birth was 27.3 years. Data on patient parity is shown in Table 1.9, 72.0% of our patients had two or more children.

Breastfeeding has been classified as protective against breast cancer at all ages¹³. In our patient cohort, 32.0% breastfed their children and the mean total duration of breastfeeding was 16.2 months with a range of 0.1 to 252.0 months (Table 1.8).

Table 1.8 Early menarche, late menopause and reproductive history at the time of diagnosis

	Number	(%)
Menarche (N=14,905)		
Early menarche (<12 years old)	1,878	12.6
Normal menarche (\geq 12 years old)	11,862	79.6
Not known	1,165	7.8
Menopause (N=7,682)		
Late menopause (>55 years old)	412	5.4
Normal menopause (\leq 55 years old)	6,320	82.3
Age at menopause not known	950	12.4
Reproductive history (N=14,905)		
No childbirth	3,303	22.2
First childbirth at early stage (\leq 35 years of age)	10,396	69.7
First childbirth at late age (>35 years of age)	596	4.0
Age at first live birth not known	335	2.2
Reproductive history not known	275	1.8
Breastfeeding (N=14,905)		
Yes	4,766	32.0
No (Had childbirth)	6,479	43.5
No (No childbirth)	3,296	22.1
No (Reproductive history not known)	38	0.3
Not known	326	2.2



Table 1.9 Number of live births reported by our patient cohort (N=11,327)

No. of live births	Number	(%)
1	3,121	27.6
2	5,076	44.8
3	1,938	17.1
4	694	6.1
5	244	2.2
6	126	1.1
7	50	0.4
8	18	0.2
9+	7	0.1
Not known	53	0.5

1.2.9 Use of hormonal contraceptives

Hormonal contraceptives contain synthetic sex hormones and are administered in the form of oral tablets, injections, implants and transdermal contraceptive patches. Although IARC has classified current or recent use of combined estrogen-progestogen oral contraceptives as a risk factor of breast cancer, recent studies suggested discontinuing use for 10 years or more results in the risk being reduced to that of non-user⁴. Conflicting results were also obtained when studying the correlation between breast cancer risk and injectable contraceptives or implants²⁶⁻³⁰. Therefore, further investigation is needed to elicit the correlation between hormonal contraceptives and breast cancer risk. Less than one-third (31.0%) of our patient cohort had ever used hormonal contraceptives, among which 11.2% used hormonal contraceptives for more than 5 years (Table 1.10). Among the hormonal contraceptives users, more than three-quarters (79.5%) had stopped using it at the time of cancer diagnosis and they have stopped for a mean of 18.4 years.

Table 1.10 Use of hormonal contraceptives at the time of diagnosis (N=14,905)

OC use	Number	(%)
Non-user	9,990	67.0
OC use < 5 years	2,234	15.0
OC use 5-10 years	1,164	7.8
OC use > 10 years	514	3.4
Length of OC use not known	713	4.8
Not known if OC was used	290	1.9

OC: Hormonal contraceptives

1.2.10 Use of hormone replacement therapy

Hormonal replacement therapy (HRT) contains synthetic sex hormones and is used to relieve post-menopausal symptoms. The IARC has classified current use of combined estrogen-progestogen HRT for menopausal symptoms as risk factor of breast cancer⁴. A small proportion (7.5%) of our postmenopausal patients in the cohort had ever used HRT in which 2.8% of them used it for over 5 years (Table 1.11).

Table 1.11 Use of hormone replacement therapy (in our post-menopausal patients) at the time of diagnosis (N=7,682)

HRT use	Number	(%)
Non-user	6,945	90.4
HRT use < 5 years	310	4.0
HRT use 5-10 years	171	2.2
HRT use > 10 years	43	0.6
Length of HRT use not known	51	0.7
Not known if HRT was used	162	2.1

HRT: Hormone replacement therapy

1.2.11 Ten most common risk factors associated with breast cancer

Many risk factors have been classified by international cancer research groups as convincing causes or probable risk factors of breast cancer development. Some of these factors are described in previous sections of this chapter. In this chapter, the Hong Kong Breast Cancer Registry aims to study the and relevance and frequency of these factors in Hong Kong breast cancer patients and the ten most common risk factors observed in our patient cohort are listed in Table 1.12.

Lack of exercise was the most common risk factor within our patient cohort, reported by 77.7% of patients, followed by not having breastfeeding experience (65.8%) and being overweight or obese (38.6%) (Table 1.12). The accumulation of multiple risk factors increases the risk of getting breast cancer. One-third (33.5%) of our patient cohort had four or more risk factors shown in Table 1.12. Interestingly, a small proportion (2.6%) of patients had none of the common risk factors studied (Figure 1.8).

Table 1.12 The ten most common risk factors in our patient cohort (N=14,905)

Risk factor	Number	(%)
Lack of exercise (<3hrs / week)	11,588	77.7
No breastfeeding	9,813	65.8
Being overweight / obese	5,758	38.6
High levels of stress (>50% of time)	5,527	37.1
No childbirth / First live birth after age 35	3,899	26.2
Diet rich in meat/ dairy products	2,155	14.5
Family history of breast cancer	2,115	14.2
Early menarche (<12 years old)	1,878	12.6
Drinking alcohol	729	4.9
Use of hormonal replacement therapy	575	3.9

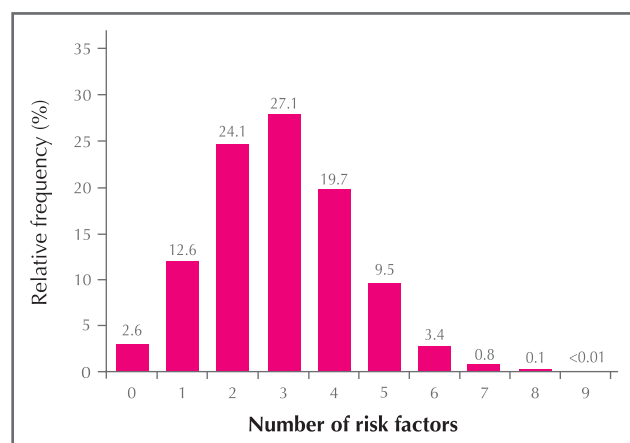


Figure 1.8 Distribution of our patient cohort with different number of risk factors for breast cancer at the time of diagnosis (N=14,905)

1.3 Breast screening habits

Breast screening is a method of checking woman's breasts when there are neither signs nor symptoms of breast cancer in an attempt to achieve earlier detection. Early detection reduces mortality from breast cancer. The three screening methods used for breast cancer screening include breast self-examination (BSE), clinical breast examination (CBE), and mammography screening (MMG). Breast self-examination is conducted by a woman herself, where she checks for lumps, changes in size or shape of the breast, or any other changes in the breasts or underarm. Clinical breast examination is conducted by a medical professional, such as a doctor or nurse, who uses his or her hands to feel for lumps or other changes. Mammography screening is the current standard test for breast cancer screening where a low-energy X-ray is used to examine a woman's breasts.

The Hong Kong Breast Cancer Foundation recommends women aged 40 or above to conduct monthly breast self-examination as a measure of raising breast self awareness, also to regularly conduct clinical breast examination and mammography screening. In addition to MMG, breast ultrasound screening (USG) is used along with



mammograms for women with dense breasts. In Hong Kong, there is no population-based breast screening programme for women of all ages. The breast screening habits reported here are patients' self-initiated breast screening habits prior to cancer diagnosis.

The breast screening habits in our patient cohort were studied by age group in Table 1.13. Less than a quarter of the patient cohort of all ages performed regular

BSE, MMG and USG. Regular CBE was performed by around 40% of the patients aged below 60, however, the proportions dropped to 25.3% and 10.1% for our patients aged 60-69 and aged 70 or above, respectively (Table 1.13). With the exception of patients aged below 40, proportion of patients who have never performed BSE, CBE, and USG was positively correlated with age. Over 60% or more of the patients aged 40 or above have never performed MMG prior to diagnosis (Table 1.13).

Table 1.13 Breast screening habits of our patient cohort by age group

Breast examination	Age group (years), Number (%)				
	<40	40-49	50-59	60-69	70+
BSE					
Never	579 (36.6)	1,791 (35.3)	1,855 (38.9)	1,054 (44.1)	553 (58.9)
Occasional	682 (43.1)	2,078 (41.0)	1,810 (38.0)	847 (35.4)	253 (26.9)
Monthly	300 (19.0)	1,135 (22.4)	1,020 (21.4)	461 (19.3)	119 (12.7)
Not known	22 (1.4)	65 (1.3)	79 (1.7)	29 (1.2)	14 (1.5)
CBE					
Never	779 (49.2)	2,065 (40.7)	2,133 (44.8)	1,409 (58.9)	738 (78.6)
Occasional	220 (13.9)	706 (13.9)	696 (14.6)	330 (13.8)	84 (8.9)
Regular*	564 (35.6)	2,233 (44.1)	1,862 (39.1)	606 (25.3)	95 (10.1)
Not known	20 (1.3)	65 (1.3)	73 (1.5)	46 (1.9)	22 (2.3)
MMG#					
Never		3,469 (68.4)	3,027 (63.5)	1,643 (68.7)	798 (85.0)
Occasional		550 (10.9)	576 (12.1)	284 (11.9)	66 (7.0)
Regular*		978 (19.3)	1,080 (22.7)	422 (17.6)	51 (5.4)
Not known		72 (1.4)	81 (1.7)	42 (1.8)	24 (2.6)
USG#					
Never		3,431 (67.7)	3,314 (69.6)	1,830 (76.5)	818 (87.1)
Occasional		532 (10.5)	494 (10.4)	212 (8.9)	53 (5.6)
Regular*		975 (19.2)	826 (17.3)	275 (11.5)	42 (4.5)
Not known		131 (2.6)	130 (2.7)	74 (3.1)	26 (2.8)

BSE: Breast self-examination, CBE: Clinical breast examination, MMG: Mammography screening, USG: Breast ultrasound screening

* "Regular" is defined as having the breast screening test every 1-3 years.

Included patients aged 40 or above only

Breast screening habits were further studied by patients' educational level (Table 1.14). The findings suggested that patients who attained a lower education level had less breast screening habits prior to cancer diagnosis. 64.1% of the patients who attained kindergarten or less

had never performed BSE, compared to 27.5% of the patients who attained matriculation level or above. The corresponding figures decreased from 75.2% to 31.0% for CBE, 86.5% to 50.1% for MMG, and 88.5% to 52.9% for USG, respectively.

Table 1.14 Breast screening habits of our patient cohort by educational level

Breast examination results of our patients categorized by educational level								
Breast examination	Educational level, Number (%)							
	No schooling / Kindergarten		Primary school		Secondary school		Matriculation or above	
BSE								
Never	486	(64.1)	1,746	(48.0)	2,813	(37.9)	812	(27.5)
Occasional	177	(23.4)	1,152	(31.7)	2,838	(38.2)	1,507	(51.0)
Monthly	87	(11.5)	698	(19.2)	1,688	(22.7)	576	(19.5)
Not known	8	(1.1)	38	(1.0)	90	(1.2)	59	(2.0)
CBE								
Never	570	(75.2)	2,244	(61.8)	3,416	(46.0)	915	(31.0)
Occasional	74	(9.8)	420	(11.6)	1,013	(13.6)	536	(18.1)
Regular*	105	(13.9)	934	(25.7)	2,885	(38.8)	1,451	(49.1)
Not known	9	(1.2)	36	(1.0)	115	(1.5)	52	(1.8)
MMG#								
Never	633	(86.5)	2,726	(76.8)	4,397	(67.2)	1,117	(50.1)
Occasional	40	(5.5)	326	(9.2)	719	(11.0)	379	(17.0)
Regular*	52	(7.1)	458	(12.9)	1,309	(20.0)	695	(31.2)
Not known	7	(1.0)	40	(1.1)	117	(1.8)	38	(1.7)
USG#								
Never	648	(88.5)	2,869	(80.8)	4,633	(70.8)	1,179	(52.9)
Occasional	26	(3.6)	254	(7.2)	637	(9.7)	360	(16.2)
Regular*	49	(6.7)	354	(10.0)	1,107	(16.9)	598	(26.8)
Not known	9	(1.2)	73	(2.1)	165	(2.5)	92	(4.1)

BSE: Breast self-examination, CBE: Clinical breast examination, MMG: Mammography screening, USG: Breast ultrasound screening

* "Regular" is defined as having the breast screening test every 1-3 years.

Included patients aged 40 or above only



Breast screening habits were also studied by patients' monthly household income level (Table 1.15). Our figures showed that patients who had lower income had less breast screening habits prior to cancer diagnosis. 44.2% of the patients who had monthly household income less than 10,000 HKD had

never performed BSE, compared to 21.9% of the patients who had income of 60,000 HKD or more. The corresponding figures decreased from 58.7% to 19.3% for CBE, 75.2% to 39.8% for MMG, and 79.9% to 44.7% for USG, respectively.

Table 1.15 Breast screening habits of our patient cohort by monthly household income (HKD)

Breast examination	Monthly household income (HKD), Number (%)			
	<10,000	10,000 – 29,999	30,000 – 59,999	≥ 60,000
BSE				
Never	715 (44.2)	1,391 (36.4)	577 (29.7)	239 (21.9)
Occasional	585 (36.2)	1,561 (40.9)	935 (48.2)	613 (56.1)
Monthly	291 (18.0)	823 (21.6)	402 (20.7)	217 (19.9)
Not known	25 (1.5)	43 (1.1)	26 (1.3)	23 (2.1)
CBE				
Never	949 (58.7)	1,633 (42.8)	596 (30.7)	211 (19.3)
Occasional	218 (13.5)	564 (14.8)	330 (17.0)	202 (18.5)
Regular*	426 (26.4)	1,582 (41.4)	986 (50.8)	652 (59.7)
Not known	23 (1.4)	39 (1.0)	28 (1.4)	27 (2.5)
MMG#				
Never	1,118 (75.2)	2,226 (67.7)	806 (52.7)	361 (39.8)
Occasional	138 (9.3)	395 (12.0)	251 (16.4)	170 (18.7)
Regular*	208 (14.0)	621 (18.9)	450 (29.4)	360 (39.7)
Not known	23 (1.5)	46 (1.4)	23 (1.5)	16 (1.8)
USG#				
Never	1,188 (79.9)	2,333 (71.0)	867 (56.7)	405 (44.7)
Occasional	116 (7.8)	348 (10.6)	223 (14.6)	170 (18.7)
Regular*	148 (10.0)	527 (16.0)	400 (26.1)	288 (31.8)
Not known	35 (2.4)	80 (2.4)	40 (2.6)	44 (4.9)

BSE: Breast self-examination, CBE: Clinical breast examination, MMG: Mammography screening, USG: Breast ultrasound screening

* "Regular" is defined as having the breast screening test every 1-3 years.

Included patients aged 40 or above only

Breast screening habits were further stratified by patients' district of residence and the result is shown in Table 1.16. More patients in our cohort living in Kowloon or the New Territories have never performed any breast screening (including BSE, CBE, MMG, and USG) compared to Hong Kong Island. More

patients in our cohort living in Hong Kong Island have performed regular healthcare service-assisted breast screening tests (i.e., CBE, MMG, and USG) than those living in Kowloon and the New Territories (Table 1.16).

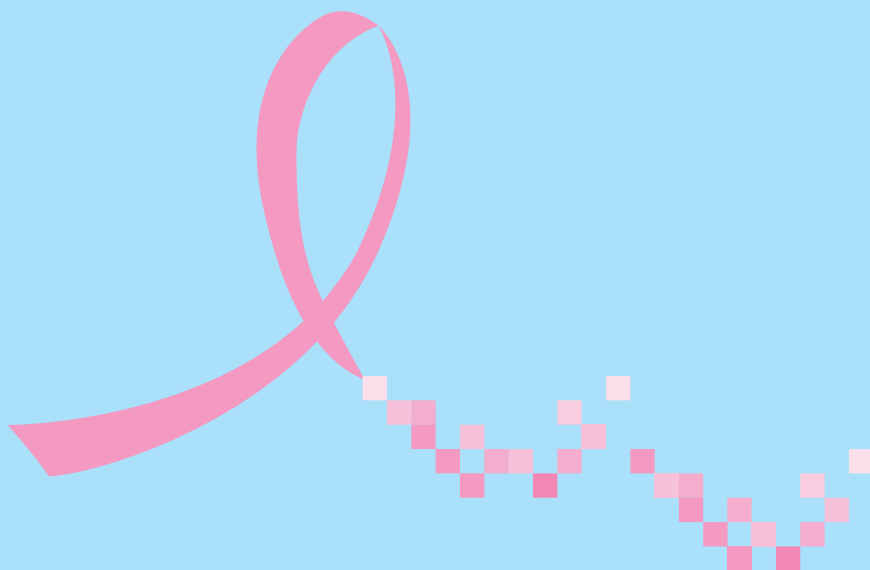
Table 1.16 Breast screening habits of our patient cohort by district of residence

	District of Residence, Number (%)					
Breast examination	Hong Kong Island		Kowloon		New Territories	
BSE						
Never	638	(31.2)	1,439	(42.5)	3,593	(40.4)
Occasional	946	(46.2)	1,220	(36.1)	3,340	(37.5)
Monthly	406	(19.8)	666	(19.7)	1,884	(21.2)
Not known	56	(2.7)	58	(1.7)	79	(0.9)
CBE						
Never	672	(32.8)	1,814	(53.6)	4,462	(50.2)
Occasional	346	(16.9)	431	(12.7)	1,203	(13.5)
Regular*	962	(47.0)	1,074	(31.7)	3,147	(35.4)
Not known	66	(3.2)	64	(1.9)	84	(0.9)
MMG#						
Never	916	(50.9)	2,117	(70.5)	5,626	(71.3)
Occasional	299	(16.6)	303	(10.1)	828	(10.5)
Regular*	529	(29.4)	529	(17.6)	1,346	(17.1)
Not known	57	(3.2)	52	(1.7)	88	(1.1)
USG#						
Never	1,007	(55.9)	2,235	(74.5)	5,863	(74.3)
Occasional	264	(14.7)	273	(9.1)	710	(9.0)
Regular*	415	(23.0)	410	(13.7)	1,186	(15.0)
Not known	115	(6.4)	83	(2.8)	129	(1.6)

BSE: Breast self-examination, CBE: Clinical breast examination, MMG: Mammography screening, USG: Breast ultrasound screening

* "Regular" is defined as having the breast screening test every 1-3 years.

Included patients aged 40 or above only



CHAPTER 2

DISEASE PATTERN, TREATMENT TREND AND CLINICAL OUTCOME OF BREAST CANCER IN HONG KONG



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DISEASE PATTERN, TREATMENT TREND AND CLINICAL OUTCOME OF BREAST CANCER IN HONG KONG

This chapter reviews the data collected from 14,990 breast cancer patients regarding their cancer's clinical presentation, cancer characteristics and treatment methods. Through this, the clinical management of breast

cancer is analysed, and trends in disease and treatment in the local context can be identified in order to develop and improve the standard of care for breast cancer patients in Hong Kong.

KEY FINDINGS

Clinical presentation

- ▶ The primary method of first breast cancer detection in the patient cohort was self-detection by chance (83.2%). More stage 0 or 1 cancers (34.6% and 13.4% respectively) were detected by mammography screening than stage III or IV cancers (3.0% and 2.1% respectively).
- ▶ Most (91.8%) patients who self-detected their cancers by chance found a painless lump on their breast(s). Pain is not usually a symptom of breast cancer; only 7.0% of our patients felt pain in their breast(s) at initial presentation. Some patients (9.0%) experienced changes in nipple (such as nipple discharge, nipple retraction, redness, scaliness or thickening of nipple).
- ▶ After the onset of symptoms, a quarter (25.4%) of our patients who self-detected their cancers by chance waited three or more months before seeking first medical consultation.
- ▶ Majority (91.7%) of our patients had unilateral breast cancer, while 370 patients had synchronous bilateral breast cancer at first diagnosis. 340 patients developed a contralateral breast cancer subsequently after diagnosis of an initial primary breast cancer.
- ▶ Around half (45.3%) of our patients with invasive breast cancer did not have any cancer staging as

part of their treatment. Among those who had cancer staging as part of their treatment, the most commonly used method was positron emission tomography scan (PET scan) (46.0%), and chest x-ray plus ultrasound of abdomen (44.0%).

- ▶ The most common cancer stage at diagnosis was stage II (37.3%). Around 16.4% of our patients were diagnosed with stages III-IV diseases while 12.0% of our patients were diagnosed with in situ cancers.

Cancer characteristics

- ▶ The mean size of invasive breast cancers for our patient cohort was 2.2 cm (standard deviation: ± 1.5 cm). Tumours larger than 2.0 cm in size were found in 47.2% of our patients. In our patient cohort, screen-detected cancers were significantly smaller than cancers that were self-detected by chance (mean: 1.5 cm vs. 2.5 cm; $p < 0.001$). 59.3% of our patients with invasive breast cancers had no positive lymph nodes. The most common histological type of invasive cancer was invasive carcinoma of no specific type (86.2%). 80.2% of invasive breast cancers were either estrogen receptor (ER) or progesterone receptor (PR) positive. 21.1% were c-erbB2/HER2 positive. 11.6% of the invasive breast cancers were triple negative.

- The mean size of in situ cancers for our patient cohort was 2.0 cm (standard deviation: ± 1.6 cm). Tumours larger than 2.0 cm were found in 35.3% of our patients. Of the in situ breast cancers where mammogram (MMG) was performed, 74.5% showed microcalcification on MMG. Ductal cancers were found to be the most common type of in situ breast cancer (93.2%). 82.1% of in situ breast cancers were either ER or PR positive. 27.1% of in situ breast cancers in our cohort were c-erbB2/HER2 positive.

Treatment methods

- Of our 14,990 patients, 14.7% solely received care at private medical service, while 49.9% solely received care at public medical service. Around one-third (35.4%) of patients received care at both private and public medical services.
- Surgery
 - Majority (98.0%) of our patients underwent surgery as part of their treatment. 51.6% of our patients had surgery at private medical facilities, while 48.4% had surgery at public medical facilities.
 - Less than half (47.7%) of our patients with in situ tumours had mastectomy, and among them, 22.1% had reconstruction. Among those who received nodal surgery, 84.2% of them had sentinel node biopsy (SNB) alone and 11.9% received axillary dissection (AD) without SNB.
 - For patients with invasive tumours, two-thirds (64.8%) of them had mastectomy and among them, only 11.7% of them had reconstruction. Less than half (41.3%) of our invasive patients received SNB alone, while 41.0% received AD without SNB.
 - The percentage of our patients who underwent mastectomy was positively correlated with both increasing age and cancer stage.
- SNB alone was more commonly used on our patients with negative clinical nodal statuses than those with positive clinical nodal statuses (53.6% vs. 15.5%).
- The use of AD was positively correlated with increasing cancer stage.
- Radiotherapy
 - 61.8% of our patients had radiotherapy as one of their treatment. 88.1% of our patients had radiotherapy at public medical facilities, while 11.9% had radiotherapy at private medical facilities.
 - Of our patients with in situ cancer who had breast-conserving surgery, majority (94.0%) of them received radiotherapy afterwards, while only 3.3% of our patients with in situ cancer who had mastectomy received radiotherapy.
 - Over 84% of invasive breast cancer patients with breast-conserving surgery received radiotherapy, while the use of radiotherapy in invasive breast cancer patients with mastectomy increased with increasing cancer stages, with the exception of stage IV disease.
- Chemotherapy
 - Two-thirds (67.9%) of patients with invasive cancer in the cohort underwent chemotherapy. Among them, 11.2% had neoadjuvant chemotherapy.
 - 86.5% of our patients received chemotherapy in public medical facilities, while 13.5% received in private medical facilities.
 - In our patient cohort, the use of chemotherapy was positively correlated to progressing cancer stage, with the exception of stage IV disease.



- ▶ Endocrine therapy
 - 67.4% of our patients received endocrine therapy. 90.5% of our patients received endocrine therapy at public medical facilities, while 9.5% received endocrine therapy at private medical facilities.
 - Endocrine therapy was used in 11.7% of our patients with in situ breast cancer, but was used in over 73.0% of our patients with invasive breast cancer.
- ▶ Anti-HER2 targeted therapy
 - Of the patients with invasive HER2-positive breast cancers in our cohort, 58.3% underwent anti-HER2 targeted therapy. 88.7% of our patients received anti-HER2 targeted therapy at public medical facilities, while 11.3% received anti-HER2 targeted therapy at private medical facilities.
 - The use of anti-HER2 targeted therapy was positively correlated with increasing cancer stage.
- ▶ Combinations of treatments are usually used for treating breast cancer effectively. In general, the number of treatments increased with increasing cancer stage.
- ▶ Complementary and alternative therapies
 - 39.3% of our patients in the cohort received complementary and alternative therapies. Among them, 66.1% used traditional Chinese medicines.

Patient status

- ▶ The mean and median follow-up periods were 3.9 and 3.4 years, respectively.
- ▶ 596 (4.5%) of patients in our cohort experienced recurrence, where 1.3% of our patients experienced locoregional recurrence (LR) solely, 2.1% experienced distant recurrence (DR) solely, and 1.1% experienced both locoregional and distant recurrence.
- ▶ The common sites for locoregional recurrence were chest wall (36.4%) and breast (30.5%) and the common organs involved in distant recurrence were bone (55.2%), lung (46.5%), and liver (39.0%).

2.1 Clinical presentation

The primary method of first breast cancer detection in the patient cohort was self-detection by chance (83.2%) (Figure 2.1). Relatively small proportion of breast cancers in our cohort were detected through healthcare service-assisted screening methods, including clinical breast examination (CBE), mammography screening (MMG), and ultrasound screening (USG). In the United States, a study reported that 43% of the breast cancer cases were detected through mammography screening³¹, which is significantly higher than the 10.5% observed in Hong Kong within the patient cohort.

When comparing the method of first breast cancer detection by types of medical service received, the proportion of our patients who self-detected their breast cancer by chance was higher in public medical service users or mixed private/public medical service users than in private medical service users. In contrast, the proportion of our patients whose breast cancer was first detected through mammography screening was higher in private medical service users than in either public medical service users or mixed private/public medical service users (Table 2.1).

Studies have shown that mammography screening is effective in detecting early cancers when there are neither signs nor symptoms that can be observed by patients or medical professionals³². In our patient cohort, the proportion of invasive breast cancers detected by mammography screening (6.9%) were much lower than that of in situ breast cancers (35.2%) (Table 2.2). In addition, more stage 0 or I cancers (34.6% and 13.4% respectively) were detected by mammography screening than stage III or IV cancers (3.0% and 2.1% respectively). Over 90% of patients with stage IIB, III or IV cancers self-detected their cancer by chance (Table 2.3).

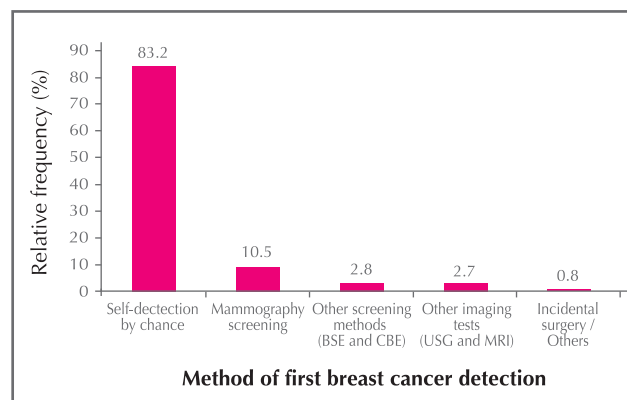


Figure 2.1 The method of first breast cancer detection in our patient cohort (N=14,161)

BSE: Breast self-examination; CBE: Clinical breast examination;
USG: Ultrasound screening; MRI: Magnetic resonance imaging

Table 2.1 The method of first breast cancer detection by types of medical service received at cancer diagnosis and treatment (N=14,028)

	Private medical service users (N=2,055)		Public medical service users (N=6,988)		Mixed private / public medical service users (N=4,985)	
Mode of first breast cancer detection	Number	(%)	Number	(%)	Number	(%)
Self-detection by chance	1,520	(74.0)	5,868	(84.0)	4,290	(86.1)
Mammography screening	304	(14.8)	792	(11.3)	376	(7.5)
Other screening methods (BSE and CBE)	71	(3.5)	171	(2.4)	146	(2.9)
Other imaging tests (USG and MRI)	134	(6.5)	101	(1.4)	141	(2.8)
Incidental surgery / Others	26	(1.3)	56	(0.8)	32	(0.6)

BSE: Breast self-examination; CBE: Clinical breast examination; USG: Ultrasound screening; MRI: Magnetic resonance imaging


Table 2.2 The method of first breast cancer detection by type of cancer (N=14,126)

Method of first breast cancer detection	Type of cancer, Number (%)	
	In situ (N=1,824)	Invasive (N=12,302)
Self-detection by chance	1,002 (54.9)	10,753 (87.4)
Mammography screening	642 (35.2)	845 (6.9)
Other screening methods (BSE and CBE)	56 (3.1)	332 (2.7)
Other imaging tests (USG and MRI)	101 (5.5)	279 (2.3)
Incidental surgery / Others	23 (1.3)	93 (0.8)

BSE: Breast self-examination; CBE: Clinical breast examination; USG: Ultrasound screening; MRI: Magnetic resonance imaging

Table 2.3 The method of first breast cancer detection by cancer stage (N=13,725)

Method of first breast cancer detection	Cancer stage, Number (%)					
	0 (N=1,695)	I (N=4,406)	IIA (N=3,497)	IIB (N=1,781)	III (N=2,011)	IV (N=335)
Self-detection by chance	959 (56.6)	3,446 (78.2)	3,127 (89.4)	1,665 (93.5)	1,885 (93.7)	311 (92.8)
Mammography screening	586 (34.6)	589 (13.4)	184 (5.3)	43 (2.4)	61 (3.0)	7 (2.1)
Other screening methods (BSE and CBE)	54 (3.2)	158 (3.6)	91 (2.6)	40 (2.2)	29 (1.4)	10 (3.0)
Other imaging tests (USG and MRI)	81 (4.8)	174 (3.9)	71 (2.0)	26 (1.5)	18 (0.9)	5 (1.5)
Incidental surgery / Others	15 (0.9)	39 (0.9)	24 (0.7)	7 (0.4)	18 (0.9)	2 (0.6)

BSE: Breast self-examination; CBE: Clinical breast examination; USG: Ultrasound screening; MRI: Magnetic resonance imaging

Most (91.8%) patients who self-detected their cancers by chance found a painless lump on their breast(s). Pain is not usually a symptom of breast cancer; only 7.0% of patients felt pain in their breast(s) at initial presentation. Some patients (9.0%) experienced changes in nipple (such as nipple discharge, nipple retraction, redness, scaliness or thickening of nipple) (Figure 2.2).

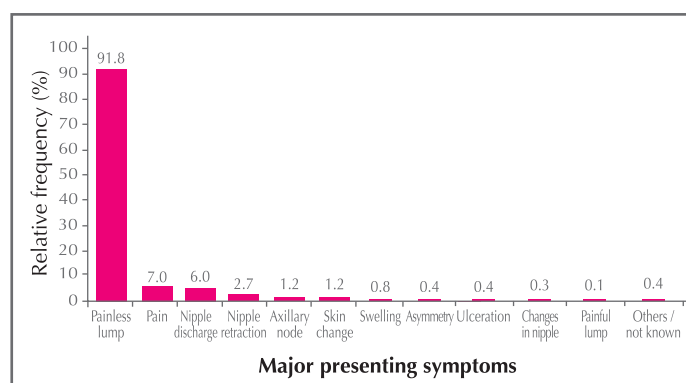


Figure 2.2 Major presenting symptoms of self-detected* breast cancers in our patient cohort (N=11,781)

*self-detection by chance only

2.1.1 Time interval between the onset of symptoms and first medical consultation

Longer delay in seeking medical consultation is associated with higher probability of local cancer spread or distant metastasis, and poorer prognosis³³. After the onset of symptoms, only one-third (35.6%) of the patients who self-detected their cancers by chance sought first medical consultation in less than one month (Table 2.4) while a quarter (25.4%) of them waited three or more months before seeking first medical consultation.

The proportion of our patients who sought first medical consultation in less than one month was higher in private medical service users (42.2%) than in public medical service users (28.0%) (Table 2.5).

Table 2.4 Time interval between the onset of symptoms and first medical consultation for our patients who self-detected* their cancers (N=3,143)

	Number	(%)
Less than 1 month	1,118	(35.6)
1-3 months	1,228	(39.1)
4-12 months	464	(14.8)
More than 12 months	333	(10.6)

*Self-detection by chance only

Table 2.5 Time interval between the onset of symptoms and first medical consultation for our patients who self-detected* their cancers by types of medical service (N=3,143)

	Type of medical service users, Number (%)		
	Private (N=654)	Public (N=1,419)	Mixed private / public (N=1,070)
Less than 1 month	277 (42.4)	397 (28.0)	444 (41.5)
1-3 months	241 (36.9)	562 (39.6)	425 (39.7)
4-12 months	80 (12.2)	266 (18.7)	118 (11.0)
More than 12 months	56 (8.6)	194 (13.7)	83 (7.8)

*Self-detection by chance only



A much higher proportion (11.8%) of patients who sought first medical consultation after 12 months of symptom onset was diagnosed with stage IV disease than those who sought first medical consultation in less than 12 months (Table 2.6).

Table 2.6 Cancer stage at diagnosis among self-detected* patients with different time interval between the onset of symptoms and first medical consultation (N=2,770)

Cancer stage at diagnosis	Time interval between the onset of symptoms and first medical consultation, Number (%)			
	Less than 1 month (N=997)	1 – 3 months (N=1,091)	4 – 12 months (N=403)	More than 12 months (N=279)
Stage I	367 (36.8)	333 (30.5)	112 (27.8)	70 (25.1)
Stage IIA	336 (33.7)	359 (32.9)	122 (30.3)	66 (23.7)
Stage IIB	146 (14.6)	181 (16.6)	68 (16.9)	49 (17.6)
Stage III	135 (13.5)	185 (17.0)	85 (21.1)	61 (21.9)
Stage IV	13 (1.3)	33 (3.0)	16 (4.0)	33 (11.8)

*Self-detection by chance only

2.2 Cancer characteristics

Breast cancer can occur in one (unilateral) or both breasts (bilateral). Majority (91.7%) of our patients had unilateral breast cancer, while 4.9% (n=370) had synchronous bilateral breast cancer at first diagnosis (Figure 2.3). 147 patients (2.0%) developed a contralateral breast cancer within, a median of 2.8 years (range: 0.5– 8.8 years) after diagnosis of an initial primary breast cancer (Figure 2.3). An additional 193 patients had contralateral breast cancer, however as they were diagnosed with their initial primary breast cancer before 2006, only data from second diagnosis occurring after 2006 was included in this report.

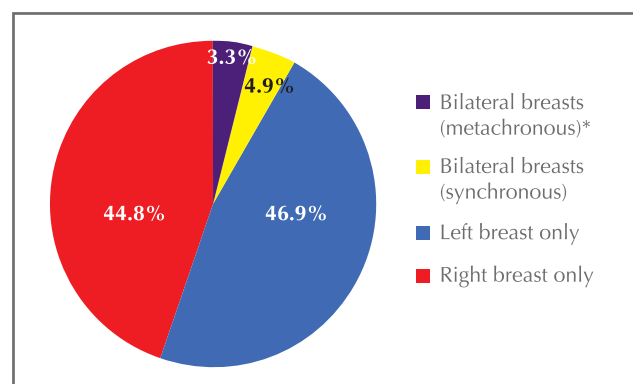


Figure 2.3 Laterality of 14,990 breast cancer cases

* Includes 193 patients who were diagnosed with initial primary breast cancer before 2006 and they developed a contralateral breast cancer after 2006 (only data from second diagnosis was included in this report).

Figure 2.4 shows the proportion of malignant breast tumours occurring in each breast quadrant within the patient cohort. Around half of the breast cancers in either the right or the left breast were detected in the upper outer quadrant (50.3% and 47.1% respectively).

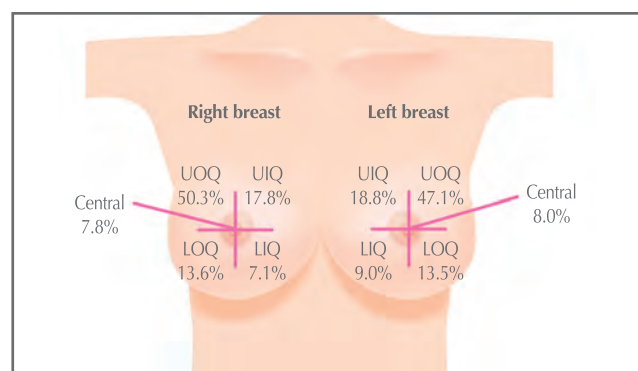


Figure 2.4 Locations of malignant breast tumour on the breasts within our patient cohort (N=14,990)

UOQ: Upper outer quadrant UIQ: Upper inner quadrant
LOQ: Lower outer quadrant LIQ: Lower inner quadrant

*Figures include multicentric cancers

2.2.1 Diagnostic tests for breast cancer

There are two types of breast cancer diagnostic tests: imaging tests and biopsies. Imaging tests include diagnostic mammography (MMG), ultrasound (USG) and magnetic resonance imaging (MRI). Diagnostic mammography is a common procedure for breast cancer diagnosis, and ultrasound is used to distinguish a solid mass, which may be cancer, from a fluid-filled cyst, which is usually not cancer. Breast MRI is usually performed on women who have been diagnosed with breast cancer to check the other breast for cancer or to find out the extent of their disease.

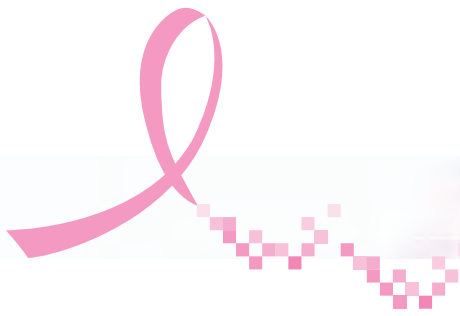
For around 85.4% of our patients MMG was used, while USG was used on 79.7% and MRI was used on only 9.3% of our patients in cancer diagnosis (Table 2.7). Results of imaging tests are classified into categories using a system called the Breast Imaging Reporting and Data System (BIRADS), where BIRADS 4 or 5 are suspected breast cancers and should be checked by further surgical tests such as biopsies.

Table 2.7 Sensitivity and diagnostic results of breast imaging tests (N=14,990)

	Mammography (N=12,804)	Breast ultrasound (N=11,951)	MRI (N=1,392)
Proportion of patients using the diagnostic test	85.4%	79.7%	9.3%
Overall sensitivity*	82.6%	90.7%	96.5%
BIRADS category			
Diagnostic / malignant (BIRADS 5)	4,192 (32.7%)	4,549 (38.1%)	1,108 (79.6%)
Suspicious abnormality (BIRADS 4)	6,381 (49.8%)	6,289 (52.6%)	235 (16.9%)
Probably benign (BIRADS 3)	707 (5.5%)	673 (5.6%)	23 (1.7%)
Benign (BIRADS 2)	537 (4.2%)	197 (1.6%)	11 (0.8%)
Normal (BIRADS 1)	903 (7.1%)	236 (2.0%)	14 (1.0%)
Incomplete (BIRADS 0)	84 (0.7%)	7 (0.1%)	1 (0.1%)

MRI: Magnetic resonance imaging; BIRADS: Breast Imaging Reporting and Data System

*Sensitivity: Number of true positives (BIRADS 4-5) divided by total number of patients who had the test



Opacity was observed in 62.8% of patients in the cohort with BIRADS 4 or 5 mammograms, while microcalcification was observed in 50.6% (Table 2.8). The mammographic density of a woman's breasts affects the sensitivity of mammography. Heterogeneously dense breast may obscure small masses, while extremely dense breast lowers the sensitivity of mammography. In our

patient cohort, two-thirds (69.1%) had heterogeneously dense breasts, while 6.4% had extremely dense breasts (Figure 2.5). Mammographic density of a woman's breasts declines with increasing age. The proportion of patients with extremely dense breast decreases significantly from 12.8% in patients aged 20-29 to 1.0% in patients aged 70 and above (Table 2.9).

