香港乳癌基金會策動
A Hong Kong Breast Cancer Foundation Initiative

孚 香港乳癌資料庫
Hong Kong Breast Cancer Registry

Hong Kong Breast Cancer Registry Report No. 6

香 港 乳 癌 資 料 庫 第 六 號 報 告

Hong Kong Breast Cancer Registry
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香港乳癌資料庫第六號報告

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目錄

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 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 all 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 comprised 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 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、醫護人員及公眾健康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，也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、公眾健康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/），讓醫護人員可以充份利用香港乳癌資料庫搜集及分析的乳癌數據，作為參考資料。
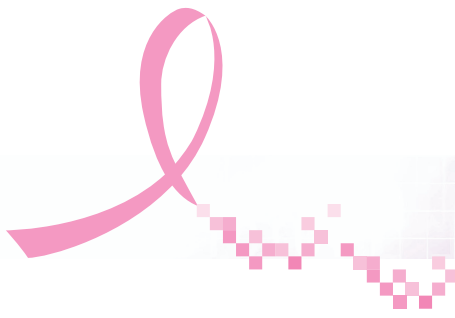
香港乳癌資料庫每年出版***香港乳癌資料庫報告***及***香港乳癌資料庫簡報***。

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。

THE HKBCR STEERING COMMITTEE　香港乳癌資料庫督導委員會

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ABOUT HONG KONG BREAST CANCER FOUNDATION

The Hong Kong Breast Cancer Foundation, 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, support and research & advocacy.
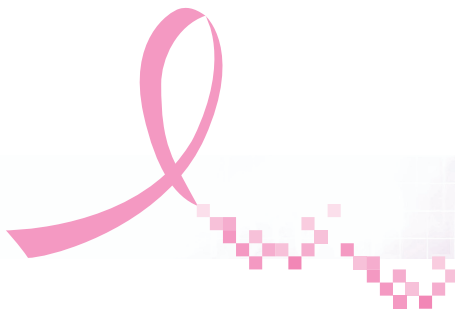
Mission
- Promote public awareness of breast cancer and the importance of breast health
- Support breast cancer patients on their road to recovery
- Advocate better breast cancer care in Hong Kong

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。

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

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. In 2011, 3,419 women were diagnosed with invasive breast cancer, accounting for 26.4% of all female cancer cases[1]. Recent figures showed that cumulative lifetime risk of developing breast cancer has been rising, from 1 in 21 women in 2008 to 1 in 17 women in 2011. The number of new breast cancer cases in Hong Kong has tripled in the past 20 years. In 2011, 552 women died from breast cancer and the mortality rate of breast cancer ranked third among all female cancer deaths.

Hong Kong Breast Cancer Registry – Over 12,300 patients registered

As of February 2014, more than 12,300 breast cancer patients have registered with the Hong Kong Breast Cancer Registry (HKBCR), and are participating in our data collection and analysis.

	1970-1979	1980-1989	1990-1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
■ HKCR Figures (Invasive)*	0	0	0	1918	1997	2059	2106	2273	2307	2584	2701	2616	2945	3014	3419	0	0
■ HKCR Figures (In situ)*#	0	0	0	0	0	0	0	0	0	0	0	0	443	472	484	0	0
■ HKBCR Figures (Invasive)	3	31	382	170	219	241	318	476	588	845	939	1088	1210	1186	1237	1057	231
■ HKBCR Figures (In situ)	0	2	57	23	34	49	41	56	83	99	118	170	171	170	161	133	42
HKBCR Figures / HKCR Figures, %	N/A	N/A	N/A	10.1	12.7	14.1	17.0	23.4	29.1	36.5	39.1	48.1	40.8	38.9	35.8	N/A	N/A

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 2009-2011 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 the overall picture of 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. 46 public and private hospitals and clinics have joined as participating sites in 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
- Pamela Youde Nethersole Eastern Hospital*
- Pok Oi Hospital
- Prince of Wales Hospital
- Princess Margaret Hospital
- Queen Mary Hospital*
- St. Paul's Hospital
- St. Teresa's Hospital
- Tsuen Wan Adventist Hospital
- Tuen Mun Hospital
- Union Hospital
- United Christian Hospital
- Yan Chai Hospital
- 25 Private clinics

* Multiple participating sites
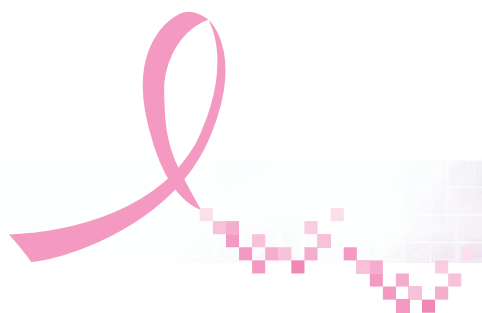
香港乳癌資料庫工作概覽

香港乳癌概況

乳癌是香港婦女最常見的癌症。在2011年，本港共有3,419名婦女新確診乳癌，佔女性癌症個案的26.4%[1]。統計顯示，香港婦女罹患乳癌的累計終生風險比率有所增加，由2008年的每21人中有1人，上升至2011年的每17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2011年，本港有552名婦女因乳癌而死亡，乳癌是本港女性癌症中的第三號殺手。

香港乳癌資料庫 — 超過 12,300人登記加入

截至2014年2月，已經有超過12,300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。

	1970-1979	1980-1989	1990-1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
■ HKCR 統計（入侵性）*	0	0	0	1918	1997	2059	2106	2273	2307	2584	2701	2616	2945	3014	3419	0	0
■ HKCR 統計（原位癌）*#	0	0	0	0	0	0	0	0	0	0	0	0	443	472	484	0	0
■ HKBCR 統計（入侵性）	3	31	382	170	219	241	318	476	588	845	939	1088	1210	1186	1237	1057	231
■ HKBCR 統計（原位癌）	0	2	57	23	34	49	41	56	83	99	118	170	171	170	161	133	42
HKBCR統計 / HKCR 統計，%	N/A	N/A	N/A	10.1	12.7	14.1	17.0	23.4	29.1	36.5	39.1	48.1	40.8	38.9	35.8	N/A	N/A

圖I　香港乳癌資料庫參加者的確診年份分佈

HKCR統計：醫院管理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"代表醫院管理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2009-2011年以外，醫院管理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46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
- 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
- 聖德肋撒醫院
- 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
- 25間私家診所

*多於一間收集中心

About Hong Kong Breast Cancer Registry Report No. 6 (Published in 2014)

Between 2008 and February 2014, a total of 12,345 breast cancer patients were registered with the HKBCR. From this total, 3,626 (30.1%) were recruited from private clinics/hospitals and the remaining 8,427 (69.9%) were registered through public hospitals. Upon receiving written consent from participants, the HKBCR research staff sent out questionnaires to capture information including demographics, lifestyle, health background, breast screening habits, physical discomfort after treatment, and psychosocial impacts and adjustments after diagnosis and therapy (Chapters 1 and 3 data). The HKBCR staff also collected medical data related to cancer characteristics and treatment modality (Chapter 2 data) of the participants. To look into the outcomes of the disease, patients were also followed up on a yearly basis to update any recurrence or metastasis. The follow-up status was also collected from 10,606 cases.