Table 2.8 Mammographic findings of patients in our cohort who were diagnosed through mammography (N=10,573)

	Number	(%)
Opacity	6,644	(62.8)
Microcalcification	5,355	(50.6)
Architectural distortion	1,533	(14.5)
Asymmetric density	944	(8.9)
Unclassified	442	(4.2)

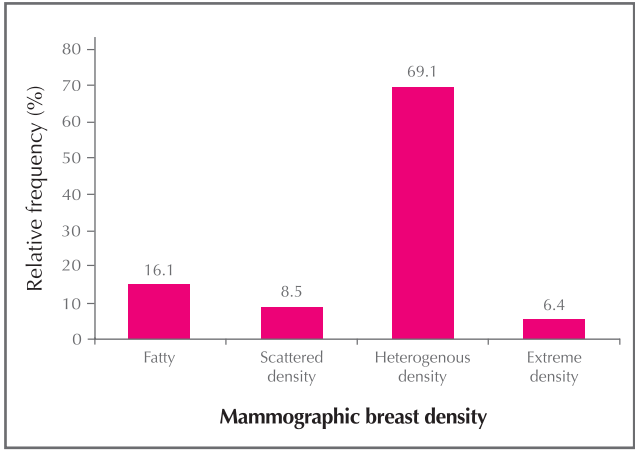


Figure 2.5 Mammographic density of breasts of our patients who were diagnosed through mammography (N=7,661)

Table 2.9 Mammographic density of breasts of our patients who were diagnosed through mammography by age group (N=7,300)

Mammographic density	Age group, Number (%)					
	20-29 (N=47)	30-39 (N=636)	40-49 (N=2,409)	50-59 (N=2,457)	60-69 (N=1,269)	70+ (N=482)
Fatty	3 (6.4)	41 (6.4)	214 (8.9)	396 (16.1)	310 (24.4)	187 (38.8)
Scattered density	2 (4.3)	23 (3.6)	135 (5.6)	225 (9.2)	154 (12.1)	67 (13.9)
Heterogeneous density	36 (76.6)	497 (78.1)	1,851 (76.8)	1,704 (69.4)	758 (59.7)	223 (46.3)
Extreme density	6 (12.8)	75 (11.8)	209 (8.7)	132 (5.4)	47 (3.7)	5 (1.0)

Biopsies (samplings of breast cells or tissues for examination) for breast cancer diagnosis include fine needle aspiration (FNA), core needle biopsy (CNB), and excisional biopsy. As a standard of care, these biopsies are used to confirm before surgery if the breast lesion is malignant. FNA and CNB are less invasive sampling methods and are used more often, but sometimes excisional biopsy, which removes a relatively larger portion of breast tissue, is conducted. FNA

and/or CNB were performed in 86.0% of our patients and among them, 3,427 (26.6%) received FNA solely, 6,543 (50.7%) received CNB solely, and 2,927 (22.7%) received both FNA and CNB. Excisional biopsy was performed in 11.3% of our patients. Excisional biopsy had the highest overall sensitivity of 100%, followed by CNB (98.8%) and FNA (91.7%) (Table 2.10).

Table 2.10 Sensitivity and diagnostic results of breast tissue biopsies (N=14,990)

	FNA (N=6,196)	CNB (N=9,405)	Excisional biopsy (N=1,688)
Proportion of patients using the diagnostic test	41.3%	62.8%	11.3%
Overall sensitivity*	91.7%	98.8%	100.0%
Class			
Diagnostic / malignant (Class V)	3,925 (63.3%)	8,976 (95.4%)	1,688 (100.0%)
Suspicious (Class IV)	1,009 (16.3%)	154 (1.6%)	—
Atypical (Class III)	747 (12.1%)	163 (1.7%)	—
Benign (Class II)	264 (4.3%)	81 (0.9%)	—
Scanty benign (Class I)	251 (4.1%)	31 (0.3%)	—
Incomplete (Class 0)	0 (0.0%)	0 (0.0%)	—

FNA: Fine needle aspiration; CNB: Core needle biopsy;

*Sensitivity: Number of true positives (Class III-V) divided by total number of patients who had the test



2.2.2 Methods of cancer staging

Cancer staging is the process of finding out the extent of the disease in the body pre-operatively after diagnosis of breast cancer. It is usually conducted in patients with clinically node positive or locally advanced disease. Patients who had only chest x-ray is not considered as having adequate work up and is not included.

Almost half (45.3%) of patients with invasive breast cancer did not have any cancer staging as part of their diagnosis and treatment. Among those who had cancer staging as part of their treatment, the most commonly used method

was Positron emission tomography scan (PET scan) (46.0%). A combination of chest x-ray and ultrasound of abdomen was used by 44.0% of our patients (Table 2.11). PET scan was not recommended for patients with early breast cancer, including stage I, stage II, or operable stage III breast cancer, to determine the extent of disease³⁴. However, among those who had cancer staging, 18.4% and 36.4% of patients with stages I and IIA diseases, respectively, had PET scan to determine the extent of their disease (Table 2.12).

Table 2.11 Method of clinical staging in 6,178 invasive breast cancer patients

Type of cancer staging method	Number	(%)
Positron emission tomography scan (PET scan)	2,844	(46.0)
Chest X-Ray (CXR) and ultrasound abdomen (USG Abd)	2,716	(44.0)
Computed tomography of body parts*	374	(6.1)
Bone scan	202	(3.3)
Magnetic resonance imaging whole body (MRI whole body)	81	(1.3)
Others (e.g. bone x-ray)	25	(0.4)
Not known	898	(14.5)

* Body parts include abdomen, thorax, pelvis, brain, or whole body

Table 2.12 The use of PET scan as a form of staging methods in patients with different cancer stages (N=8,908)

	Cancer stage, Number (%)						Total
	I	IIA	IIB	III	IV	Unstaged	
Patients who used PET scan	304 (18.4%)	545 (36.4%)	507 (51.3%)	1,025 (68.5%)	288 (87.3%)	175 (82.2%)	2,844 (46.0%)

Using the American Joint Committee on Cancer (AJCC) Breast Cancer Staging (7th edition)³⁵ to determine cancer staging in our patient cohort, it was found that the most common cancer stage at diagnosis was stage II (37.3%). 16.4% of our patients were diagnosed with stages III-IV diseases while 12.0% of our patients were diagnosed with in situ cancers (Figure 2.6).

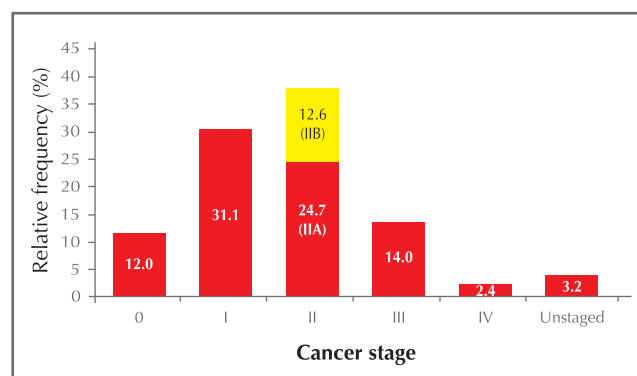


Figure 2.6 Cancer stage at diagnosis in breast cancer patients (N=14,990)

Out of the 14,990 breast cancer cases, data from 13,855 cases with available pathology data was used for the subsequent analyses on cancer characteristics. 11,916 patients (86.0%) were diagnosed with invasive cancers and 1,929 (13.9%) were diagnosed with in situ cancers. 10 cases (0.1%) were diagnosed with occult primary breast cancers.

2.2.3 Characteristics of invasive breast cancer

The mean size of invasive breast cancers for our patient cohort was 2.2 cm (range: 0.01 – 23.0 cm; standard deviation: ± 1.5 cm). Tumours of 1 cm or less in size were found in 15.9% of our patients and tumours of 2-5 cm in size were found in 43.0% of our patients (Figure 2.7). In our patient cohort, screen-detected cancers were significantly smaller than cancers that were self-detected by chance (mean: 1.5 ± 1.2 cm vs. 2.5 ± 1.8 cm; $p < 0.001$).

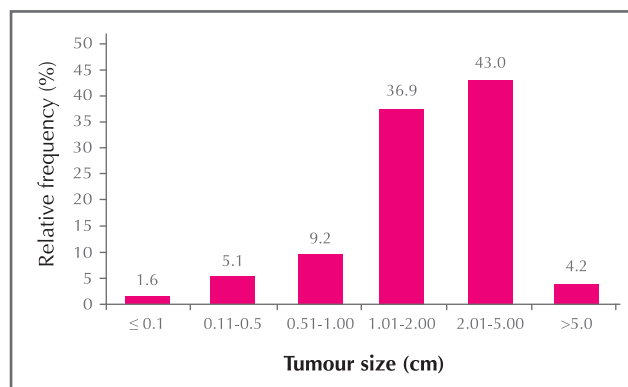


Figure 2.7 Distribution of tumour size (cm) of invasive breast cancers in our cohort (N=11,254)

Lymph node status is one of the factors used to determine breast cancer stage. Multiple affected lymph nodes signify a higher disease stage. Of our patients with invasive breast cancers, 59.3% had no positive lymph nodes, 1.7% had isolated tumour cells, 3.4% had micrometastasis (metastasis size > 0.2 mm to ≤ 2 mm), while 35.6% had at least one positive lymph node with metastasis size greater than 2 mm (Figure 2.8).

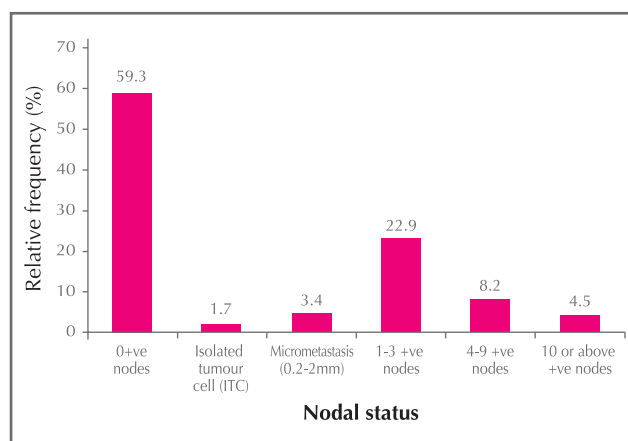


Figure 2.8 Nodal status among our patients with invasive breast cancers (N=11,591)



2.2.4 Characteristics of *in situ* breast cancer

The mean size of *in situ* breast cancers for our patient cohort was 2.0 cm (range: 0.02 – 10.0 cm; standard deviation: ± 1.6 cm). Tumours of 1 cm or less in size were found in 35.0% of our patients while tumours of 2-5 cm in size were found in 30.7% of our patients (Figure 2.9). A small proportion (4.6%) of our patients had *in situ* tumours greater than 5.0 cm. Of the *in situ* breast cancers where MMG was performed, 74.5% showed microcalcification on MMG.

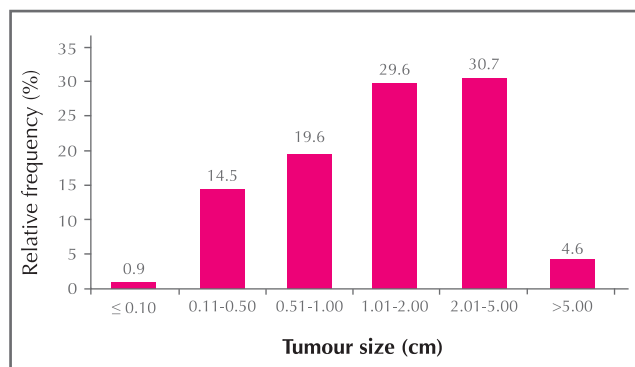


Figure 2.9 Distribution of tumour size (cm) of *in situ* breast cancers in our cohort (N=1,624)

2.3 Histological and biological characteristics

Breast cancer is a heterogeneous group of tumours, consisting of different histologic subtypes with diverse microscopic appearances. The histological data of breast carcinomas provides valuable prognostic information. It complements other independent parameters including size, grade, nodal status, hormonal receptor status and human epidermal growth factor receptor 2 (HER2) oncogene status to help predict the likelihood of recurrence and response to treatment.

2.3.1 Invasive breast cancer

Table 2.13 shows the histological characteristics, grading, multifocality and multicentricity of invasive breast cancers in our patient cohort. The most common histological type was invasive carcinoma of no specific type (86.2%).

Table 2.13 Histological type, grading, multifocality and multicentricity of invasive breast cancers (N=11,916)

Histological type	Number	(%)		Number	(%)
Invasive carcinoma of no specific type	10,272	(86.2)	Grade		
Lobular	438	(3.7)	Grade 1	2,080	(17.5)
Mucinous (colloid)	422	(3.5)	Grade 2	4,949	(41.5)
Papillary	124	(1.0)	Grade 3	3,890	(32.6)
Tubular	89	(0.7)	Not known	997	(8.4)
Carcinoma with medullary features	72	(0.6)	Lymphovascular invasion	3,365	(28.2)
Mixed ductal and lobular	50	(0.4)	Multifocality	1,164	(9.8)
Borderline/ malignant phyllodes	47	(0.4)	Number of foci		
Micropapillary	47	(0.4)	2	619	(53.2)
Metaplastic carcinoma	44	(0.4)	3-4	198	(17.0)
Carcinoma with neuroendocrine features	24	(0.2)	≥5	119	(10.2)
Carcinoma with apocrine features	16	(0.1)	Not known	228	(19.6)
Adenoid cystic carcinoma	15	(0.1)	Multicentricity	348	(2.9)
Tubulo-lobular carcinoma	6	(0.1)	Number of quadrants		
Paget's disease of nipple	5	(<0.01)	2	299	(85.9)
Cribiform carcinoma	4	(<0.01)	3	18	(5.2)
Squamous cell carcinoma	3	(<0.01)	4	13	(3.7)
Inflammatory	2	(<0.01)	Not known	18	(5.2)
Secretory carcinoma	2	(<0.01)			
Lipid rich carcinoma	1	(<0.01)			
Sarcoma	1	(<0.01)			
Others (e.g. mixed types)	79	(0.7)			
Not known	153	(1.3)			

The biological characteristics of invasive breast cancers in the patient cohort are shown in Table 2.14. Among patients with invasive breast cancers who were tested for estrogen or progesterone receptor status, more than three quarters (80.2%) were either estrogen receptor (ER) or progesterone receptor (PR) positive. Amplification or over-expression of the human epidermal growth factor receptor 2 (HER2) oncogene is associated with certain types of breast

cancer. A patient with immunohistochemistry (IHC) score 3 is considered as HER2 positive, where score 0 or 1 is considered as negative. For patients with IHC score 2, In Situ Hybridization test will be further performed. Patients who had positive results in ISH test are also considered as HER2 positive. In the patient cohort, 2,424 (21.1%) invasive breast cancers were c-erbB2/HER2 positive.



Table 2.14 Biological characteristics of invasive breast cancers (N=11,916)

	Number	(%)
Estrogen receptor (ER) (97.2% of the patients had the test)		
Positive	9,092	(78.5)
Negative	2,494	(21.5)
Progesterone receptor (PR) (97.0% of the patients had the test)		
Positive	7,673	(66.4)
Negative	3,890	(33.6)
c-erbB2/ HER2 (96.6% of the patients had the test)		
Positive (IHC score 3)	2,183	(19.0)
Equivocal (IHC Score 2) ISH positive	241	(2.1)
Equivocal (IHC Score 2) ISH equivocal	82	(0.7)
Equivocal (IHC Score 2) ISH negative	1,939	(16.8)
Equivocal (IHC Score 2) ISH not done	1,442	(12.5)
Negative (IHC Score 0 / 1)	5,624	(48.9)
Ki-67 index (54.3% of the patients had the test)		
<14%	2,594	(40.1)
≥14%	3,882	(59.9)

HER2: Human epidermal growth factor receptor 2

IHC: Immunohistochemistry

ISH: In Situ Hybridization

Breast cancer is not considered as a single disease and can be further classified into several biological subtypes³⁶, determined by immunohistochemical staining of several biological markers described in Table 2.14. By combining these biological markers rather than assessing

them independently, further prognostic and predictive information can be obtained. The surrogate definitions of these intrinsic biological subtypes and their relative frequencies by cancer stage in the patient cohort are shown in Table 2.15.

Table 2.15 Biological subtypes of invasive tumours by cancer stage (N=11,319)

Biological subtypes	Cancer Stage, N (%)					
	I	IIA	IIB	III	IV	Total
Luminal A*	1,202 (27.0)	596 (17.2)	269 (16.3)	198 (13.2)	31 (12.3)	2,296 (20.3)
Luminal B (HER2 negative)#	726 (16.3)	709 (20.5)	351 (21.3)	346 (23.0)	42 (16.7)	2,174 (19.2)
Luminal A/B (HER2 negative)†	1,252 (28.1)	915 (26.4)	486 (29.5)	417 (27.8)	81 (32.1)	3,151 (27.8)
Luminal B (HER2 positive)^	504 (11.3)	439 (12.7)	216 (13.1)	245 (16.3)	48 (19.0)	1,452 (12.8)
HER2-positive*	335 (7.5)	298 (8.6)	130 (7.9)	151 (10.1)	23 (9.1)	937 (8.3)
TND§	438 (9.8)	504 (14.6)	195 (11.8)	145 (9.7)	27 (10.7)	1,309 (11.6)
Total	4,457 (39.4)	3,461 (30.6)	1,647 (14.6)	1,502 (13.3)	252 (2.2)	11,319 (100.0)

* Luminal A: ER and/or PR+, HER2-, and low Ki-67 index (<14%)

Luminal B (HER2 negative): ER and/or PR+, HER2-, and high Ki-67 index (≥14%)

† Luminal A/B (HER2 negative): ER and/or PR+, HER2-, and Ki-67 index not known

^ Luminal B (HER2 positive): ER and/or PR+, HER2+, and any Ki-67 index

* HER2-positive: ER and PR-, HER2+, and any Ki-67 index

§ TND (Triple Negative Disease): ER and PR-, HER2-, and any Ki-67 index



2.3.2 *In situ breast cancer*

Table 2.16 shows the histological characteristics, grading, multifocality and multicentricity of in situ breast cancers in our patient cohort. Ductal cancers were found to be the most common type of in situ breast cancers (93.2%).

Table 2.16 Histological type, grading, multifocality and multicentricity of in situ breast cancers (N=1,929)

	Number	(%)
Histological type		
Ductal	1,802	(93.2)
Mixed	53	(2.9)
Papillary	34	(1.6)
Intracystic papillary	14	(0.8)
Encapsulated papillary	8	(0.4)
Apocrine	6	(0.3)
Neuroendocrine	2	(0.1)
Micropapillary	1	(0.1)
Not known	9	(0.5)
Necrosis	673	(34.9)
Nuclear Grade		
Low	485	(25.1)
Intermediate	630	(32.7)
High	721	(37.4)
Not known	93	(4.8)
Multifocality	235	(12.2)
Number of foci		
2	107	(45.5)
3	21	(8.9)
4 or more	8	(3.4)
Not known	99	(42.1)
Multicentricity	49	(2.5)
Number of quadrants		
2	41	(83.7)
3	3	(6.1)
Not known	5	(10.2)

The biological characteristics of in situ breast cancers in our patient cohort are shown in Table 2.17. Among our patients with in situ breast cancers who were tested for estrogen or progesterone receptor status, 82.1% were either estrogen receptor (ER) or progesterone receptor (PR) positive. Among the 452 patients who had HER2 IHC score 2, two showed positive results in ISH test, therefore 347 (27.1%) in situ breast cancers in our patient cohort were c-erbB2/HER2 positive.

Table 2.17 Biological characteristics of in situ breast cancers (N=1,929)

	Number	(%)
Estrogen receptor (ER) (73.2% of the patients had the test)		
Positive	1,144	(81.0)
Negative	268	(19.0)
Progesterone receptor (PR) (71.9% of the patients had the test)		
Positive	1,002	(72.3)
Negative	384	(27.7)
c-erbB2/HER2 (66.4% of the patients had the test)		
Positive (IHC score 3)	345	(27.0)
Equivocal (IHC score 2)	452	(35.3)
Negative (IHC score 0/1)	483	(37.7)
Ki-67 index (40.9% of the patients had the test)		
< 14%	517	(65.6)
≥ 14%	271	(34.4)

HER2: Human epidermal growth factor receptor 2

IHC: Immunohistochemistry

2.4 Treatment methods

Of our 14,990 patients, 14.7% solely received care at private medical services, while 49.9% solely received care at public medical services. Around one-third (35.4%) of patients received care at both private and public medical services. Patients with invasive tumour are usually treated with multimodality treatments which may include surgery, chemotherapy, anti-HER2 targeted therapy, endocrine therapy, and radiotherapy; while patients with in situ tumour require less aggressive treatments including surgery, endocrine therapy, and radiotherapy. Chemotherapy and anti-HER2 targeted therapy are generally not required for patients with in situ tumour.

2.4.1 Surgical treatment

Surgery is an important consideration in the effective treatment of both in situ and invasive breast cancer. With the continuing developments in breast cancer treatment, surgery is less disfiguring today. Options for local treatment include breast-conserving surgery or total mastectomy. Breast-conserving surgery followed by radiotherapy gives equivalent survival rates compared with mastectomy. Women who have a mastectomy may decide to have breast reconstruction, either at the same time or at a later stage.

Nodal surgery is usually conducted together with breast surgery to ascertain the extent of disease. Lymph node surgery includes sentinel lymph node biopsy (SNB) or axillary dissection (AD). For patients with negative clinical nodal status, SNB can be conducted before AD to determine whether any lymph node is affected. This is to prevent unnecessary lymphoedema which may occur when a large number of lymph nodes are removed by surgery.

In our patient cohort, 51.6% of our patients had surgery at private medical facilities, while 48.4% had surgery at public medical facilities.

For patients with in situ tumour, almost all (99.3%) of them underwent surgery. Around half (51.4%) of them had breast-conserving surgery. Among patients who had mastectomy, 204 patients (22.1%) had reconstruction after mastectomy. One-third (33.3%) of them did not receive nodal surgery, while among those who received nodal surgery, majority (84.2%) of them had SNB alone and 11.9% received axillary dissection without SNB.

For patients with invasive tumour, majority (97.9%) of them underwent surgery as part of their treatment. Two-thirds (64.8%) of patients had mastectomy, while 32.9% had breast-conserving surgery. Among the patients who had mastectomy, 11.7% had either immediate or delayed reconstruction. The most common type of reconstruction was TRAM flap (70.5%) (Table 2.18). Almost all (96.6%) of the patients with invasive tumours received nodal surgery and among them, more than half (57.7%) of patients with invasive tumour required AD, while 41.3% required SNB only.



Table 2.18 Types of surgical operations in the patient cohort (N=14,948)

	Patients with invasive cancer (N=13,008)		Patients with in situ cancer (N=1,940)	
	Number (%)		Number (%)	
No surgery	233	(1.8)	13	(0.7)
Breast-conserving surgery	4,274	(32.9)	998	(51.4)
Mastectomy	8,431	(64.8)	925	(47.7)
Nodal surgery only	11	(0.1)	0	(0.0)
Type of surgery not known	24	(0.2)	4	(0.2)
Not known if surgery done	35	(0.3)	0	(0.0)
Mastectomy (N=9,356)				
Total mastectomy	7,942	(94.2)	797	(86.2)
Skin sparing	362	(4.3)	99	(10.7)
Areolar sparing	13	(0.2)	4	(0.4)
Nipple sparing	94	(1.1)	24	(2.6)
Not known type of mastectomy	20	(0.2)	1	(0.1)
Reconstruction (N=1,190)				
TRAM flap	695	(70.5)	125	(61.3)
Implant	146	(14.8)	56	(27.5)
LD flap	79	(8.0)	12	(5.9)
LD flap & implant	48	(4.9)	10	(4.9)
Not known type of reconstruction	18	(1.8)	1	(0.5)
Nodal surgery (N=13,855)				
Sentinel node biopsy	5,186	(41.3)	1,090	(84.2)
Axillary dissection	5,149	(41.0)	154	(11.9)
Sentinel node biopsy & axillary dissection	2,096	(16.7)	35	(2.7)
Not known type of nodal surgery	130	(1.0)	15	(1.2)

The percentage of our patients who underwent mastectomy was positively correlated with increasing age, while the percentage of patients who underwent mastectomy with reconstruction was negatively correlated with increasing age (Figure 2.10).

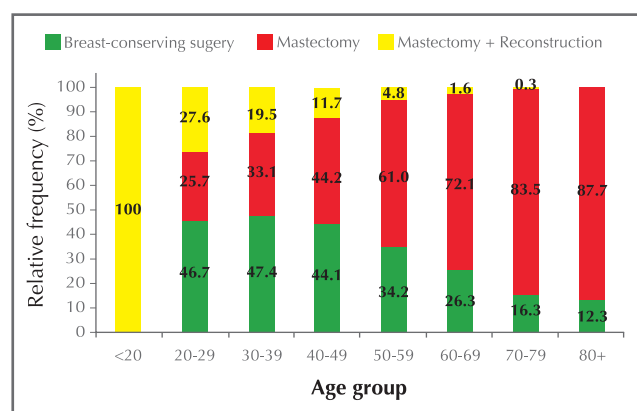


Figure 2.10 Type of surgery by age group (N=13,703)

For our patients with tumours larger than 1 cm in size, the percentage of patients that had breast-conserving surgery was negatively correlated with increasing tumour size (Figure 2.11).

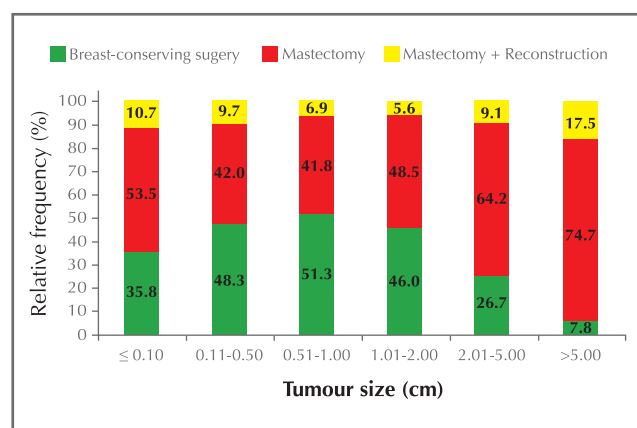


Figure 2.11 Type of surgery by tumour size (N=13,542)

The proportion of our patients receiving breast-conserving surgery was negatively correlated with increasing cancer stage. Mastectomy with reconstruction did not show any correlation with increasing cancer stage (Figure 2.12).

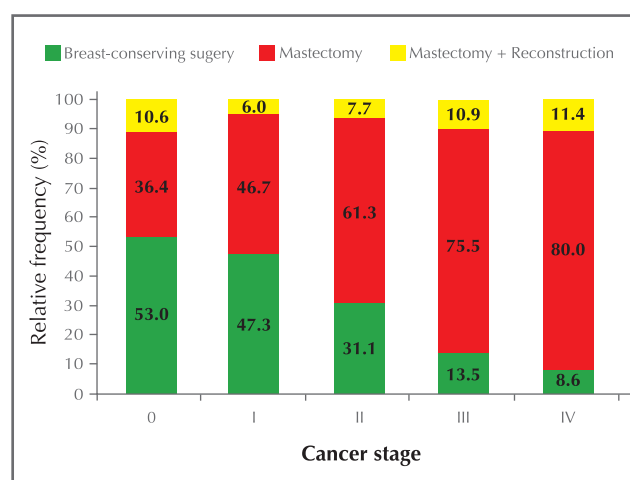


Figure 2.12 Type of surgery by cancer stage (N=14,280)

A higher proportion (45.1%) of patients who had surgery at private medical facilities underwent breast-conserving surgery, compared with 27.0% of those who had surgery at public medical facilities (Figure 2.13).

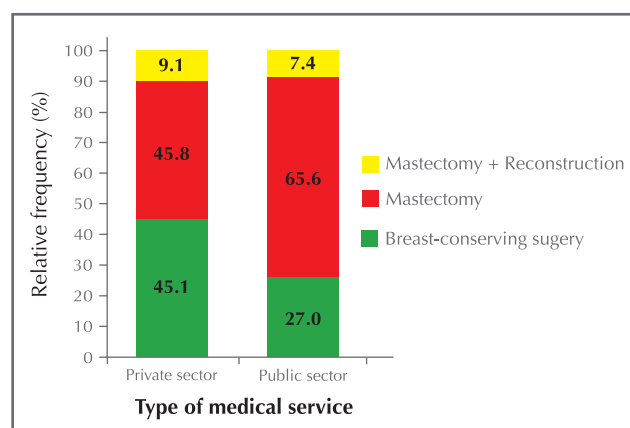


Figure 2.13 Type of surgery by type of medical service (N=14,149)

Figure 2.14 shows the type of nodal surgery received by our patients with positive or negative clinical nodal status. SNB alone was more commonly used on our patients with negative clinical nodal statuses than those with positive clinical nodal statuses (53.6% vs 15.5%). On the other hand, AD without SNB was more commonly used on our patients with positive clinical nodal statuses than those with negative clinical nodal statuses (71.8% vs 30.2%).

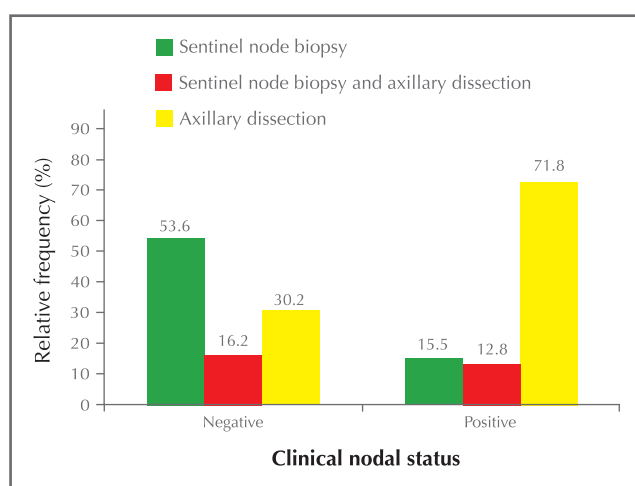


Figure 2.14 Type of nodal surgery by clinical nodal status (N=13,723)

The use of AD was positively correlated with progressing cancer stage. In our patient cohort, the use of AD after SNB increased from stage I to II patients, but then decreased for stage III or IV patients. This trend is likely due to the fact that most of our patients with stage III or IV disease received AD as their first nodal surgery (Figure 2.15).

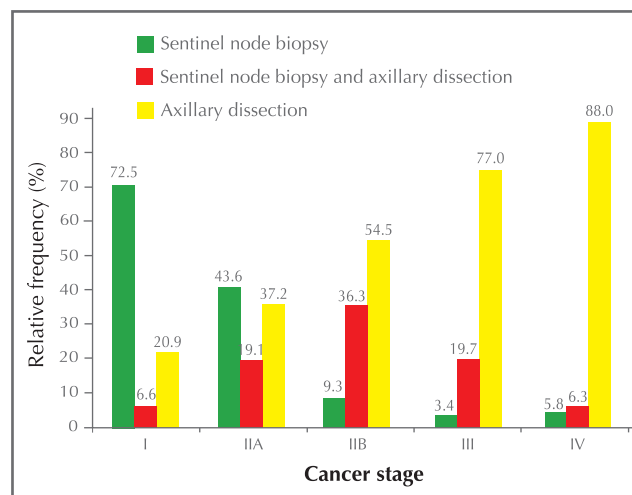


Figure 2.15 Type of nodal surgery in invasive cancer by cancer stage (N=12,180)

Around half (55.4%) of our patients with node positive invasive cancer had tumours of 2 to 5 cm in size, while 9.5% had tumours greater than 5 cm. In our patient cohort, more patients with node negative invasive cancer had tumours less than 2 cm when compared to patients with node positive invasive cancer (61.7% vs. 35.2%) (Figure 2.16).

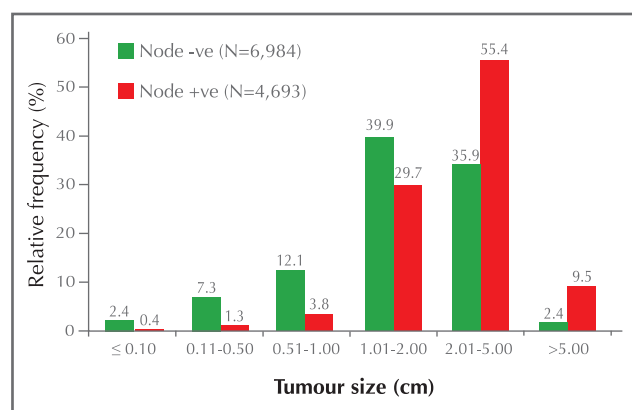


Figure 2.16 Distribution of tumour size in invasive cancer with negative or positive nodal status (N=11,677)

95.8% of patients who underwent SNB alone had no positive lymph node, while almost half (44.7%) of our patients who underwent AD and 16.7% of our patients who underwent AD after SNB had no positive lymph node (Figure 2.17).

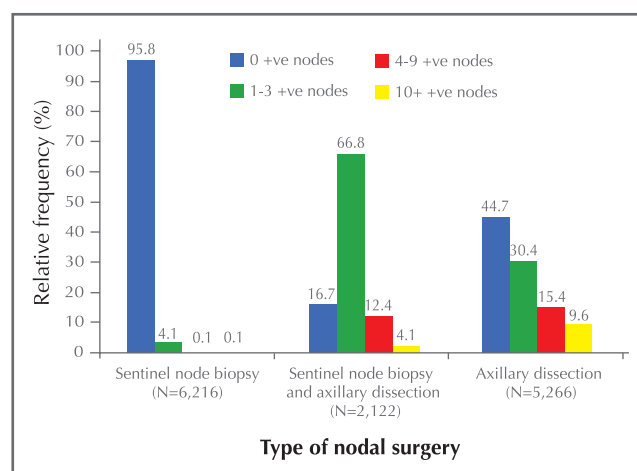


Figure 2.17 Number of positive nodes by type of nodal surgery (N=13,604)

2.4.2 Radiotherapy

Radiotherapy is a treatment to kill cancer cells using ionizing radiation. Radiation is capable of inflicting damage at the DNA level of a cell and can stop cells from reproducing.

Radiotherapy to the breast following breast-conserving surgery is an integral part of breast-conserving therapy for breast cancer in order to achieve equivalent outcome as mastectomy. This applies to all patients with invasive breast cancer and most patients with in situ cancer. Radiotherapy is also needed by some patients who have mastectomy, if the tumour is locally advanced; for example large tumour size or with multiple affected lymph nodes, or where cancer cells are found in the lymphatic or blood vessels.

In our patient cohort, 9,262 (61.8%) patients had radiotherapy as one of their treatment, among which 97.9% were adjuvant, 0.2% were neoadjuvant, and 1.9% were palliative. 88.1% of our patients were treated with radiotherapy at public medical facilities, while 11.9% had radiotherapy at private medical facilities.

Of our patients with in situ cancer who had breast-conserving surgery, majority (94.0%) of them were treated with radiotherapy afterwards (Figure 2.18), while only 3.3% of our patients with in situ cancer who had mastectomy underwent radiotherapy (Figure 2.19).

The use of radiotherapy in our patients receiving breast-conserving surgery and mastectomy, respectively, are shown in Figures 2.18 and 2.19. Over 94% of invasive breast cancer patients with breast-conserving surgery underwent radiotherapy, while the use of radiotherapy in invasive breast cancer patients with mastectomy increased with progressing cancer stages, with the exception of stage IV disease.

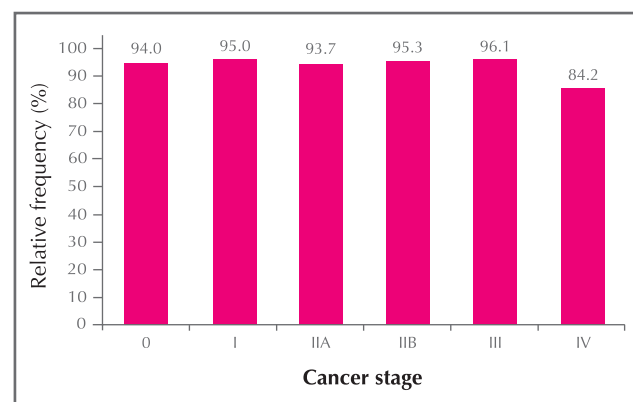


Figure 2.18 The use of radiotherapy in our patients receiving breast-conserving surgery at different cancer stages (N=5,177)

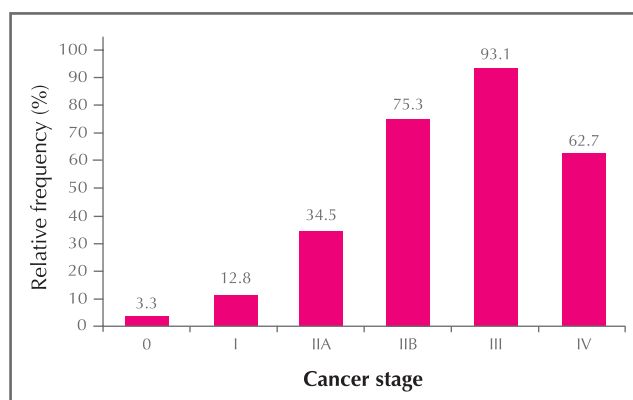


Figure 2.19 The use of radiotherapy in our patients receiving mastectomy at different cancer stages (N=9,113)

Radiotherapy for breast cancer involves localized irradiation of regions such as breast/chest wall, with or without regional nodes. Table 2.19 shows the irradiated regions among our patients receiving radiotherapy by the type of surgery received.

Table 2.19 Irradiated regions among our patients with different types of surgery (N=6,067)

	Total# (N=6,067)	Breast-conserving surgery (N=3,116)	Mastectomy (N=2,888)
Target volume	Number (%)	Number (%)	Number (%)
Breast	2,632 (43.4)	2,611 (83.8)	0 (0.0)
Breast + regional*	540 (8.9)	505 (16.2)	0 (0.0)
Chest wall	750 (12.4)	0 (0.0)	744 (25.8)
Chest wall + regional*	2,145 (35.4)	0 (0.0)	2,144 (74.2)

* regional nodes: includes supraclavicular fossa and/or axilla and/or internal mammary chain

Total number of patients includes 63 patients with radiotherapy details not known

2.4.3 Chemotherapy

Chemotherapy is a form of systemic treatment using one or more cytotoxic drugs to kill or control cancer cell growth. The drugs destroy breast cancer cells by interfering with their ability to grow and multiply. Chemotherapy is generally not required for patients with in situ tumour. Chemotherapy can be administered before surgery (neoadjuvant chemotherapy) or after surgery (adjuvant) or for stage IV metastatic disease (palliative).

8,838 (67.9%) patients with invasive cancer in the cohort underwent chemotherapy. 85.2% of our patients had adjuvant chemotherapy, 11.2% had neoadjuvant chemotherapy, and 3.6% had palliative chemotherapy. 86.5% of our patients received chemotherapy in public medical facilities, while 13.5% received in private medical facilities.

In our patient cohort, the use of chemotherapy with curative intent was positively correlated to progressing cancer stage for early stage disease (stage I to III). Not all, but 85.1% of the patients with stage IV cancers underwent palliative chemotherapy (Figure 2.20).

Table 2.20 shows the percentage of patients in our cohort who received chemotherapy by age group and cancer stage. In general, for all cancer stages, the use of chemotherapy among our patients aged over 70 was much lower than that among patients aged below 70. For our patients with stage I, stage IIA, or stage IIB disease, the use of chemotherapy decreased with increasing age group.

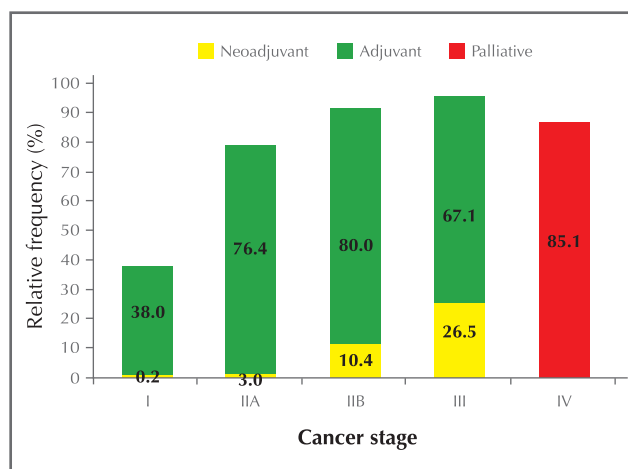


Figure 2.20 The use of chemotherapy in our patients at different cancer stages (N=12,556)

Table 2.20 Use of chemotherapy by age group and cancer stage at diagnosis (N=11,779)

Number of patients received chemotherapy (% of patients in the same age group and cancer stage)										
Age group	Stage I		Stage IIA		Stage IIB		Stage III		Stage IV	
20-29	21	(67.7)	23	(92.0)	18	(100.0)	14	(100.0)	3	(100.0)
30-39	239	(58.2)	333	(91.5)	171	(99.4)	187	(98.9)	26	(92.9)
40-49	714	(45.9)	994	(90.0)	558	(97.4)	676	(98.8)	103	(96.3)
50-59	541	(39.9)	975	(88.4)	581	(96.8)	634	(97.7)	102	(87.9)
60-69	170	(24.7)	420	(69.5)	266	(89.9)	302	(93.8)	34	(87.2)
70-79	6	(2.8)	23	(11.9)	17	(18.3)	35	(40.2)	9	(42.9)
80+	0	(0.0)	1	(2.2)	0	(0.0)	2	(12.5)	2	(33.3)

2.4.3.1 Neoadjuvant chemotherapy

Out of 8,838 patients who underwent chemotherapy, 986 patients received it as neoadjuvant treatment. The use of neoadjuvant chemotherapy increased substantially with progressing cancer stage, from 0.2% of stage I patients to

26.5% of stage III patients (Figure 2.20). The regimens used by patients with different biological subtypes are shown in Figure 2.21.

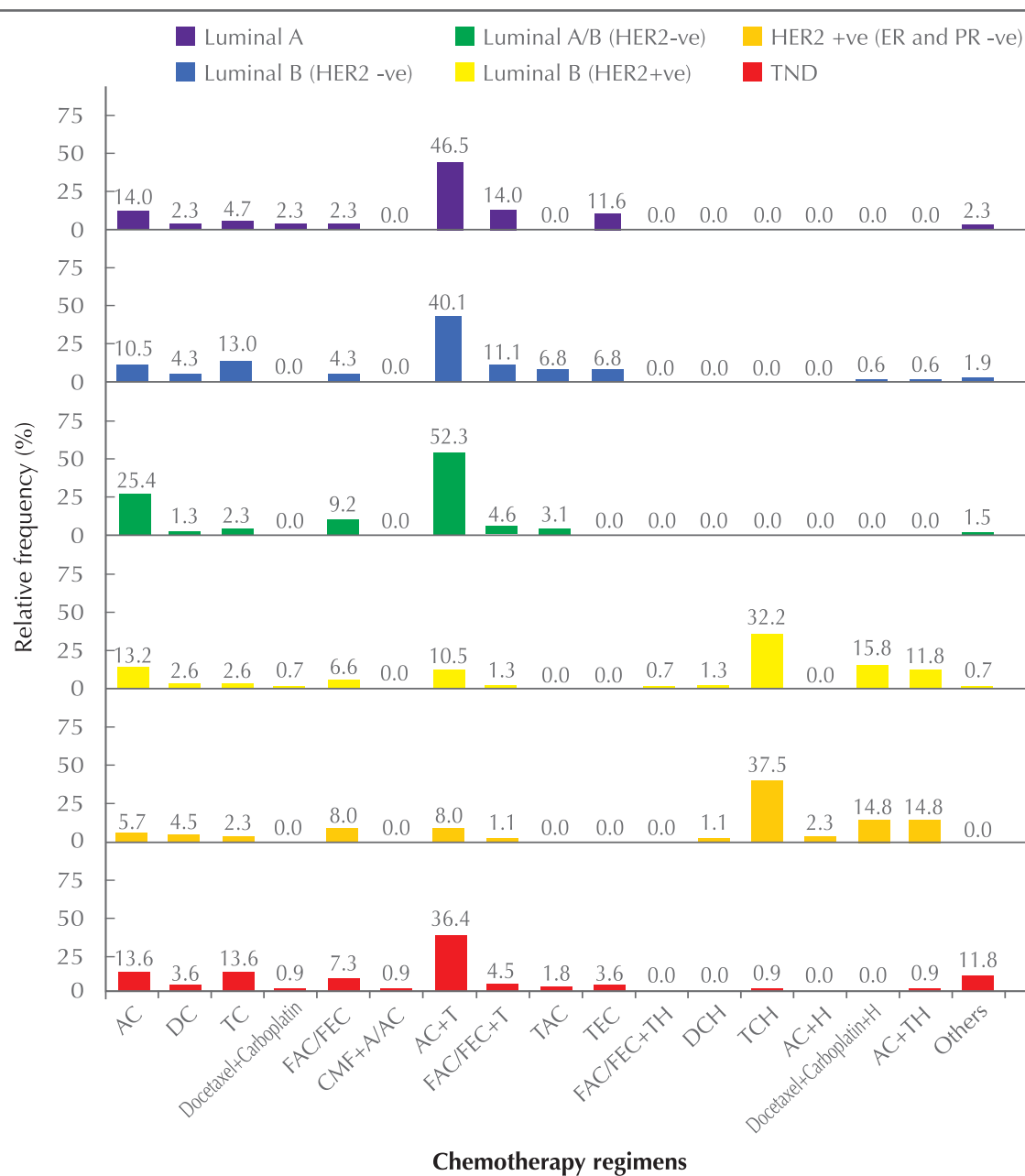


Figure 2.21 Type of chemotherapy regimens in neoadjuvant setting in patients by biological subtype (N=685)

C: Cyclophosphamide;
M: Methotrexate;
F: Fluorouracil (5FU);
A: Adriamycin / Doxorubicin;

E: Epirubicin;
T: Paclitaxel / Docetaxel;
H: Trastuzumab;
DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab
TC: Paclitaxel + Carboplatin;
TCH: Paclitaxel + Carboplatin + Trastuzumab
Others: Capecitabine, Gemcitabine, or Vinorelbine

2.4.3.2 Adjuvant chemotherapy

Of the 8,838 patients who underwent chemotherapy, 7,531 (85.2%) received it as adjuvant (Stage I-III) treatment. Figures 2.22 and 2.23 show the relative frequency for different types of chemotherapy regimen used by patients with different biological subtypes and cancer stages, respectively, in our patient cohort.

2.4.3.3 Palliative chemotherapy

Of the 8,838 patients who underwent chemotherapy, 321 (3.6%) received it as palliative (Stage IV) treatment. Figure 2.24 shows the relative frequency for different types of chemotherapy regimen used by patients with different biological subtypes in our patient cohort.

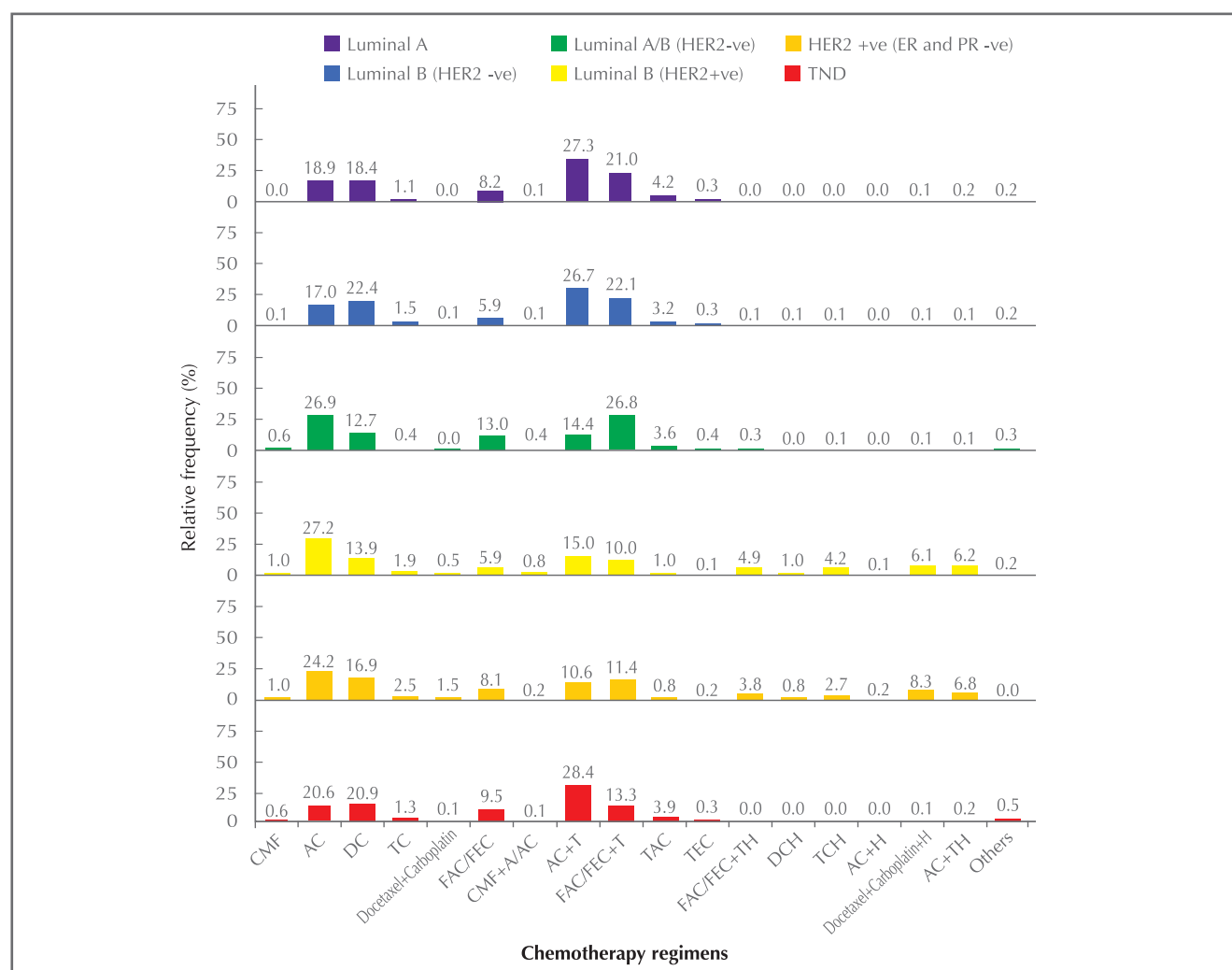


Figure 2.22 Type of chemotherapy regimens in adjuvant setting in patients by biological subtype (N=6,259)

C: Cyclophosphamide;
M: Methotrexate;
F: Fluorouracil (5FU);
A: Adriamycin / Doxorubicin;

E: Epirubicin;
T: Paclitaxel / Docetaxel;
H: Trastuzumab;
DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab
TC: Paclitaxel + Carboplatin;
TCH: Paclitaxel + Carboplatin + Trastuzumab
Others: Capecitabine, Gemcitabine, or Vinorelbine

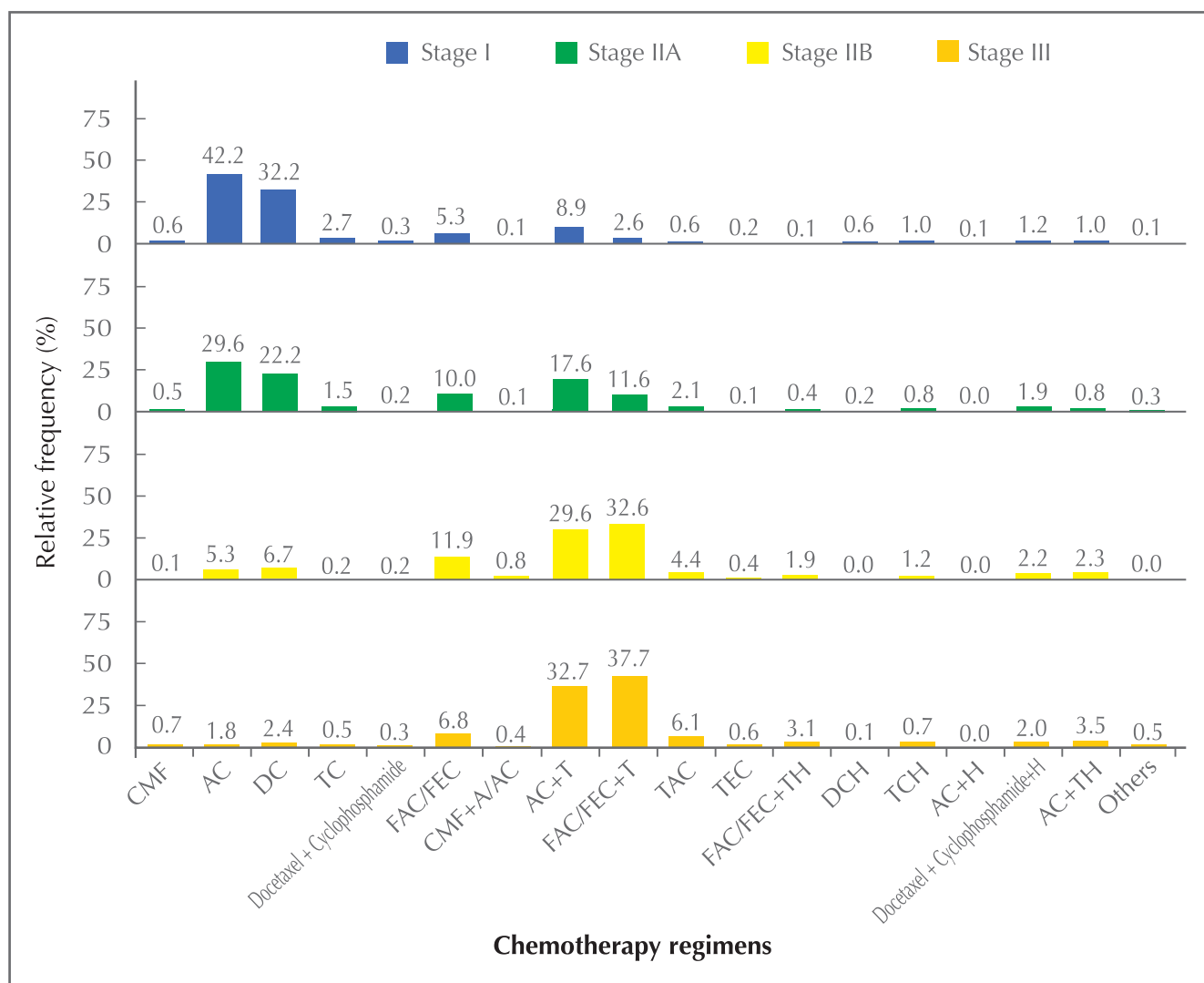


Figure 2.23 Type of chemotherapy regimens in adjuvant setting in patients by cancer stage (N=6,356)

C: Cyclophosphamide;
M: Methotrexate;
F: Fluorouracil (5FU);
A: Adriamycin / Doxorubicin;

E: Epirubicin;
T: Paclitaxel / Docetaxel;
H: Trastuzumab;
DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab
TC: Paclitaxel + Carboplatin;
TCH: Paclitaxel + Carboplatin + Trastuzumab
Others: Capecitabine, Gemcitabine, or Vinorelbine

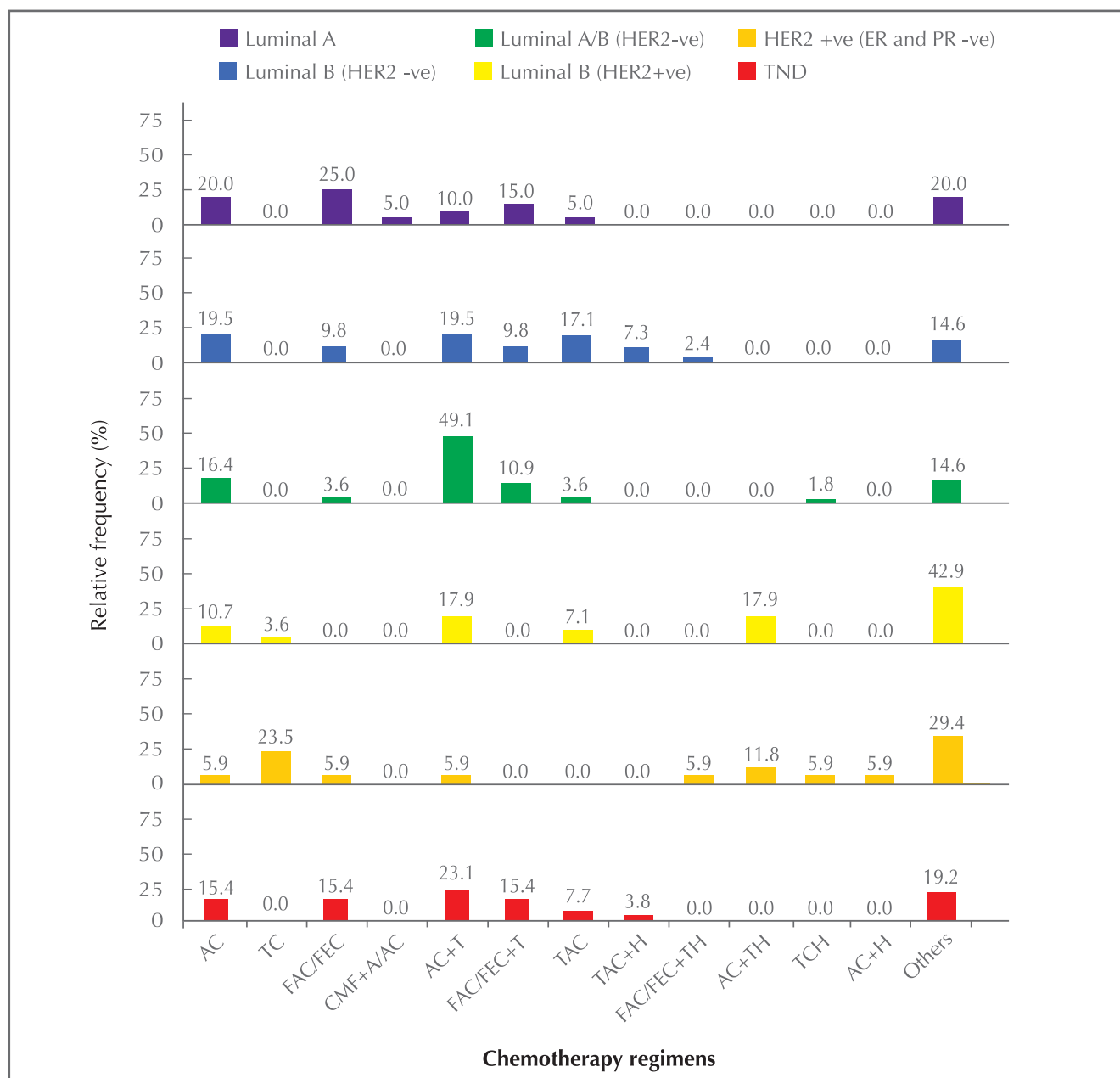


Figure 2.24 Type of chemotherapy regimens in palliative setting in patients by biological subtype (N=187)

C: Cyclophosphamide;

M: Methotrexate;

F: Fluorouracil (5FU);

A: Adriamycin / Doxorubicin;

E: Epirubicin;

T: Paclitaxel / Docetaxel;

H: Trastuzumab;

DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab

TC: Paclitaxel + Carboplatin;

TCH: Paclitaxel + Carboplatin + Trastuzumab

Others: Capecitabine, Gemcitabine, or Vinorelbine



2.4.4 Endocrine therapy

Endocrine therapy plays an important role in all stages of the treatment and prevention strategy for hormone receptor-positive invasive or in-situ breast cancer. Breast cancers all develop from abnormal breast cells which are often sensitive to sex hormones, such as estrogen and progesterone. Endocrine therapy acts on hormone receptors of the cancer cells.

In our patient cohort, 10,097 (67.4%) patients were treated with endocrine therapy. Among them, 96.8% were adjuvant, 0.5% were neoadjuvant, and 2.8% were palliative. 90.5% of our patients received endocrine therapy at public medical facilities, while 9.5% received at private medical facilities.

Endocrine therapy was used in 11.7% of our patients with in situ breast cancer, but was used in over 73% of our patients with stages I-IV breast cancer (Figure 2.25).

Two types of drugs are commonly used to reduce the level of female hormones: anti-estrogens and aromatase inhibitors. Anti-estrogen drugs slow down breast cancer growth by attaching and blocking to estrogen receptors on the breast cancer cells. The most common anti-estrogen is Tamoxifen which is used in both pre-menopausal and post-menopausal women. Aromatase inhibitors decreases the level of estrogen in the body. Aromatase inhibitors, including Anastrozole, Letrozole and Exemestane, are only effective for women who are post-menopausal. Figure 2.26 shows the use of Tamoxifen and Aromatase inhibitors by our patient cohort in three age groups.

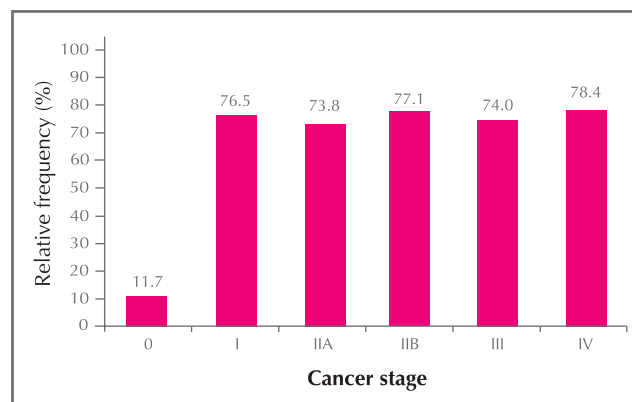


Figure 2.25 The use of endocrine therapy in our patients by cancer stage (N=14,504)

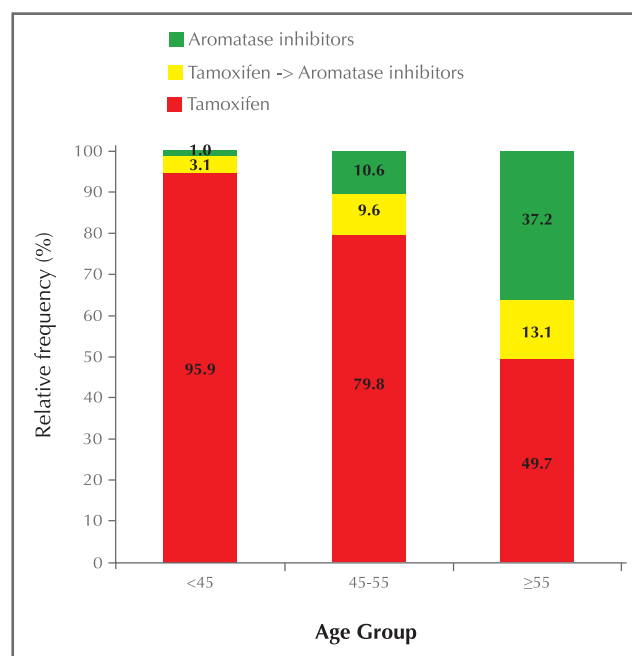


Figure 2.26 Forms of endocrine therapy used in our patient cohort by age group (N=8,903)

2.4.5 Anti-HER2 targeted therapy

Anti-HER2 targeted therapy uses a drug that specifically attacks the abnormal growth pathway of cancer cells by blocking specific molecules required for tumour growth or carcinogenesis. It is used for treating patients with invasive breast cancer cells that over-express HER2 oncogene (HER2-positive breast cancer).

Of the 2,844 patients with invasive HER2-positive breast cancers in our cohort, 1,657 (58.3%) underwent anti-HER2 targeted therapy. Among them, 92.1% were adjuvant, 4.5% were neoadjuvant, and 3.4% were palliative. Majority (88.7%) of our patients received anti-HER2 targeted therapy at public medical facilities, while 11.3% received at private medical facilities. The use of anti-HER2 targeted therapy was positively correlated with increasing cancer stage (Figure 2.27).

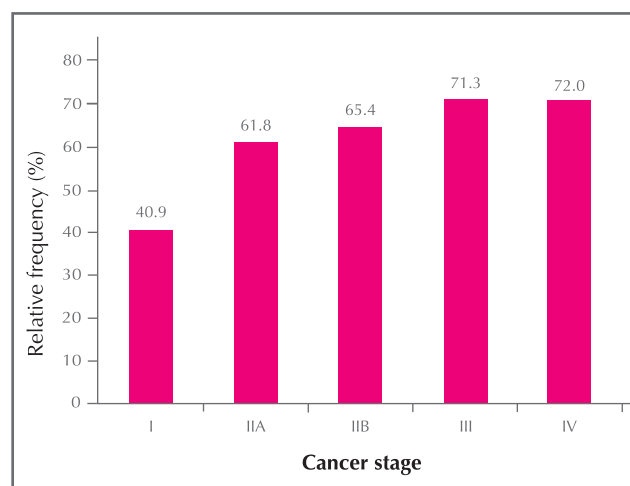


Figure 2.27 The use of anti-HER2 targeted therapy in HER2 positive patients by cancer stage in our cohort (N=2,777)

2.4.6 Multimodality treatment

Combinations of treatments, including surgery, chemotherapy, radiotherapy, endocrine therapy, and anti-HER2 targeted therapy are usually used for treating breast cancer effectively. Table 2.21 shows the multimodality treatment pattern of our patients. In general, the number of treatments increased with increasing cancer stage. In our patient cohort, majority (93.9%) of patients with stage 0 disease received two or less treatments, while 61.0% of our patients with stage I disease received three or more treatments. More than 80% of our patients with stage IIA, IIB, or III received three or more treatments.



Table 2.21 Number of treatment combinations received by patients by cancer stages (N=14,051)

No. of treatment	Cancer Stage, Number (%)									
	0 (N=1,752)	I (N=4,526)	IIA (N=3,585)	IIB (N=1,834)	III (N=2,028)	IV (N=326)	Total (N=14,051)			
0	3 (0.2)	1 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	2 (0.6)	8 (0.1)			
1	738 (42.1)	295 (6.5)	68 (1.9)	12 (0.7)	11 (0.5)	26 (8.0)	1,150 (8.2)			
2	908 (51.8)	1,468 (32.4)	649 (18.1)	113 (6.2)	46 (2.3)	53 (16.3)	3,237 (23.0)			
3	101 (5.8)	1,909 (42.2)	1,338 (37.3)	510 (27.8)	377 (18.6)	108 (33.1)	4,343 (30.9)			
4	1 (0.1)	738 (16.3)	1,372 (38.3)	1,029 (56.1)	1,316 (64.9)	111 (34.0)	4,567 (32.5)			
5	1 (0.1)	115 (2.5)	158 (4.4)	170 (9.3)	276 (13.6)	26 (8.0)	746 (5.3)			

2.4.7 Complementary and alternative therapies

Apart from the standard medical care of breast cancer that was described in previous sections of this chapter, patients may go for different kinds of complementary and alternative therapies, such as taking traditional Chinese medicines, health foods/supplements etc. 5,897 (39.3%) of the patients in the cohort received complementary and alternative therapies as part of their treatment. Among them, 95.4% were adjuvant, 3.4% were neoadjuvant, and 1.2% were palliative. 66.1% of our patients used traditional Chinese medicines (Figure 2.28).

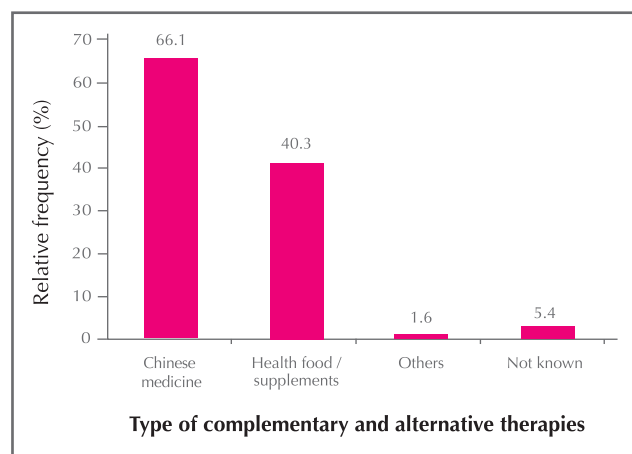


Figure 2.28 Type of complementary and alternative therapies used in 5,897 patients

Others include: Tai Chi, Qigong, Naturopathy, acupuncture and moxibustion, massage and yoga

2.5 Patient Status

Once treatment is completed, patients registered with the HKBCR were followed up annually to ascertain the efficacy of the treatment. To date, 13,235 patients in our cohort were followed up and 59.8% of them had the last follow-up within the last two years. About one-third (30.3%) of our patients were followed up for 5 or more years (Table 2.22). The mean and median follow-up period were 3.9 and 3.4 years, respectively.

596 (4.5%) of patients in our cohort experienced recurrence, where 1.3% of our patients experienced locoregional recurrence (LR) solely, 2.1% experienced distant recurrence (DR) solely, and 1.1% experienced both locoregional and distant recurrence concurrently or sequentially. The mean and median time to recurrence are shown in Table 2.22.

Table 2.22 Follow-up of 13,235 patients

Follow-up period	Number	(%)
< 1 year	1,068	(8.1)
1-2 years	2,551	(19.3)
2-5 years	5,609	(42.4)
5-10 years	3,839	(29.0)
10-15 years	168	(1.3)
Mean follow-up period	3.9 years	
Median follow-up period	3.4 years	
Locoregional recurrence		
No. of locoregional recurrences	170	(1.3)
Mean time to locoregional recurrence	2.8 years	
Median time to locoregional recurrence	2.4 years	
Distant recurrence		
No. of distant recurrences	275	(2.1)
Mean time to distant recurrence	2.9 years	
Median time to distant recurrence	2.7 years	
Locoregional and distant recurrence		
No. of locoregional and distant recurrences	151	(1.1)
Mean time to locoregional and distant recurrence	3.1 years	
Median time to locoregional and distant recurrence	2.8 years	
Mortality		
No. of deaths from breast cancer	130	(1.0)
No. of deaths from unrelated causes	82	(0.6)
No. of deaths with causes not known	31	(0.2)



Table 2.23 shows the number of invasive breast cancer patients with LR in different subgroups specified by surgery type and cancer stage in our patient cohort. Of our patient with stage IIA disease, the proportion of patients with LR was higher among patients with breast-conserving surgery than those who received mastectomy. Among our patients with stage I, IIA or IIB disease, the proportions suffered

from LR was lower in patients who had undergone BCS followed by radiotherapy than those who underwent BCS without radiotherapy (the number of patients with stage III disease who did not receive radiotherapy might be too low to observe such difference) (Table 2.23). The common sites for locoregional recurrence were chest wall (36.4%) and breast (30.5%) (Table 2.24).

Table 2.23 Number of cases with locoregional recurrence by type of surgery and cancer stage

	Cancer stage, Number (% in the overall patient cohort with surgeries)				
	I	IIA	IIB	III	Total
BCS with RT	18/1,820 (1.0)	26/1,056 (2.5)	3/374 (0.8)	10/242 (4.1)	57/3,492 (1.6)
BCS without RT	5/92 (5.4)	3/61 (4.9)	1/13 (7.7)	0/9 (0.0)	9/175 (5.1)
MTX	34/2,147 (1.6)	41/2,130 (1.9)	27/1,295 (2.1)	77/1,605 (4.8)	179/7,177 (2.5)

BCS: Breast-conserving surgery; MTX: Mastectomy

Table 2.24 Sites involved in locoregional recurrence in our patients (N=321)

Sites involved	Number	(%)
Chest wall	117	(36.4)
Breast	98	(30.5)
Axilla	96	(29.9)
Supraclavicular fossa	69	(21.5)
Internal mammary node	27	(8.4)
Infraclavicular fossa	4	(1.2)
Others	20	(6.2)

Note: Recurrence may involve multiple sites simultaneously, so the total percentages for recurrence sites may exceed 100.

In our patient cohort, 426 (3.2%) patients experienced distant recurrence. Among them, the common organs involved were bone (55.2%), followed by lung (46.5%)

(Table 2.25). One-third of the patients experienced distant recurrence that involved liver (39.0%).

Table 2.25 Organs involved in distant recurrence (N=426)

Distant organs affected	Number	(%)	Distant organs affected	Number	(%)
Bone	235	(55.2)	Peritoneal	6	(1.4)
Lung	198	(46.5)	Ovary	4	(0.9)
Liver	166	(39.0)	Spleen	4	(0.9)
Mediastinal nodes	71	(16.7)	Thyroid glands	3	(0.7)
Brain	68	(16.0)	Pancreas	2	(0.5)
Distant lymph nodes	41	(9.6)	Thorax	2	(0.5)
Neck	28	(6.6)	Kidney	1	(0.2)
Contralateral axillary nodes	12	(2.8)	Uterus	1	(0.2)
Adrenal	8	(1.9)	Unspecified	18	(4.2)
Abdomen	6	(1.4)			

Note: Recurrence may involve multiple sites simultaneously, so the total percentages for recurrence sites may exceed 100.

Among patients with invasive breast cancer in our cohort, the proportion of patients with LR solely did not show any associations with cancer stage at diagnosis. However, the proportion of our patients with DR solely increased from 0.8% of stage I patients to 5.3% of stage III patients. The

proportion of our patients with LR and DR also showed positive correlation with increasing cancer stage, from 0.3% of stage I patients to 2.9% of stage III patients (Table 2.26).

Table 2.26 Proportions of our invasive breast cancer patients with locoregional and distant recurrence by cancer stage

Recurrence	Cancer stage, Number (%)				
	I (N=4,663)	IIA (N=3,700)	IIB (N=1,887)	III (N=2,102)	Total (N=12,352)
LR solely	42 (0.9)	42 (1.1)	8 (0.4)	28 (1.3)	120 (1.0)
DR solely	38 (0.8)	52 (1.4)	46 (2.4)	112 (5.3)	248 (2.0)
LR and DR	15 (0.3)	29 (0.8)	23 (1.2)	60 (2.9)	127 (1.0)



130 (1.0%) patients in the cohort died from breast cancer. More than half (60.5%) of the patients who died from breast cancer were diagnosed with stage III or IV disease

at initial diagnosis. Survival time ranged from 0.6 – 11.1 years. Information on biological subtypes of these patients can be found in Table 2.27.

Table 2.27 Characteristics of breast cancer-specific deaths (N=130)

	Cancer stage at initial diagnosis						
	0	I	IIA	IIB	III	IV	Unstaged
No. of cases (% of breast cancer death cases)	1 (0.8)	15 (11.5)	16 (12.3)	9 (6.9)	56 (43.1)	22 (16.9)	11 (8.5)
Survival time (range in years)	4.4	1.6 – 6.8	1.9 – 8.9	2.1 – 11.1	0.8 – 9.4	0.8 – 7.3	0.6 – 6.2
Biological subtypes							
Luminal A*	0	3	2	1	7	0	0
Luminal B (HER2 negative)#	0	3	3	0	8	2	1
Luminal A/B (HER2 negative)†	0	2	3	3	12	9	2
Luminal B (HER2 positive)^	1	2	2	0	9	5	2
HER2 Positive *	0	2	1	0	12	3	0
TND§	0	3	4	4	7	1	2
Not known	0	0	1	1	1	2	4

* Luminal A: ER and/or PR+, HER2-, and low Ki-67 index (<14%)

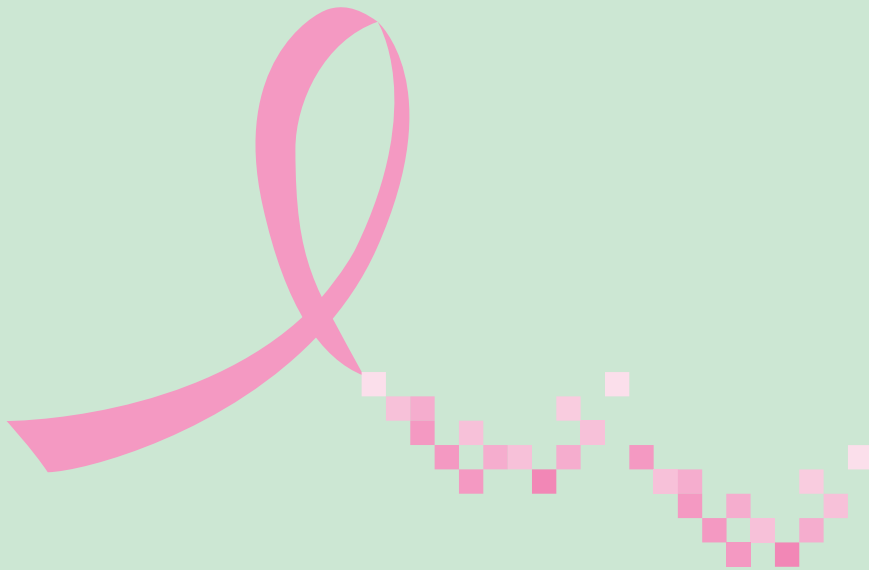
Luminal B (HER2 negative): ER and/or PR+, HER2-, and high Ki-67 index (≥14%)

† Luminal A/B (HER2 negative): ER and/or PR+, HER2-, and Ki67 index not known

^ Luminal B (HER2 positive): ER and/or PR+, HER2+, and any Ki-67 index

* HER2 positive: ER and PR-, HER2+, and any Ki-67 index

§ TND (Triple Negative Disease): ER and PR-, HER2-, and any Ki-67 index



CHAPTER 3
PHYSICAL AND PSYCHOSOCIAL
IMPACT OF BREAST CANCER AND
ITS TREATMENT



CHAPTER 3

PHYSICAL AND PSYCHOSOCIAL IMPACT OF BREAST CANCER AND ITS TREATMENT

Being diagnosed with breast cancer can be an overwhelming experience. During treatment or recovery, women often experience emotional turmoil as a result of physical, emotional and social changes. This chapter collects and analyses information about the psychosocial

and physical impact of breast cancer and its treatment on 12,711 patients in our cohort. The mean time at which patients did the survey was 2.1 years after initial cancer diagnosis.

Key findings

Physical impact of treatments

- ▶ Around two-thirds (69.5%) of our patients who had surgery experienced no or minimal levels of discomfort, while 9.2% of them experienced severe discomfort. Wound pain (16.4%) was the most common form of discomfort experienced after surgery and a small proportion (2.8%) of our patients reported lymphoedema as a form of discomfort after surgery.
- ▶ 66.8% of our patients who had radiotherapy experienced no or minimal levels of discomfort. Having dry skin (13.1%) and skin burns (10.6%) were the most common forms of discomfort experienced after radiotherapy in our patient cohort.
- ▶ Half (52.0%) of our patients who had chemotherapy experienced a severe level of physical discomfort during or after chemotherapy. Vomiting (18.1%) and loss of appetite (15.2%) were the common forms of discomfort experienced by our patients in the cohort.
- ▶ 80.2% of our patients who had undergone endocrine therapy experienced no or minimal levels of discomfort. Hot flushes (13.1%) was the most common form of discomfort experienced after endocrine therapy in the patient cohort.
- ▶ 82.1% of our patients who had undergone anti-HER2 targeted therapy experienced no or minimal levels of discomfort. Fatigue (5.1%) was the most common form of discomfort experienced after anti-HER2 targeted therapy in our patient cohort.
- ▶ Majority (97.7%) of our patients who received complementary and alternative therapies felt no or minimal levels of discomfort.

Psychosocial impacts and adjustments after diagnosis and treatment

- ▶ At the time of diagnosis, 45.3% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.9% of the cohort could not accept their diagnosis.
- ▶ After completing all treatment(s), 29.6% of our patients expressed that cancer had changed their value system.
- ▶ 52.3% of our breast cancer survivors reported having a positive change in their outlook on life and 42.6% reported having a positive change in their self-image.
- ▶ 82.0% of our patients reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.3%) was the most common lifestyle change, followed by increased exercise (61.7%). 11.8% of our patients resigned from their jobs after breast cancer diagnosis.
- ▶ 54.9% of patients managed their negative emotions by direct verbal expression, while 32.9% diverted their attention away from negative emotions.
- ▶ 26.5% of patients in our cohort did not worry about recurrence, however, around half (54.8%) of them always or sometimes worried about recurrence.

3.1 Physical discomfort after treatment

3.1.1 Physical discomfort after surgery

Around two-thirds (69.5%) of patients who had surgery experienced no or minimal levels of physical discomfort, while 9.2% of them experienced severe discomfort (Figure 3.1). The proportion of patients who reported feeling severe physical discomfort was highest among the patients who had undergone mastectomy and reconstruction (Figure 3.2). 16.4% of our patients reported wound pain as the source of discomfort after surgery (Table 3.1).

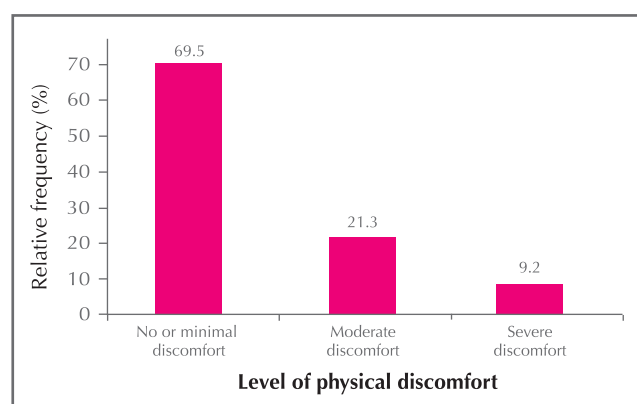


Figure 3.1 Level of physical discomfort after surgical operations (N=13,251)

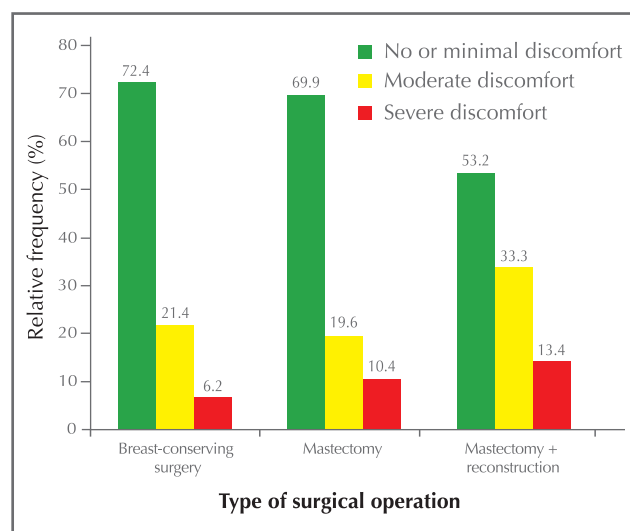


Figure 3.2 Level of physical discomfort by type of surgery (N=13,222)

Table 3.1 The five most common forms of discomfort after surgery (N=13,251)

	Number	(%)
Wound pain	2,176	(16.4)
Wound problems (infection / inflammation / tightness / poor wound healing)	868	(6.6)
Difficulty in arm movement	760	(5.7)
Numbness	451	(3.4)
Lymphoedema	377	(2.8)



3.1.2 Physical discomfort after radiotherapy

Two-thirds (66.8%) of our patients who had radiotherapy experienced no or minimal levels of discomfort (Figure 3.3). A higher proportion of patients who had undergone chest wall irradiation reported severe discomfort, than their counterparts who underwent breast irradiation, regardless of whether or not they had undertaken regional lymph nodes irradiation (Figure 3.4). 13.1% and 10.6% of the patients in our cohort, respectively, reported having dry skin and skin burns as the forms of discomfort experienced after radiotherapy (Table 3.2).