The number of breast cancer patients presented in this report was estimated to cover around 40% of the breast cancer cases reported by the Hong Kong Cancer Registry of Hospital Authority. Conclusions/observations drawn from the data analysis in this publication apply to the patients captured in the HKBCR only. To apply to all breast cancer patients in Hong Kong, this will require increased participation from all clinics/hospitals in Hong Kong. A trend of covering more and more patients from the public sector by the BCR Reports can be observed from Table I, from 41.7% in Report No. 2 (published in 2010) to 69.9% in Report No.6 (published in 2014), which is closer to the estimated percentage (75%) of breast cancer patients who use public health sector services. This implies that the findings from our BCR Reports are more and more representative to the actual breast cancer situation in Hong Kong.

Table I The sources of patient consent in HKBCR reports.

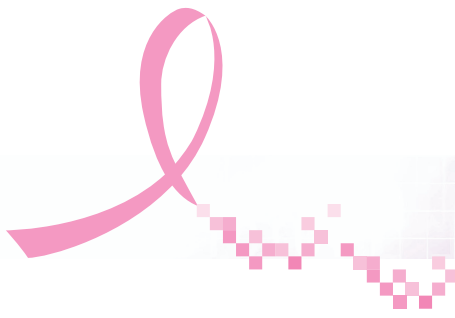|	Report No.2 (N=2,330)	Report No.3 (N=5,393)	Report No.4 (N=7,241)	Report No.5 (N=9,804)	Report No.6 (N=12,345)
Private clinics / hospitals	1,358 (58.3%)	2,539 (47.1%)	2,897 (40.0%)	3,337 (34.1%)	3,626 (30.1%)
Public hospitals	972 (41.7%)	2,854 (52.9%)	4,344 (60.0%)	6,461 (65.9%)	8,427 (69.9%)

關於香港乳癌資料庫第六號報告（2014年出版）

由2008年開始至2014年2月為止，共有12,345名乳癌患者登記加入香港乳癌資料庫。當中3,626人（30.1%）從私家診所 / 醫院招募，其餘的8,427人（69.9%）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，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調整（詳見報告第一章和第三章）。此外，香港乳癌資料庫的研究人員會從參加者的醫療檔案擷取有關其癌症特徵和治療方式等資料（詳見報告第二章）。為了觀察乳癌的預後情況，患者也接受每年一次的跟進，以更新任何復發或腫瘤轉移的資料；跟進個案達10,606宗。

本報告所涵蓋的乳癌患者人數約佔醫院管理局香港癌症資料統計中心所匯報的乳癌個案的大約40%。本報告刊載的數據分析結論 / 觀察只涵蓋於在香港乳癌資料庫登記的患者。若要適用於香港的所有乳癌患者，實有賴香港所有診所 / 醫院更大的參與。從表I可見，香港乳癌資料庫涵蓋愈來愈多來自公營醫療機構的患者，從第二號報告的41.7%到第六號報告的69.9%，進一步接近使用公營醫療機構的乳癌患者的估算比例（75%）。這意味著香港乳癌資料庫報告的研究結果反映香港的乳癌實際情況愈來愈高。

表I 香港乳癌資料庫報告的患者來源

	第二號報告 （人數=2,330）	第三號報告 （人數=5,393）	第四號報告 （人數=7,241）	第五號報告 （人數=9,804）	第六號報告 （人數=12,345）
私家醫院 / 診所	1,358 (58.3%)	2,539 (47.1%)	2,897 (40.0%)	3,337 (34.1%)	3,626 (30.1%)
公立醫院	972 (41.7%)	2,854 (52.9%)	4,344 (60.0%)	6,461 (65.9%)	8,427 (69.9%)

HONG KONG BREAST CANCER REGISTRY PUBLICATIONS AND PRESENTATIONS
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 (Sep 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 (Sep 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 (Sep 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 (Sep 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 (Sep 2013)　　香港乳癌資料庫第五號報告（2013年9月出版）

Bulletin 簡報

1. BCR Bulletin Issue 1 (May 2010)　　香港乳癌資料庫簡報第1期（2010年5月出版）
   Study 1: *Screening-detected breast cancer shows earlier stage than incidental self-detected cancer*　　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*
   Study 2: *Unwrapping physical and psychosocial impacts of breast cancer on Hong Kong women*　　研究二：*揭示乳癌對香港婦女帶來的生理及心理影響*

2. BCR Bulletin Issue 2 (October 2012)　　香港乳癌資料庫簡報第2期（2012年10月出版）
   Socio-economic Disparities in Breast Cancer Screening Practice and Cancer Staging in Hong Kong　　*經濟及社會狀況差異對乳癌普查習慣和癌症期數的影響*

3. BCR Bulletin Issue 3 (April 2013)　　香港乳癌資料庫簡報第3期（2013年4月出版）
   Impact of breast cancer by age in Hong Kong　　*年齡對本港乳癌個案的影響*

4. BCR Bulletin Issue 4 (December 2013)　　香港乳癌資料庫簡報第4期（2013年12月出版）
   A Study on the Differences in the Cancer Characteristics Between Self-Detected and Screen-Detected Patients and the Treatments They Received　　*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*

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 Apr;36(4):723-9.

2. Winnie Yeo, Hang-Mei Lee, Amy Chan, Emily YY Chan, Miranda CM Chan, Keeng-Wai Chan, Sharon WW Chan, Foon-Yiu Cheung, Polly SY Cheung, Peter HK Choi, Josette SY Chor, William WL Foo, Wing-Hong Kwan, Stephen CK Law, Lawrence PK Li, Janice WH Tsang, Yuk Tung, Lorna LS Wong, Ting-Ting Wong, Chun-Chung Yau, Tsz-Kok Yau, Benny CY Zee, on behalf of the Hong Kong Breast Cancer Foundation. Risk Factors and Natural History of Breast Cancer in Younger Chinese Women. World J Clin Oncol. (In Press).

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)

ABSTRACTS OF REPORTS NO. 1-5

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 early age of onset, showing a relatively younger median age at diagnosis, compared 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).

Eighty one per cent 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 is a rebuke of the myth 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%)

Report No.1 revealed that 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%)

As regards the distribution of cancer stage at the time of diagnosis, the highest ratio of stage 0 cases (in situ breast cancer) was found in patients with private medical care (13.6%); the proportion of cases diagnosed at stage 0 in the patients receiving public medical care was 5.7%. The tumour size of invasive breast cancer was generally found to be larger in patients with total public medical care.