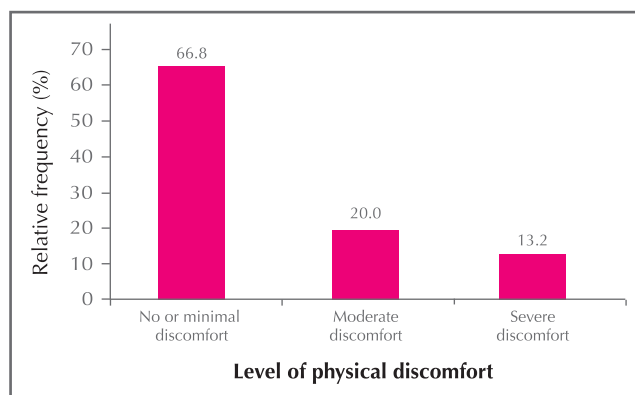


Figure 3.3 Level of physical discomfort after radiotherapy (N=7,933)

Table 3.2 The five most common forms of discomfort after radiotherapy (N=7,933)

	Number	(%)
Dry skin	1,042	(13.1)
Skin burns	844	(10.6)
Pain	458	(5.8)
Fatigue	244	(3.1)
Skin ulceration	211	(2.7)

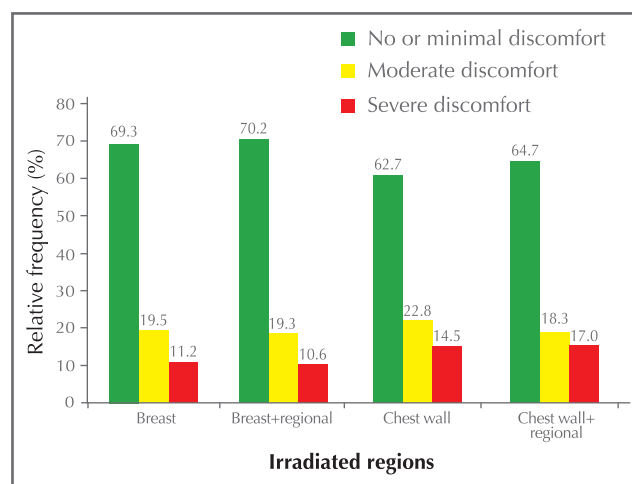


Figure 3.4 Level of physical discomfort after radiotherapy by irradiated regions (N=5,478)

3.1.3 Physical discomfort after chemotherapy

Around half (52.0%) of our patients who had chemotherapy experienced a severe level of physical discomfort due to side effects (Figure 3.5). Vomiting (18.1%) and loss of appetite (15.2%) were the most common forms of discomfort experienced during or after chemotherapy in our patient cohort (Table 3.3).

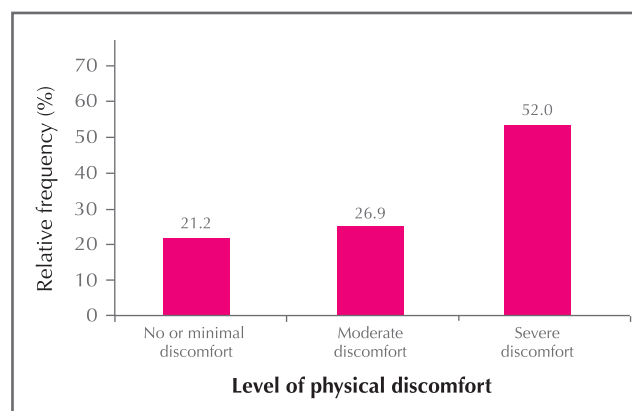


Figure 3.5 Level of physical discomfort after chemotherapy (N=7,853)

Table 3.3 The five most common forms of discomfort after chemotherapy (N=7,853)

	Number	(%)
Vomiting	1,419	(18.1)
Loss of appetite	1,194	(15.2)
Hair loss	905	(11.5)
Weakness	774	(9.9)
Nausea	483	(6.2)

3.1.4 Physical discomfort after endocrine therapy

More than three quarters (80.2%) of our patients who had undergone endocrine therapy experienced no or minimal levels of discomfort (Figure 3.6). Hot flushes (13.1%) was the most common form of discomfort experienced after endocrine therapy in the patient cohort (Table 3.4).

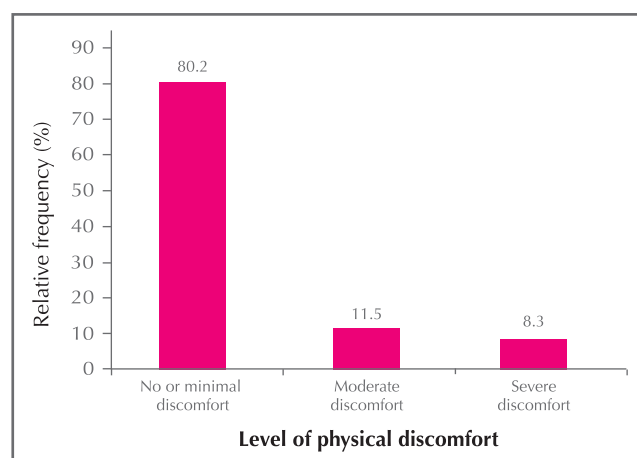


Figure 3.6 Level of physical discomfort after endocrine therapy (N=8,520)

Table 3.4 The five most common forms of discomfort after endocrine therapy (N=8,520)

	Number	(%)
Hot flushes	1,112	(13.1)
Bone pain	568	(6.7)
Tiredness	451	(5.3)
Menstrual Disorder	360	(4.2)
Emotionally unstable	200	(2.3)

3.1.5 Physical discomfort after anti-HER2 targeted therapy

Over 80% of our patients who had undergone anti-HER2 targeted therapy experienced no or minimal levels of discomfort (Figure 3.7). Fatigue (5.1%) was the most common form of discomfort experienced after anti-HER2 targeted therapy in our patient cohort (Table 3.5).

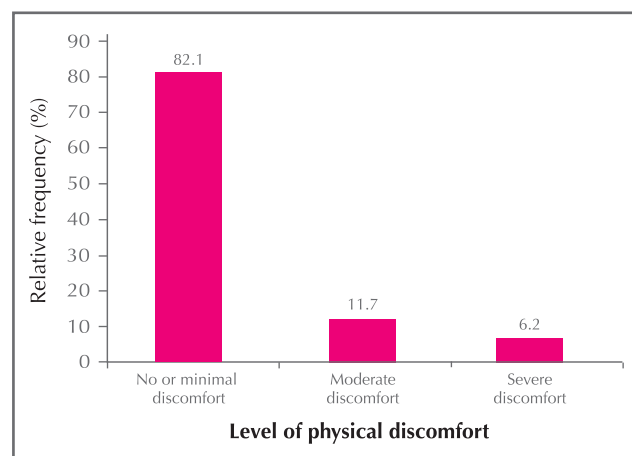


Figure 3.7 Level of physical discomfort after anti-HER2 targeted therapy (N=1,381)

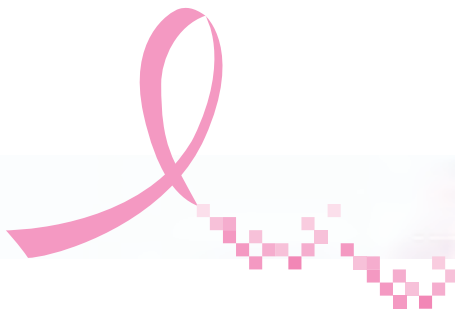


Table 3.5 The five most common forms of discomfort after anti-HER2 targeted therapy (N=1,381)

Discomfort	Number	(%)
Fatigue	70	(5.1)
Other organs affected	34	(2.5)
Pain	32	(2.3)
Numbness	16	(1.2)
Dizziness	14	(1.0)

3.1.6 Physical discomfort after complementary and alternative therapies

The majority (97.7%) of our patients who received complementary and alternative therapies felt no or minimal levels of discomfort (Figure 3.8).

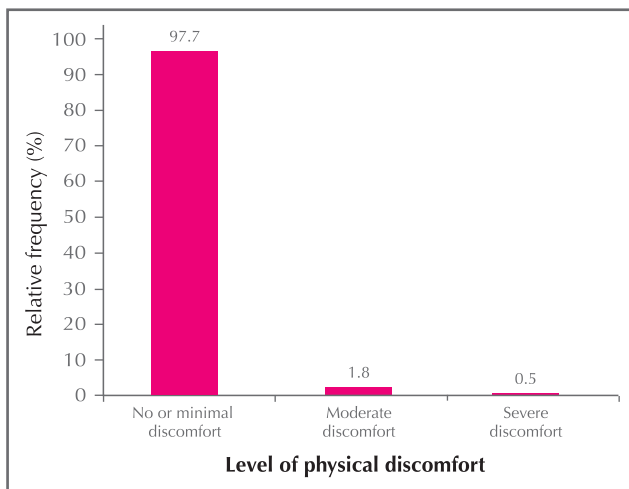


Figure 3.8 Level of physical discomfort after complementary and alternative therapies (N=5,686)

3.2 Psychosocial impacts and adjustments after diagnosis and treatment

3.2.1 Psychosocial impacts after diagnosis and treatment

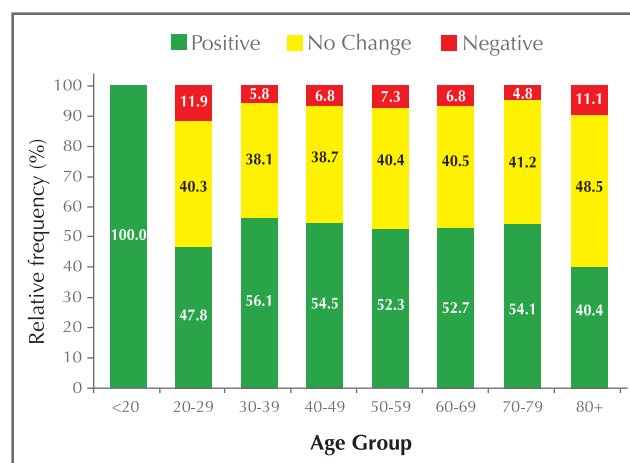
At the time of diagnosis, 45.3% of our patients accepted their diagnosis with a calm or positive attitude. In contrast, 22.9% of the cohort could not accept their diagnosis (Table 3.6). After treatment, one-third (32.3%) of the patients expressed that cancer was an alarm that caught them by surprise. Half (52.3%) of our patients reported having a positive change in their outlook on life and 42.6% reported having a positive change in their self-image after cancer diagnosis and its treatment (Table 3.6).

Table 3.6 Psychosocial impacts of breast cancer on our patients

	Number	(%)
Feelings at time of breast cancer diagnosis (N=12,403)		
Acceptance and positive attitude to fight	2,572	(20.7)
Calm acceptance	3,052	(24.6)
Acceptance with depression	3,722	(30.0)
Lack of acceptance ("It cannot be true.")	2,838	(22.9)
Acceptance with anger ("Something must be wrong.")	219	(1.8)
Feelings after breast cancer treatments (N=9,142)		
Cancer was an alarm that caught patient by surprise	2,957	(32.3)
Life was not fair	2,860	(31.3)
Cancer changed patient's value system	2,703	(29.6)
Cancer took away something from patient	622	(6.8)
Change in outlook on life (N=12,422)		
Positive	6,501	(52.3)
Negative	880	(7.1)
No change	5,041	(40.6)
Change in self-image (N=12,420)		
Positive	5,289	(42.6)
Negative	1,133	(9.1)
No change	5,998	(48.3)

In our patient cohort, positive change in the outlook on life was reported by around half of our patients aged 30-79. Higher proportions of patients in the age groups 20-29 and 80 and above reported having negative change in the outlook on life (Figure 3.9).

In our patient cohort, positive change in self-image was reported by around 40% of the patients aged 30-79, where higher proportion of patients in the age groups 20-29 and 80 and above reported having negative change in self-image (Figure 3.10).

**Figure 3.9 Change in outlook on life by age group (N=12,163)**

*Only 1 patient in our cohort belonged to the <20 age group.

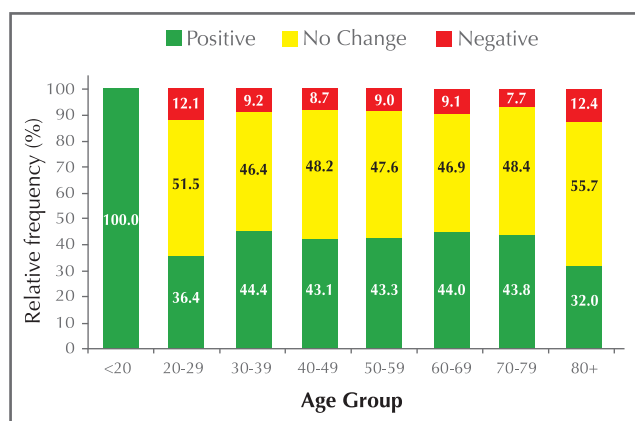


Figure 3.10 Change in self-image by age group (N=12,168)

*Only 1 patient in our cohort belonged to the <20 age group.

3.2.2 Psychosocial adjustments and coping strategies

Out of 12,711 patients in our cohort, 10,423 (82.0%) reported having changes in their lifestyle after diagnosis with breast cancer. A change in diet (74.3%) was the most common lifestyle change, followed by increased exercise (61.7%). 11.8% of our patients resigned from their jobs (Table 3.7).

In our patient cohort, 54.9% of patients managed their negative emotions by direct verbal expression, while 32.9% diverted their attention away from negative emotions (Table 3.7).

3.2.3 Levels of worry about recurrence

In our patient cohort, a quarter (26.5%) of the patients did not worry about recurrence, however, around half (54.8%) of them always or sometimes worried about recurrence (Table 3.7). The level of worry about recurrence did not show any correlation with the patients' age, but slightly higher proportions of patients in the age groups 20-29, 60-69 and 70-79 never worried about recurrence. On the contrary, higher proportions of patients in the age groups 40-49, 60-69, 70-79, and 80 and above always worried about recurrence (Figure 3.11).

Table 3.7 Psychosocial adjustments and coping strategies for survivorship

	Number	(%)
Types of lifestyle changes (N=10,423)		
Changing diet	7,748	(74.3)
Doing more exercise	6,427	(61.7)
Taking health supplements	2,313	(22.2)
Reducing workload	1,919	(18.4)
Resigning from job	1,225	(11.8)
Way of managing negative emotions (N=12,711)		
Direct verbal expression	6,975	(54.9)
Divert attention from them	4,178	(32.9)
Ignoring them	1,371	(10.8)
Feeling depressed	900	(7.1)
Others	1,270	(10.0)
Level of worry about recurrence (N=12,465)		
Never	3,309	(26.5)
Seldom	2,322	(18.6)
Sometimes	5,521	(44.3)
Always	1,313	(10.5)

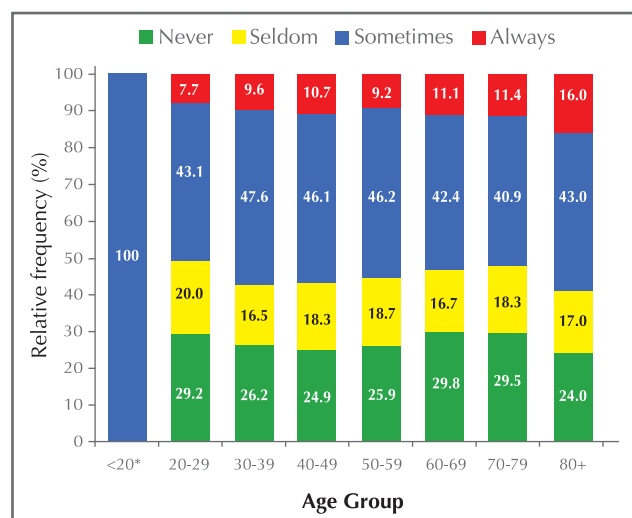


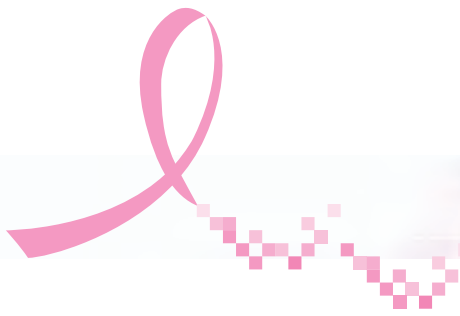
Figure 3.11 Level of worry about recurrence by age group (N=12,216)

*Only 1 patient in our cohort belonged to the <20 age group.



GLOSSARY

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Glossary

Adjuvant chemotherapy

Adjuvant chemotherapy (postoperative treatment) is used to eradicate any microscopic non-detectable cancer cells when there is little evidence of cancer presence but there is a risk of circulating microscopic cancer cells that could lead to recurrence.

Axillary dissection

A surgical procedure to remove the lymph nodes in the armpit (axillary nodes) hidden under the pectoral major and minor muscles. It is normally performed when there is evidence of cancerous cells in lymph nodes with palpation or imaging, or as sentinel lymph nodes.

Bilateral breast cancer

Bilateral breast cancer is cancer occurring in both breasts at the same time or within six months of each other (synchronous), or at different times at least six months apart (metachronous).

Biological subtype

Breast cancer is not considered to be a single disease. It can be further classified into several biological subtypes. These subtypes are determined by immunohistochemical staining of several biological markers (estrogen receptor (ER), progesterone receptor (PR), human epidermal growth factor receptor 2 (HER2), and Ki-67. By combining these biological markers in the primary tumour rather than assessing them individually, further prognostic and predictive information can be gained. The biological subtypes of breast cancers include luminal A (ER+ and/or PR+, HER2-, and low Ki-67 index), luminal B (HER2-negative) (ER+ and/or PR+, HER2-, and high Ki-67 index), luminal B (HER2-positive) (ER+ and/or PR+, HER2+, and any Ki-67 index), HER2-positive (ER-, PR-, HER2+, and any Ki-67 index) and triple negative (ER-, PR-, HER2-, and any Ki-67 index)³⁶.

Breast conserving surgery

This could be lumpectomy, wide local excision, partial mastectomy or segmentectomy. It is the surgical removal of a cancerous breast lump with a rim of non-cancerous tissue around the lump, without removing the entire breast.

Breast reconstruction surgery

This refers to a surgical treatment that rebuilds the breast contour after mastectomy. A breast implant of the woman's own tissue provides the contour. If desired, the nipple and areola may also be preserved or recreated. Reconstruction can usually be done at the time of mastectomy or any time later.

Breast surgery

Surgery for breast cancer is a local therapy to remove the breast tumour.

Cancer Staging

According to the latest AJCC Cancer Staging Classification 2010³⁵, breast cancer can be classified into different stages as shown in the following table:

Stage	Tumour	Node	Metastasis
0	Tis	N0	M0
IA	T1*	N0	M0
IB	T0	N1mi	M0
	T1*	N1mi	M0
IIA	T0	N1**	M0
	T1*	N1**	M0
	T2	N0	M0
IIB	T2	N1	M0
	T3	N0	M0
IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
IIIC	Any T	N3	M0
IV	Any T	Any N	M1

T0: no tumour; Tis: carcinoma in situ; T1: tumour size ≤ 20 mm; T2: $20\text{mm} < \text{tumour size} \leq 50\text{mm}$; T3: tumour size $> 50\text{mm}$; T4: any size with direct extension to the chest wall and/or to the skin (ulceration or skin nodules)

N0: no positive nodes; N1mi: $> 0.2\text{-}2.0$ mm or more than 200 cells; N1: 1-3 positive axillary nodes; N2: 4-9 positive axillary nodes or positive internal mammary nodes; N3: ≥ 10 positive axillary nodes, or positive axillary and internal mammary nodes, or positive supraclavicular or infraclavicular nodes

M0: no metastasis; M1: evidence of metastasis

* T1 includes T1mi

** T0 and T1 tumour with nodal micrometastases only are excluded from Stage IIA and are classified as Stage IB.

Cancer specific death

A death with the underlying cause indicated as cancer. People with cancer who die of other causes are not counted in the death statistics of this publication.

Chemotherapy

It is a treatment that uses one or more cytotoxic drugs to destroy cancer cells. Chemotherapy is often used in addition to surgery or radiation to treat cancer when metastasis (spread) is proven or suspected, when the cancer has come back (recurred), or when there is a strong likelihood that the cancer could recur.

Distant recurrence

Cancer that occurs in organs or tissues distant from the original site or regional lymph nodes, such as the lungs, liver, bone marrow, or brain.

Endocrine therapy

Treatment with hormonal drugs that interfere with hormone production or hormone action, or surgical removal of hormone-producing glands to kill cancer cells or cause programmed cell death (apoptosis).

Estrogen receptor positive

This refers to the status of cancer cells with receptor proteins that bind the hormone estrogen. Cancer cells that are estrogen receptor positive need estrogen to grow, and may stop growing or die when treated with substances that block the binding with estrogen.

Human epidermal growth factor receptor 2 (HER2) positive

In HER2 positive breast cancer, the cancer cells have an abnormally large number of HER2 genes per cell. When this happens, excessive HER2 protein appears on the surface of these cancer cells. This is called HER2 protein over-expression. Excessive HER2 protein is thought to cause cancer cells to grow and divide more quickly. This is why HER2 positive breast cancer is considered aggressive.



In situ breast cancer

This term refers to early stage breast cancer, when it is confined to the layer of cells where it began. In breast cancer, in situ means that the cancer cells remain confined to ducts (ductal carcinoma in situ). It has not grown into deeper tissues in the breast or spread to other organs in the body, and are sometimes referred to as non-invasive or pre-invasive breast cancers.

Invasive breast cancer

An invasive cancer is one that has already grown beyond the outer lining of myoepithelial cells or basement membrane where it started, for example breast ducts or lobules (as opposed to carcinoma in situ). Most breast cancers are invasive carcinomas.

Ki-67 proliferation index

Ki-67 protein is a cellular marker for proliferation which is present at low levels in quiescent cells but is increased in proliferating cells. Ki-67 proliferation index, referring to the percent tumour cells staining positive as measured by immunohistochemical (IHC) staining, is a specific nuclear marker for cell proliferation. High levels of Ki-67 indicate an aggressive tumour. Currently, an index higher than 14% is regarded as high Ki-67 proliferation index.

Latissimus dorsi flap (LD flap)

This refers to a method of breast reconstruction that rotates the fan-shaped flat muscle of the back to the chest area.

Locoregional recurrence

Locoregional recurrence occurs when cancer returns after treatment, and occurs at the same site as the original cancer or in the lymph nodes near the site of origin.

Mastectomy

A mastectomy is the surgical removal of the entire breast. It is usually used to treat serious breast disease, such as breast cancer.

Metastasis

The term metastasis is used to describe a disease that has recurred at another location in the body.

Mortality

Mortality is the incidence of death in a population.

Multicentricity

Breast cancer occurring in multiple quadrants of a breast.

Multifocality

Multifocality in breast cancer is defined as the presence of two or more tumour foci within a single quadrant of the breast with two or more foci 5mm apart in the same breast quadrant.

Necrosis

A term used to describe the death of cellular tissue. Necrosis within a cancerous tumour may indicate that the tumour is growing so rapidly that blood vessels are not able to multiply fast enough to nourish some of the cancer cells. Necrosis usually indicates that the tumour is very aggressive and can spread quickly.

Neoadjuvant chemotherapy

In neoadjuvant chemotherapy (preoperative treatment), initial chemotherapy is designed to shrink the primary tumour, thereby rendering local therapy (surgery or radiotherapy) less destructive or more effective.

Progesterone receptor positive

The hormone progesterone will bind to protein in cells. Cancer cells that are progesterone receptor positive need progesterone to grow and will usually stop growing when endocrine therapy drugs block progesterone from binding.

Proliferative lesions with atypia and precancerous breast lesion

Proliferative lesions with atypia include atypical ductal hyperplasia and atypical lobular hyperplasia. In these conditions, there is an overgrowth of cells in the ducts or lobules of the breast tissue, with some of the cells no longer appearing normal. These conditions increase the risk of breast cancer. Lobular carcinoma in situ (LCIS) is considered a precancerous lesion, a risk factor for developing invasive breast cancer in future, but is not classified as breast cancer.

Radiotherapy

Radiation therapy is the use of radiation to destroy cancer cells. This type of treatment may be used to reduce the size of a cancer before surgery, or to destroy any remaining cancer cells after surgery.

Risk factors

Risk factors are associated with an increased probability of a specified outcome, for example, the occurrence of a disease. Risk factors are not necessarily the cause of a disease.

Sentinel node biopsy

It is a surgical procedure to remove the first few nodes receiving lymphatic drainage from the breast in clinically node-negative cancers. This is to determine if breast cancer has spread to the armpit (axillary) lymph node basin.

Survival time

The time from initial diagnosis until the occurrence of death.

Targeted therapy

A type of medication that blocks the growth of cancer cells by interfering with specific targeted molecules needed for carcinogenesis and tumour growth.

Time to recurrence

The time from initial diagnosis until the occurrence of recurrence.

Transverse rectus abdominus muscle flap (TRAM flap)

A method of breast reconstruction in which tissue from the lower abdominal wall receiving its blood supply from the rectus abdominus muscle is used. The tissues from this area are moved up to the chest to create a breast mound; usually an implant is not required. Moving muscles and tissues from the lower abdomen to the chest results in flattening of the lower abdomen.

Triple negative breast cancer

This term is used to describe breast cancers (usually invasive ductal carcinomas) in which the cells lack estrogen receptors and progesterone receptors, and do not have an excess of the HER2 protein on their surfaces.



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報告重點

- ▶ 本報告涵蓋了15,222名於2006年或以後確診的乳癌患者資料。
- ▶ 患者確診乳癌的平均年齡為51.9歲，年齡中位數為51.0歲。
- ▶ 受訪群組中，約有三分之二（66.0%）患者的年齡介乎於40至59歲。

乳房高危因素

- ▶ 受訪群組中常見的十大乳癌高危因素及患者擁有該高危因素的比例：

	%
缺乏運動（每周少於3小時）	77.7
從未餵哺母乳	65.8
超重/肥胖（體重指數 ≥ 23.0 ）	38.6
高度精神壓力（超過一半時間）	37.1
沒有生育 / 35歲後首次生育	26.2
飲食含豐富肉類 / 乳類製品	14.5
有乳癌家族病史	14.2
提早初經（ <12 歲）	12.6
飲酒	4.9
曾使用荷爾蒙補充劑治療	3.9

* 國際癌症研究機構把這些因素列為與乳癌有確實關係或可能與乳癌有關。

乳房檢查習慣

- ▶ 整體而言，患者缺乏乳房檢查習慣。少於半數的患者定期接受臨床乳房檢查，少於四分一的患者定期進行自我乳房檢查或接受乳房X光造影檢查。
- ▶ 患者年齡越高，越少有乳房檢查習慣。
- ▶ 相比教育程度高或家庭每月收入高的患者，教育程度較低或家庭每月收入較低的較少會接受定期的乳房檢查。
- ▶ 在未確診乳癌前，超過60%的40歲或以上年齡患者從未接受乳房X光造影檢查。

癌症特徵、組織學及生物學特性

- ▶ 受訪群組中，無意中自我發現是主要最初發現乳癌的方式（83.2%）。較多0期或I期的患者是經由乳房X光造影檢查發現的（分別為34.6%和13.4%），遠高於III期或IV期的患者（分別為3.0%和2.1%）。
- ▶ 受訪群組中，自我發現乳癌的患者在症狀出現後，有四分之一（25.4%）的患者在出現症狀後三個月或以上才首次求醫。
- ▶ 受訪群組中，有12.0%患者被診斷為原位癌，68.4%患者確診時的癌症期數屬於早期（I-IIIB期），及有16.4%屬於晚期（III-IV期）。
- ▶ 入侵性乳癌腫瘤的平均大小為2.2厘米（標準偏差： ± 1.5 厘米）。47.2%患者的腫瘤大於2.0厘米。受訪群組中，經乳房X光造影檢查發現的入侵性腫瘤明顯小於經由無意中自我發現的（平均大小：1.5厘米比2.5厘米）。
- ▶ 原位癌腫瘤的平均大小為2.0厘米（標準偏差： ± 1.6 厘米）。35.3%患者的原位癌腫瘤大於2.0厘米。
- ▶ 下列表格顯示受訪群組中入侵性及原位癌個案的組織學及生物學特徵。

	入侵性腫瘤 %	原位癌腫瘤 %
組織學類別		
乳腺管癌	86.2	93.2
其他	13.8	6.8
生物學特性		
ER+	78.5	81.0
PR+	66.4	72.3
HER2+	21.1	27.1
Ki-67指數 $\geq 14\%$	59.9	34.4
ER-PR-HER2-	11.6	—
入侵淋巴管	28.2	—

ER+/-: 雌激素受體呈陽性 / 陰性

PR+/-: 黃體素受體呈陽性 / 陰性

HER2+/-: 第二型人類上皮生長因子受體呈陽性 / 陰性

治療

- ▶ 受訪群組中，14.7%患者在私營醫療機構接受治療；49.9%在公營醫療機構接受治療；35.4%在私營及公營醫療機構接受治療。
- ▶ 綜合使用多種療法能夠有效治療乳癌。一般而言，受訪群組中，確診時癌症期數越高，需要接受的療法就越多。

	整體	在私營醫療機構 接受治療	在公營醫療機構 接受治療	期數					
	%	%	%	0 %	I %	IIA %	IIB %	III %	IV %
手術治療	98.0	51.6	48.4	99.3	100.0	99.8	99.9	99.1	62.9
乳房保留手術	36.0	64.0	36.0	53.0	47.3	34.8	23.8	13.5	8.6
乳房切除手術	64.0	44.6	55.4	47.0	52.7	65.2	76.2	86.5	91.4
放射性治療	61.8	11.9	88.1						
接受乳房保留手術的患者	94.2	16.6	83.4	94.0	95.0	93.7	95.3	96.1	84.2
接受乳房切除手術的患者	44.6	6.3	93.7	3.3	12.8	34.5	75.3	93.1	62.7
化療	67.9	13.5	86.5	—	38.2	79.4	90.4	93.6	85.1
內分泌治療	67.4	9.5	90.5	11.7	76.5	73.8	77.1	74.0	78.4
抗第二型人類上皮生長因子 受體靶向治療*	58.3	11.3	88.7	—	40.9	61.8	65.4	71.3	72.0

*只包括第二型人類上皮生長因子受體呈陽性的患者

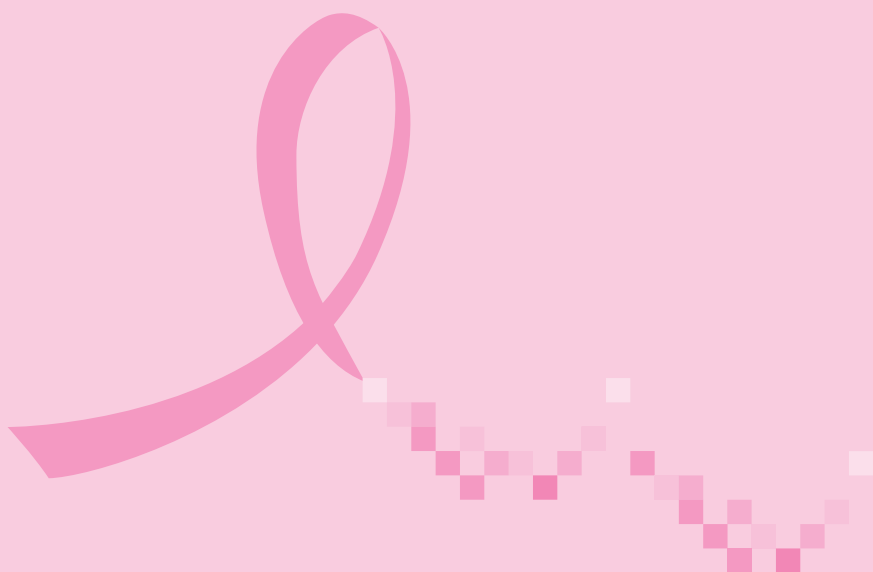
治療後的身體不適

- ▶ 在不同的乳癌治療方法中，化學治療是最多患者感到難受的治療方法。52.0%患者表示在接受化學治療的過程中或後感到嚴重不適。

治療方式	嚴重不適 (%患者)	主要不良反應 (%患者)
化學治療	52.0	嘔吐 (18.1)、 食慾不振 (15.2)、 脫髮 (11.5)
放射性治療	13.2	皮膚乾燥 (13.1)、 皮膚灼傷 (10.6)
手術治療	9.2	傷口痛楚 (16.4)
內分泌治療	8.3	潮熱 (13.1)
抗第二型人類上皮生長 因子受體靶向治療	6.2	疲倦 (5.1)

確診和治療對患者的心理及生活影響

- ▶ 在得悉確診乳癌時，45.3%患者平靜或以正面的態度對抗。相反，22.9%表示拒絕接受。
- ▶ 近半數 (52.3%) 患者表示對人生觀有正面的影響，42.6%則表示對自我形象有正面的轉變。
- ▶ 受訪群組中，82.0%表示確診乳癌後曾改變生活習慣，最常見的是改變飲食習慣 (74.3%)，其次是多做運動 (61.7%)。
- ▶ 54.9% 患者以直接向人傾訴來處理負面情緒，32.9%者把注意力移離負面情緒。
- ▶ 受訪群組中，約半數 (54.8%) 患者表示經常或有時擔心復發。



第一章 預防和及早發現乳癌



第一章 預防和及早發現乳癌

過去的研究發現乳癌風險與健康背景和生活習慣有顯著的關係。本章綜述14,905名香港乳癌患者的人口統計特徵及社會經濟狀況的數據，包括生活方式及患者的健康

背景，從而分辨那些與乳癌相關的因素是否適用於本地情況。透過這些分析，或許我們能分辨出與本港乳癌病例的有關的重要因素。

主要分析結果

- ▶ 患者確診乳癌的平均年齡為51.9歲，年齡中位數分別為51歲。
- ▶ 受訪群組中，約有三分之二（66.0%）患者的年齡介乎40歲至59歲。

乳癌的高危因素

香港乳癌資料庫研究各種乳癌的高危因素（由不同國際癌症研究機構評定），受訪群組中常見的十大乳癌高危因素及患者擁有該高危因素的比例為：

高危因素	人數	(%)
缺乏運動（每周少於3小時）	11,588	(77.7)
從未餵哺母乳	9,813	(65.8)
超重 / 肥胖	5,758	(38.6)
高度精神壓力（超過一半時間）	5,527	(37.1)
沒有生育 / 35歲後首次生育	3,899	(26.2)
飲食含豐富肉類/乳類製品	2,155	(14.5)
有乳癌家族病史	2,115	(14.2)
提早初經（<12歲）	1,878	(12.6)
飲酒	729	(4.9)
曾使用荷爾蒙補充劑治療	575	(3.9)

檢查習慣

- ▶ 整體而言，患者缺乏乳房檢查習慣。少於半數的患者定期接受臨床乳房檢查，少於四分之一的患者定期進行自我乳房檢查或接受乳房X光造影檢查。
- ▶ 患者年齡愈高，愈少有乳房檢查習慣。
- ▶ 相比教育程度高的患者，教育程度較低的較少會接受定期的乳房檢查。
- ▶ 相比家庭每月收入較高的患者，家庭每月收入較低的較少會接受定期的乳房檢查。
- ▶ 在未確診乳癌前，超過60%的40歲或以上年齡患者從未接受乳房X光造影檢查。

1.1 患者人口統計特徵

1.1.1 確診年齡

罹患乳癌的風險普遍隨著年齡而上升¹⁻²。表1.1顯示不同年齡的婦女患上乳癌的一生累積風險¹。在香港，年齡介乎60至65歲之間的婦女有最高發病率。雖然70歲或以上的婦女罹患乳癌的風險相對60至65歲的婦女較低，但根據2014年的本地數據，70歲或以上的乳癌患者佔該年新增乳癌個案的15% (673個案)¹。

表1.1 香港婦女罹患乳癌的一生累積風險 (2009至2013年的平均數據)¹

年齡	一生累積風險
30歲之前	每2,862人有1位
35歲之前	每709人有1位
40歲之前	每246人有1位
45歲之前	每107人有1位
50歲之前	每58人有1位
55歲之前	每39人有1位
60歲之前	每30人有1位
65歲之前	每24人有1位
70歲之前	每20人有1位
75歲之前	每18人有1位

受訪患者群組的年齡介乎18歲到101歲之間，約有三分之二患者的年齡介乎40歲至59歲 (圖1.1)。確診年齡中位數為51歲。

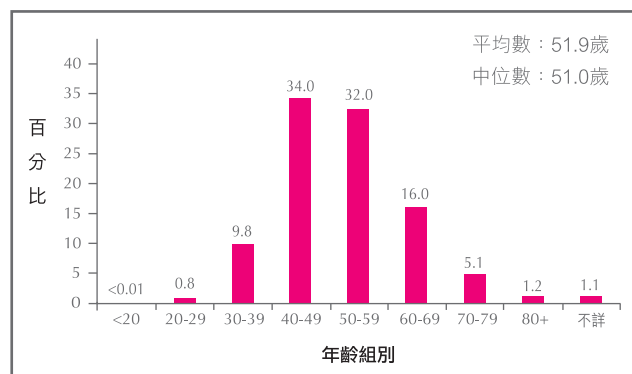


圖1.1 患者確診年齡的分佈 (人數 = 14,905)

* <20歲的年齡組別只有1名患者

1.1.2 職業

雖然國際文獻上仍沒有證據顯示患者的職業與乳癌有關³，但過去的研究發現夜更工作與乳癌風險增加有關⁴，受爭議的是夜更工作會使人在晚上暴露於人造光源中，令個人的晝夜節律產生紊亂，從而對生理引致一系列破壞性的轉變⁴。研究指出香港女性的每週的平均工作時數是43.2小時⁵。

受訪患者群組中，大約一半患者 (56.8%) 在確診時仍然有工作，她們工作時間的中位數為每星期47小時，當中有747人 (8.8%) 更需要於夜更工作，夜更工作頻繁度中位數為每年60個晚上。

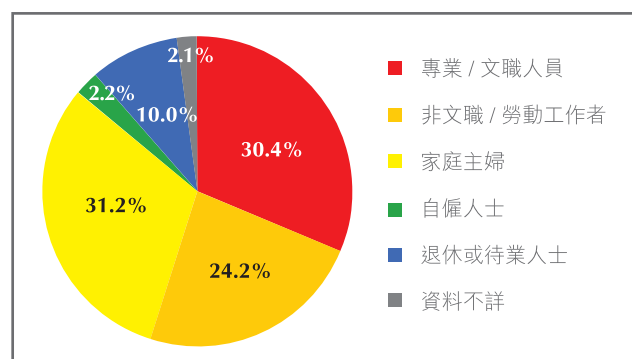


圖1.2 患者的職業 (人數 = 14,905)

1.1.3 教育程度和每月家庭收入

研究文獻表示教育程度較低或每月家庭收入較少的婦女，相比其他居住在同一城市的婦女，除了她們對於乳癌的預防意識比較低之外，乳房檢查的習慣也較差^{6,7}。

受訪患者群組中，大約三分之二（69.6%）有中學或以上的教育程度，29.5%患者的教育程度屬於小學或以下（圖1.3）。相比教育程度高的患者，教育程度低的較少會接受定期的乳房檢查（1.3部分）。

大約三分之一（35.8%）的每月家庭收入為港幣30,000元或以上，而19.1%的每月家庭收入少於港幣10,000元（圖1.4）。相比每月家庭收入較高的患者，每月家庭收入較低的較少會接受定期的乳房檢查（1.3部分）。

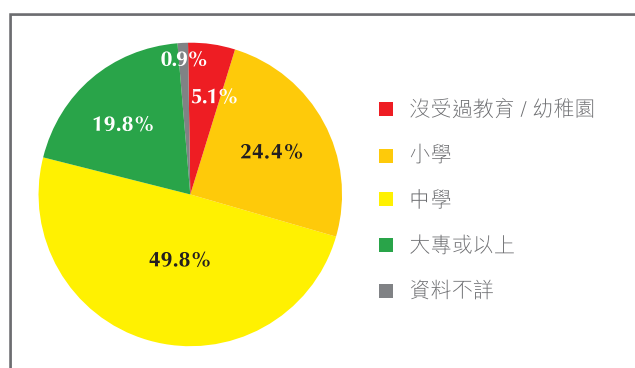


圖1.3 受訪群組的教育水平（人數 = 14,905）

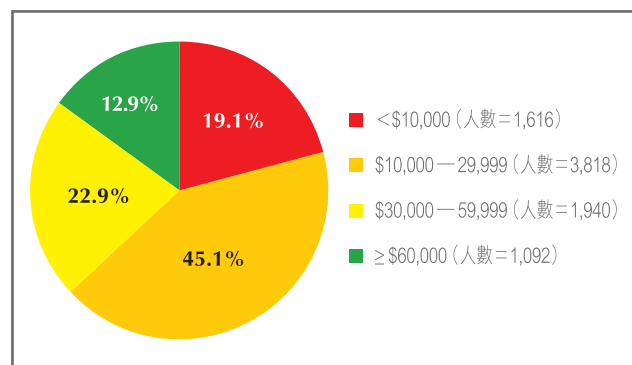


圖1.4 受訪群組的每月家庭收入（港幣）（人數 = 8,466）

1.1.4 居住地區

受訪患者群組中有超過半數（59.7%）確診時在新界居住，22.7%在九龍居住，13.7%在港島居住（圖1.5）。與居住在香港島的患者相比，居住九龍或新界的患者的乳房檢查習慣較差（1.3部分）。

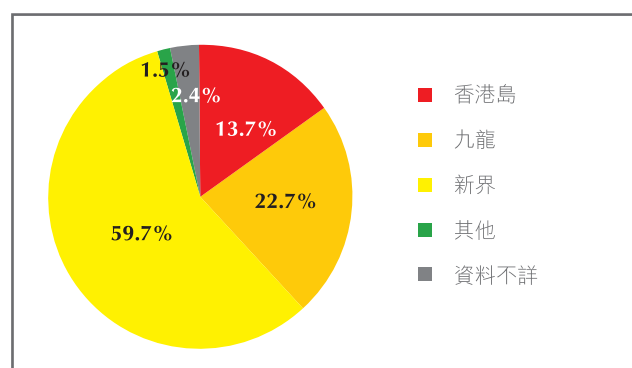


圖1.5 受訪群組的居住地方分佈（人數 = 14,905）

1.1.5 胸圍尺碼及罩杯尺碼

研究發現較大的胸部尺碼與乳癌是相關的⁸⁻¹⁰。不過，這些研究對象均是西方國家的女性，而本地則缺乏有關數據支持這個說法。

61.1%患者的胸圍尺碼是34吋或以上，當中的17.4%患者的胸圍尺碼更是38吋或以上（圖1.6）。至於罩杯尺碼，有超過半數（50.2%）患者的罩杯尺碼為B級或以下，只有4.1%患者是D級或以上（圖1.7）。

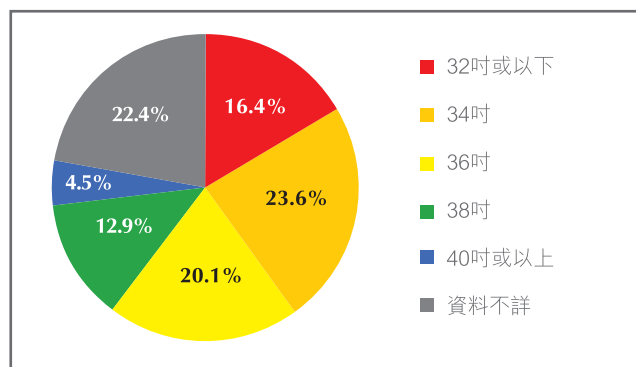


圖1.6 患者的胸圍尺碼（人數 = 14,905）

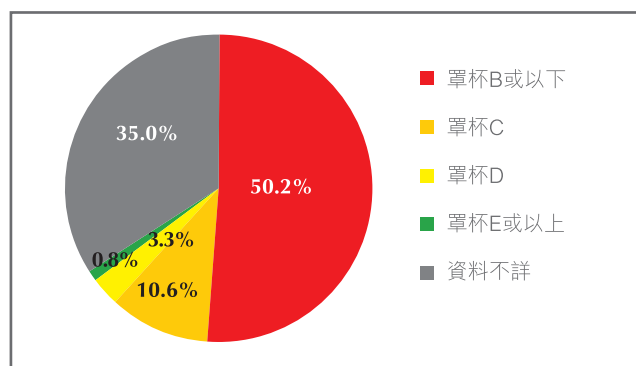


圖1.7 患者的胸圍罩杯大小（人數 = 14,905）

1.2 風險因素及健康背景

1.2.1 吸煙

國際癌症研究機構把吸煙歸類為「很可能導致乳癌的成因」⁴。不過，主動或被動吸煙與乳癌的確實因果關係仍有待研究¹¹。一項研究指出，於2016年，香港有3.2%的婦女有吸煙習慣¹²。

在受訪患者群組中，有710名（4.8%）曾經或於確診時仍有吸煙的患者，她們平均吸煙18.6年（範圍：1-70年）。當中，有37.1%在確診時已經戒煙一年或以上，4.6%患者戒煙少於一年，而有58.3%患者在確診時仍有吸煙習慣。戒煙少於一年或仍有吸煙習慣的患者中，在確診前十二個月內平均每星期吸煙3.7包（範圍：0.2-21包）。

1.2.2 飲酒

世界衛生組織已經將酒精飲品列為第一組別的乳癌致癌物，並適用於所有年齡組別的人士^{4,13}。飲用酒精越多，乳癌風險也越高，每10克酒精（一個標準酒精飲品，大約相當於一罐330毫升啤酒、一杯100毫升餐酒或一杯30毫升高濃度酒精飲品）會增加10%的乳癌風險¹³。一項研究發現，在2016年，香港有10.4%婦女有每星期飲酒一次的習慣¹⁴。



受訪患者會被詢問有關確診前的飲酒習慣，表示甚少或偶爾喝酒，即是十二個月內少於5杯的患者，則不會被列為有飲酒習慣。

受訪患者群組約有少部分（4.9%）的患者曾有喝酒的習慣，她們平均維持了這個習慣14.3年（範圍：0.3-63年）。當中，20.4%患者在確診前已經戒酒一年或以上，5.2%患者戒酒少於一年，而超過半數（74.3%）患者在確診時仍有喝酒習慣。戒酒少於一年或仍有喝酒習慣的患者中，在確診前十二月平均每星期喝7杯酒（範圍：0.3 – 73.5杯）。最常見的酒精飲品是紅酒（30.2%）和啤酒（25.7%）。

1.2.3 飲食、運動習慣及精神壓力水平

縱然過去已經有不少有關飲食對乳癌風險影響的研究，迄今大部分研究結果都各自表述，未能定論。另一方面，運動很可能幫助收經後婦女預防患上乳癌¹³，收經後婦女的人體脂肪增加時，乳癌的風險也相繼增加，故此婦女應該限制攝取熱量與經常做運動，以保持健康體重和人體脂肪水平。

受訪者中，大約三分之二（68.3%）患者飲食均衡，14.5%患者飲食含豐富肉類 / 乳類製品。將近一半患者確診前一年內從不運動，只有大約五分之一（18.9%）每星期運動三小時或以上（表1.2）。

現存的研究尚未能確定精神壓力為乳癌的一項風險因素，需要作進一步研究。不過，一些研究顯示，長期承受壓力的人可能會衍生一些與乳癌風險因素有關的習慣，例如吸煙或喝酒，從而有可能增加患癌症的風險。受訪群組當中的37.1%患者在確診前一年內曾承受高度壓力（表1.2）。

表1.2 患者確診前的飲食習慣、運動習慣及精神壓力水平（人數 = 14,905）

	人數	(%)
飲食習慣		
含豐富肉類 / 乳類製品	2,155	14.5
茹素或蔬果為主	2,208	14.8
均衡飲食	10,182	68.3
資料不詳	360	2.4
運動習慣		
從不運動	7,145	47.9
每周運動< 3小時	4,443	29.8
每周運動≥ 3小時	2,824	18.9
資料不詳	493	3.3
精神壓力狀態		
高度壓力*	5,527	37.1
中度壓力**	4,139	27.8
輕微壓力	5,070	34.0
資料不詳	169	1.1

* 高度壓力：多於一半時間

** 中度壓力：25-50%時間

1.2.4 高度、體重及體重指數

體重指數 (BMI) 是根據個人身高和體重來評估人體脂肪量的探索式方法，計算方法是把體重 (公斤) 除以身高 (米) 的平方。亞洲女性的過重和肥胖標準分別設定為體重指數23-24.9和25或以上。肥胖是乳癌風險因素¹⁵。一項研究顯示，在2016年，香港有16.3%和14.2%的女性是分別屬於過重和肥胖¹⁶。

受訪患者群組的平均身高為157.9厘米，標準偏差為5.8厘米，而平均體重為57.4公斤，標準偏差為9.4公斤。當中37.7%在確診時屬於過重或肥胖 (表1.3)。

表1.3 患者確診前的體重指數 (人數 = 14,905)

體重指數BMI	人數	(%)
≥ 25.0 (肥胖)	3,217	21.6
23.0 - 24.9 (過重)	2,541	17.0
18.5 - 22.9 (正常)	6,072	40.7
< 18.5 (過輕)	983	6.6
資料不詳	2,092	14.0

1.2.5 乳癌家族史

研究發現，有直系親屬罹患乳癌的婦女，比沒有直系親屬患乳癌的婦女的乳癌風險較高。如果有較多直系親屬患乳癌，或這些親屬在50歲前患乳癌，則有關婦女罹患乳癌的風險更高^{17,18}。受訪患者群組中，只有14.2%患者有家族乳癌史 (表1.4)。

表1.4 患者確診前的家族乳癌病歷 (人數 = 14,905)

乳癌家族病歷	人數	(%)
沒有	12,588	84.5
有		
直系親屬	1,529	10.3
非直系親屬	586	3.9
資料不詳	32	0.2
乳癌家族史資料不詳	170	1.1

1.2.6 個人腫瘤病歷

研究發現曾經罹患某些種類癌症的婦女，患上乳癌的風險會較高，這些癌症包括霍傑金淋巴瘤、黑色素瘤、肺腺癌、腸癌、子宮癌、慢性淋巴細胞性白血病，或兒童時期曾經患上癌症¹⁹⁻²⁴。另一方面，宮頸鱗狀細胞癌的康復者患上乳癌的風險則較低^{23,24}。受訪患者群組有1.7%在確診乳癌前，曾罹患其他種類的惡性腫瘤 (表1.5)。這些惡性腫瘤當中，以甲狀腺癌最為常見 (表1.6)。

表1.5 患者確診前的個人腫瘤病歷 (人數 = 14,905)

腫瘤病歷	人數	(%)
沒有	12,163	81.6
良性腫瘤	2,183	14.7
惡性腫瘤	253	1.7
腫瘤性質不詳	59	0.4
腫瘤病歷不詳	247	1.7



表1.6 患者確診前曾患惡性腫瘤的身體部位 (人數 = 253)

惡性腫瘤類別	人數	(%)
甲狀腺	41	16.2
大腸	36	14.2
子宮體	31	12.3
子宮頸	21	8.3
卵巢	15	5.9
肺	12	4.7
鼻咽	12	4.7
血	9	3.3
小腸	6	2.4
肝	5	2.0
骨	4	1.6
食道	4	1.6
皮膚	4	1.6
胃	4	1.6
泌尿系統	4	1.6
腦	2	0.8
卵巢內胚竇	2	0.8
肌肉	2	0.8
舌	2	0.8
其他*	6	2.4
資料不詳	46	18.2

*其他身體部位包括：輸卵管、頸、口腔、腮腺。

1.2.7 良性乳房狀況及癌症前的乳房病變病歷

研究發現若婦女曾患有某些種類的良性乳房狀況或癌症前的乳房病變，患上乳癌的風險會有所增加。良性乳房狀況分為三類：非增生性病變，無非典型增生性病變和非典型增生。非增生性病變的例子有纖維乳腺瘤或其他囊變性纖維瘤，一般而言不會增加患上乳癌的風險²⁵。另一方面，無非典型增生性病變，例如乳頭狀瘤或乳頭狀瘤病，以及非典型增生如非典型導管或小葉增生都與乳癌風險增加有關²⁵。乳小葉原位癌是癌症前乳房病變的一種，也會增加婦女罹患乳癌的風險。

受訪患者群組中，14.6%曾患有良性乳房疾病，當中0.2%有乳頭狀瘤病及0.4%有非典型導管增生。一名患者在確診乳癌前曾患有乳小葉原位癌 (表1.7)。

表1.7 患者確診前的乳房疾病病歷

	人數	(%)
乳房疾病病歷	2,179	14.6
乳房疾病的種類		
纖維乳腺瘤	1,027	47.1
囊變性纖維瘤	90	4.1
乳頭狀瘤	31	1.4
乳頭狀瘤病	4	0.2
非典型導管增生	9	0.4
乳小葉原位癌	1	<0.1
其他 (如乳腺增生、其他良性腫瘤)	935	42.9
資料不詳	117	5.4

1.2.8 患者提早初經，延遲收經和生育紀錄

研究顯示婦女的生理現象，例如提早初經（12歲前），延遲收經（55歲後），沒有生育和第一胎晚育（35歲後）都會增加她們一生中受雌激素的影響的時間及程度，從而增加罹患乳癌的風險。另一方面，延遲初經、提早收經、有生育經驗和較早生育第一胎都會減低乳癌的風險¹³。

受訪患者群組當中，初經的平均年齡為13.3歲，收經的平均年齡為49.7歲，而12.6%有提早初經的情況，大約半數（51.5%）患者在確診時已經收經，當中5.4%有延遲收經的情況。群組中約五分之一（22.2%）患者在確診癌症時未曾生育，只有4.0%在35歲後生育第一胎（表1.8）。此外，第一胎平均的生育年齡為27.3歲，72%患者曾生育兩個或以上，患者的生育次數詳列於表1.9。

婦女餵哺母乳可以預防患上乳癌（不論年齡）¹³。受訪患者群組中，32.0%曾餵哺母乳，平均哺乳時間為16.2個月，時間範圍由0.1個月到252個月（表1.8）。

表1.8 受訪群組的初經、收經及生育紀錄

	人數	(%)
初經（人數 = 14,905）		
提早初經（<12歲）	1,878	12.6
正常初經（≥12歲）	11,862	79.6
年齡不詳	1,165	7.8
更年期（人數 = 7,682）		
延遲收經（>55歲）	412	5.4
正常收經（≤55歲）	6,320	82.3
收經年齡不詳	950	12.4
生育紀錄（人數 = 14,905）		
沒有生育	3,303	22.2
首次生育≤35歲	10,396	69.7
首次生育>35歲	596	4.0
首次生育年齡不詳	335	2.2
生育紀錄不詳	275	1.8
餵哺母乳（人數 = 14,905）		
有	4,766	32.0
沒有（曾生育）	6,479	43.5
沒有（不曾生育）	3,296	22.1
沒有（生育紀錄不詳）	38	0.3
資料不詳	326	2.2



表1.9 受訪群組的生育次數（人數 = 11,327）

生育次數	人數	(%)
1	3,121	27.6
2	5,076	44.8
3	1,938	17.1
4	694	6.1
5	244	2.2
6	126	1.1
7	50	0.4
8	18	0.2
9+	7	0.1
資料不詳	53	0.5

1.2.9 使用荷爾蒙避孕劑

荷爾蒙避孕劑含有人工合成的性荷爾蒙，使用的形式可以是口服藥片、注射、植入和透皮貼劑。雖然國際癌症研究機構把目前或近期使用雌激素－黃體激素的混合口服避孕劑列為乳癌成因之一，但是最近的研究指出婦女停止服用口服避孕劑十年或以上後⁴，患上乳癌的風險會回復正常。然而乳癌風險與注射或植入避孕劑之間的關係，卻有不一致的研究結果²⁶⁻³⁰。有見荷爾蒙避孕劑與乳癌的關係頗具爭議，故此需要進一步探索兩者的關係才有結論。

受訪患者群組有少於三分之一（31.0%）曾使用荷爾蒙避孕劑，當中11.2%使用了超過五年（表1.10），而超過四分之三（79.5%）使用荷爾蒙避孕劑的患者在確診癌症時已經停止使用，停止使用的平均年期為18.4年。

表1.10 患者確診前使用荷爾蒙避孕劑的情況（人數 = 14,905）

口服避孕藥使用情況	人數	(%)
沒有服用	9,990	67.0
服用少於5年	2,234	15.0
服用了5-10年	1,164	7.8
服用超過10年	514	3.4
服用年期不詳	713	4.8
使用與否不詳	290	1.9

1.2.10 使用荷爾蒙補充劑療法

荷爾蒙補充劑治療使用含有人工合成性荷爾蒙，用以紓緩婦女收經後出現的不適。國際癌症研究機構把目前用於紓緩婦女收經後不適的雌激素－黃體激素混合劑列為乳癌成因之一⁴。受訪患者群組中，只有少數（7.5%）患者收經後曾使用荷爾蒙補充劑療法，當中2.8%使用超過五年（表1.11）。

表1.11 受訪群組中已收經的患者在確診前使用荷爾蒙補充劑的情況（人數 = 7,682）

荷爾蒙補充劑使用情況	人數	(%)
沒有服用	6,945	90.4
服用少於5年	310	4.0
服用了5-10年	171	2.2
服用超過10年	43	0.6
服用年期不詳	51	0.7
使用與否不詳	162	2.1

1.2.11 患者十大高危因素

一些國際癌症研究機構列出很多與乳癌有關的高危因素。本章中，香港乳癌資料庫研究各種乳癌的高危因素，目的是了解這些高危因素在本港受訪患者群組中的情況及常見程度。從受訪患者群組中觀察到十大最常見高危因素列於表1.12。77.7%患者報告她們缺乏運動，是最常見的高危因素，其次是從未餵哺母乳（65.8%）以及超重/肥胖（38.6%）（表1.12）。多項高危因素累積會增加罹患乳癌的風險，三分之一（33.5%）患者有四種或以上於表1.12所載列的高危因素。值得注意的是有小部分（2.6%）的患者並沒有任何常見的高危因素（圖1.8）。

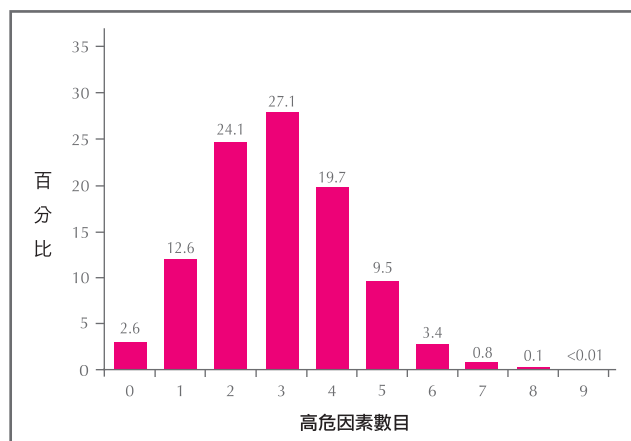


圖1.8 受訪群組確診前擁有的乳癌高危因素數目
(人數 = 14,905)

表1.12 受訪群組罹患乳癌十大高危因素 (人數 = 14,905)

高危因素	人數	(%)
缺乏運動 (每周少於3小時)	11,588	77.7
從未餵哺母乳	9,813	65.8
超重 / 肥胖	5,758	38.6
高度精神壓力 (超過一半時間)	5,527	37.1
沒有生育 / 35歲後首次生育	3,899	26.2
飲食含豐富肉類/乳類製品	2,155	14.5
有家族乳癌病史	2,115	14.2
提早初經 (<12歲)	1,878	12.6
飲酒	729	4.9
曾使用荷爾蒙補充劑治療	575	3.9

1.3 乳房檢查習慣

乳房檢查是指在婦女沒有任何乳癌跡象或徵狀時檢查乳房，以達到及早發現乳癌的目的。及早發現可以減低乳癌的死亡率。檢測乳癌有三種方法，包括自我檢查、臨床乳房檢查、乳房X光造影檢查。婦女可自己進行自我檢查，檢查乳房是否有硬塊，觀察乳房大小和形狀上的變化，還有乳房和腋下的其他任何變化。臨床乳房檢查需要由醫生或護士等專業醫護人員進行，透過雙手觸檢來檢查有沒有硬塊或其他變化。乳房X光造影檢查是目前乳房檢查的標準測試，使用低能量X光來檢查婦女的乳房。

香港乳癌基金會建議40歲以上的婦女需提高乳房健康的自覺性，每月自我檢查乳房，並接受定期的臨床乳房檢查和乳房X光造影檢查。對於乳房高密度較高的婦女，除了乳房X光造影檢查之外，也可能需要接受乳房超聲波檢查。香港現時並沒有為婦女推行全民乳房篩檢計劃，我們這裡所報告的都是婦女在確診癌症前的自發性乳房檢查習慣。



表1.13顯示了受訪患者群組的年齡與乳房檢查習慣。不論年齡組別，少於四分之一患者定期進行自我乳房檢查、乳房X光造影檢查和/或乳房超聲波檢查。60歲以下患者當中，大約40%有定期接受臨床乳房檢查，不過，60-69歲及70歲或以上的患者的比例則分別下降到

25.3%及10.1%（表1.13）。除了40歲以下的患者外，從沒有接受自我乳房檢查、臨床乳房檢查和超聲波乳房檢查的比例與年齡成正比。超過60%的40歲或以上的患者在確診乳癌前從沒接受過乳房X光造影檢查（表1.13）。

表1.13 按年齡組別分析檢查乳房的習慣

乳房檢查方式	年齡組別（年），人數（%）				
	< 40	40-49	50-59	60-69	70+
自我檢查					
從不	579 (36.6)	1,791 (35.3)	1,855 (38.9)	1,054 (44.1)	553 (58.9)
不定期	682 (43.1)	2,078 (41.0)	1,810 (38.0)	847 (35.4)	253 (26.9)
每月	300 (19.0)	1,135 (22.4)	1,020 (21.4)	461 (19.3)	119 (12.7)
資料不詳	22 (1.4)	65 (1.3)	79 (1.7)	29 (1.2)	14 (1.5)
臨床乳房檢查					
從不	779 (49.2)	2,065 (40.7)	2,133 (44.8)	1,409 (58.9)	738 (78.6)
不定期	220 (13.9)	706 (13.9)	696 (14.6)	330 (13.8)	84 (8.9)
定期*	564 (35.6)	2,233 (44.1)	1,862 (39.1)	606 (25.3)	95 (10.1)
資料不詳	20 (1.3)	65 (1.3)	73 (1.5)	46 (1.9)	22 (2.3)
乳房X光造影檢查[#]					
從不		3,469 (68.4)	3,027 (63.5)	1,643 (68.7)	798 (85.0)
不定期		550 (10.9)	576 (12.1)	284 (11.9)	66 (7.0)
定期*		978 (19.3)	1,080 (22.7)	422 (17.6)	51 (5.4)
資料不詳		72 (1.4)	81 (1.7)	42 (1.8)	24 (2.6)
乳房超聲波檢查[#]					
從不		3,431 (67.7)	3,314 (69.6)	1,830 (76.5)	818 (87.1)
不定期		532 (10.5)	494 (10.4)	212 (8.9)	53 (5.6)
定期*		975 (19.2)	826 (17.3)	275 (11.5)	42 (4.5)
資料不詳		131 (2.6)	130 (2.7)	74 (3.1)	26 (2.8)

*「定期」的定義為每隔1-3年檢查一次

[#] 只包括40歲或以上患者

表1.14顯示了受訪患者群組的教育程度與乳房檢查習慣，結果發現在確診乳癌前，教育程度愈低的患者群組，愈少有乳房檢查的習慣。64.1%沒受過教育或幼稚園教育程度的患者從未進行過自我乳房檢查，相比只有27.5%大專或以上的患者明顯較多。至於臨床乳房檢

查、乳房X光造影檢查和乳房超聲波檢查也有同樣的情況，沒有接受過臨床乳房檢查的患者，隨著教育程度愈高而下降，由75.2%降至31.0%，沒有接受乳房X光造影檢查由86.5%降至50.1%，而沒有接受乳房超聲波檢查則由88.5%降至52.9%。

表1.14 按教育程度分析檢查乳房的習慣

乳房檢查方式	沒受過教育 / 幼稚園	教育程度，人數 (%)			
		小學	中學	大專或以上	
自我乳房檢查					
從不	486 (64.1)	1,746 (48.0)	2,813 (37.9)	812 (27.5)	
不定期	177 (23.4)	1,152 (31.7)	2,838 (38.2)	1,507 (51.0)	
每月	87 (11.5)	698 (19.2)	1,688 (22.7)	576 (19.5)	
資料不詳	8 (1.1)	38 (1.0)	90 (1.2)	59 (2.0)	
臨床乳房檢查					
從不	570 (75.2)	2,244 (61.8)	3,416 (46.0)	915 (31.0)	
不定期	74 (9.8)	420 (11.6)	1,013 (13.6)	536 (18.1)	
定期*	105 (13.9)	934 (25.7)	2,885 (38.8)	1,451 (49.1)	
資料不詳	9 (1.2)	36 (1.0)	115 (1.5)	52 (1.8)	
乳房X光造影檢查 #					
從不	633 (86.5)	2,726 (76.8)	4,397 (67.2)	1,117 (50.1)	
不定期	40 (5.5)	326 (9.2)	719 (11.0)	379 (17.0)	
定期*	52 (7.1)	458 (12.9)	1,309 (20.0)	695 (31.2)	
資料不詳	7 (1.0)	40 (1.1)	117 (1.8)	38 (1.7)	
乳房超聲波檢查 #					
從不	648 (88.5)	2,869 (80.8)	4,633 (70.8)	1,179 (52.9)	
不定期	26 (3.6)	254 (7.2)	637 (9.7)	360 (16.2)	
定期*	49 (6.7)	354 (10.0)	1,107 (16.9)	598 (26.8)	
資料不詳	9 (1.2)	73 (2.1)	165 (2.5)	92 (4.1)	

* 「定期」的定義為每隔1-3年檢查一次

只包括40歲或以上患者



表1.15顯示了受訪患者群組的每月家庭收入與乳房檢查習慣，結果發現在確診乳癌之前，每月家庭收入愈低的患者群組，愈少有乳房檢查的習慣。44.2%每月家庭收入為少於港幣10,000的患者從未進行過自我乳房檢查，相比21.9%每月家庭收入為港幣60,000以上的患者明

顯較多。至於臨床乳房檢查、乳房X光造影檢查和乳房超聲波檢查也有同樣的情況，沒有接受過臨床乳房檢查的患者，隨著每月家庭收入愈高而下降，由58.7%降至19.3%，沒有接受乳房X光造影檢查由75.2%降至39.8%，而沒有接受乳房超聲波檢查則由79.9%降至44.7%。

表1.15 按每月家庭收入分析檢查乳房的習慣

乳房檢查方式	每月家庭收入（港幣），人數（%）			
	<10,000	10,000 — 29,999	30,000 — 59,999	≥60,000
自我乳房檢查				
從不	715 (44.2)	1,391 (36.4)	577 (29.7)	239 (21.9)
不定期	585 (36.2)	1,561 (40.9)	935 (48.2)	613 (56.1)
每月	291 (18.0)	823 (21.6)	402 (20.7)	217 (19.9)
資料不詳	25 (1.5)	43 (1.1)	26 (1.3)	23 (2.1)
臨床乳房檢查				
從不	949 (58.7)	1,633 (42.8)	596 (30.7)	211 (19.3)
不定期	218 (13.5)	564 (14.8)	330 (17.0)	202 (18.5)
定期*	426 (26.4)	1,582 (41.4)	986 (50.8)	652 (59.7)
資料不詳	23 (1.4)	39 (1.0)	28 (1.4)	27 (2.5)
乳房X光造影檢查 #				
從不	1,118 (75.2)	2,226 (67.7)	806 (52.7)	361 (39.8)
不定期	138 (9.3)	395 (12.0)	251 (16.4)	170 (18.7)
定期*	208 (14.0)	621 (18.9)	450 (29.4)	360 (39.7)
資料不詳	23 (1.5)	46 (1.4)	23 (1.5)	16 (1.8)
乳房超聲波檢查 #				
從不	1,188 (79.9)	2,333 (71.0)	867 (56.7)	405 (44.7)
不定期	116 (7.8)	348 (10.6)	223 (14.6)	170 (18.7)
定期*	148 (10.0)	527 (16.0)	400 (26.1)	288 (31.8)
資料不詳	35 (2.4)	80 (2.4)	40 (2.6)	44 (4.9)

*「定期」的定義為每隔1-3年檢查一次

只包括40歲或以上患者

受訪群組的乳房檢查習慣也根據患者的居住地區出現差異，結果載列於表1.16。受訪患者群組中，與居住在香港島的患者相比，較多居住在九龍或新界的患者是從沒有接受過任何乳房檢查（包括自我乳房檢查、臨床乳房

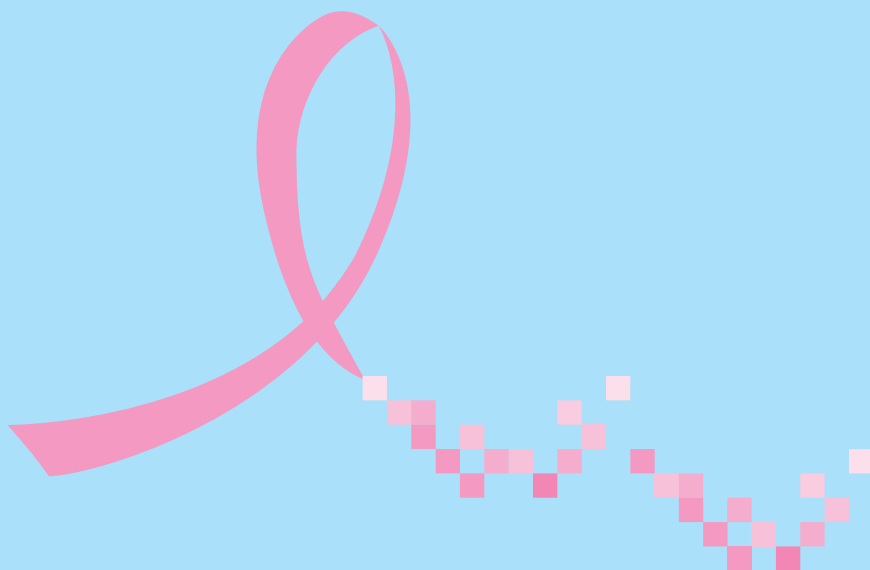
檢查、乳房X光造影檢查和乳房超聲波檢查）。與居住在九龍和新界的患者相比，較多居住在香港島的患者有定期接受由醫療機構協助的乳房檢查（例如臨床乳房檢查，乳房X光造影檢查和乳房超聲波檢查）（表1.16）。

表1.16 按居住地區分析檢查乳房的習慣

乳房檢查方式	居住地區，人數 (%)					
	香港島		九龍		新界	
自我乳房檢查						
從不	638	(31.2)	1,439	(42.5)	3,593	(40.4)
不定期	946	(46.2)	1,220	(36.1)	3,340	(37.5)
每月	406	(19.8)	666	(19.7)	1,884	(21.2)
資料不詳	56	(2.7)	58	(1.7)	79	(0.9)
臨床乳房檢查						
從不	672	(32.8)	1,814	(53.6)	4,462	(50.2)
不定期	346	(16.9)	431	(12.7)	1,203	(13.5)
定期*	962	(47.0)	1,074	(31.7)	3,147	(35.4)
資料不詳	66	(3.2)	64	(1.9)	84	(0.9)
乳房X光造影檢查 #						
從不	916	(50.9)	2,117	(70.5)	5,626	(71.3)
不定期	299	(16.6)	303	(10.1)	828	(10.5)
定期*	529	(29.4)	529	(17.6)	1,346	(17.1)
資料不詳	57	(3.2)	52	(1.7)	88	(1.1)
乳房超聲波檢查 #						
從不	1,007	(55.9)	2,235	(74.5)	5,863	(74.3)
不定期	264	(14.7)	273	(9.1)	710	(9.0)
定期*	415	(23.0)	410	(13.7)	1,186	(15.0)
資料不詳	115	(6.4)	83	(2.8)	129	(1.6)

* 「定期」的定義為每隔1-3年檢查一次

只包括40歲或以上患者



第二章 香港乳癌病況、治療趨勢 及臨床結果



第二章 香港乳癌病況、治療趨勢及臨床結果

本章審視共收集到的14,990個乳癌個案的臨床表現、癌症特性及治療方法。透過分析乳癌的臨床管理和辨別本

地的疾病及治療趨勢，相信這些資料有助於發展和提高對香港乳癌患者的治療水平。

主要分析結果

臨床表現

- ▶ 自己無意中發現是受訪群組中最主要發現乳癌的方式 (83.2%)。相比III期或IV期患者 (分別有3.0%及2.1%)，較多0期或I期的患者 (分別有34.6%及13.4%) 經由乳房X光造影檢查發現。
- ▶ 大部分 (91.8%) 自己無意中發現乳癌的患者均發現她們乳房出現無痛腫塊。痛楚通常不是乳癌的症狀，在受訪群組中只有7.0%於發現乳癌時感到乳房痛楚。有部分患者 (9.0%) 感到乳頭有異樣 (例如含分泌物、內陷、泛紅、結鱗或增厚)。
- ▶ 自我發現乳癌的患者在症狀出現後，有四分之一 (25.4%) 的患者在出現症狀後三個月或以上才首次求醫。
- ▶ 受訪患者大部分 (91.7%) 患有單側乳癌，而有370名患者在首次確診時患有雙側乳癌。有340名患者於首次確診時患有單側乳癌，之後發現另一邊乳房相繼出現乳癌。
- ▶ 受訪患有入侵性乳癌的患者中，約半數 (45.3%) 患者沒有接受癌症期數檢定為治療的程序之一。在接受過期數檢定為治療程序之一的患者之中，最常用的方法是正電子掃描 (46.0%) 及胸部X光加超聲波腹部掃描 (44.0%)。

- ▶ 受訪群組最常見的確診期數是II期 (37.3%)。大約16.4%被診斷為III至IV期，而12.0%被診斷為原位乳癌。

癌症特徵

- ▶ 受訪群組中，入侵性乳癌的平均大小為2.2厘米 (標準偏差： ± 1.5 厘米)。47.2%患者的腫瘤大小在2厘米或以上，經檢查發現的腫瘤大小遠遠小於自己無意中發現的腫瘤 (平均大小：1.5厘米比2.5厘米； $p < 0.001$)。59.3%的入侵性乳癌患者沒有陽性淋巴結。最常見的入侵性乳癌種類是乳腺管癌 (沒指定類別) (86.2%)。入侵性乳癌中，80.2%的雌激素受體或黃體素受體呈陽性，21.1%第二型人類上皮生長因子受體 (c-erbB2/HER2) 呈陽性，11.6%是屬於三陰性。
- ▶ 受訪群組中，原位乳癌的平均大小是2.0厘米 (標準偏差： ± 1.6 厘米)，35.3%的腫瘤大於2厘米。在有接受乳房X光造影檢查的原位乳癌患者中，74.5%被偵測到有微鈣化點。乳線管癌是原位乳癌的最主要類型 (93.2%)。原位乳癌中，82.1%的雌激素受體或黃體素受體呈陽性，27.1%第二型人類上皮生長因子受體 (c-erbB2/HER2) 呈陽性。

治療方法

► 受訪的14,990名患者之中，14.7%只在私營醫療機構接受治療，49.9%只在公營醫療機構接受治療。大約三分之一（35.4%）的患者曾在公營及私營醫療機構接受治療。

► 手術治療

- 受訪患者大部分（98.0%）都接受了手術治療。51.6%在私營醫療機構接受手術，48.4%在公營醫療機構接受手術。
- 少於半數（47.7%）患有原位乳癌的患者接受了乳房切除手術，接受了乳房切除手術的患者中，只有22.1%接受了即時或稍後接受乳房重建手術。接受淋巴結手術的患者中，有84.2%只接受前哨淋巴結切片檢查，並有11.9%只進行了腋下淋巴切除手術而沒有接受前哨淋巴結切片檢查。
- 在患有入侵性乳癌的患者中，有三分之二（64.8%）接受了乳房切除手術，當中只有11.7%接受乳房重建手術。少於半數（41.3%）入侵性乳癌患者只接受前哨淋巴結切片檢查，而有41.0%只進行了腋下淋巴切除手術而沒有接受前哨淋巴結切片檢查。
- 接受乳房切除手術的患者百分比與患者確診年齡和癌症期數成正比。
- 相比臨床淋巴結狀況呈陽性的患者，較多臨床淋巴結狀況呈陰性的患者接受了前哨淋巴結切片檢查（53.6% vs. 15.5%）。
- 接受腋下淋巴切除手術的患者比例與癌症期數成正比。

► 放射性治療

- 受訪群組中有61.8%患者接受電療作為治療的一部分，當中88.1%患者在公營醫療機構接受電療，11.9%則在私營醫療機構接受電療。
- 在曾接受乳房保留手術的原位乳癌患者中，大部分（94.0%）都會隨後接受電療，只有3.3%的原位乳癌患者進行了乳房切除手術後接受電療。
- 超過84%接受乳房保留手術的入侵性乳癌患者隨後接受電療，而接受乳房切除手術的患者再接受電療的比例與癌症期數成正比，乳癌IV期患者除外。

► 化學治療

- 於患有入侵性乳癌的患者中，有三分之二（67.9%）的患者接受了化療，當中有11.2%接受手術前的前置化療。
- 86.5%患者在公營醫療機構接受化療，13.5%則在私營醫療機構接受化療。
- 在受訪群組中，除了第IV期患者外，接受化療的患者比例與癌症期數成正比。

► 內分泌治療

- 受訪患者群組有67.4%曾接受內分泌治療，當中有90.5%患者在公營醫療機構接受內分泌治療，9.5%則在私營醫療機構接受內分泌治療。
- 有11.7%的原位乳癌患者接受內分泌治療，但有超過73.0%的入侵性乳癌患者接受內分泌治療。



► 抗第二型人類上皮生長因子受體靶向治療

- 在患有第二型人類上皮生長因子受體呈陽性的入侵性乳癌患者中，58.3%接受了抗第二型人類上皮生長因子受體靶向治療，當中大部分（88.7%）患者在公營醫療機構接受治療，11.3%則在私營醫療機構接受治療。
- 使用抗第二型人類上皮生長因子受體靶向治療的百分比與癌症期數成正比。

► 綜合使用多種療法能夠有效治療乳癌。一般而言，治療數目與癌症期數成正比。

► 輔助及另類療法

- 受訪群組中，有39.3%接受了輔助及另類療法，當中有66.1%患者採用傳統的中醫中藥治療。

患者現況

- 患者的平均跟進年期為3.9年，中位數為3.4年。
- 受訪群組中有596名（4.5%）患者曾出現復發，1.3%只出現局部區域性復發，2.1%只現遠端復發，1.1%出現局部區域性復發及遠端復發。
- 最常見的局部區域性復發部位是胸壁（36.4%）和乳房（30.5%）。此外，最常見受遠端復發影響的器官是骨（55.2%），其次是肺部（46.5%）和肝臟（39.0%）。

2.1 臨床表現

受訪群組中，無意中自我發現是主要最初發現乳癌的方式（83.2%）（圖2.1）。相對而言，群組中較少患者是通過醫療機構協助的檢查方法發現癌症的，這些方法包括臨床乳房檢查、乳房X光造影檢查和乳房超聲波檢查。美國一項研究³¹發現有43%的乳癌個案都是經由乳房X光造影檢查發現的，有關比例遠高於受訪群組（10.5%）。

若以患者接受的醫療服務種類來區分最初發現乳癌的方式，受訪群組中，使用公營醫療服務或混合使用公私營醫療服務的患者，相比使用私營醫療服務的，較多是經由無意中自我檢查發現乳癌。另一方面，使用私營醫療服務的患者，相比使用公營或混合使用公私營醫療服務的患者，則有較多是經由乳房X光造影檢查發現乳癌（表2.1）。

研究發現當患者或醫療人員都觀察不到任何乳癌跡象或症狀時，乳房X光造影檢查能有效檢測早期乳癌³²。受訪群組中，經由乳房X光造影檢查發現的入侵性乳癌比例(6.9%)遠低於原位乳癌(35.2%) (表2.2)。此外，較多0期或I期的患者是經由乳房X光造影檢查發現(分別為34.6%和13.4%)，遠高於III期或IV期的患者(分別為3.0%和2.1%)。超過90%屬於IIB期，III期或IV期患者都是經由無意中發現(表2.3)。

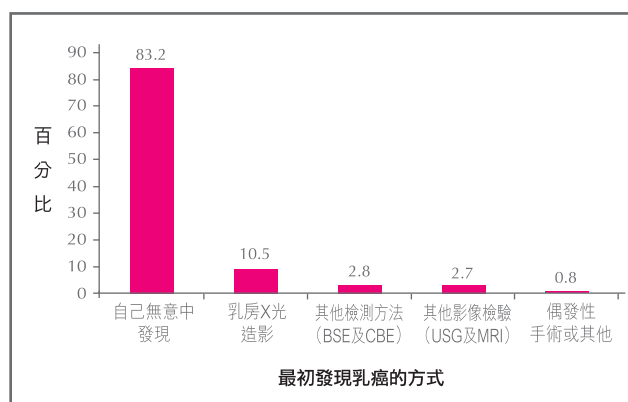


圖2.1 受訪群組最初發現乳癌的方式 (人數 = 14,161)

BSE：自我乳房檢查 CBE：臨床乳房檢查
USG：乳房超聲波檢查 MRI：磁力共振掃描

表2.1 按醫療服務種類分析最初發現乳癌的模式 (人數 = 14,028)

最初發現乳癌的方式	私營醫療服務使用者 (人數 = 2,055)		公營醫療服務使用者 (人數 = 6,988)		混合公私营醫療服務 使用者 (人數 = 4,985)	
	人數	(%)	人數	(%)	人數	(%)
自己無意中發現	1,520	(74.0)	5,868	(84.0)	4,290	(86.1)
乳房X光造影檢查	304	(14.8)	792	(11.3)	376	(7.5)
其他檢測方法 (BSE 及 CBE)	71	(3.5)	171	(2.4)	146	(2.9)
其他影像檢驗 (USG 及 MRI)	134	(6.5)	101	(1.4)	141	(2.8)
偶發性手術或其他	26	(1.3)	56	(0.8)	32	(0.6)

BSE：自我乳房檢查；CBE：臨床乳房檢查；USG：乳房超聲波檢查；MRI：磁力共振掃描



表2.2 按癌症種類分析最初發現乳癌的方式 (人數 = 14,126)

最初發現乳癌的方式	癌症種類，人數 (%)	
	原位癌 (人數 = 1,824)	入侵性乳癌 (人數 = 12,302)
自己無意中發現	1,002 (54.9)	10,753 (87.4)
乳房X光造影檢查	642 (35.2)	845 (6.9)
其他檢測方法 (BSE 及 CBE)	56 (3.1)	332 (2.7)
其他影像檢驗 (USG 及 MRI)	101 (5.5)	279 (2.3)
偶發性手術或其他	23 (1.3)	93 (0.8)

BSE：自我乳房檢查；CBE：臨床乳房檢查；USG：乳房超聲波檢查；MRI：磁力共振掃描

表2.3 按癌症期數分析最初發現乳癌的方式 (人數 = 13,725)

最初發現乳癌的方式	癌症期數，人數 (%)					
	0 期 (人數=1,695)	I 期 (人數=4,406)	IIA 期 (人數=3,497)	IIB 期 (人數=1,781)	III 期 (人數=2,011)	IV 期 (人數=335)
自己無意中發現	959 (56.6)	3,446 (78.2)	3,127 (89.4)	1,665 (93.5)	1,885 (93.7)	311 (92.8)
乳房X光造影檢查	586 (34.6)	589 (13.4)	184 (5.3)	43 (2.4)	61 (3.0)	7 (2.1)
其他檢測方法 (BSE 及 CBE)	54 (3.2)	158 (3.6)	91 (2.6)	40 (2.2)	29 (1.4)	10 (3.0)
其他影像檢驗 (USG 及 MRI)	81 (4.8)	174 (3.9)	71 (2.0)	26 (1.5)	18 (0.9)	5 (1.5)
偶發性手術或其他	15 (0.9)	39 (0.9)	24 (0.7)	7 (0.4)	18 (0.9)	2 (0.6)