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

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

Findings of the report shed light on the more advanced breast cancer cases seen in the public health care sector and the underlying factors should be studied.
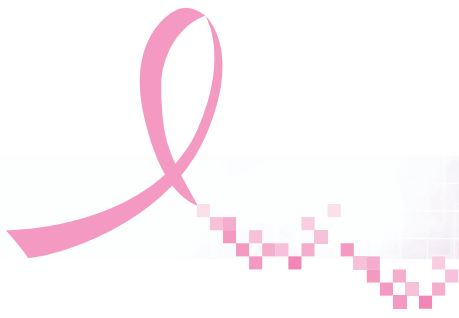
Report No. 3 (2011): Lower income districts recorded higher rate of advanced stage breast cancer and lower breast cancer screening rate

Regular breast screening using mammography has been proven to be an effective tool for the 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). The result showed 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.

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 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 rate of advanced-stage cancers in patients receiving treatment at public hospitals (16.7%) was twice the rate in private hospital patients (7.4%).

Regular breast screening was associated with breast cancer of less advanced stage. Hence, more work has to be done 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 Patients

According to results of the HKBCR Report No. 4 (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 the patients diagnosed at younger than 40 years old ("young patients") and 5.1% 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. Hormone exposure factors also prevailed among young patients including the absence of childbirth (43.4%) and lack of breastfeeding experience (74.6%) or early menarche (19.5%).

More young patients were diagnosed at early 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%). Young patients also tended to have higher rates in receiving breast conserving surgery (45.3%), chemotherapy (68.3%), mastectomy and reconstruction (20.3%), radiotherapy (67.8%) and targeted therapy (7.2%).

On the psychological impact of breast cancer on patients, young patients were less likely to accept the diagnosis calmly or positively (16.2%), and were more likely to worry about recurrence at all times (12.3%). However, the rates of lifestyle adjustment after diagnosis were higher in young patients, such as changing dietary habit (71%) and doing more exercise (59%).

In conclusion, young patients encountered more prevalent risk factors of 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.
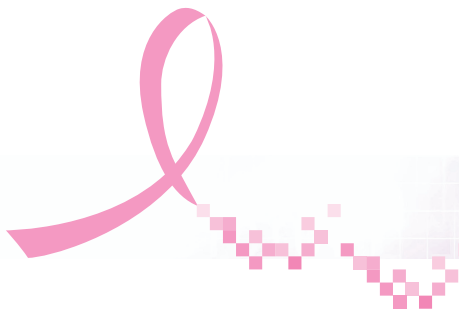
Report No. 5 (2013): Regular mammogram screening reduces the need for total mastectomy and chemotherapy

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 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 chances of these patients requiring total mastectomy and/or chemotherapy treatment were also lower. Therefore, women should conduct regular breast cancer screening to maximize chances of early detection of the disease and minimize the needs for receiving total mastectomy and chemotherapy as treatments.

第一至五號報告摘要

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在較早的年紀病發，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。

報告群組中有81%患者胸圍杯罩尺碼為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。
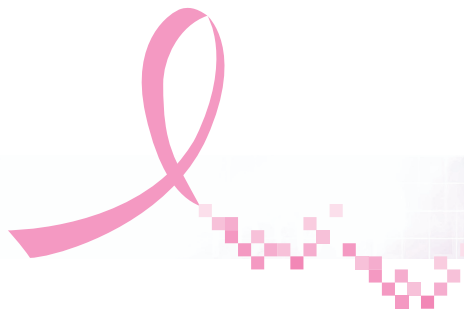
第一號報告亦找出本港乳癌患者共通的乳癌高危因素：

（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%的患者有兩或三項高危因素；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）：私營醫院的原位乳癌個案比率較高

《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。

研究將群組裡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，接受全乳切除手術的比率為使用私營服務患者的一倍。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。內分泌治療藥物 tamoxifen（最常用）的使用模式，在不同組別中亦沒有差異。

報告又發現公立醫院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）小三分一。這反映有乳房檢查習慣的好處。

第三號報告亦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，公立醫院的乳癌個案中，晚期個案有較高的比例（16.7%），為私營醫院晚期個案（7.4%）高出一倍多。

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。
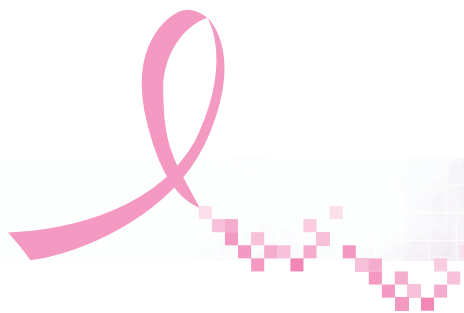
第四號報告（2012）：年輕乳癌患者多有不健康生活習慣

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%患者在四十歲前已確診乳癌（「年輕患者」），另外5.1%患者的確診年齡則為70歲以上。

第四號報告的數據分析顯示，年輕患者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，年輕患者被確診早期乳癌的比率較高（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%）、屬第二型類表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，年青患者明顯較多接受乳房保留手術（45.3%）、化學治療（68.3%）、進行乳房切除手術再接受乳房重建手術（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，年輕患者被確診乳癌後多會在生活模式方面有正面的轉變，如改變飲食習慣（71%）及多做運動（59%）等。

總括而言，年輕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

《香港乳癌基金會第五號報告》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（定期檢查組），另一組是沒有進行定期檢查的患者，她們有顯露病徵（自我檢查組）。

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

定期檢查組中接受全面乳房切除的患者少於一半（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，與定期檢查組患者（25%）相比，自我檢查組有更多患者（66%）需要接受化療。

歸納而言，通過定期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，婦女應該進行定期乳癌檢查，以增加早期確診病症的機會，並減少接受全面乳房切除和化療等治療方法的需要。

FOREWORD

Welcome to the Hong Kong Breast Cancer Registry Report No. 6.

This latest report provides important insights into the relationship between delayed medical consultation and the staging of breast cancer upon diagnosis. It also explores the impact and consequences of time lags between the onset of symptoms and first clinical consultation, and, from then to first treatment. At the same time, the report examines the potential trend in patient behaviour when seeking medical consultation based on demographics including residential district, education level, age, and so on.

This report is based on the most representative database of breast cancer cases in Hong Kong, with data derived from 12,345 cases - 2,541 cases more than that captured in our last report. Furthermore, our list of participating clinics and hospitals continues to grow: we are now partnering with 12 centres within public hospitals and 34 private clinics and hospitals throughout Hong Kong to connect with breast cancer patients.

These growing figures enable us to gain better and more accurate insight into the impact breast cancer has on the local community to identify potentially life-saving information from the trends and characteristics of the disease. The information forms the basis of our ongoing advocacy work for better breast cancer prevention and care for patients.

On 22 May this year the Hong Kong Breast Cancer Registry (HKBCR) launched Breast Cancer HK Online (BRCA Online), a first-of-its kind local breast cancer online database in Asia. Developed to enhance access to and use of the valuable data we collect, BRCA Online is designed to be an integral clinical decision support tool, assisting medical professionals to make informed treatment decisions and prognosis assessments towards the best medical care for patients. Continuously updated, the platform keeps medical professionals and patients abreast of local breast cancer facts.