BSE：自我乳房檢查；CBE：臨床乳房檢查；USG：乳房超聲波檢查；MRI：磁力共振掃描

大部分 (91.8%) 無意中自我發現癌症的患者都發現她們乳房中出現無痛腫塊。痛楚通常不是乳癌的症狀，在受訪患者群組中只有7.0%在發現癌症時感到乳房痛楚。有9.0%的患者表示乳頭有變化 (例如乳頭有分泌物、乳頭下陷、紅腫、出現鱗片狀或乳頭變厚) (圖2.2)。

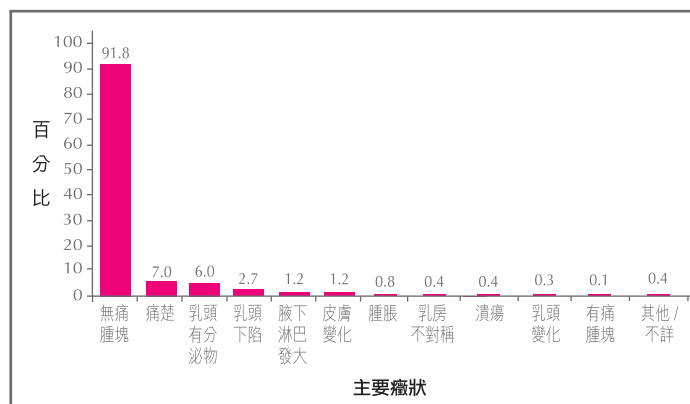


圖2.2 患者自己無意中發現乳癌的主要徵狀 (人數 = 11,781)

2.1.1 由出現症狀到首次求醫相隔的時間

延誤求醫時間越長，出現局部區域性或遠端擴散的可能性越大，更可導致較差的預後情況³³。受訪群組中，自我發現乳癌的患者在發現症狀後，只有三分之一（35.6%）的患者在出現症狀後一個月內首次求醫（表2.4），而四分之一（25.4%）的患者在出現症狀三個月或以上後才首次求醫。

受訪群組中，有42.2%的私營醫療服務使用者於出現症狀後一個月內首次求醫，比例高於公營醫療服務使用者（28.0%）（表2.5）。

表2.4 無意中發現乳癌的患者由出現症狀至首次求醫相隔的時間（人數 = 3,143）

	人數	(%)
少於一個月	1,118	(35.6)
1-3 個月	1,228	(39.1)
4-12 個月	464	(14.8)
超過12個月	333	(10.6)

表2.5 按醫療服務種類分析無意中發現乳癌的患者由出現症狀至首次求醫相隔的時間（人數 = 3,143）

	私營醫療服務使用者 (人數 = 654)		公營醫療服務使用者 (人數 = 1,419)		混合公私營醫療服務 使用者(人數 = 1,070)	
	人數	(%)	人數	(%)	人數	(%)
少於一個月	277	(42.4)	397	(28.0)	444	(41.5)
1-3 個月	241	(36.9)	562	(39.6)	425	(39.7)
4-12 個月	80	(12.2)	266	(18.7)	118	(11.0)
超過12個月	56	(8.6)	194	(13.7)	83	(7.8)



相比那些在出現症狀後12個月內求醫的患者，較多在超過12個月才求醫的患者被確診IV期癌症（表2.6）。

表2.6 無意中發現乳癌的患者出現症狀至首次求醫相隔的時間與癌症期數的關係（人數 = 2,770）

癌症期數	出現徵狀至首次求醫相隔的時間，人數（%）			
	少於1個月 （人數 = 997）	1-3個月 （人數 = 1,091）	4-12個月 （人數 = 403）	超過12個月 （人數 = 279）
I期	367 (36.8)	333 (30.5)	112 (27.8)	70 (25.1)
IIA期	336 (33.7)	359 (32.9)	122 (30.3)	66 (23.7)
IIB期	146 (14.6)	181 (16.6)	68 (16.9)	49 (17.6)
III期	135 (13.5)	185 (17.0)	85 (21.1)	61 (21.9)
IV期	13 (1.3)	33 (3.0)	16 (4.0)	33 (11.8)

2.2 癌症特徵

乳癌可以發生在一邊（單側）或兩邊（雙側）乳房。我們的患者大部分（91.7%）患有單側乳癌，而4.9%的患者（人數 = 370）在首次確診時患有雙側乳癌（圖2.3）。147名（2.0%）患者在首次確診原發性乳癌之後，在中位數2.8年（時間範圍：0.5年－8.8年）後另一邊乳房相繼出現乳癌（圖2.3）。此外，有193名患者於2006年之前首次確診乳癌，並於2006年之後發現另一邊乳房相繼出現乳癌。（本報告只包括這些患者於2006年或之後第二次確診的資料）。

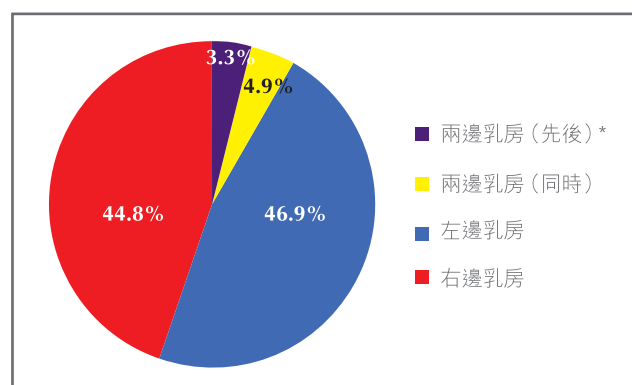


圖2.3 14,990名患者兩側乳房的發病位置

* 包括193名患者於2006年之前首次確診乳癌，並於2006年之後發現另一邊乳房相繼出現乳癌（本報告只包括這些患者於2006年或之後第二次確診的資料）。

圖2.4顯示乳癌出現部位。受訪患者群組中，大約半數乳癌出現在右或左邊乳房的上外側（分別為50.3%及47.1%）。

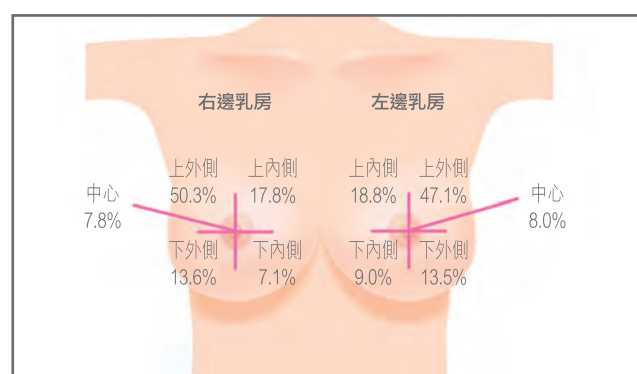


圖2.4 受訪患者患有乳癌的位置（人數 = 14,990）

* 乳癌位置包括多中心性腫瘤的數據

2.2.1 乳癌診斷測試

乳癌的診斷測試有兩種：影像檢查和活組織切片檢查。影像檢查包括診斷性乳房X光造影，乳房超聲波和磁力共振掃描。診斷性乳房X光造影是診斷乳癌的常見程序，乳房超聲波則用於分辨腫塊（可能是癌症）與充滿液體的囊腫（通常並非癌症）。乳房磁力共振掃描通常用於已經確診乳癌的婦女，檢查她們另一邊乳房是否有癌症或檢查癌症的擴散程度。

受訪群組有大約85.4%使用乳房X光造影檢查，79.7%使用乳房超聲波檢查，只有9.3%使用磁力共振掃描來診斷癌症（表2.7）。影像檢查的結果採用「乳房影像報告暨資料分析系統」（BIRADS）來分類，檢查屬於BIRAD 4級或5級的婦女會被懷疑患上癌症，醫護人員會建議她們做進一步的外科檢查，例如進行活組織切片檢查。

表2.7 乳房影像檢驗的敏感度及診斷結果（人數 = 14,990）

	乳房X光造影檢查 (人數 = 12,804)	乳房超聲波檢查 (人數 = 11,951)	磁力共振掃描 (人數 = 1,392)
患者使用率	85.4%	79.7%	9.3%
整體敏感度*	82.6%	90.7%	96.5%
BIRADS 類別			
確診 / 惡性 (BIRADS 5)	4,192 (32.7%)	4,549 (38.1%)	1,108 (79.6%)
懷疑不正常 (BIRADS 4)	6,381 (49.8%)	6,289 (52.6%)	235 (16.9%)
可能良性 (BIRADS 3)	707 (5.5%)	673 (5.6%)	23 (1.7%)
良性 (BIRADS 2)	537 (4.2%)	197 (1.6%)	11 (0.8%)
正常 (BIRADS 1)	903 (7.1%)	236 (2.0%)	14 (1.0%)
不完整 (BIRADS 0)	84 (0.7%)	7 (0.1%)	1 (0.1%)

BIRADS：乳房影像報告暨資料分析系統

* 敏感度：結果為陽性的個案數目（診斷類別屬BIRADS 4-5）除以接受檢驗的個案總數



在乳房X光造影呈現BIRADS 4或5級的患者當中，62.8%患者的檢測顯示有陰影，50.6%則出現微鈣化現象（表2.8）。乳房X光造影的乳房密度會影響乳房X光造影的敏感度，密度不均勻的乳房可能掩蔽了細小的硬塊，而密度極高的乳房則會降低乳房X光造影的敏感

度。受訪群組中三分之二（69.1%）患者有密度不均勻的異質密度乳房，而6.4%則有極高密度乳房（圖2.5）。乳房的密度會隨婦女的年齡上升而下降。乳房密度極高的患者比例，由20-29歲的12.8%下降到70歲或以上的1.0%（表2.9）。

表2.8 以乳房X光造影檢查確診的患者群組檢測結果（人數 = 10,573）

	人數	(%)
陰影	6,644	(62.8)
微鈣化點	5,355	(50.6)
乳腺結構異常	1,533	(14.5)
不對稱密度	944	(8.9)
其他	442	(4.2)

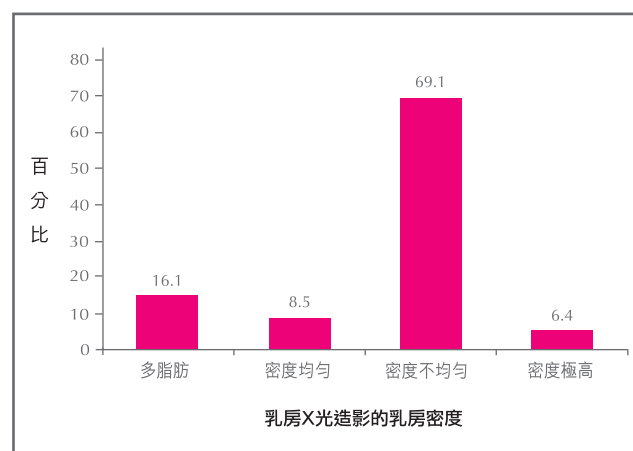


圖2.5 以乳房X光造影檢查確診的患者乳房密度（人數 = 7,661）

表2.9 按年齡組別分析以乳房X光造影檢查確診的受訪群組的乳房密度（人數=7,300）

乳房密度	年齡組別，人數 (%)					
	20-29 (人數=47)	30-39 (人數=636)	40-49 (人數=2,409)	50-59 (人數=2,457)	60-69 (人數=1,269)	70+ (人數=482)
多脂肪	3 (6.4)	41 (6.4)	214 (8.9)	396 (16.1)	310 (24.4)	187 (38.8)
密度均勻	2 (4.3)	23 (3.6)	135 (5.6)	225 (9.2)	154 (12.1)	67 (13.9)
密度不均勻	36 (76.6)	497 (78.1)	1,851 (76.8)	1,704 (69.4)	758 (59.7)	223 (46.3)
密度極高	6 (12.8)	75 (11.8)	209 (8.7)	132 (5.4)	47 (3.7)	5 (1.0)

為診斷乳癌所進行的活組織切片檢查（即抽取乳房細胞或組織樣本作化驗之用）包括幼針穿刺活組織抽取檢查、粗針活組織切片檢查及切除式切片檢查。標準醫療程序都會在手術前進行切片檢查以確定乳房病變是否惡性。幼針穿刺活組織抽取檢查和粗針活組織切片檢查是入侵性較少的取樣方法，故較常使用，相反，移除較多乳房組織的切除式切片檢查則較為少用。受訪患者群組當中，86.0%曾接受幼針穿刺活組織抽取檢

查和 / 或粗針活組織切片檢查，3,427人（26.6%）僅接受幼針穿刺活組織抽取檢查，6,543人（50.7%）僅接受粗針活組織切片檢查，2,927人（22.7%）則曾接受兩種檢查，只有11.3%患者接受切除式切片檢查。切除式切片檢查有最高的100%敏感度，其次是粗針活組織切片檢查（98.8%）及幼針穿刺活組織抽取檢查（91.7%）（表2.10）。

表2.10 乳房活組織切片檢查的敏感度及診斷結果（人數 = 14,990）

	幼針穿刺活組織 抽取檢查 (人數=6,196)	粗針活組織 切片檢查 (人數=9,405)	切除式 切片檢查 (人數=1,688)
患者使用率比例	41.3%	62.8%	11.3%
整體敏感度*	91.7%	98.8%	100.0%
等級			
確診 / 惡性 (等級V)	3,925 (63.3%)	8,976 (95.4%)	1,688 (100.0%)
懷疑不正常 (等級IV)	1,009 (16.3%)	154 (1.6%)	—
可能良性 (等級III)	747 (12.1%)	163 (1.7%)	—
良性 (等級II)	264 (4.3%)	81 (0.9%)	—
正常 (等級I)	251 (4.1%)	31 (0.3%)	—
不完整 (等級0)	0 (0.0%)	0 (0.0%)	—

* 敏感度：結果為陽性的個案數目（診斷等級屬III-V）除以接受檢查的個案總數



2.2.2 確定乳癌期數的方法

癌症期數檢定是在確診乳癌後，進行手術前找出癌症擴散程度的程序。臨床淋巴結呈陽性或患有局部晚期乳癌的患者常接受癌症期數檢定。只有接受胸部X光掃描會歸納為沒有足夠的癌症期數檢定，及沒有計算在這部份內。患有入侵性乳癌的受訪患者中，接近半數（45.3%）沒有接受癌症期數檢定為治療的程序之一。在接受過期數檢定為治療程序之一的患者之中，最常

用的方法是正電子掃描（46.0%），而44.0%患者有接受胸部X光及超聲波腹部掃描（表2.11）。美國國家綜合癌症網絡於2010年發佈的臨床指引不建議初期乳癌患者（包括I期、II期或可動手術的III期乳癌）使用正電子掃描來斷定癌症的擴散程度³⁴。不過，在受訪群組中，卻有18.4%的I期和36.4%的IIA期患者曾接受正電子掃描來斷定她們的癌症期數（表2.12）。

表2.11 6,178名入侵性乳癌患者檢定乳癌期數的方法

乳癌期數檢定方法	人數	(%)
正電子掃描	2,844	(46.0)
胸部X光及超聲波腹部掃描	2,716	(44.0)
電腦掃描（不同身體部位）*	374	(6.1)
骨骼掃描	202	(3.3)
磁力共振掃描（整個身體）	81	(1.3)
其他（如：骨骼X光掃描）	25	(0.4)
不詳	898	(14.5)

*身體部位包括腹部、胸腔、盆骨、腦部或整個身體

表2.12 不同期數患者使用正電子掃描作確定乳癌期數的方法的比例（人數 = 8,908）

	癌症期數，人數 (%)						總數
	I期	IIA期	IIB期	III期	IV期	未能分期	
使用正電子掃描的患者	304 (18.4%)	545 (36.4%)	507 (51.3%)	1,025 (68.5%)	288 (87.3%)	175 (82.2%)	2,844 (46.0%)

根據美國癌症聯合委員會有關乳癌的《癌症期數》（第七版）³⁵，受訪群組中，最常見的確診期數是II期（37.3%）。大約16.4%被診斷為III至IV期，而12.0%被診斷為原位乳癌（圖2.6）。

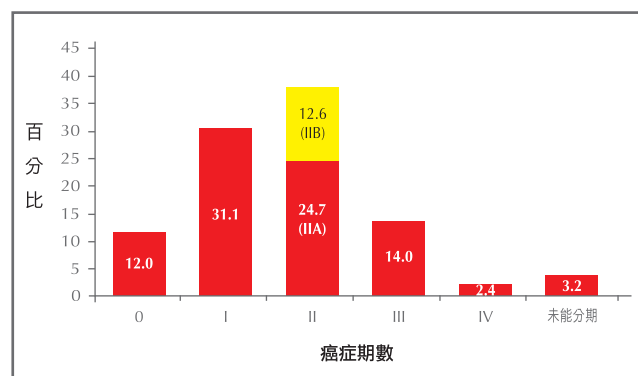


圖 2.6 受訪群組確診時的癌症期數（人數 = 14,990）

在我們分析的14,990宗乳癌病例中，13,855宗具有可用的病理學數據，用作分析以下癌症特徵。11,916名病人（86.0%）患有入侵性癌症，1,929名病人（13.9%）患有原位癌。10宗病例（0.1%）被確診為隱匿性原發乳癌。

2.2.3 入侵性乳癌的特徵

受訪群組當中，入侵性乳癌的平均大小為2.2厘米（範圍：0.01–23.0厘米；標準偏差： ± 1.5 厘米）。15.9%患者的腫瘤大小屬於1厘米或以下，而屬於2-5厘米的則有43.0%（圖2.7）。經乳房X光造影檢查發現的腫瘤大小遠遠小於無意中自我發現的腫瘤（平均大小： 1.5 ± 1.2 厘米比 2.5 ± 1.8 厘米； p 值 <0.001 ）。

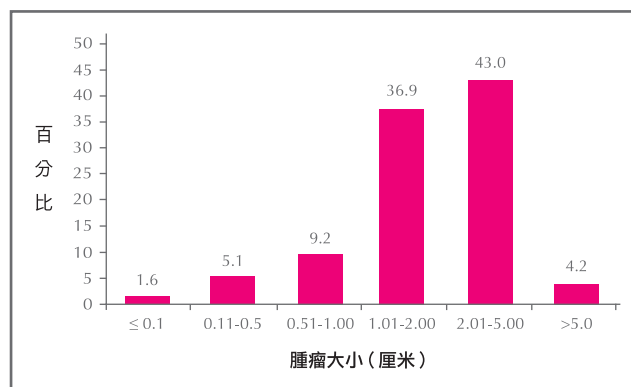


圖2.7 入侵性乳癌個案的腫瘤大小（厘米）分佈（人數 = 11,254）

淋巴結有否受癌細胞影響是決定乳癌期數的一個因素。患者受影響的淋巴結越多，癌症期數就越高。受訪罹患入侵性乳癌的患者當中，59.3%沒有陽性淋巴結，1.7%患者的淋巴結有零星癌細胞，3.4%有微轉移（轉移範圍 >0.2 毫米到 ≤ 2 毫米），而35.5%則有至少一個陽性淋巴結（轉移範圍大於2毫米）（圖2.8）。

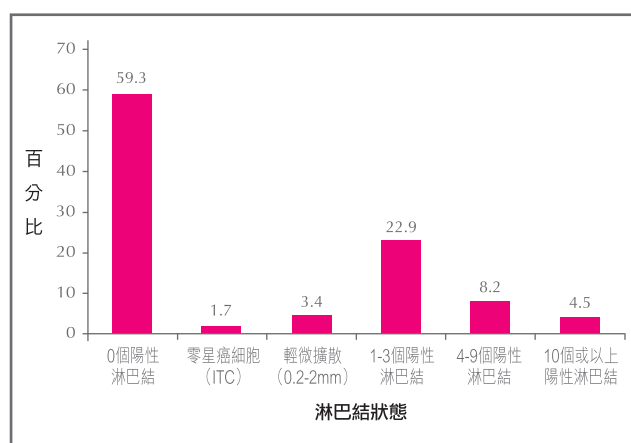


圖2.8 入侵性乳癌個案的淋巴結狀態（人數 = 11,591）



2.2.4 原位乳癌特徵

受訪群組中，原位乳癌的平均大小是2.0厘米（範圍：0.02–10.0厘米；標準偏差： ± 1.6 厘米）。35.0%患者的腫瘤屬於1厘米或以下；30.7%的腫瘤大小在2-5厘米之間（圖2.9）。只有少部分患者（4.6%）的原位乳癌大於5.0厘米。在有接受乳房X光造影檢查的原位乳癌個案裡，有74.5%在檢查中顯示有微鈣化點。

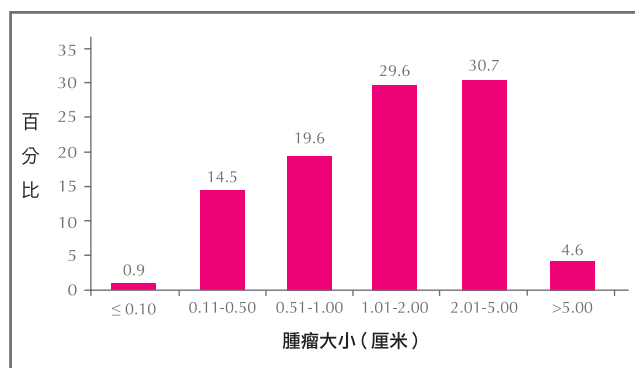


圖2.9 原位乳癌個案的腫瘤大小（厘米）分佈
（人數 = 1,624）

2.3 組織學及生物學特徵

乳癌包含多種不同的病理學亞型的腫瘤，在顯微鏡下有著不同的外觀。乳癌的組織學為患者的預後情況提供了有價值的資料。它與其他數據，包括腫瘤大小、級別、淋巴結狀況、荷爾蒙受體狀況和第二型人類上皮生長因子受體的狀況，可以幫助預測復發的可能性及對治療的反應。

2.3.1 入侵性乳癌

表2.13顯示受訪群組中的入侵性乳癌的組織學特性、級別、多灶性及多中心性。最常見的組織學種類是入侵性乳腺管癌（沒指定類別）（86.2%）。

表2.13 入侵性乳癌的組織學分類、級別、腫瘤的多灶性及多中心性（人數 = 11,916）

組織學類別	人數	(%)	級別	人數	(%)
入侵性乳腺管癌（沒指定類別）	10,272	(86.2)	第1級	2,080	(17.5)
乳小葉癌	438	(3.7)	第2級	4,949	(41.1)
黏液性癌（膠態）	422	(3.5)	第3級	3,890	(32.6)
乳突狀癌	124	(1.0)	資料不詳	997	(8.4)
管狀癌	89	(0.7)	淋巴管入侵	3,365	(28.2)
髓狀癌	72	(0.6)	腫瘤多灶性	1,164	(9.8)
乳腺管及乳小葉混合型	50	(0.4)	腫瘤病灶數目		
臨界性 / 惡性葉狀莖瘤	47	(0.4)	2	619	(53.2)
微小乳突狀癌	47	(0.4)	3-4	198	(17.0)
化生癌	44	(0.4)	≥5	119	(10.2)
神經內分泌癌	24	(0.2)	資料不詳	228	(19.6)
大汗腺癌	16	(0.1)	腫瘤多中心性	348	(2.9)
腺樣囊狀癌	15	(0.1)	涉及乳房範圍		
管狀小葉癌	6	(0.1)	2	299	(85.9)
乳頭柏哲氏病	5	(<0.01)	3	18	(5.2)
篩狀癌	4	(<0.01)	4	13	(3.7)
鱗狀細胞癌	3	(<0.01)	資料不詳	18	(5.2)
炎性癌	2	(<0.01)			
乳腺分泌癌	2	(<0.01)			
脂性癌	1	(<0.01)			
肉瘤	1	(<0.01)			
其他	79	(0.7)			
資料不詳	153	(1.3)			

表2.14顯示受訪群組中入侵性乳癌的生物學特徵。罹患入侵性乳癌的患者而又曾經接受雌激素或黃體素受體的狀況測試的，超過四分之三（80.2%）的雌激素受體或黃體素受體呈陽性。癌細胞中的第二型人類上皮生長因子受體基因有過度表現與某些類型的乳癌有關。免疫組織化學染色法（IHC）呈3分的患者屬於第二型人類上皮生長因子受體呈陽性，0分或1分則為陰性。IHC呈2分的患者會再接受原位雜合技術（ISH）的測試，ISH測試呈陽性的，也屬於第二型人類上皮生長因子受體呈陽性。受訪群組中，2,424患者（21.1%）的入侵性乳癌的第二型人類上皮生長因子受體（c-erbB2 / HER2）呈陽性。



表2.14 入侵性乳癌的生物學特性 (人數 = 11,916)

	人數	(%)
雌激素受體 (ER) (97.2%患者接受測試)		
呈陽性	9,092	(78.5)
呈陰性	2,494	(21.5)
黃體素受體 (PR) (97.0%患者接受測試)		
呈陽性	7,673	(66.4)
呈陰性	3,890	(33.6)
第二型人類上皮生長因子受體 (96.6%患者接受測試)		
呈陽性 (IHC 3分)	2,183	(19.0)
呈輕微陽性 (IHC 2分) ISH 測試呈陽性	241	(2.1)
呈輕微陽性 (IHC 2分) ISH 測試呈輕微陽性	82	(0.7)
呈輕微陽性 (IHC 2分) ISH 測試呈性陰性	1,939	(16.8)
呈輕微陽性 (IHC 2分) 沒有接受ISH測試	1,442	(12.5)
呈陰性 (IHC 0 / 1分)	5,624	(48.9)
Ki-67指數 (54.3%患者接受測試)		
<14%	2,594	(40.1)
≥14%	3,882	(59.9)

IHC：免疫組織化學染色法

ISH：原位雜合技術

乳癌並非單一疾病，我們可以用免疫組織化學染色法去測試在表2.14所列明的生物學指標，而將乳癌分為不同生物學亞型³⁶。綜合檢視這些生物學標記而非個別衡

量，可以進一步評估患者預後和預測的資料。生物學亞型的定義及以癌症期數分析我們患者群組的生物學亞型的資料詳見表2.15。

表2.15 以癌症期數分析入侵性腫瘤的生物學亞型（人數 = 11,319）

生物學亞型	癌症期數，人數 (%)					總數
	I	IIA	IIB	III	IV	
管腔A型*	1,202 (27.0)	596 (17.2)	269 (16.3)	198 (13.2)	31 (12.3)	2,296 (20.3)
管腔B型（第二型人類上皮生長因子受體呈陰性）#	726 (16.3)	709 (20.5)	351 (21.3)	346 (23.0)	42 (16.7)	2,174 (19.2)
管腔A/B型（第二型人類上皮生長因子受體呈陰性）◇	1,252 (28.1)	915 (26.4)	486 (29.5)	417 (27.8)	81 (32.1)	3,151 (27.8)
管腔B型（第二型人類上皮生長因子受體呈陽性）^	504 (11.3)	439 (12.7)	216 (13.1)	245 (16.3)	48 (19.0)	1,452 (12.8)
第二型人類上皮生長因子受體呈陽性※	335 (7.5)	298 (8.6)	130 (7.9)	151 (10.1)	23 (9.1)	937 (8.3)
三陰性 §	438 (9.8)	504 (14.6)	195 (11.8)	145 (9.7)	27 (10.7)	1,309 (11.6)
總和	4,457 (39.4)	3,461 (30.6)	1,647 (14.6)	1,502 (13.3)	252 (2.2)	11,319 (100.0)

* 管腔A型：ER和/及PR+、HER2-及Ki-67指數低 (<14%)

管腔B型（第二型人類上皮生長因子受體呈陰性）：ER和/及PR+、HER2-及Ki-67指數高 (≥14%)

◇ 管腔A/B型（第二型人類上皮生長因子受體呈陰性）：ER和/及PR+、HER2-及Ki67指數不詳

^ 管腔B型（第二型人類上皮生長因子受體呈陽性）：ER和/及PR+、HER2+及任何Ki-67指數

※ 第二型人類上皮生長因子受體呈陽性：ER及PR-、HER2+及任何Ki-67指數

§ 三陰性：ER及PR-、HER2-及任何Ki-67指數



2.3.2 原位乳癌

表2.16顯示受訪群組的原位乳癌的組織學特性、級別、多灶性和多中心性。乳腺管癌是原位乳癌最常見的類型(93.2%)。

表2.16 原位乳癌的組織學分類、級別、腫瘤的多灶性及多中心性(人數 = 1,929)

	人數	(%)
組織學類別		
乳腺管癌	1,802	(93.2)
混合癌	53	(2.9)
乳突狀癌	34	(1.6)
囊內乳頭狀癌	14	(0.8)
包裹性乳頭狀癌	8	(0.4)
大汗腺癌	6	(0.3)
神經內分泌癌	2	(0.1)
微小乳突狀癌	1	(0.1)
資料不詳	9	(0.5)
壞疽	673	(34.9)
核級別		
低	485	(25.1)
中度	630	(32.7)
高	721	(37.4)
資料不詳	93	(4.8)
腫瘤多灶性	235	(12.2)
腫瘤病灶數目		
2	107	(45.5)
3	21	(8.9)
4 或以上	8	(3.4)
資料不詳	99	(42.1)
多中心性	49	(2.5)
涉及乳房範圍		
2	41	(83.7)
3	3	(6.1)
資料不詳	5	(10.2)

表2.17列出受訪群組的原位乳癌的生物學特性。罹患原位乳癌的患者而又曾經接受雌激素或黃體素受體的狀況測試的，82.1%的雌激素受體或黃體素受體呈陽性。452名患者第二型人類上皮生長因子受體呈IHC 2分，當中有2個患者在ISH測試呈陽性，因此，有347名(27.1%)原位乳癌的患者第二型人類上皮生長因子受體(c-erbB2/HER2)呈陽性。

表2.17 原位乳癌的生物學特性(人數 = 1,929)

	人數	(%)
雌激素受體(ER)(73.2%患者接受測試)		
呈陽性	1,144	(81.0)
呈陰性	268	(19.0)
黃體素受體(PR)(71.9%患者接受測試)		
呈陽性	1,002	(72.3)
呈陰性	384	(27.7)
第二型人類上皮生長因子受體(66.4%患者接受測試)		
呈陽性(IHC 3分)	345	(27.0)
呈輕微陽性(IHC 2分)	452	(35.3)
呈陰性(IHC 0/1分)	483	(37.7)
Ki-67指數(40.9%患者接受測試)		
< 14%	517	(65.6)
≥ 14%	271	(34.4)

IHC：免疫組織化學染色法

2.4 治療方法

受訪14,990名患者之中，14.7%只在私營醫療機構接受治療，49.9%只在公營醫療機構接受治療。大約三分之一（35.4%）的患者曾在公營及私營醫療機構接受治療。患有入侵性乳癌的患者通常會接受綜合治療，包括手術治療、化學治療、抗第二型人類上皮生長因子受體靶向治療、內分泌治療，和放射性治療。然而，患有原位乳癌的患者則會需要較少入侵性的治療方案，包括手術治療、內分泌治療，和放射性治療。原位乳癌的患者普遍不需要接受化學治療和抗第二型人類上皮生長因子受體靶向治療。

2.4.1 手術治療

手術可說是治療入侵性及原位乳癌的最關鍵「元素」。隨著近年乳癌治療的發展趨向成熟，乳癌手術的創傷性逐漸降低。現時可供選擇的局部性治療包括乳房保留手術或乳房切除手術。接受乳房保留手術加上隨後的放射性治療的患者，在存活率上與只接受乳房切除手術的患者相近。進行乳房切除手術的婦女可以考慮同時或稍後接受乳房重建手術。

淋巴結手術通常與乳房手術一起進行以確定疾病的擴散程度。淋巴結手術包括前哨淋巴結切片檢查或腋下淋巴切除手術。臨床淋巴結狀況呈陰性的患者會先進行前哨淋巴結切片檢查，以斷定淋巴結是否受到癌細胞影響。這是為了預防因為大量腋下淋巴結被切除後所引發的問題，如淋巴水腫。

受訪群組當中，51.6%在私營醫療機構接受手術，48.4%在公營醫療機構接受手術。

大部分（99.3%）患有原位乳癌的患者都接受了手術治療。當中約半數（51.4%）接受了乳房保留手術，204名患者（22.1%）在乳房切除手術後接受了乳房重建手術。有三分之一（33.3%）患者沒有接受淋巴結手術。接受淋巴結手術的患者中，有84.2%只接受前哨淋巴結切片檢查，並有11.9%只進行了腋下淋巴切除手術而沒有接受前哨淋巴結切片檢查。

在患有入侵性乳癌的患者中，大部分（97.9%）接受了手術治療。有三分之二入侵性乳癌患者（64.8%）接受了乳房切除手術，只有32.9%接受了乳房保留手術。在接受乳房切除手術的患者當中，11.7%接受即時或稍後乳房重建手術，而最普遍的乳房切除手術是橫向腹直肌肌皮瓣（TRAM瓣）（70.5%）（表2.18）。接近所有入侵性乳癌患者（96.6%）接受了淋巴結手術，當中超過一半患者（57.7%）進行了腋下淋巴切除手術，而41.3%患者只進行了前哨淋巴結切片檢查。



表2.18 患者接受乳房手術的種類 (人數 = 14,948)

	入侵性乳癌患者 (人數=13,008)		原位乳癌患者 (人數=1,940)	
	人數	(%)	人數	(%)
沒有做手術	233	(1.8)	13	(0.7)
乳房保留手術	4,274	(32.9)	998	(51.4)
乳房切除手術	8,431	(64.8)	925	(47.7)
只進行淋巴結手術	11	(0.1)	0	(0.0)
手術類別不詳	24	(0.2)	4	(0.2)
有否進行手術不詳	35	(0.3)	0	(0.0)
乳房切除手術種類 (人數=9,356)				
全乳切除手術	7,942	(94.2)	797	(86.2)
保留皮膚切除手術	362	(4.3)	99	(10.7)
保留乳暈切除手術	13	(0.2)	4	(0.4)
保留乳頭切除手術	94	(1.1)	24	(2.6)
資料不詳	20	(0.2)	1	(0.1)
乳房重建手術種類 (人數=1,190)				
橫向腹直肌皮瓣 (TRAM瓣)	695	(70.5)	125	(61.3)
植入物	146	(14.8)	56	(27.5)
LD瓣	79	(8.0)	12	(5.9)
LD瓣及植入物	48	(4.9)	10	(4.9)
資料不詳	18	(1.8)	1	(0.5)
淋巴結手術 (人數=13,855)				
前哨淋巴結切片	5,186	(41.3)	1,090	(84.2)
腋下淋巴切除	5,149	(41.0)	154	(11.9)
前哨淋巴結切片及腋下淋巴切除	2,096	(16.7)	35	(2.7)
資料不詳	130	(1.0)	15	(1.2)

接受乳房切除手術的患者百分比與年齡成正比，而接受乳房切除及重建手術者的百分比則與年齡成反比（圖2.10）。

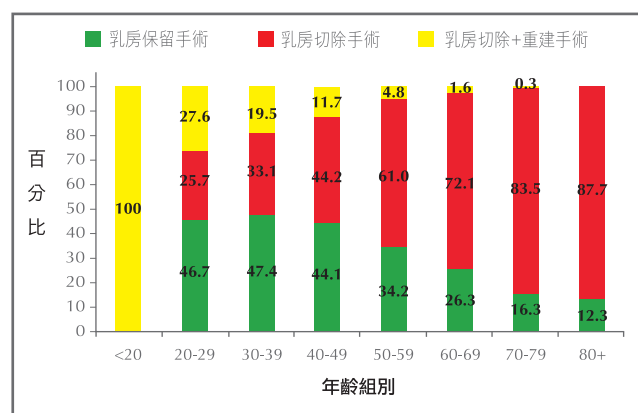


圖2.10 按年齡組別分析手術類型 (人數 = 13,703)

受訪群組之中，腫瘤大於1厘米的患者，接受乳房保留手術的百分比與腫瘤大小成反比（圖2.11）。

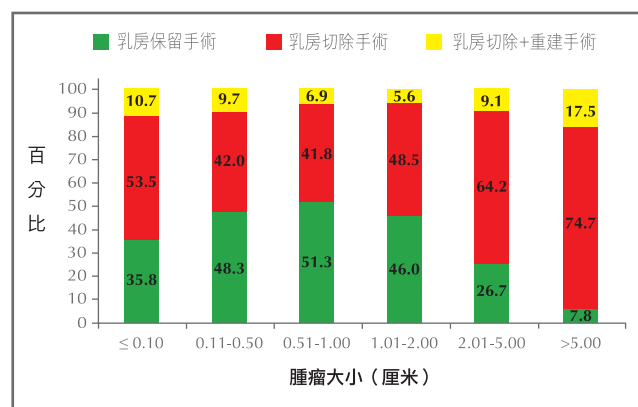


圖2.11 按腫瘤大小分析手術類型 (人數 = 13,542)

在受訪群組中，進行乳房保留手術的患者百分比與癌症期數成反比，而乳房切除及重建手術者與癌症期數並沒有顯示任何明顯關係（圖2.12）。

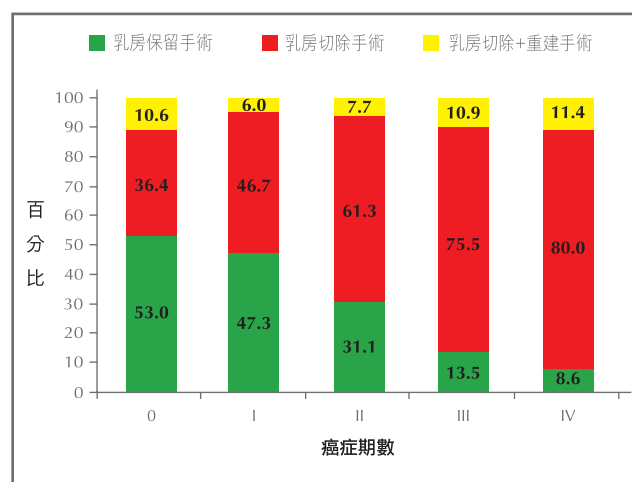


圖2.12 按癌症期數分析手術類型 (人數 = 14,280)

受訪群組中，與在公營醫療機構接受手術治療的相比，在私營醫療機構接受手術治療的患者接受乳房保留手術 (27.0%比45.1%) 較多（圖2.13）。

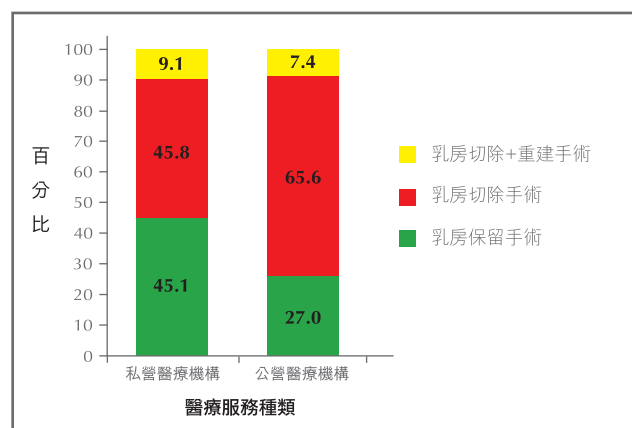


圖2.13 按患者接受治療的醫療服務種類分析手術類型 (人數 = 14,149)



圖2.14顯示群組中臨床淋巴結狀況呈陽性或陰性的患者接受的淋巴結手術的種類。相比臨床淋巴結狀況呈陽性的患者，較多臨床淋巴結狀況呈陰性的患者接受了前哨淋巴結切片檢查（53.6%比15.5%）。相反，比較臨床淋巴結狀況呈陰性的患者，較多的臨床淋巴結狀況呈陽性的患者則沒有先接受前哨淋巴結切片檢查，而直接進行腋下淋巴切除手術（71.8%比30.2%）。

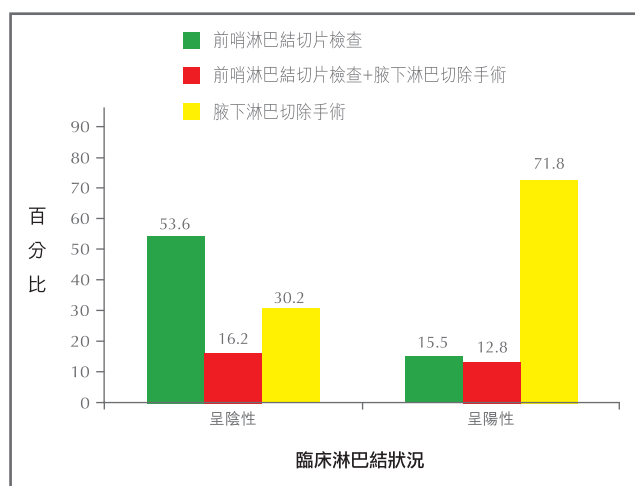


圖2.14 按臨床淋巴結狀況分析淋巴結手術的種類（人數 = 13,723）

接受腋下淋巴切除手術的患者比例與癌症期數成正比。在受訪群組中，接受前哨淋巴結切片檢查之後再需要接受腋下淋巴切除手術的患者從I期到II期有所增加；但從III期到IV期則有所減少。這個趨勢可能是因為受訪的III期或IV期患者較多接受腋下淋巴切除手術作為她們第一個淋巴結手術（圖2.15）。

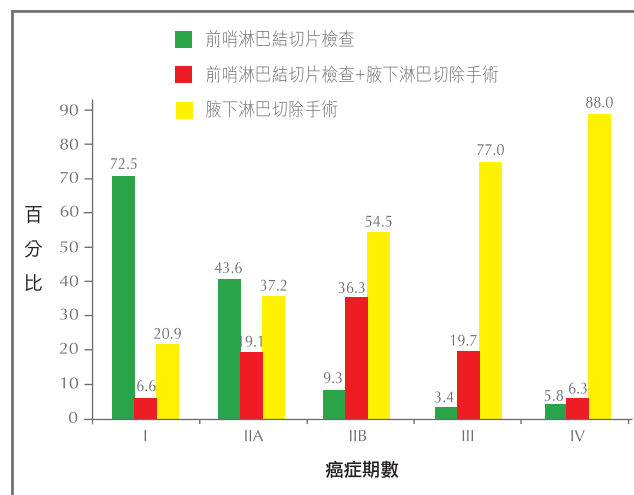


圖2.15 按癌症期數分析入侵性乳癌患者接受的淋巴結手術的種類（人數 = 12,180）

大約半數（55.4%）淋巴結呈陽性的入侵性乳癌患者有2-5厘米的腫瘤，9.5%患者的腫瘤則大於5厘米。在受訪群組中，相比淋巴結呈陽性的入侵性乳癌患者，較多淋巴結呈陰性的入侵性乳癌患者的腫瘤小於2厘米（61.7%比35.2%）（圖2.16）。

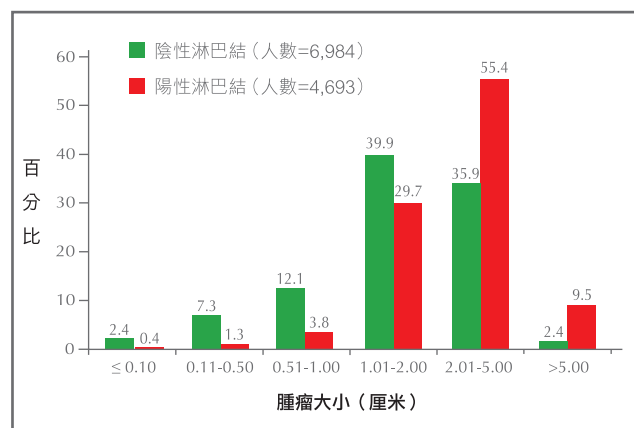


圖2.16 淋巴結呈陰性或陽性的入侵性腫瘤大小分佈（人數 = 11,677）

95.8%只接受前哨淋巴結切片檢查的患者沒有淋巴結呈陽性，而近半數（44.7%）接受了腋下淋巴切除手術的患者及16.7%接受前哨淋巴結切片檢查後再接受腋下淋巴切除手術的患者沒有淋巴結呈陽性（圖2.17）。

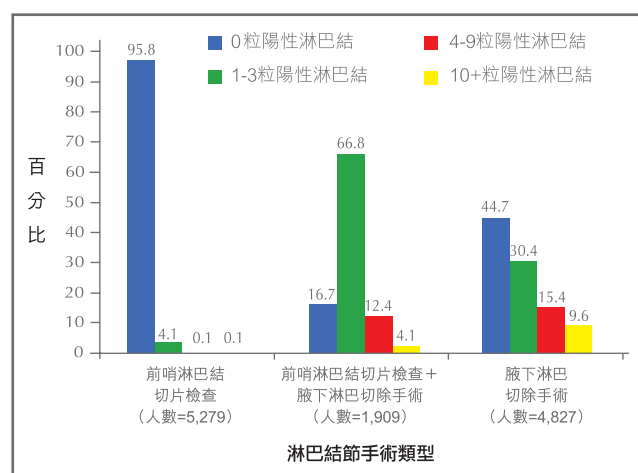


圖2.17 按淋巴結手術類型分析陽性淋巴結數目 (人數 = 13,604)

2.4.2 放射性治療

放射性治療（或稱電療）是治療乳癌的其中一種方法，透過游離輻射在細胞基因層面上破壞癌細胞，停止癌細胞繁殖。

乳房保留手術隨後接受電療是乳房保留療法的一部分，目的是希望達到與乳房切除手術一樣的預後效果。這個做法適用於所有入侵性乳癌和大部分原位癌的患者。部份接受乳房切除手術的患者，如癌腫瘤體積較大，有多粒淋巴結遭癌細胞入侵，或者於血管或淋巴管道中發現癌細胞者，都需要接受電療。

受訪群組中9,262名（61.8%）患者接受電療作為治療的一部分，當中97.9%屬於術後輔助性治療，0.2%屬於手術前的前置治療，而1.9%屬於舒緩性治療。88.1%患者在公營醫療機構接受電療，11.9%患者則在私營醫療機構接受電療。

在曾接受乳房保留手術的原位乳癌患者中，大部分（94.0%）都會隨後接受電療（圖2.18），只有3.3%的原位乳癌患者進行了乳房切除手術後接受電療（圖2.19）。

圖2.18及2.19分別顯示接受了乳房保留手術及乳房切除手術的入侵性乳癌患者在不同癌症期數接受電療的比例。超過94%接受乳房保留手術的入侵性乳癌患者隨後接受電療，而接受乳房切除手術的患者再接受電療的比例與癌症期數則成正比，乳癌IV期患者除外。

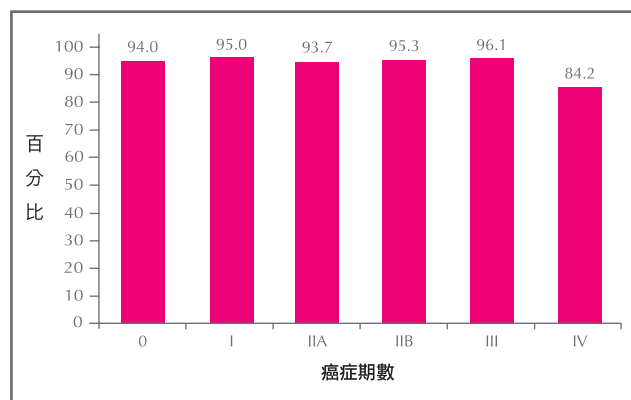


圖2.18 按不同癌症期數分析患者（已接受乳房保留手術）接受放射性治療的比率 (人數 = 5,177)

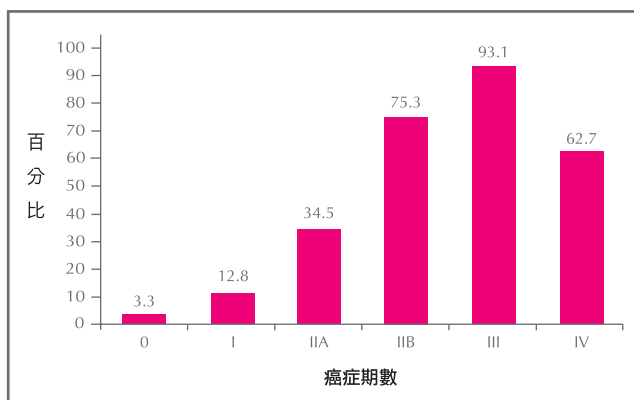


圖2.19 按不同癌症期數分析患者（已接受乳房切除手術）接受放射性治療的比率
（人數 = 9,113）

電療會在不同局部位置發出游離輻射，例如乳房 / 胸壁及 / 或周邊淋巴結。表2.19顯示按受訪患者所接受的手術種類而分析接受電療的位置。

表2.19 按接受不同手術種類的患者分析接受電療的位置（人數 = 6,067）

電療位置	總人數 # (人數 = 6,067)	乳房保留手術 (人數 = 3,116)	乳房切除手術 (人數 = 2,888)
	人數 (%)	人數 (%)	人數 (%)
乳房	2,632 (43.4)	2,611 (83.8)	0 (0.0)
乳房 + 周邊淋巴結*	540 (8.9)	505 (16.2)	0 (0.0)
胸壁	750 (12.4)	0 (0.0)	744 (25.8)
胸壁 + 周邊淋巴結*	2,145 (35.7)	0 (0.0)	2,144 (74.2)

* 周邊淋巴結：包括腋下淋巴區及 / 或內乳鏈及 / 或鎖骨上窩

總人數包括63名電療資料不詳的患者

2.4.3 化學治療

化學治療（或稱化療）是採用一種或多種細胞毒性藥物來消滅或抑制體內癌細胞增長的全身性治療。藥物干預乳癌細胞生長和分裂的方式，將其破壞。患有原位乳癌的患者普遍不用接受化療。化療可於手術前（手術前的前置化療）或手術後（術後輔助性化療或舒緩性化療）進行。

8,838名（67.9%）患有入侵性乳癌的患者接受了化療。85.2%患者接受術後輔助性化療，11.2%接受手術前的前置化療，3.6%接受舒緩性化療。86.5%患者在公營醫療機構接受化療，13.5%則在私營醫療機構接受化療。

在受訪群組中，接受化療的患者比例與癌症期數成正比（第I至第III期）。不是所有第IV期患者都接受舒緩性化療，有85.1%第IV期患者接受了舒緩性化療（圖2.20）。

表2.20顯示受訪中群組不同年齡組別和癌症期數的患者接受化療的百分比。一般而言，不論癌症期數是多少，70歲或以上患者接受化療的比例遠低於70歲以下的患者。另外，第I期，第IIA期，或IIB期患者接受化療的比例與年齡成反比。

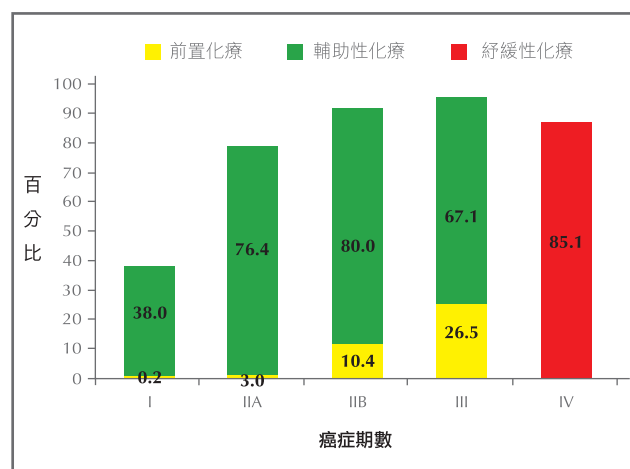


圖2.20 按癌症期數分析患者接受化療的比率
(人數 = 12,556)

表2.20 以確診年齡及癌症期數分析接受化療的比率 (人數 = 11,779)

年齡組別	接受化療的患者人數 (同年齡組別及癌症期數患者的百分比, %)					
	I期	IIA期	IIB期	III期	IV期	
20-29	21 (67.7)	23 (92.0)	18 (100.0)	14 (100.0)	3 (100.0)	
30-39	239 (58.2)	333 (91.5)	171 (99.4)	187 (98.9)	26 (92.9)	
40-49	714 (45.9)	994 (90.0)	558 (97.4)	676 (98.8)	103 (96.3)	
50-59	541 (39.9)	975 (88.4)	581 (96.8)	634 (97.7)	102 (87.9)	
60-69	170 (24.7)	420 (69.5)	266 (89.9)	302 (93.8)	34 (87.2)	
70-79	6 (2.8)	23 (11.9)	17 (18.3)	35 (40.2)	9 (42.9)	
80+	0 (0.0)	1 (2.2)	0 (0.0)	2 (12.5)	2 (33.3)	

2.4.3.1 手術前的前置化療

在8,838名曾接受化療的患者中，有986名接受了手術前的前置化療。手術前的前置化療的使用比例隨着癌症期數上升而增加，由第I期的0.2%遞增至第III期的26.5%

(圖2.20)。不同乳癌生物學亞型的患者所用的化療藥物種類可見於圖2.21。

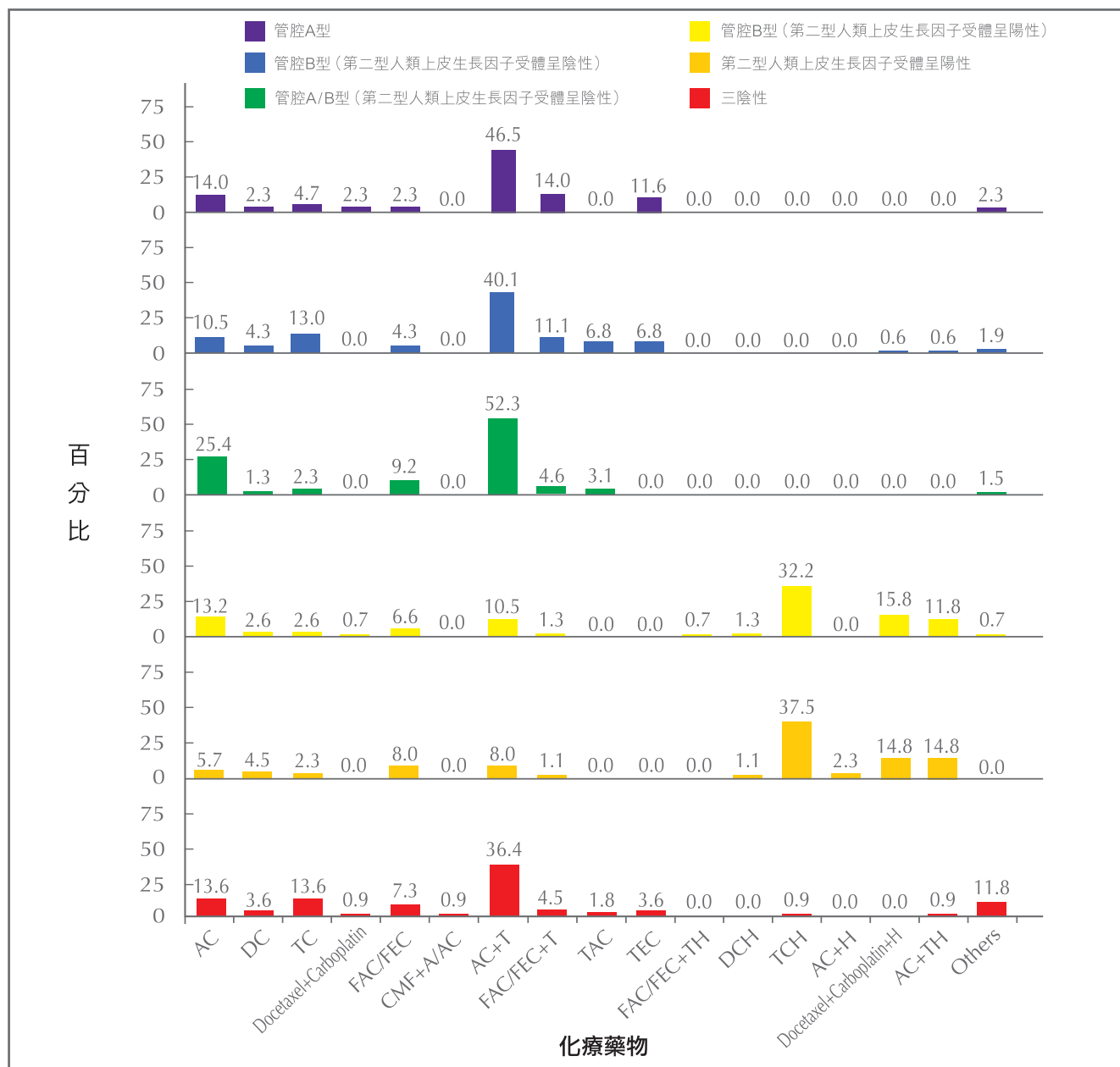


圖2.21 以乳癌生物學亞型分析患者在手術前的前置化療使用的藥物種類 (人數 = 685)

C: Cyclophosphamide;
M: Methotrexate;
F: Fluorouracil (5FU);
A: Adriamycin / Doxorubicin;

E: Epirubicin;
T: Paclitaxel / Docetaxel;
H: Trastuzumab;
DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab
TC: Paclitaxel + Carboplatin;
TCH: Paclitaxel + Carboplatin + Trastuzumab
Others: Capecitabine, Gemcitabine, or Vinorelbine

2.4.3.2 術後輔助性化療

在8,838名曾接受化療的患者中，有7,531名（85.2%）接受了術後輔助性（第I至III期患者）化療。圖2.22及2.23分別顯示在受訪群組中於不同乳癌生物學亞型及癌症期數所採用的化療藥物種類的相對百分比。

2.4.3.3 紓緩性化療

在8,838名曾接受化療的患者中，321名（3.6%）接受了紓緩性（第IV期患者）化療。圖2.24顯示在受訪群組中於不同乳癌生物學亞型所採用的化療藥物種類的相對百分比。

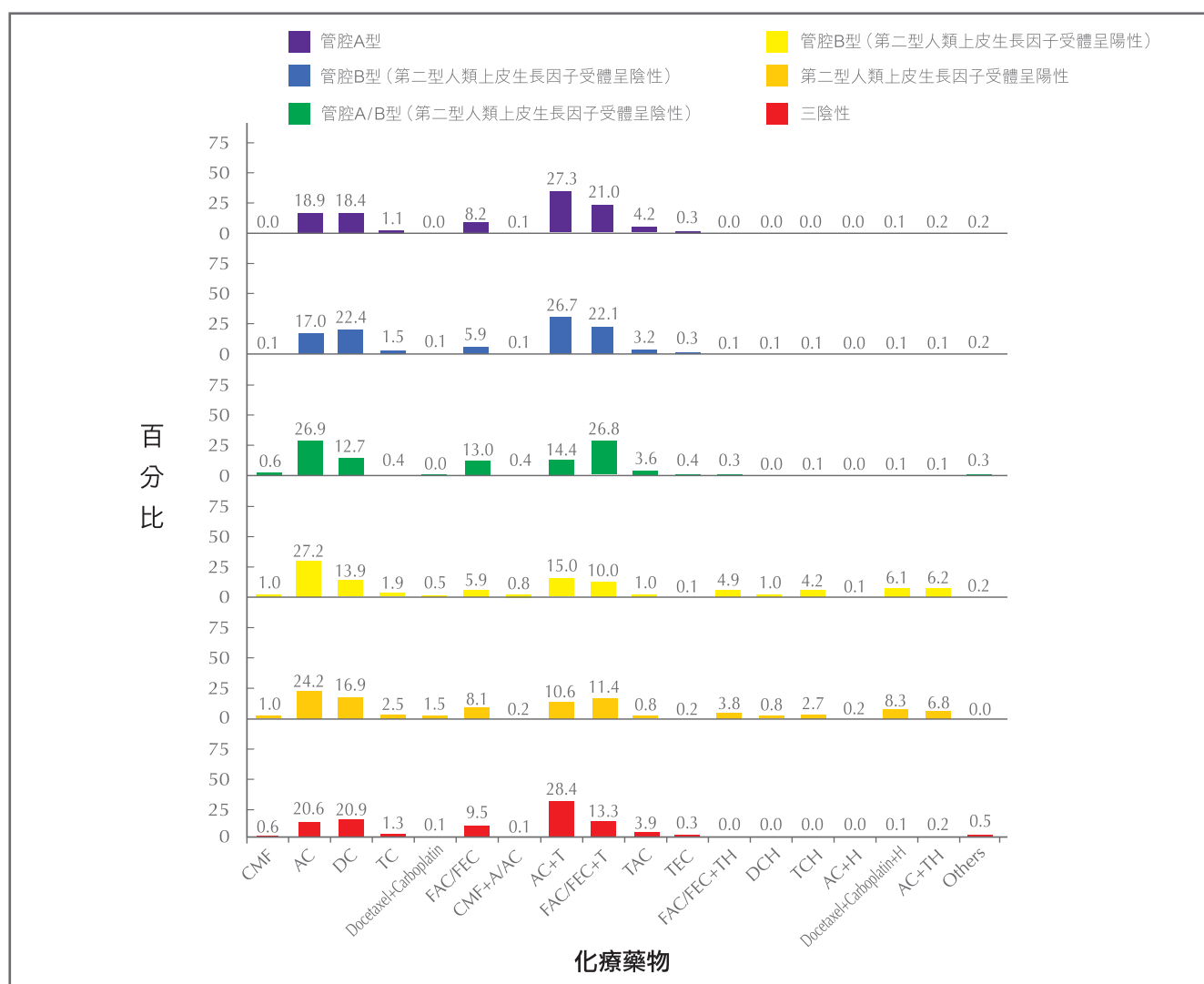


圖2.22 以乳癌生物學亞型分析患者在術後輔助性化療使用的藥物種類（人數 = 6,259）

C: Cyclophosphamide;

M: Methotrexate;

F: Fluorouracil (5FU);

A: Adriamycin / Doxorubicin;

E: Epirubicin;

T: Paclitaxel / Docetaxel;

H: Trastuzumab;

DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab

TC: Paclitaxel + Carboplatin;

TCH: Paclitaxel + Carboplatin + Trastuzumab

Others: Capecitabine, Gemcitabine, or Vinorelbine

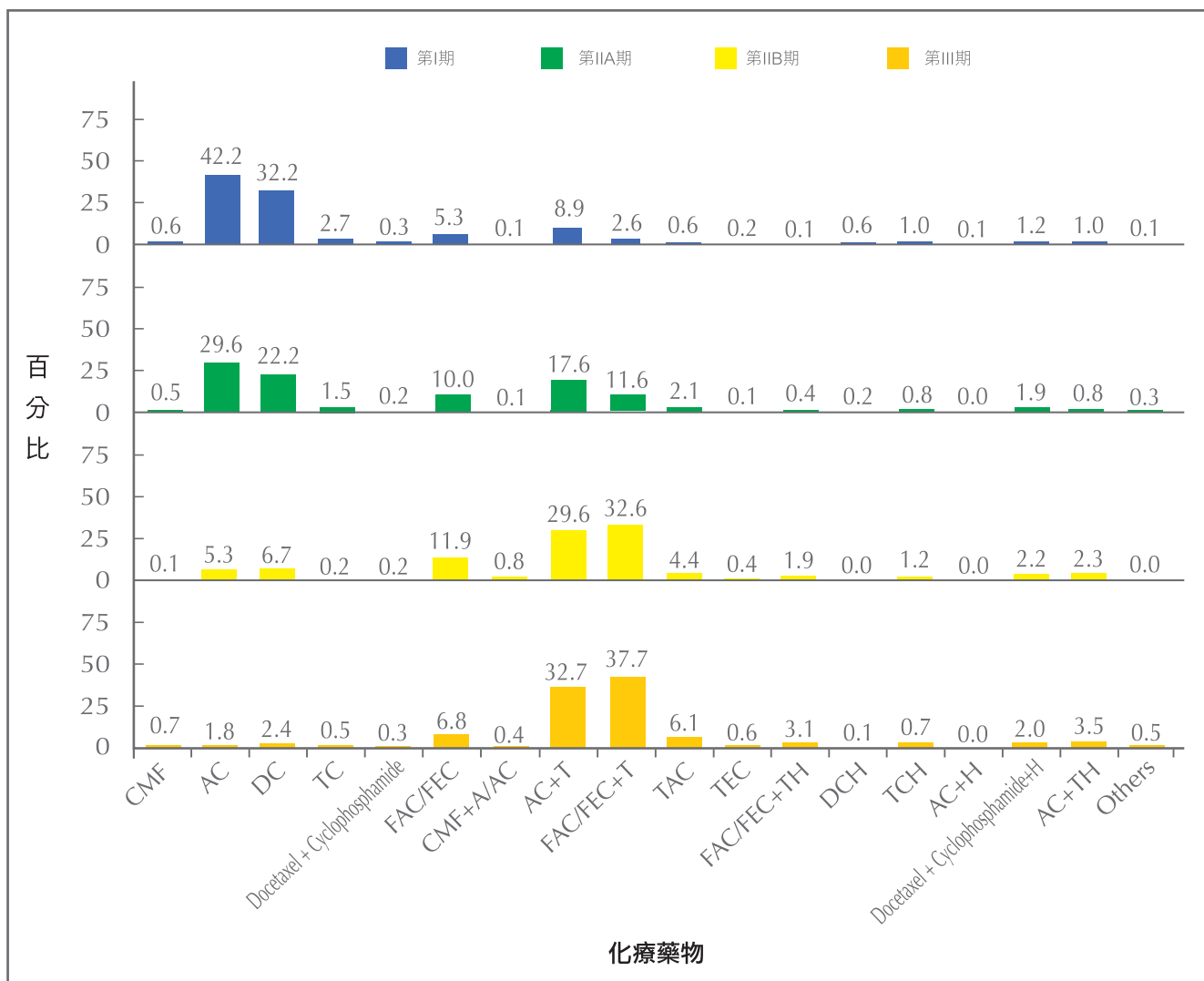


圖2.23 以癌症期數分析患者在術後輔助性化療使用的藥物種類 (人數 = 6,356)

C: Cyclophosphamide;
M: Methotrexate;
F: Fluorouracil (5FU);
A: Adriamycin / Doxorubicin;

E: Epirubicin;
T: Paclitaxel / Docetaxel;
H: Trastuzumab;
DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab
TC: Paclitaxel + Carboplatin;
TCH: Paclitaxel + Carboplatin + Trastuzumab
Others: Capecitabine, Gemcitabine, or Vinorelbine

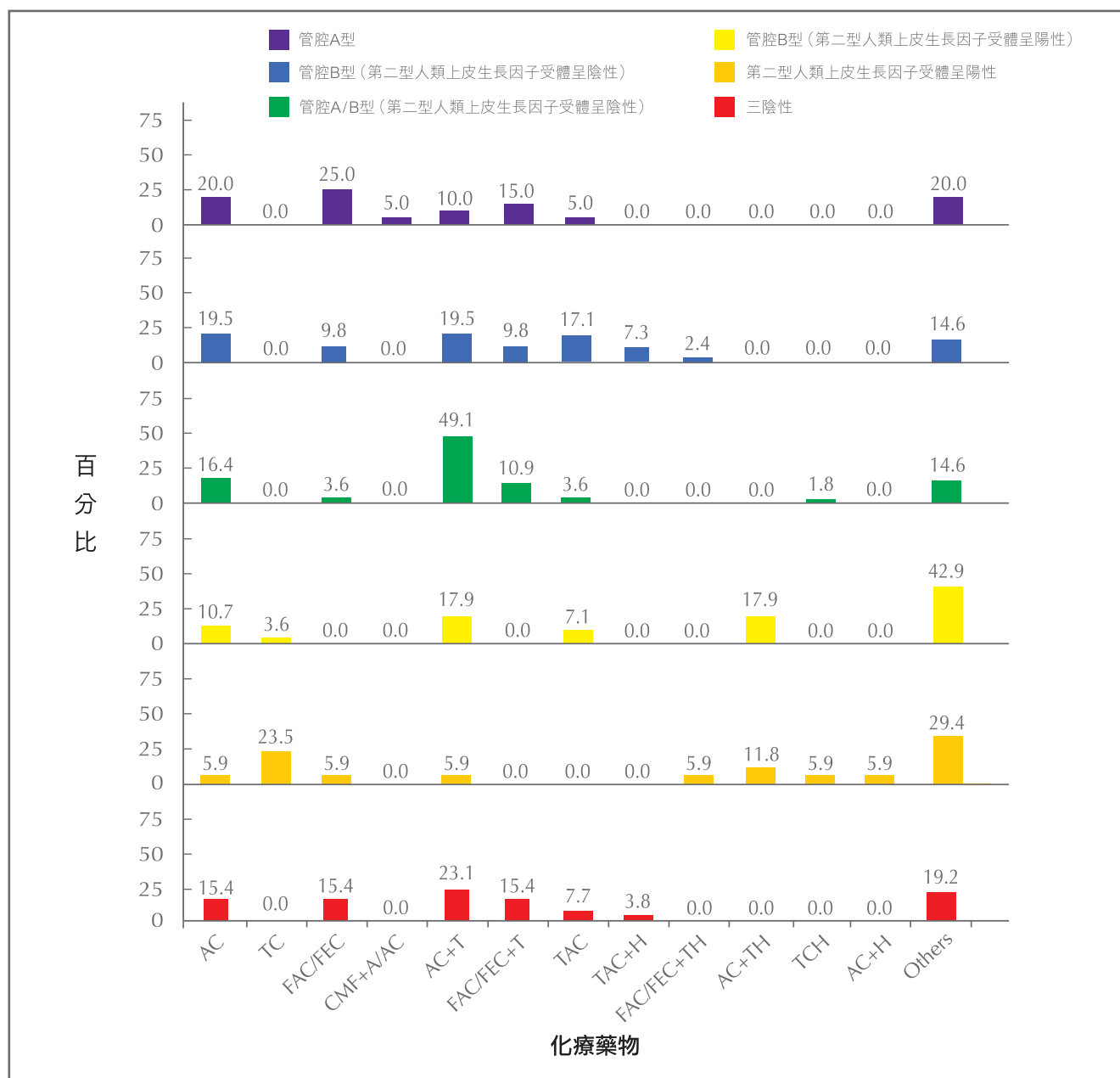


圖2.24 以乳癌生物學亞型分析患者在舒緩性化療使用的藥物種類 (人數 = 187)

C: Cyclophosphamide;
M: Methotrexate;
F: Fluorouracil (5FU);
A: Adriamycin / Doxorubicin;

E: Epirubicin;
T: Paclitaxel / Docetaxel;
H: Trastuzumab;
DC: Docetaxel + Cyclophosphamide;

DCH: Docetaxel + Cyclophosphamide + Trastuzumab
TC: Paclitaxel + Carboplatin;
TCH: Paclitaxel + Carboplatin + Trastuzumab
Others: Capecitabine, Gemcitabine, or Vinorelbine



2.4.4 內分泌治療

內分泌治療對於醫治和預防荷爾蒙受體呈陽性的入侵性乳癌或原位乳癌，都擔當重要角色。乳癌源起自不正常的乳房細胞，這些細胞通常對荷爾蒙敏感，例如雌激素和黃體素。內分泌治療會在癌細胞的荷爾蒙受體中施加作用。

受訪群組中，10,097名（67.4%）患者曾接受內分泌治療，當中96.8%屬於手術後輔助性治療，0.5%屬於手術前的前置治療，2.8%屬於舒緩性治療。90.5%患者在公營醫療機構接受內分泌治療，9.5%則在私營醫療機構接受內分泌治療。

只有11.7%的原位乳癌患者接受內分泌治療，但有超過73.0%的I期至IV期癌患者接受內分泌治療（圖2.25）。

兩類藥物經常用於降低女性荷爾蒙的水平：抗雌激素和芳香環轉化酶抑制劑。抗雌激素藥物針對性地干擾乳癌細胞上的雌激素受體，從而延緩乳癌腫瘤生長。最常見的抗雌激素是三苯氧胺，適用於收經前後的婦女。芳香環轉化酶抑制劑有助減低身體中雌激素的水平。芳香環轉化酶抑制劑，包括Anastrozole、Letrozole及Exemestane則只適用於已停經婦女使用。圖2.26顯示受訪群組中三個年齡組別使用三苯氧胺和芳香環轉化酶抑制劑的情況。

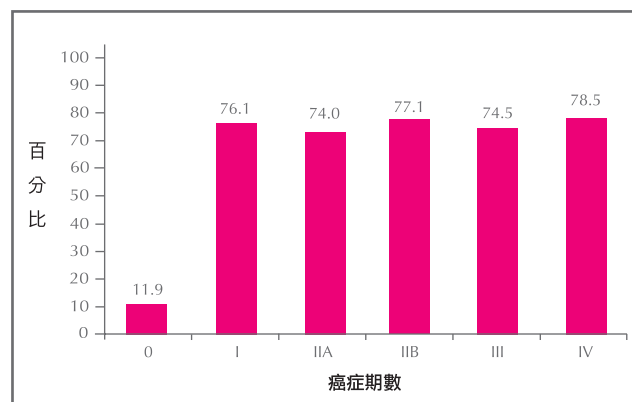


圖2.25 不同癌症期數患者接受內分泌治療的比率（人數 = 14,504）

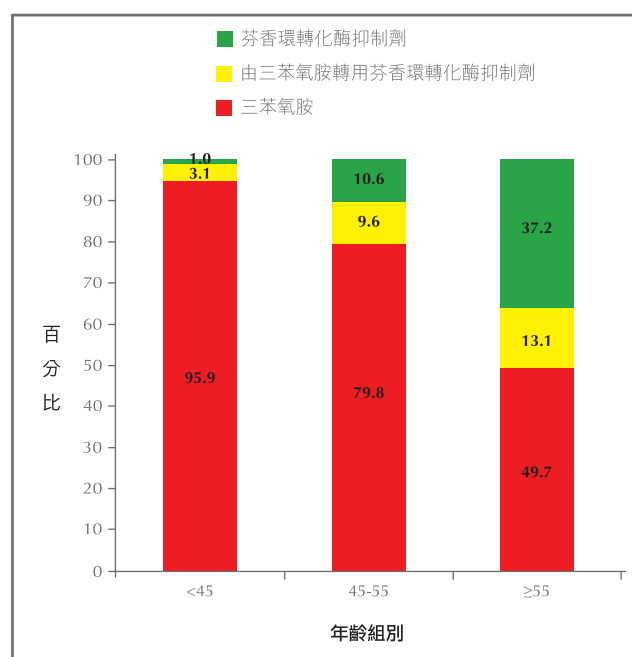


圖2.26 按年齡組別分析患者使用內分泌治療的藥物（人數 = 8,903）

2.4.5 抗第二型人類上皮生長因子受體 靶向治療

抗第二型人類上皮生長因子受體靶向治療是利用藥物選擇地攻擊腫瘤細胞，阻截細胞傳遞不正常生長所需的訊息。它用於治療第二型人類上皮生長因子受體呈陽性的入侵性乳癌的患者。

受訪群組中有2,844名有第二型人類上皮生長因子受體呈陽性的乳癌患者，1,657人（58.3%）接受了抗第二型人類上皮生長因子受體靶向治療，當中92.1%屬於術後輔助性治療，4.5%屬於手術前的前置治療，3.4%屬於舒緩性治療。大部分（88.7%）受訪患者在公營醫療機構接受抗第二型人類上皮生長因子受體靶向治療，11.3%在私營醫療機構接受治療。使用治療的百分比與癌症期數成正比（圖2.27）。

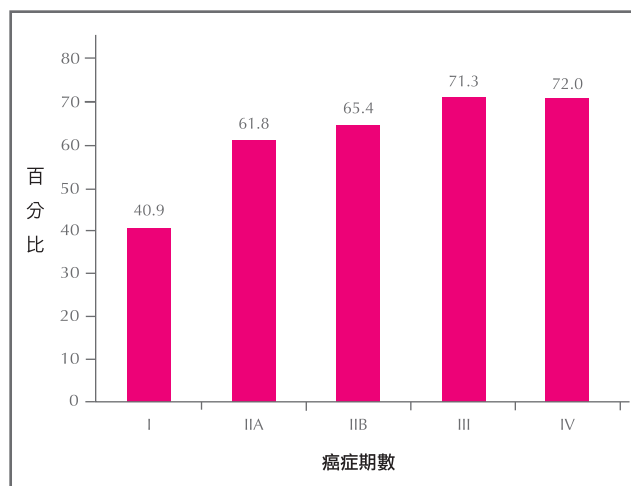


圖2.27 按癌症期數分析第二型人類上皮生長因子受體呈陽性患者接受抗第二型人類上皮生長因子受體靶向治療的比率（人數 = 2,777）

2.4.6 綜合治療

綜合使用多種療法（包括手術、化療、電療、荷爾蒙治療及抗第二型人類上皮生長因子受體靶向治療）能夠有效治療乳癌。受訪患者群組的綜合治療模式詳列於表2.21。一般而言，治療數目與癌症期數成正比。大部分（93.9%）乳癌0期患者都接受了兩項或以下治療，然而61.0%的乳癌I期患者接受三項或以上治療。多於四分之三（80.0%）乳癌IIA，IIB，或III期患者接受了三項或以上治療。



表2.21 不同癌症期數患者接受的治療數目（人數 = 14,051）

治療 數目	癌症期數，人數（%）						總數 （人數=14,051）
	0 （人數=1,752）	I （人數=4,526）	IIA （人數=3,585）	IIB （人數=1,834）	III （人數=2,028）	IV （人數=326）	
0	3 (0.2)	1 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	2 (0.6)	8 (0.1)
1	738 (42.1)	295 (6.5)	68 (1.9)	12 (0.7)	11 (0.5)	26 (8.0)	1,150 (8.2)
2	908 (51.8)	1,468 (32.4)	649 (18.1)	113 (6.2)	46 (2.3)	53 (16.3)	3,237 (23.0)
3	101 (5.8)	1,909 (42.2)	1,338 (37.3)	510 (27.8)	377 (18.6)	108 (33.1)	4,343 (30.9)
4	1 (0.1)	738 (16.3)	1,372 (38.3)	1,029 (56.1)	1,316 (64.9)	111 (34.0)	4,567 (32.5)
5	1 (0.1)	115 (2.5)	158 (4.4)	170 (9.3)	276 (13.6)	26 (8.0)	746 (5.3)

2.4.7 輔助及另類療法

除了本章前述的各種乳癌標準療法之外，患者也可能選擇接受不同種類的輔助及另類療法，例如傳統的中醫中藥、健康食品/補充劑等等。受訪群組中的5,897名（39.3%）患者接受了輔助及另類療法。當中95.4%是屬於術後輔助性治療，3.4%是屬於手術前的前置治療，1.2%是屬於舒緩性治療。66.1%患者採用傳統的中醫中藥治療（圖2.28）。

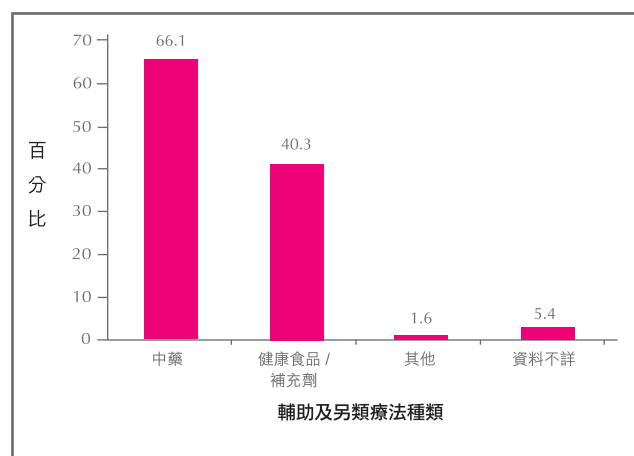


圖2.28 5,897名患者使用輔助及另類療法的種類

其他包括：太極、氣功、自然療法、針灸及艾灸、按摩或瑜伽

2.5 患者現況

患者完成療程後，乳癌資料庫每年都會跟進她們的狀況，以了解治療的效能。到目前為止，資料庫跟進了13,235名乳癌患者的狀況，當中有59.8%在過去兩年內曾經提供跟進數據。大約三分之一（30.3%）患者於首次確診後被跟進了五年或以上（表2.22）。平均跟進年期為3.9年，中位數則為3.4年。

受訪群組中有596名（4.5%）患者曾出現復發，1.3%只出現局部區域性復發，2.1%只出現遠端復發，和1.1%同時或先後出現局部區域性及遠端復發。復發的平均時間及中位數詳列於表2.22。

表2.22 跟進訪問13,235 名患者的結果

跟進時間	人數	(%)
<1年	1,068	(8.1)
1-2年	2,551	(19.3)
2-5年	5,609	(42.4)
5-10年	3,839	(29.0)
10-15年	168	(1.3)
平均跟進時間		3.9年
跟進時間中位數		3.4年
局部區域性復發		
局部區域性復發人數	170	(1.3)
平均復發時間		2.8年
復發時間中位數		2.4年
遠端復發		
遠端復發人數	275	(2.1)
平均復發時間		2.9年
復發時間中位數		2.7年
局部區域性及遠端復發		
局部區域性及遠端復發人數	151	(1.1)
平均復發時間		3.1年
復發時間中位數		2.8年
死亡率		
死於乳癌的人數	130	(1.0)
死於其他原因的人數	82	(0.6)
死亡原因不詳的人數	31	(0.2)



表2.23顯示按受訪群組的手術種類和癌症期數，分析入
侵性乳癌患者出現局部區域性復發的情況。受訪群組的
IIA患者中，接受乳房保留手術而出現局部區域性復發
的比例較接受乳房切除手術的高。在I，IIA 或 IIB 期的
患者中，接受乳房保留手術後接受放射治療而出現局部

區域性復發的比例，比那些接受乳房保留手術後沒有接
受放射治療的較高（本報告書中屬於III期的患者數目較
少，未能看到相關的分別）（表2.23）。最常見的局部區
域復發部位是胸壁（36.4%）及乳房（30.5%）。

表2.23 按手術種類及癌症期數分析局部區域性復發的個案數目

手術種類	癌症期數，人數（佔接受手術的患者群組百分比）				總數
	I	IIA	IIB	III	
乳房保留手術後	18/1,820	26/1,056	3/374	10/242	57/3,492
接受放射治療	(1.0)	(2.5)	(0.8)	(4.1)	(1.6)
乳房保留手術後	5/92	3/61	1/13	0/9	9/175
沒有接受放射治療	(5.4)	(4.9)	(7.7)	(0.0)	(5.1)
乳房切除手術	34/2,147	41/2,130	27/1,295	77/1,605	179/7,177
	(1.6)	(1.9)	(2.1)	(4.8)	(2.5)

表2.24 患者出現局部區域性復發的位置（人數 = 321）

局部區域性復發位置	人數	(%)
胸壁	117	(36.4)
乳房	98	(30.5)
腋下淋巴結	96	(29.9)
鎖骨上窩	69	(21.5)
內部乳腺	27	(8.4)
鎖骨下窩	4	(1.2)
其他	20	(6.2)

備註：局部區域性復發可能同時在多個位置出現，因此患者群組的
復發位置總百分比可以超過100。

受訪群組中，426名（3.2%）患者曾出現遠端復發。最常受影響器官是骨（55.2%），其次是肺部（46.5%）（表2.25）。三分之一（39.0%）的患者的肝部出現遠端擴散。