Our achievements would not be possible without the dedication and foresight of the HKBCR Steering Committee and the efforts of our data and research officers, as well as our generous donors and sponsors, to all of whom I extend my heartfelt thanks. Most of all, the HKBCR wouldn't exist if it weren't for the courage and trust of Hong Kong breast cancer patients and survivors who share their medical information to benefit future patients. I thank each and every one of you who have registered with us.

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

前言

歡迎參閱《香港乳癌資料庫第六號報告》。

本報告就延誤診治與診斷乳癌期數之間的關係提供重要發現,並探討出現癥狀與首次就診,及首次就診與首次接受治療之間相距的時間產生的影響和後果。本報告又根據居住地區、教育程度、年齡等等的人口統計數據,檢視病人在求醫方面的潛在趨勢。

本報告根據香港乳癌病例最具代表性的資料庫製作。數據來自12,345宗個案,較上一個報告增加2,541宗。此外,參與的診所和醫院數目也持續增加,目前與我們合作的都是與乳癌病人緊密聯繫的機構,包括12家公立醫院,以及34家私營診所和醫院。

不斷增長的數據讓我們可以更好和更準確地了解乳癌對本地社區的影響,並從資料的趨勢和特徵辨清可以挽救生命的潛在資料,是持續推展更佳乳癌防護和照料患者的基礎。

今年5月22日,香港乳癌資料庫推出亞洲首個本地數據網上平台「乳癌在線」,目的是方便獲取及使用我們搜集的珍貴數據,設計側重其作為整體臨床診斷支援工具的定位,協助醫療專業人員透過參考相關資料訂定治療方案及預後評估,為病人提供最佳的醫療服務。這個平台將不斷持續更新,讓醫療專業人員和乳癌患者得悉本地乳癌狀況的最新資料。

我們的成功有賴香港乳癌資料庫督導委員會的投入和遠見,以及搜集數據和研究人員的努力,還有慷慨的捐助者和贊助人。在此我要對他們表達最衷心的感謝。最重要的是,若非香港乳癌患者和康復者的勇氣和信任,跟我們分享她們的醫療資料以造福將來的患者,香港乳癌資料庫就絕不可能存在。對於每一位與我們登記的患者/康復者,在此,我致以最誠懇的感謝。

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

▶ The total number of breast cancer patients covered by the report was 12,345.

▶ The mean age of the patients at diagnosis was 50.9 years and the median age at diagnosis was 49.6 years.

▶ Occurrence of breast cancer was the highest among women aged 40-59 in Hong Kong (69.0%).

Risk factors

▶ The 10 most common risk factors for breast cancer in the patients:

	%
Lack of exercise (<3 hours / week)	76.9
No breastfeeding	65.5
High level of stress (>50% of time)	37.3
Being overweight / obese	37.0
No childbirth / delayed child birth (first live birth after age 35)	24.2
Meat rich or dairy products rich diet	14.4
Family history of breast cancer	14.3
Early menarche (<12 years old)	13.4
Use of hormone replacement therapy	5.2
Night shift	5.0

Screening habits

▶ The overall patients' breast screening habits were poor. Less than half of the patients attended regular clinical breast examination and less than 25% of patients conducted regular breast self-examination or mammography screening.

▶ Breast screening habit is less with increasing age.

Cancer characteristics, histological and biological characteristics

▶ 84.6% of patients self-discovered their breast cancer by chance. More invasive breast cancers were self-detected by chance (88.4%) than in situ breast cancers (58.0%).

▶ 16.1% of the patients delayed first medical consultation for over one month after the onset of symptoms.

▶ 81.3% of patients were diagnosed at early stage (stages 0-II), 15.2% were diagnosed at advanced stage (stages III-IV) and 3.5% were unstaged. 9,536 patients (86.4%) had invasive breast cancer.

▶ The mean invasive tumour size was 2.2cm (standard deviation: 1.4cm). The mean tumour size of invasive breast cancer in self-detected cases vs. screen-detected cases: 2.2cm vs. 1.3cm. 46.4% of the patients had invasive tumour larger than 2cm.

▶ 13.5% (1,492 patients) had in situ breast cancer with mean tumour size of 2.0cm (standard deviation: 1.5cm). 37.8% of the patients had in situ tumour larger than 2cm.

Histological and biological characteristics of invasive and in situ cancers:

	Invasive %	In situ %
Histological type		
Ductal	84.7	91.4
Lobular	3.7	1.7
Others	11.6	6.9
Biological characteristics		
ER+	76.9	79.9
PR+	64.8	71.2
HER2+	21.8	28.9
Ki-67 index ≥ 14%	56.6	28.2
ER-PR-HER2-	12.0	—
Lymphovascular invasion	28.6	—

ER+/-: estrogen receptor positive/negative
PR+/-: progesterone receptor positive/negative
HER2+/-: human epidermal growth factor receptor 2 positive/negative

Treatment

► 17.1% of patients were treated solely at private medical facilities, 48.9% received their treatment solely at public medical facilities and 34.0% received treatment at both private and public medical facilities.

► Within the patient cohort, the number of treatments received by patients increased with increasing cancer stage, with the exception of those with stage IV breast cancer.

► 49.4% of stage 0 patients were treated with two treatments and 9.0% received three treatments.

► 42.1% of stage I patients were treated with three treatments and 15.2% received four treatments.

| | Total % | Treatment in private sector % | Treatment in public sector % | Stage | | | | | |
				0 %	I %	IIA %	IIB %	III %	IV %
Surgery	**98.3**	**52.9**	**47.1**						
Breast conserving surgery	35.1	44.8	26.2	53.0	47.8	30.5		13.5	11.6
Mastectomy	63.1	55.2	73.8	47.1	52.2	69.5		86.5	88.3
Chemotherapy	**60.5**	**15.2**	**84.8**	–	38.7	82.0	91.7	94.1	85.8
Radiotherapy	**62.2**	**14.3**	**85.7**	51.3	53.8	59.2	78.9	94.7	62.7
Endocrine therapy	**66.7**	**12.9**	**87.1**	17.7	75.3	74.1	76.5	75.2	85.2
Targeted therapy	**8.0**	**14.0**	**86.0**	--	25.8*	41.6*	44.5*	53.4*	55.2*

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

Treatment discomfort

Treatment	% of patients severe discomfort	Top complaints (% of patients)
Chemotherapy	56.0	Vomiting (25.6%), loss of appetite (18.6%), hair loss (15.4%)
Radiotherapy	12.9	Dry skin (19.9%), skin burns (9.2%)
Surgery	10.3	Wound pain (16.1%)
Endocrine Therapy	8.0	Hot flushes (11.5%)
Targeted Therapy	7.5	Fatigue (5.5%)

► Among all types of treatment, chemotherapy was the most distressing for patients. 56.0% of patients reported severe discomfort after chemotherapy and 26.7% of patients reported moderate discomfort.

Psychosocial impact of diagnosis & treatments

► At the time of diagnosis, 33.0% of patients accepted the result but felt depression and 53.4% of patients felt that life was not fair after treatments. 59.2% always or sometimes worried about recurrence.