表2.25 遠端擴散影響的器官（人數 = 426）

受影響的遠端器官	人數	(%)	受影響的遠端器官	人數	(%)
骨	235	(55.2)	腹膜	6	(1.4)
肺	198	(46.5)	卵巢	4	(0.9)
肝	166	(39.0)	脾臟	4	(0.9)
縱隔腔淋巴結	71	(16.7)	甲狀腺	3	(0.7)
腦	68	(16.0)	胰腺	2	(0.5)
遠端淋巴結	41	(9.6)	胸腔	2	(0.5)
頸	28	(6.6)	腎臟	1	(0.2)
對側淋巴結	12	(2.8)	子宮	1	(0.2)
腎上腺	8	(1.9)	資料不詳	18	(4.2)
腹部	6	(1.4)			

備註：遠端復發可能同時在多個位置出現，因此患者群組的復發位置總百分比可以超過100。

受訪群組中的入侵性乳癌患者，出現局部區域性復發的乳癌患者與期數沒有關係。然而，只出現遠端復發的比例上升，從I期的0.8%至III期的5.3%。同時出現局部

區域性及遠端復發的比例則與癌症期數成正比，由I期的0.3%至III期的2.9%（表2.26）。

表2.26 不同癌症期數的入侵性乳癌患者的局部區域性復發率和遠端復發率

復發類型	癌症期數，人數 (%)				總數 (人數=12,352)
	I (人數=4,663)	IIA (人數=3,700)	IIB (人數=1,887)	III (人數=2,102)	
局部區域性復發	42 (0.9)	42 (1.1)	8 (0.4)	28 (1.3)	120 (1.0)
遠端復發	38 (0.8)	52 (1.4)	46 (2.4)	112 (5.3)	248 (2.0)
局部區域性復發 及遠端復發	15 (0.3)	29 (0.8)	23 (1.2)	60 (2.9)	127 (1.0)



受訪群組中有130名（1.0%）患者死於乳癌。過半數（60.5%）死於乳癌的患者在最初確診時為III或IV期。

存活時間由0.6年到11.1年。這些患者的生物學亞型資料詳見於表2.27。

表2.27 乳癌死亡個案的特性（人數=130）

	確診時的癌症期數						期數不詳
	0	I	IIA	IIB	III	IV	
死亡人數（佔死亡個案%）	1 (0.8)	15 (11.5)	16 (12.3)	9 (6.9)	56 (43.1)	22 (16.9)	11 (8.5)
存活時間（年）	4.4	1.6—6.8	1.9—8.9	2.1—11.1	0.8—9.4	0.8—7.3	0.6—6.2
生物學亞型							
管腔A型*	0	3	2	1	7	0	0
管腔B型（第二型人類上皮生長因子受體呈陰性）#	0	3	3	0	8	2	1
管腔A/B型（第二型人類上皮生長因子受體呈陰性）◇	0	2	3	3	12	9	2
管腔B型（第二型人類上皮生長因子受體呈陽性）^	1	2	2	0	9	5	2
第二型類上皮生長因子受體呈陽性※	0	2	1	0	12	3	0
三陰性§	0	3	4	4	7	1	2
資料不詳	0	0	1	1	1	2	4

* 管腔A型：ER及 / 或PR+、HER2-及Ki-67指數低（<14%）

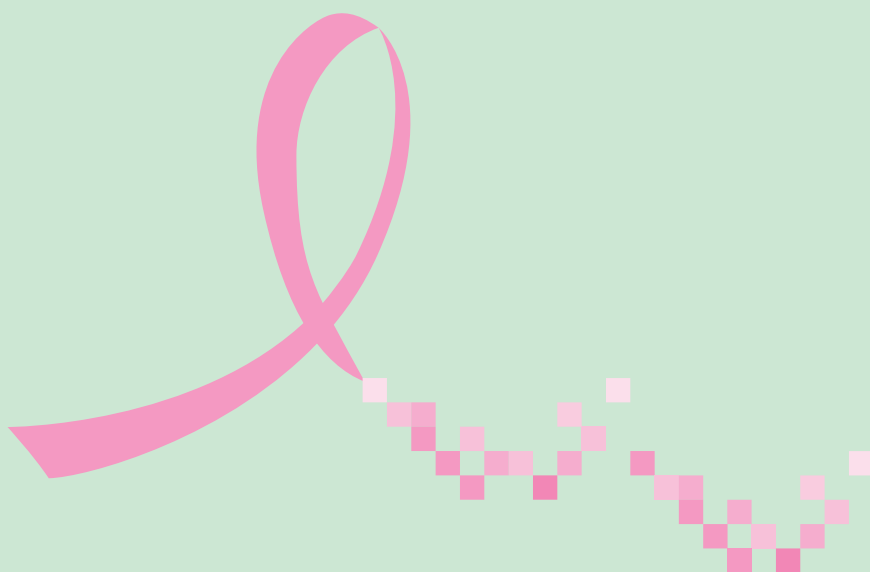
管腔B型（第二型人類上皮生長因子受體呈陰性）：ER及 / 或PR+、HER2-及Ki-67指數高（≥14%）

◇ 管腔A / B型（第二型人類上皮生長因子受體呈陰性）：ER及 / 或PR+、HER2-及Ki67指數不詳

^ 管腔B型（第二型人類上皮生長因子受體呈陽性）：ER及 / 或PR+、HER2+及任何Ki-67指數

※ 第二型人類上皮生長因子受體呈陽性：ER及PR-、HER2+及任何Ki-67指數

§ 三陰性：ER及PR-、HER2-及任何Ki-67指數



第三章

乳癌及其診治對 患者身心的影響



第三章 乳癌及其診治對患者身心的影響

確診乳癌可以對婦女造成極大的震撼，在治療及康復期間，婦女經常因為身體，情緒和社交上的改變而感到情緒波動。本章收集及分析群組中12,711名患者因為乳癌

帶來對心理及身體造成影響及其治療的資料。患者接受調查的平均時間是首次確診後的2.1年。

主要分析結果

治療後的身體不適

- ▶ 受訪群組中有大約三分之二（69.5%）患者在手術後沒有或感到輕微不適，9.2%患者感到嚴重不適。傷口痛楚（16.4%）是手術後最常見的不適情況，有少部分（2.8%）患者表示有淋巴水腫的不適情況。
- ▶ 受訪群組中，有66.8%患者接受放射性治療沒有或感到輕微身體不適。皮膚乾燥（13.1%）和皮膚灼傷（10.6%）是接受電療後最常見的不適。
- ▶ 受訪群組中，約有一半（52.0%）接受化學治療的患者因為各種副作用而感到嚴重身體不適。嘔吐（18.1%）和食慾不振（15.2%）是化療後最常見的身體不適情況。
- ▶ 受訪群組中有80.2%接受內分泌治療沒有或感到輕微身體不適。潮熱（13.1%）是接受內分泌治療後最常見的不適情況。
- ▶ 受訪群組中有82.1%接受抗第二型人類上皮生長因子受體靶向治療沒有或感到輕微身體不適，疲倦（5.1%）是接受治療後最常見的不適。
- ▶ 受訪群組中大部分（97.7%）接受輔助性治療及另類療法都沒有或感到輕微身體不適。

確診及治療後的心理影響及調節

- ▶ 在得悉確診乳癌時，45.3%患者表示平靜接受或以正面的態度對抗。相反，22.9%拒絕接受。
- ▶ 在完成所需治療後，29.6%表示癌症改變了她們的人生觀。
- ▶ 52.3%患者表示對人生觀有正面的影響，42.6%則表示對自我形象有正面的轉變。
- ▶ 受訪群組中有82.0%表示確診乳癌後曾改變生活習慣，最常見的是改變飲食習慣（74.3%），其次是多做運動（61.7%），11.8%患者辭去工作。
- ▶ 受訪群組中，54.9%患者以直接向人傾訴來處理負面情緒，32.9%患者把注意力移離負面情緒。
- ▶ 受訪群組中有26.5%從不擔心復發，不過，約有一半（54.8%）患者表示經常或有時擔心復發。

3.1 治療後的身體不適

3.1.1 手術後的身體不適

受訪患者群組中有大約三分之二（69.5%）在手術後沒有或很少感到不適，9.2%患者感到嚴重不適（圖3.1）。報告身體感到嚴重不適的患者中，以接受過乳房切除及重建手術的患者比例最大（圖3.2）。16.4%患者表示手術後的不適情況是感到傷口痛楚（表3.1）。

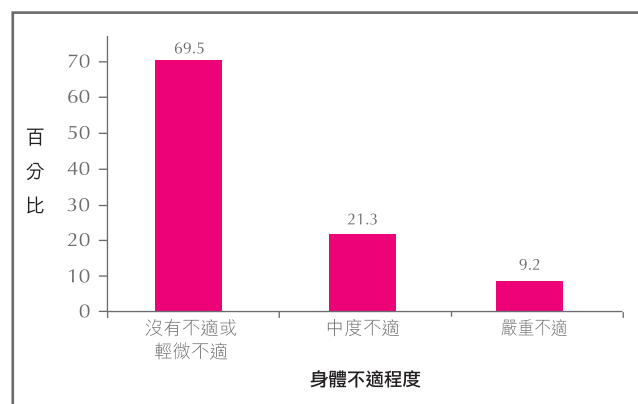


圖3.1 手術後感到身體不適的程度（人數 = 13,251）

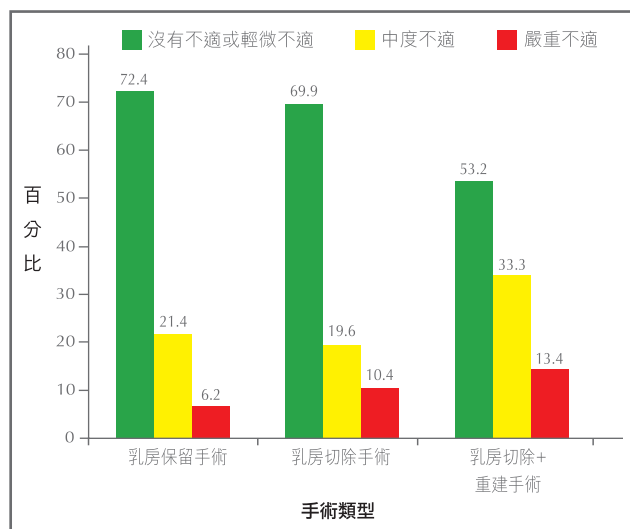


圖3.2 按受訪群組的手術類型分析身體不適的程度（人數 = 13,222）

表3.1 手術後五種最常見的身體不適（人數 = 13,251）

	人數	(%)
傷口痛楚	2,176	(16.4)
傷口問題（感染 / 發炎 / 繃緊 / 傷口難以癒合）	868	(6.6)
手臂活動困難	760	(5.7)
麻痺	451	(3.4)
手臂淋巴水腫	377	(2.8)

3.1.2 放射性治療後的身體不適

受訪患者群組中，三分之二（66.8%）接受放射性治療的患者沒有或很少感到身體不適（圖3.3）。無論曾否進行區域性淋巴結放射治療，相比接受乳房放射治療的患者，較多接受胸壁放射治療的患者表示有嚴重身體不適（圖3.4）。皮膚乾燥（13.1%）和皮膚灼傷（10.6%）是接受電療後最常見的不適（表3.2）。

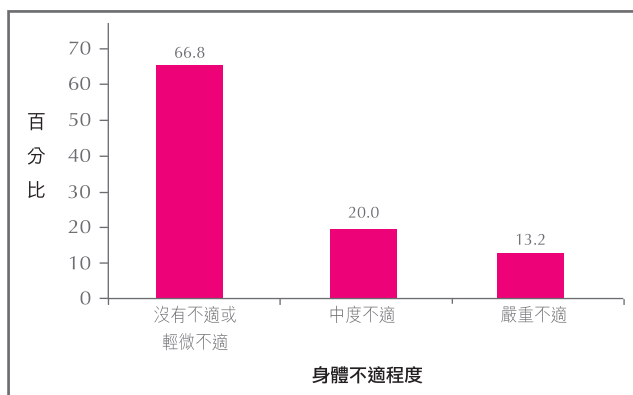


圖3.3 放射性治療後身體不適的程度 (人數 = 7,933)

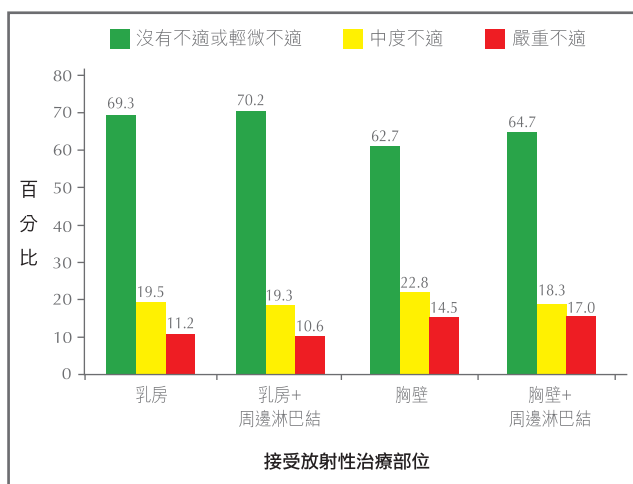


圖 3.4 患者不同部位接受放射性治療的不適程度 (人數 = 5,478)

表3.2 放射性治療後五種最常見的身體不適 (人數 = 7,933)

	人數	(%)
皮膚乾燥	1,042	(13.1)
皮膚灼傷	844	(10.6)
痛楚	458	(5.8)
疲倦	244	(3.1)
皮膚潰瘍	211	(2.7)

3.1.3 化療後的身體不適

受訪患者群組中，大約一半 (52.0%) 接受化學治療的患者因為化療的副作用而感到嚴重不適 (圖3.5)。嘔吐 (18.1%) 和食慾不振 (15.2%) 是化療後最常見的身體不適情況 (表3.3)。

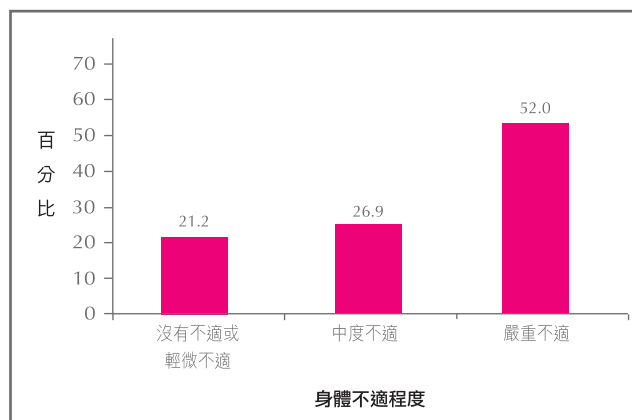


圖3.5 化療後身體不適的程度 (人數 = 7,853)

表3.3 化療後五種最常見的身體不適 (人數 = 7,853)

	人數	(%)
嘔吐	1,419	(18.1)
食慾不振	1,194	(15.2)
脫髮	905	(11.5)
身體虛弱	774	(9.9)
噁心作嘔	483	(6.2)

3.1.4 內分泌治療後的身體不適

受訪患者群組中，超過四分之三（80.2%）接受內分泌治療的患者沒有或很少感到身體不適（圖3.6）。潮熱（13.1%）是接受內分泌治療後最常見的不適（表3.4）。

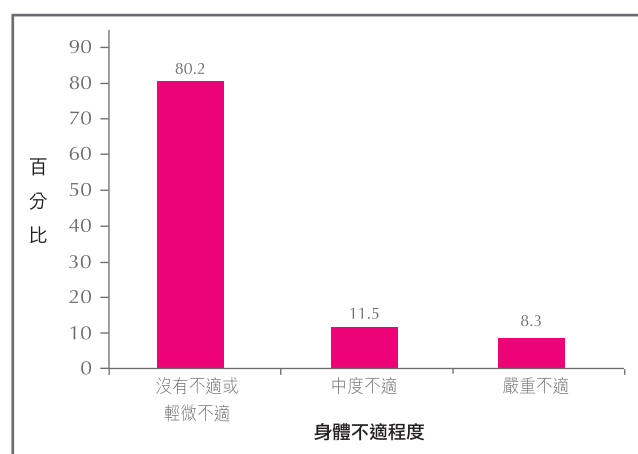


圖3.6 內分泌治療後身體不適程度（人數 = 8,520）

表3.4 內分泌治療後五種最常見的身體不適（人數 = 8,520）

	人數	(%)
潮熱	1,112	(13.1)
骨痛	568	(6.7)
疲倦	451	(5.3)
月經失調	360	(4.2)
情緒不穩	200	(2.3)

3.1.5 抗第二型人類上皮生長因子受體靶向治療後的身體不適

受訪患者群組當中，超過80%接受抗第二型人類上皮生長因子受體靶向治療的患者沒有或很少感到身體不適（圖3.7）。疲倦（5.1%）是接受此治療最常出現的不適（表3.5）。

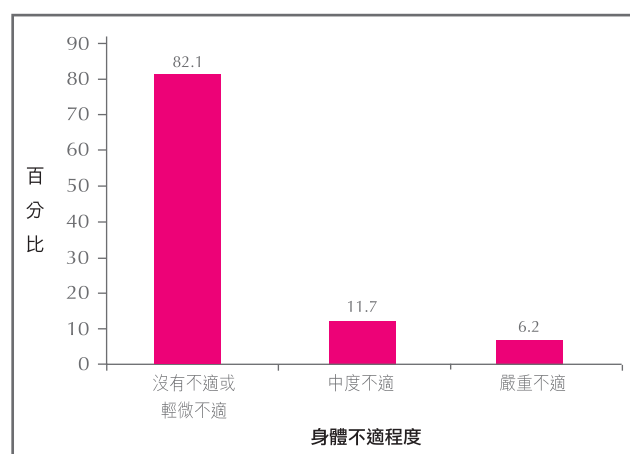


圖3.7 抗第二型人類上皮生長因子受體靶向治療後身體不適的程度（人數 = 1,381）

表3.5 抗第二型人類上皮生長因子受體靶向治療後五種最常見的身體不適（人數 = 1,381）

不適	人數	(%)
疲倦	70	(5.1)
影響其他器官	34	(2.5)
痛楚	32	(2.3)
麻痺	16	(1.2)
暈眩	14	(1.0)



3.1.6 輔助性治療及另類療法後的身體不適

大部分 (97.7%) 受訪患者群組中接受輔助性及另類療法的患者都沒有或很少感到身體不適 (圖3.8)。

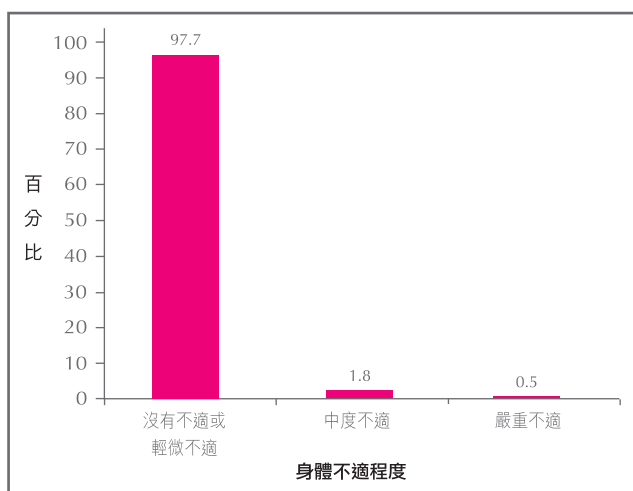


圖3.8 輔助性及另類治療法後身體不適的程度
(人數 = 5,686)

3.2 確診及治療後的心理影響及調節

3.2.1 確診及治療後的心理和生活影響

在得悉確診乳癌時，45.3%患者平靜接受或以正面的態度對抗。相反，22.9%拒絕接受 (表3.6)。在完成所需治療後，三分之一 (32.3%) 患者表示癌症是一個惡耗，使患者感到好意外。約半數 (52.3%) 患者表示人生觀有正面的影響，42.6%則表示對自我形象有正面轉變 (表3.6)。

表3.6 乳癌為患者帶來的心理影響

	人數	(%)
得悉確診乳癌時的感受 (人數 = 12,403)		
接受並以正面態度對抗	2,572	(20.7)
平靜接受	3,052	(24.6)
接受但情緒低落	3,722	(30.0)
拒絕接受 (「不可能是事實！」)	2,838	(22.9)
憤怒地接受 (「一定是搞錯了！」)	219	(1.8)
接受乳癌治療後的感受 (人數 = 9,142)		
癌症是一個惡耗，使患者感到好意外	2,957	(32.3)
人生不公平	2,860	(31.3)
癌症改變了人生觀	2,703	(29.6)
癌症帶走了患者重要的東西	622	(6.8)
人生觀的轉變 (人數 = 12,422)		
正面	6,501	(52.3)
負面	880	(7.1)
沒有改變	5,041	(40.6)
自我形象的轉變 (人數 = 12,420)		
正面	5,289	(42.6)
負面	1,133	(9.1)
沒有改變	5,998	(48.3)

受訪患者群組中，約有半數年齡介乎30-79歲的患者對人生觀有正面的轉變。有較多比例年齡介乎20-29歲或80歲以上的患者表示對人生觀有負面的轉變 (圖3.9)。

受訪患者群組中，約有40%年齡介乎於30-79歲的患者對自我形象有正面轉變。相對地，有較大比例年齡介乎20-29歲或80歲或以上的患者表示對自我形象有負面的轉變 (圖3.10)。

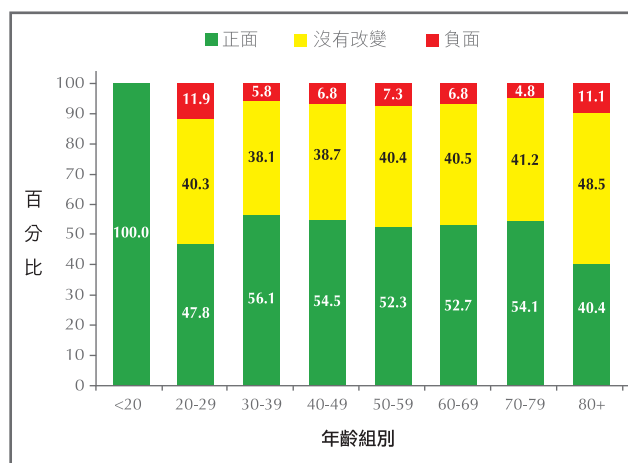


圖3.9 按年齡組別分析人生觀的轉變 (人數 = 12,163)

*只有一個患者在20歲以下的年齡組別

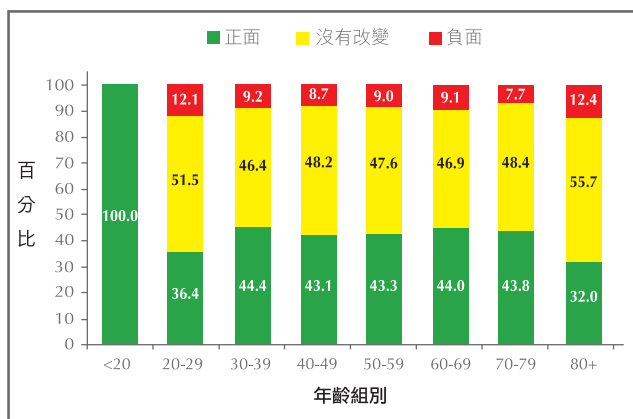


圖3.10 按年齡組別分析自我形象的轉變
(人數 = 12,168)

*只有一個患者在20歲以下的年齡組別

3.2.2 心理和生活調節及對應策略

受訪群組的12,711名患者當中，10,423人(82.0%)表示確診乳癌後生活模式有變化。最常見的生活模式轉變是飲食習慣的改變(74.3%)，其次是多做運動(61.7%)。11.8%患者辭掉工作(表3.7)。

在受訪群組中，54.9%患者以直接向人傾訴來管理負面情緒，32.9%患者把注意力移離負面情緒(表3.7)。

3.2.3 擔心復發的程度

受訪患者群組中，四分之一(26.5%)患者從不擔心復發(表3.7)，不過，約半數(54.8%)表示經常或有時擔心復發(表3.7)。擔心復發的程度與患者的年齡並不相關，但較多年齡介乎20-29、60-69和70-79歲組別的患者表示從不擔心復發。相反地，較多年齡介乎40-49、60-69、70-79和80歲以上組別的患者表示經常擔心復發(圖3.11)。

表3.7 為存活而作出的心理和生活調節及應對策略

	人數	(%)
改變生活習慣 (人數 = 10,423)		
改變飲食習慣	7,748	(74.3)
多做運動	6,427	(61.7)
服用健康補充劑	2,313	(22.2)
減少工作量	1,919	(18.4)
辭掉工作	1,225	(11.8)
處理負面情緒的方法 (人數 = 12,711)		
直接向人傾訴	6,975	(54.9)
分散注意	4,178	(32.9)
忽視負面情緒	1,371	(10.8)
感到情緒低落	900	(7.1)
其他	1,270	(10.0)
憂慮復發程度 (人數 = 12,465)		
從不	3,309	(26.5)
甚少	2,322	(18.6)
有時	5,521	(44.3)
經常	1,313	(10.5)

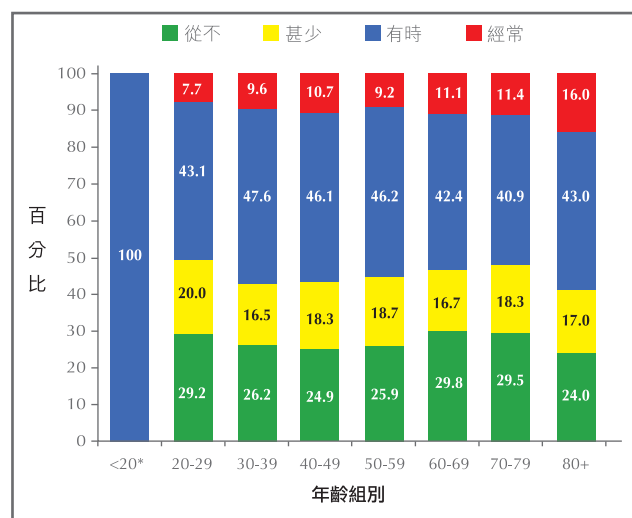


圖3.11 按年齡組別分析患者憂慮復發的程度
(人數=12,216)

*只有一個患者在20歲以下的年齡組別



詞彙

詞彙

輔助化療

輔助化療是指手術後的治療，其作用是清除體內殘餘的微細癌細胞，以免這些微細癌細胞在體內循環而引致復發。

腋下淋巴結切除手術

若在觸診、影像檢查或前哨淋巴切除檢查中驗出淋巴結有癌細胞時，醫生會為病人進行這項外科手術，以切除隱藏在胸部肌肉內的腋下淋巴結。

雙側的乳癌

乳癌同時或相隔六個月內在左右兩邊乳房出現（同時性腫瘤），或相隔6個月以上在兩邊乳房先後出現（非同時性腫瘤）。

生物學亞型

乳癌並不被視為單一疾病。它可以被進一步分類為多個生物學亞型。這些亞型經過多個生物標記的免疫組織化學染色法來斷定，這些標記包括雌激素受體（ER），黃體素受體（PR），第二型人類上皮生長因子受體（HER2）和Ki-67指數。通過在原發腫瘤結合這些生物學標記，而非獨立評核，可以進一步得出病人預後及預測復發資料。乳癌可分為5個生物學亞型包括管腔A型（ER+及/或PR+、HER2-及Ki-67指數低），管腔B型（HER2呈陰性）（ER+及/或PR+、HER2-及Ki-67指數高），管腔B型（HER2呈陽性）（ER+及/或PR+、HER2+及任何Ki-67指數），HER2呈陽性（ER-、PR-、HER2+及任何Ki-67指數），以及三陰性（ER-、PR-、HER2-及任何Ki-67指數）³⁶。

乳房保留手術

乳房保留手術可分為將乳房腫瘤切除、病發位置局部切除、部分乳房切除或環節切除，這手術的目的是切除癌腫瘤及腫瘤周邊的非癌細胞組織，而不用切除整個乳房，減少創傷。

乳房重建手術

重建乳房的外科手術通常在患者接受乳房切除手術的同時或隨後進行。醫生將患者本身的身體組織植入乳房位置，以重建乳房的輪廓。如有需要，醫生可為患者保留或再造乳頭及乳暈。

乳房手術

根除乳癌腫瘤的外科手術，是基本的乳癌治療方法。

癌症分類

根據美國癌症聯合委員會有關乳癌的《癌症期數》（第七版）³⁵，乳癌可分為不同階段，列表如下：

階段	腫瘤	淋巴結	腫瘤轉移
0	Tis	N0	M0
IA	T1*	N0	M0
IB	T0	N1mi	M0
	T1*	N1mi	M0
IIA	T0	N1**	M0
	T1*	N1**	M0
	T2	N0	M0
IIB	T2	N1	M0
	T3	N0	M0
IIIA	T0	N2	M0
	T1*	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
IIIC	任何 T	N3	M0
IV	任何 T	任何 N	M1

T0：沒有腫瘤；Tis：原位癌組織；T1：腫瘤大小≤20毫米；

T2：20毫米<腫瘤大小≤50毫米；T3：腫瘤大小>50毫米；

T4：任何大小，直接擴展至胸壁及/或皮膚（潰瘍或皮膚結節）

N0：沒有陽性結；N1mi：>0.2-2.0毫米或多於200個細胞；

N1：1至3個陽性腋下淋巴結；

N2：4至9個陽性腋下淋巴結，或陽性內部乳腺淋巴結；

N3：≥10個陽性腋下淋巴結，或陽性腋下及內部乳腺淋巴結，或陽性鎖骨上窩或鎖骨下窩淋巴結

M0：沒有腫瘤轉移；M1：有腫瘤轉移證據

*T1涵蓋T1mi

** T0及T1腫瘤若只有微小淋巴結腫瘤轉移，會被排除於IIA期數外而歸納在IB期數內。

癌症引發的死亡個案

由癌症造成的死亡個案。死於乳癌以外原因的個案，並不納入本報告的死亡個案統計中。

化療

利用藥物消滅癌細胞的治療方法。當癌症出現擴散或懷疑擴散、復發或很可能出現復發時，醫生通常採用化療，與手術或電療配合進行治療。

遠端復發

癌症越過腋下淋巴結，在距離原發位置的器官或組織（例如肺、肝、骨髓或腦部）出現時為之遠端復發。

內分泌治療

利用荷爾蒙藥物或外科手術切除荷爾蒙腺體，以抑制荷爾蒙產生及發揮作用的治療方法。原理是殺死依靠荷爾蒙生長的癌細胞或干擾癌細胞生長，令癌細胞自然死亡。

雌激素受體呈陽性

雌激素受體呈陽性是指癌細胞上的受體蛋白與雌激素荷爾蒙結合的狀態。雌激素受體呈陽性的癌細胞，需要雌激素才可成長，假如其接受雌激素的路徑受到外來物質阻截，癌細胞就會停止生長甚至死亡。

第二型人類上皮生長因子受體 (HER2) 呈陽性

在HER2呈陽性的乳癌中，當每個癌細胞所含的HER 2基因數量超乎正常水平，癌細胞表層的HER 2蛋白便會過多，即HER 2蛋白過度表現。過多的HER 2蛋白會加速癌細胞的生長及分裂，因此HER 2呈陽性乳癌是惡性較大的乳癌。

原位乳癌

原位乳癌指早期的乳癌，癌症維持在原發位置的細胞表層內生長。原位乳腺管癌是指癌細胞只維持在乳腺管生長，而沒有入侵乳房裡更深層的組織或擴散至身體其他器官，故此亦稱為非入侵性或前入侵性乳癌。

入侵性乳癌

腫瘤的生長超出原發位置的肌上皮細胞表層或基底膜，例如在乳腺管或乳小葉出現。大多數乳癌都是入侵性癌症。相反原位癌則指維持在原發位置的癌症。

Ki-67 生長指數

Ki-67 蛋白是細胞生長的標記，在正常的細胞內處於低水平，但在生長速度快的細胞中則有所增加。Ki-67生長指數是指利用免疫組織化學染色 (IHC) 方法，來量度腫瘤細胞染色呈陽性的百分比，是細胞擴散的特定細胞核標記。Ki-67指數高顯示腫瘤具較大侵略性。目前，指數高於14%被界定為Ki-67生長指數高。

背闊肌肌皮瓣 (LD瓣)

乳房重建方法之一，將背部的扇狀肌肉翻起，移至胸部以再造乳房。

局部區域復發

治療後癌細胞再次出現在原先癌症的位置或其附近的淋巴結。

乳房切除手術

將整個乳房切除的外科手術，通常用於乳癌及其他嚴重乳房疾病。

擴散

當乳癌在身體內其他器官出現時，代表擴散。

死亡率 / 死亡個案

特定組群中死亡個案的比率。

腫瘤多中心性

把乳房分為四個四分之一部分（四象限），而乳癌在多個象限內出現，便為之腫瘤多中心性。



腫瘤多灶性

乳癌的腫瘤多灶性是指乳房一個象限內出現兩個或以上（相隔五毫米或以上）腫瘤病灶。

壞疽

指死去的細胞組織。若腫瘤中有壞疽，即顯示腫瘤生長速度極高，甚至超越血管生成的速度，導致癌細胞在缺乏血管輸送養分下壞死。壞疽通常顯示腫瘤的入侵性強，擴散速度極高。

前置化學治療

前置化學治療是指手術前的化療，作用是縮小腫瘤，讓其後針對腫瘤進行的手術或電療更有效及減少對患者身體的傷害。

黃體素受體呈陽性

黃體素受體呈陽性的癌細胞需要黃體素與蛋白（受體）結合才可生長，故阻止受體與黃體素結合的荷爾蒙治療藥物可以抑制腫瘤生長。

非典型增生性病變及癌症前乳房病變

非典型增生性病變包括非典導管或小葉增生，即有細胞在乳房組織內的導管或小葉過度生長，而當中某些細胞不再屬於正常。非典型增生性病變會增加患上乳癌的風險。癌症前乳房病變包括乳小葉原位癌，它被視為尚未成癌的病症，有可能演變成入侵性乳癌，但不被視為乳癌。

放射性治療

又稱電療，是利用放射線消滅癌細胞的治療方法。這種治療法適用於手術前以縮小腫瘤體積，或在手術後消滅殘餘的癌細胞。

風險因素 / 高危因素

當一個人受某項因素影響的風險愈高時，其出現相應的已知結果（如患上乳癌）的機會率就愈高。但風險因素不一定等於病因。

前哨淋巴結切片

此手術應用於臨床證實淋巴沒受到波及的乳癌個案，方法是切除腋下最接近乳房前排的幾粒淋巴結。切出來的前哨淋巴有助判斷乳癌有沒有擴散至腋下淋巴的流域。

存活期

由初次確診至因病死亡相隔的時間。

靶向治療

利用藥物以抑制癌病變及癌腫瘤生長所需的分子，以阻礙癌細胞生長。

復發時間

由初次確診至出現復發相隔的時間。

移植橫腹直肌皮瓣手術（TRAM瓣）

乳房重建的方式之一。將從腹直肌吸收血液的下腹部肌肉推到胸部，以製造出隆起的乳房形態，此手術通常不涉及移植，而下腹在肌肉及組織被抽走後，也會變平。

三陰性乳癌（通常用作形容入侵性腺管癌）

癌細胞缺乏激素受體、黃體素受體，表面亦沒有第二型人類上皮生長因子（HER2蛋白）過度表現的乳癌。



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HOW TO GET INVOLVED

參與香港乳癌資料庫及乳癌在線



HOW TO GET INVOLVED 參與香港乳癌資料庫

1. 登記加入資料庫

所有乳癌患者，不論男女，都可以加入香港乳癌資料庫。無論你是剛確診、正接受治療、乳癌擴散或已完成療程，你的參與都彌足重要。

參加方法：

- I. 簽署同意書（可在www.hkbcf.org/breastcancerregistry下載）。
- II. 郵遞或經你的主診醫生交回填妥的同意書，授權香港乳癌資料庫收集你的個人資料和你的醫療記錄，以作分析之用。
- III. 你將會收到香港乳癌資料庫的問卷，請你填寫後交回。
- IV. 資料庫工作人員將每年與你和你的主診醫生聯絡，以更新你的健康狀況及治療資料。跟進訪問以電話進行，你亦可選擇填寫問卷和以郵寄方式交回。

所有資料均絕對保密處理，只供資料庫分析及研究用途。資料庫只會發表總體的統計和分析結果，而不會披露參加者的個人身份。

登記 / 查詢電話：2525 6033 電郵：hkbcr@hkbcf.org

Join the Hong Kong Breast Cancer Registry (HKBCR)

Any woman or man who has experienced breast cancer is invited to join. Whether you are recently diagnosed, undergoing treatment, living with metastatic disease or years past treatment, your input is important to us.

What to do:

- I. Download and sign the Consent Form (available at www.hkbcf.org/breastcancerregistry).
- II. Return the form to the HKBCR by post or through your doctor. Your consent will authorise the HKBCR to collect your personal data and to obtain your medical records for analysis purpose.
- III. You will be asked to complete a set of questionnaires.
- IV. The HKBCR staff will contact you and your doctor to update your record on a yearly basis. The follow-up interview is conducted by telephone. We can also send you a questionnaire, if you prefer.

All information is treated with strict confidentiality and is only used for the HKBCR's analysis and research purpose. Only aggregate data from the registry is released; the identity of individuals is protected.

Registration / Enquiry Tel: 2525 6033 Email: hkbcr@hkbcf.org

2. 訂閱香港乳癌資料庫第十號報告 (2018年9月出版)

Subscribe to the Hong Kong Breast Cancer Registry Report No. 10 (to be published in September 2018)

姓名 Name _____ 機構 Organisation _____

通訊地址 Correspondence address _____

電話 Tel _____ 電郵 Email _____

3. 捐款支持 Make donations

你的捐款將支持香港乳癌資料庫的研究工作，以助我們了解香港的乳癌實況和改善乳癌醫護方案。

Your generous donation will support our continued research through which we can contribute to a better understanding of breast cancer and improvement of breast cancer care in Hong Kong.

企業捐款 Company donations

有意捐款的公司請與我們聯絡，商談捐助的安排。

If you are interested to support the HKBCR, please contact us. Your contributions are documented in a separate funding agreement.

我願意捐款 I wish to donate

☐ 一次過捐款 One-off donation HK\$ _____

☐ 每月捐款 Monthly donation

☐ HK\$1,000

☐ HK\$500

☐ HK\$300

☐ HK\$200

☐ HK\$ _____

捐款方法 Donation Method

☐ 銀行入數：請把善款直接存入香港乳癌基金會之滙豐銀行戶口：094-793650-838。

請連同存款收據正本 / 自動櫃員機單據正本寄回。捐款者請保留收據副本。

Bank Deposit: Please make a deposit into the Hong Kong Breast Cancer Foundation's bank account (HSBC A/C: 094-793650-838), and send us the original bank payment slip / ATM slip with this form. Please keep a photocopy of the slip for your own record.

☐ 按月自動轉賬：自動轉賬授權書將隨後寄上

Monthly Autopay: The autopay authorisation form will be sent to you.

☐ 劃線支票（抬頭寫上「香港乳癌基金會」）

Crossed Cheque (payable to "Hong Kong Breast Cancer Foundation")

☐ 信用卡 Credit Card

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有效日期 Expiry Date: ____D ____M ____Y 信用卡號碼 Card Number: _____

持卡人姓名 Cardholder's Name

持卡人簽名 Cardholder's Signature

姓名 Name (Mr先生 / Ms女士): _____

電話 Tel: _____ 電郵 Email: _____

地址 Address: _____

填妥後請連同劃線支票寄回香港乳癌基金會 地址：香港北角木星街9號永昇中心22樓 傳真：2525 6233

Please return the completed form with a crossed cheque to Hong Kong Breast Cancer Foundation, 22/F Jupiter Tower, 9 Jupiter Street, North Point, Hong Kong Fax: 2525 6233

捐款港幣一百元或以上可獲扣稅收據（稅局檔號：91/7226）

A receipt for tax deduction will be issued for donations of HK\$100 or over (IR File No.: 91/7226).



Breast Cancer HK Online

Breast Cancer HK Online is a unique online programme facilitating registered access by the medical community to the data collected and analysed by the Hong Kong Breast Cancer Registry, an initiative of the Hong Kong Breast Cancer Foundation (HKBCF).

Breast Cancer HK Online is a clinical decision support tool to assist doctors and other healthcare professionals in the management of breast cancer. It is the first of its kind in Hong Kong and is designed with the specific objectives of providing:

- A unique online breast cancer programme for medical professionals;
- An application to assist medical professionals to make clinical recommendations; and
- Enhanced access to the data on local breast cancer collected and analysed by the Hong Kong Breast Cancer Registry.

Once registered, users can access Breast Cancer HK Online to input relevant patient information and choose the treatment type to present – adjuvant and surgery. The programme will then calculate the patient's cancer stage and biological subtype and present the treatment patterns and statistics typical of that given cancer stage and biological subtype.



Please visit and register: <http://brcaonline.hkbcf.org/>

「乳癌在線」



「乳癌在線」是一個獨特的網上平台，讓已登記的醫療界用家獲取香港乳癌資料庫所搜集及分析的數據。香港乳癌資料庫是由香港乳癌基金會策動創立的。

「乳癌在線」是香港首個乳癌數據平台，也是專業醫護人員診治乳癌時的助診工具，其提供的服務為：

- 特別為醫護專業人員而設的乳癌應用程式；
- 協助醫療專業人士作出臨床決策，為患者提供最佳的護理方案；
- 讓醫療專業人員隨時隨地獲取經香港乳癌資料庫搜集及分析的本地乳癌數據

透過這個網上平台，已登記的用家可揀選合適的參數，包括病理資料及治療類別，「乳癌在線」便會從數據庫中，篩選出與患者最接近的個案，分析治療趨勢，讓用家參考其中的治療方案。

請瀏覽及登記：<http://brcaonline.hkbcf.org/>

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