► 54.1% of patients reported positive change in their outlook of life and 41.8% had a positive change in their self-image.

► 82.7% of patients reported lifestyle modifications after breast cancer diagnosis. The most common lifestyle change was change in diet (74.9%), followed by increase in exercise (61.5%).

► 54.4% of patients managed their negative emotions by direct verbal expression and 34.4% by divert attention from the negative emotions.

CHAPTER 1

PREVENTION AND EARLY DETECTION OF BREAST CANCER

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PREVENTION AND EARLY DETECTION OF BREAST CANCER

This chapter reviews patient demographics, socioeconomic status and lifestyle of Hong Kong breast cancer patients through analysis drawn from data collected from patients registered at the Hong Kong Breast Cancer Registry (HKBCR), consisting of 12,053 patients. Through this, identification of key factors that contribute to increased risk of breast cancer and insight into potential risk factors that contribute to increasing incidence rate of breast cancer observed in Hong Kong may be achieved.

KEY FINDINGS

► The mean age of diagnosis of patients was 50.9 years (standard deviation: 10.4 years) and median was 49.6 years

► Breast cancer occurrence was highest among the 40-49 age group (38.5%)

► The top 10 most common known risk factors in the HKBCR patient cohort were
  • Lack of exercise (<3 hours/week) (76.9%)
  • No breastfeeding (65.5%)
  • High level of stress (> 50% of the time) 37.3%)
  • Being overweight/obese (37.0%)
  • No childbirth / delayed child birth (first live birth after age 35) (24.2%)
  • Meat rich or dairy products rich diet (14.4%)
  • Family history of breast cancer (14.3%)
  • Early menarche (<12 years old) (13.4%)
  • Use of hormone replacement therapy (5.2%)
  • Night shift (5.0%)

► Screening Habits
  • Less than 25% of patients in all age groups conducted regular breast self examination.
  • Less than 45% of patients in all age groups attended regular clinical breast examination, and less than 25% of patients in all age groups had regular mammography screening (MMG) or breast ultrasound screening (USG).
  • In general, the number of patients who never conducted breast self-examination or clinical breast examination was positively correlated to increasing age, with the exception of the under 40s age group.

1.1 Demographics

Age distribution in each breast cancer population group differs significantly[2-4]. It is therefore important to analyze age distribution individually for each population group.

The analysis of age distribution data showed that although the age of patients with breast cancer ranged from 18.8 to 101.5 years, the relative frequency of breast cancer was highest among the 40-49 age group (38.5%), followed by the 50-59 age group (30.5%) (Figure 1.1). The mean age of diagnosis was 50.9 years with a standard deviation of 10.4 years, and median age of diagnosis was 49.6 years.
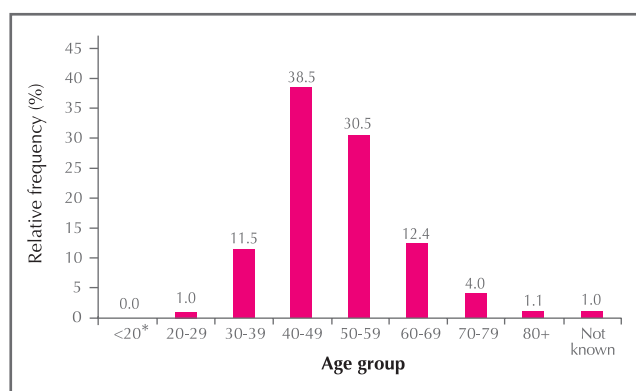
Figure 1.1 Distribution of age at diagnosis (N=12,053)

* 2 patients belonged to the <20 age group.

The patient cohort occupation status analysis showed that 57.1% of patients were employed or self-employed. A higher proportion of patients had a professional/clerical occupation (31.3%) than non-clerical/labour occupation (23.3%) (Figure 1.2). The average working hours of the patient cohort was 46.4 hours per week with a standard deviation of 14.4 hours per week.

It has been hypothesized that night shift work with increased artificial light exposure at night is associated with breast cancer and many studies have studied this association[5-9]. Shift work has been classified as "probably carcinogenic" to humans by the International Agency for Research on Cancer (IARC) in 2007. However a recent dose-response analysis of published observational data found no association between sleep duration, disruption of circadian rhythm and breast cancer[10]. Therefore the risk of breast cancer associated with night shift remains controversial.

Of the patient cohort, 577 (8.4%) of patients were carrying out night shifts before diagnosis with a median frequency of night shifts of 84 nights per year.
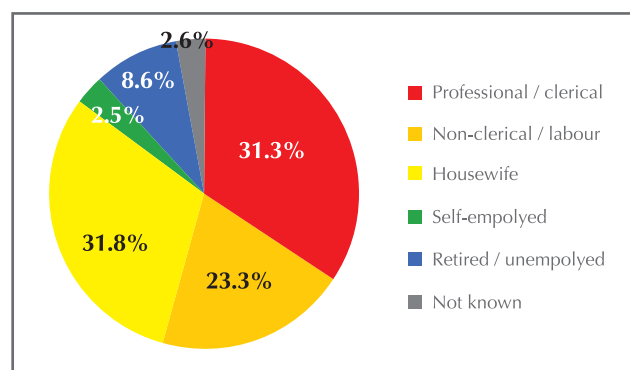

Figure 1.2 Occupation of the patients (N=12,053)

69.6% of the patients were educated to secondary school or above, while 29.3% of patients were educated to primary school level or below (Figure 1.3). 35.2% of patients had a monthly household income of 30,000 HKD or higher, while 20.7% of patients had a monthly household income less than 10,000 HKD (Figure 1.4).
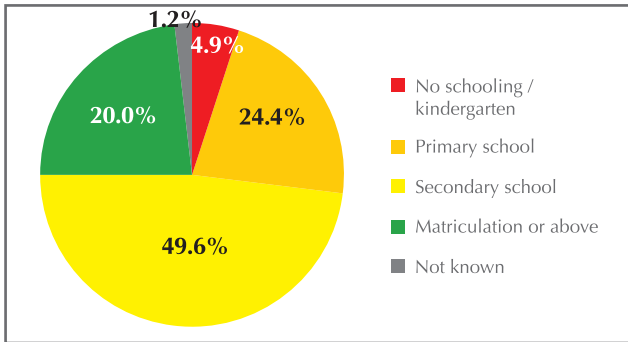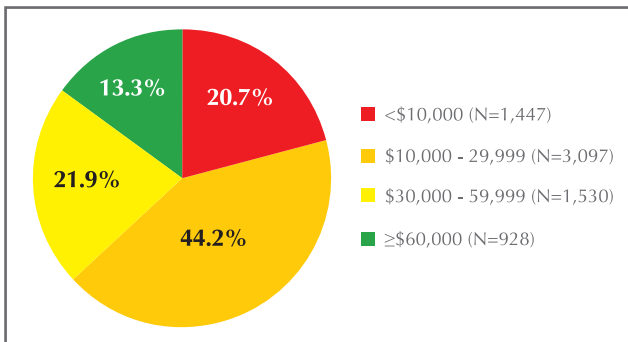
Figure 1.3 Education level of the patients (N=12,053)

Legend:
- No schooling / kindergarten
- Primary school
- Secondary school
- Matriculation or above
- Not known

Values: 1.2%, 4.9%, 24.4%, 49.6%, 20.0%

Figure 1.4 Monthly household income of the patients (HKD) (N=7,002)

Legend:
- <$10,000 (N=1,447)
- $10,000 - 29,999 (N=3,097)
- $30,000 - 59,999 (N=1,530)
- ≥$60,000 (N=928)

Values: 13.3%, 20.7%, 21.9%, 44.2%

56.2% of the patient cohort resided in the New Territories, while 23.3% resided in Kowloon, and 16.0% resided on Hong Kong Island (Figure 1.5).
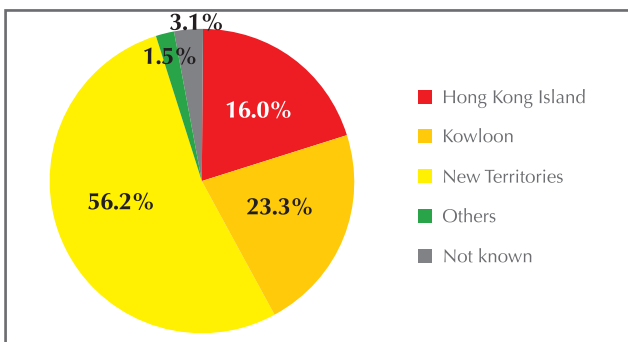
Figure 1.5 Distribution of residential districts of the patients (N=12,053)

Legend:
- Hong Kong Island
- Kowloon
- New Territories
- Others
- Not known

Values: 3.1%, 1.5%, 16.0%, 56.2%, 23.3%

The most common bra size among the patients was 34 inches (24.8%, Figure 1.6) and cup B or smaller (52.9%, Figure 1.7).

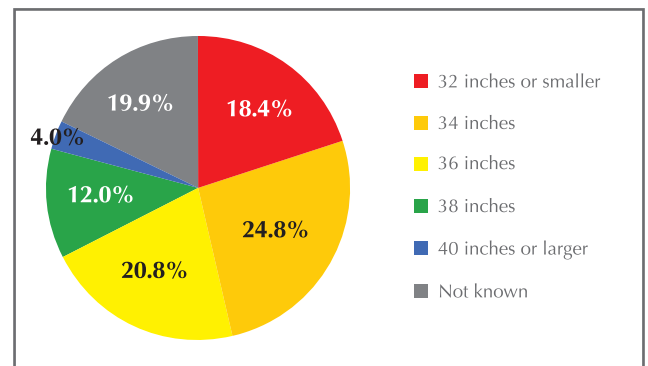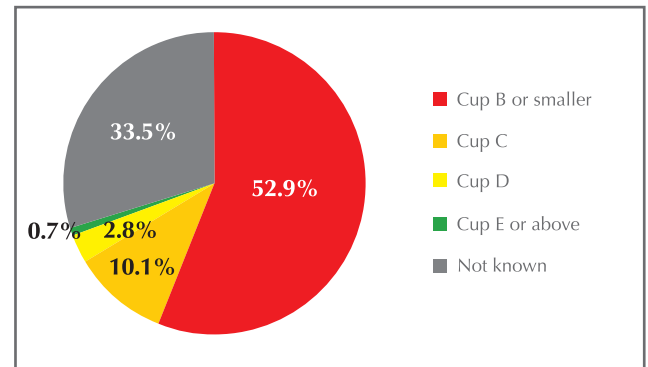**Figure 1.6 Bra size of the patients (N=12,053)**

Legend:
- 32 inches or smaller
- 34 inches
- 36 inches
- 38 inches
- 40 inches or larger
- Not known

Values: 19.9%, 18.4%, 4.0%, 12.0%, 20.8%, 24.8%

Figure 1.7 Bra cup size of the patients (N=12,053)

Legend:
- Cup B or smaller
- Cup C
- Cup D
- Cup E or above
- Not known

Values: 33.5%, 52.9%, 0.7%, 2.8%, 10.1%

1.2 Risk factors and health background

1.2.1 Smoking

Smoking and alcohol drinking are known factors that increase the risk of breast cancer.

Many studies have studied the effect of smoking on breast cancer with inconclusive results[11]. Recent studies have shown a significant increased risk of postmenopausal breast cancer[12], and increased risk of ER positive breast cancer in active smoking young women[13]. Of the patients in the cohort, 4.5% were smokers smoking for a mean duration of 18.3 years with a standard deviation of 10.9 years. These patients smoked at a rate of 3.6 cigarette packs per week with a standard deviation of 3.1 packs per week. 45.0% of these patients had quit smoking, and had quit for 6.8 years (with a standard deviation of 8.3 years) at the time of diagnosis.

1.2.2 Alcohol drinking

The International Agency for Research on Cancer considers alcohol to be causally related to invasive breast cancer[14]. 4.7% of patients drank alcohol, with a mean duration of 14.6 years and standard deviation of 10.4 years. The average consumption of alcohol was 4.5 glasses per week. The most commonly consumed alcoholic beverage was red wine (28.3%), beer (23.7%) and beer and red wine (14.1%). 14.6% of patients had stopped drinking at the time of diagnosis.

1.2.3 Dietary and exercise habits and stress level

68.2% of patients ate a balanced diet, while 14.4% of patients ate a meat rich / dairy product rich diet. 45.6% of patients never exercised, while 31.3% of patients exercised less than 3 hours per week. 37.3% of patients experienced high levels of stress, while 27.9% of patients had moderate volume of stress (Table 1.1).

Table 1.1 Dietary habits, exercise habits and stress level at the time of diagnosis (N=12,053)

	Number	(%)
Dietary habit		
Meat rich / dairy product rich	1,739	(14.4)
Vegetable rich / Vegetarian	1,647	(13.7)
Balanced diet	8,219	(68.2)
Not known	448	(3.7)
Exercise		
Never	5,495	(45.6)
< 3 hours per week	3,774	(31.3)
≥ 3 hours per week	2,678	(22.2)
Not known	106	(0.9)
Stress level		
High level*	4,497	(37.3)
Moderate level**	3,365	(27.9)
Low level	4,026	(33.4)
Not known	165	(1.4)

 * 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. The average height of the patient cohort was 157.8cm with a standard deviation of 5.6cm while the average weight was 56.8kg with a standard deviation of 9.1 kg.

Increased BMI has been shown to be a risk factor for breast cancer particularly in postmenopausal women[15-16]. Renehan et al reported a 12% increase in relative risk of postmenopausal breast cancer for every 5 kg/m^2 increase in BMI[17]. Although 42.9% of patients had a normal BMI, 37.1% of patients were overweight or obese (Table 1.2).

Table 1.2 Body mass index at the time of diagnosis (N=12,053)

BMI	Number	(%)
≥ 25.0 (Obese)	2,443	(20.3)
23.0-24.9 (Overweight)	2,019	(16.8)
18.5-22.9 (Normal weight)	5,172	(42.9)
< 18.5 (Underweight)	848	(7.0)
Not known	1,571	(13.0)

1.2.5 Family history of breast cancer

Family history of breast cancer is a known important risk factor of breast cancer. Increasing number of relatives with breast cancer has been shown to be associated with increased risk of breast cancer. 14.3% of patients had a family history of breast cancer, and 84.3% of patients had no family history of breast cancer (Table 1.3).

Table 1.3 Family history of patient cohort at the time of diagnosis (N=12,053)

Family history of breast cancer	Number	(%)
No	**10,157**	**(84.3)**
Yes		
First-degree relative(s)	1,205	(10.0)
Non first-degree relative(s)	488	(4.0)
Details not known	35	(0.3)
Family history not known	**168**	**(1.4)**

1.2.6 Personal history of tumours

17.2% of patients had a previous history of tumours, however only 2% had previous history of malignant tumours (Table 1.4). Of these patients, the most frequent malignant tumours were thyroid cancer (12.9%) and colorectal cancer (11.2%) (Table 1.5).

Table 1.4 Personal histories of tumours of the patient cohort at the time of diagnosis (N=12,053)

History of tumours	Number	(%)
No	9,668	(80.2)
Benign tumour	1,772	(14.7)
Malignant tumour	241	(2.0)
Nature of previous tumours not known	57	(0.5)
History of tumours not known	315	(2.6)

Table 1.5 Types of malignant tumours reported by the patients (N=241)

Type of malignant tumours	Number	(%)
Thyroid cancer	31	(12.9)
Colorectal cancer	27	(11.2)
Uterine cancer	18	(7.5)
Cervical cancer	14	(5.8)
Lymphoma	7	(2.9)
Ovarian cancer	7	(2.9)
Nasopharyngeal cancer	6	(2.5)
Lung cancer	5	(2.1)
Intestinal cancer	4	(1.7)
Urological cancer	4	(1.7)
Liver cancer	3	(1.2)
Skin cancer	3	(1.2)
Stomach cancer	3	(1.2)
Bone cancer	2	(0.8)
Esophagus cancer	2	(0.8)
Leukemia	2	(0.8)
Medullary	2	(0.8)
Sigmoid Cancer	2	(0.8)
Tongue cancer	2	(0.8)
Others*	6	(2.5)
Not known	98	(40.7)

* Others include: brain cancer, fallopian tube cancer, nasal cancer, neck cancer, parotid gland cancer, and salivary gland cancer.

1.2.7 History of benign breast disease

Benign breast disease is common among young women of reproductive age. While most benign breast diseases are not a cause for concern, some conditions such as atypia and papillomatosis are known risk factors of breast cancer. The magnitude of associated risk of breast cancer is dependent on the type of lesion[18-20]. Of the patients, 15.1% of patients had previous history of breast disease. Of the patients with benign breast disease, 1% had atypia and only 0.2% had papillomatosis (Table 1.6).

Table 1.6 History of breast disease at the time of diagnosis

	Number	(%)
History of previous breast disease	1,814	(15.1)
Type of previous breast disease		
Fibroadenoma	828	(45.6)
Fibrocystic disease	117	(6.4)
Papilloma	28	(1.5)
Papillomatosis	3	(0.2)
Atypia	18	(1.0)
Others (Gynaecomastia, other benign tumours)	836	(46.1)

1.2.8 Early menarche, late menopause and reproductive history

Reproductive factors such as early age at menarche, late onset of menopause, older age at first birth or no child birth, no breast feeding and parity are factors associated with increased risk of breast cancer[21-22]. Menarche to first pregnancy represents a window where the breast is particularly vulnerable to carcinogenesis[23]. In the patient cohort, the mean age at menarche was 13.3 years, and the mean age of menopause was 49.3 years.

13.4% of patients experienced early menarche. 48.6% of patients were postmenopausal women and among them, 4.5% experienced late menopause. 21.1% of patients did not experience child birth, and 4% of patients had their first child after the age of 35. Of the patients that had children, the mean age of first live birth was 26.8 years (Table 1.7). Number of live births is shown in Table 1.8.

65.5% of patients did not breastfeed (Table 1.7). The average duration of breast feeding was 15.4 months with a standard deviation of 21.3 months, and range of 0.1 month to 252 months.

Table 1.7 Early menarche, late menopause and reproductive history at the time of diagnosis

	Number	(%)
Menarche (N=12,053)		
Early menarche (<12 years of age)	1,617	(13.4)
Normal menarche (≥ 12 years of age)	9,609	(79.7)
Not known	827	(6.9)
Menopause (N=5,861)		
Late menopause (>55 years of age)	264	(4.5)
Normal menopause (≤ 55 years of age)	4,764	(81.3)
Age at menopause not known	833	(14.2)
Reproductive history (N=11,616)		
No childbirth	2,447	(21.1)
First childbirth at early stage (≤ 35 years of age)	8,425	(72.5)
First childbirth at late age (>35 years of age)	469	(4.0)
Age at first live birth not known	275	(2.4)
Breastfeeding (N=12,053)		
Yes	3,677	(30.5)
No (Had childbirth)	5,392	(44.7)
No (No childbirth)	2,443	(20.3)
No (Reproductive history not known)	64	(0.5)
Not known	477	(4.0)

Table 1.8 Number of live births reported by patients (N=9,169)

No. of live births	Number	(%)
1	2,453	(26.8)
2	4,109	(44.8)
3	1,612	(17.6)
4	565	(6.2)
5	208	(2.3)
6	100	(1.1)
7	36	(0.4)
8	12	(0.1)
10+	7	(0.1)
Not known	67	(0.7)

1.2.9 Use of oral contraceptives

The use of oral contraceptives and its association to breast cancer risk is an area of controversy and requires further investigation. Of the patients, 32.8% used oral contraceptives, among which 12.4% of patients used oral contraceptives for more than 5 years (Table 1.9).

Table 1.9 Use of oral contraceptives at the time of diagnosis (N=12,053)

OC use	Number	(%)
Non-user	7,692	(63.8)
OC use < 5 years	1,859	(15.4)
OC use 5-10 years	1,049	(8.7)
OC use > 10 years	444	(3.7)
Length of OC use not known	598	(5.0)
Not known if OC was used	411	(3.4)

OC: Oral contraceptives

1.2.10 Use of hormone replacement therapy

Hormone replacement therapy (HRT) is used to provide relief from symptoms of menopause. HRT use is associated with increased risk of breast cancer in women[24-25]. Only one-tenth (10.7%) of the postmenopausal patients used HRT in which 3.6% of patients used HRT for over 5 years (Table 1.10).

Table 1.10 Use of hormone replacement therapy (by post-menopausal patients) at the time of diagnosis (N=5,861)

HRT use	Number	(%)
Non-user	5,003	(85.4)
HRT use < 5 years	340	(5.8)
HRT use 5-10 years	182	(3.1)
HRT use > 10 years	31	(0.5)
Length of HRT use not known	75	(1.3)
Not known if HRT was used	230	(3.9)

HRT: Hormone replacement therapy

1.2.11 The ten most common risk factors associated with breast cancer in the patient cohort

Many risk factors are associated with increased risk of breast cancer. Of the risk factors studied in the Hong Kong Breast Cancer Registry, lack of exercise (76.9%) was the most common risk factor in the patient cohort, followed by lack of breastfeeding (65.5%) and high stress levels (37.3%) (Table 1.11).

Multiple risk factors result in accumulated increased risk of breast cancer. 59.7% of patients had 3 or more risk factors (Figure 1.8).

Table 1.11 The ten most common risk factors in the patient cohort (N=12,053)

Risk factor	Number	(%)
Lack of exercise (<3hrs / week)	9,269	(76.9)
No breastfeeding	7,899	(65.5)
High level of stress (>50% of time)	4,497	(37.3)
Being overweight / obese	4,462	(37.0)
No childbirth / First live birth after age 35	2,916	(24.2)
Diet rich in meat / dairy products	1,739	(14.4)
Family history of breast cancer	1,728	(14.3)
Early menarche (<12 years old)	1,617	(13.4)
Use of hormonal replacement therapy	628	(5.2)
Night shift*	599	(5.0)

* Night shift was defined as having duties during 23:00-06:00, and having more than a night in a year was also regarded as "Night shift" in the above table.
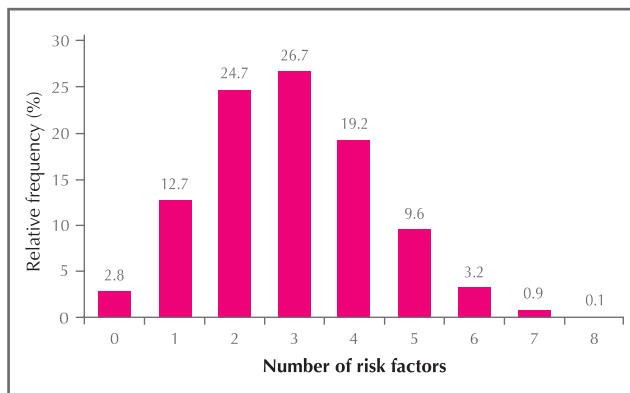
Figure 1.8 Number of risk factors for breast cancer at the time of diagnosis (N=12,053)

1.3 Breast screening habits

Regular breast screening is the best method available for early detection of breast cancer. Early detection reduces mortality from breast cancer. The Hong Kong Breast Cancer Foundation recommends women aged 40 and over conduct monthly breast self-examination (BSE) and regularly attend clinical breast examination (CBE) and mammography screening (MMG). In addition to MMG, ultrasound examination (USG) can be used for women with dense breasts.

BSE, MMG and USG were regularly conducted by less than a quarter of patients. Number of patients who never conducted BSE and USG were positively correlated to increasing age. With the exception of those aged 40-49, number of patients who never conducted MMG was also positively correlated with age.

CBE was regularly conducted by around 40% of the patients aged 59 or under, but only regularly conducted by 27.8% and 11.9% of women aged 60-69, and above 70, respectively. With the exception of women under 40, never conducting CBE was positively correlated with increasing age (Table 1.12).

Table 1.12 Breast screening habits by age group

Breast examination	Age Group (years), Number (%)				
	<40	40-49	50-59	60-69	70+
BSE					
Never	565 (37.4)	1,700 (36.6)	1,494 (40.7)	701 (46.9)	382 (62.0)
Occasional	586 (38.8)	1,703 (36.7)	1,206 (32.8)	424 (28.4)	152 (24.7)
Monthly	332 (22.0)	1,150 (24.8)	882 (24.0)	338 (22.6)	63 (10.2)
Not known	27 (1.8)	86 (1.9)	90 (2.5)	31 (2.1)	19 (3.1)
CBE					
Never	689 (45.6)	1,910 (41.2)	1,637 (44.6)	873 (58.4)	465 (75.5)
Occasional	193 (12.8)	571 (12.3)	459 (12.5)	162 (10.8)	54 (8.8)
Regular*	608 (40.3)	2,081 (44.9)	1,498 (40.8)	415 (27.8)	73 (11.9)
Not known	20 (1.3)	77 (1.7)	78 (2.1)	44 (2.9)	24 (3.9)
MMG#					
Never		3,179 (68.5)	2,307 (62.8)	1,018 (68.1)	507 (82.3)
Occasional		417 (9.0)	415 (11.3)	151 (10.1)	39 (6.3)
Regular*		951 (20.5)	869 (23.7)	285 (19.1)	45 (7.3)
Not known		92 (2.0)	81 (2.2)	40 (2.7)	25 (4.1)
USG#					
Never		3,154 (68.0)	2,519 (68.6)	1,131 (75.7)	513 (83.3)
Occasional		417 (9.0)	350 (9.5)	109 (7.3)	34 (5.5)
Regular*		868 (18.7)	649 (17.7)	183 (12.2)	35 (5.7)
Not known		200 (4.3)	154 (4.2)	71 (4.8)	34 (5.5)

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

Analysis of breast screening habits by residential district showed that less patients in Hong Kong Island never conducted BSE, CBE, MMG or USG compared to Kowloon and the New Territories. More patients in Hong Kong Island conducted health care service assisted regular breast screening (CBE, MMG and USG) than in Kowloon and the New Territories (Table 1.13).

Table 1.13 Breast screening habits by residential district

Breast	Residential District, Number (%)					
examination	Hong Kong Island		Kowloon		New Territories	
BSE						
Never	580	(30.1)	1,223	(43.6)	2,887	(42.6)
Occasional	854	(44.3)	946	(33.7)	2,110	(31.2)
Monthly	419	(21.7)	572	(20.4)	1,691	(25.0)
Not known	76	(3.9)	65	(2.3)	85	(1.3)
CBE						
Never	580	(30.1)	1,461	(52.1)	3,363	(49.7)
Occasional	275	(14.3)	332	(11.8)	787	(11.6)
Regular*	991	(51.4)	950	(33.9)	2,543	(37.5)
Not known	83	(4.3)	63	(2.2)	80	(1.2)
MMG#						
Never	789	(47.9)	1,694	(69.6)	4,279	(72.6)
Occasional	237	(14.4)	226	(9.3)	520	(8.8)
Regular*	550	(33.4)	463	(19.0)	999	(17.0)
Not known	70	(4.3)	51	(2.1)	92	(1.6)
USG#						
Never	855	(51.9)	1,784	(73.3)	4,429	(75.2)
Occasional	214	(13.0)	205	(8.4)	451	(7.7)
Regular*	409	(24.8)	353	(14.5)	865	(14.7)
Not known	168	(10.2)	92	(3.8)	145	(2.5)

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
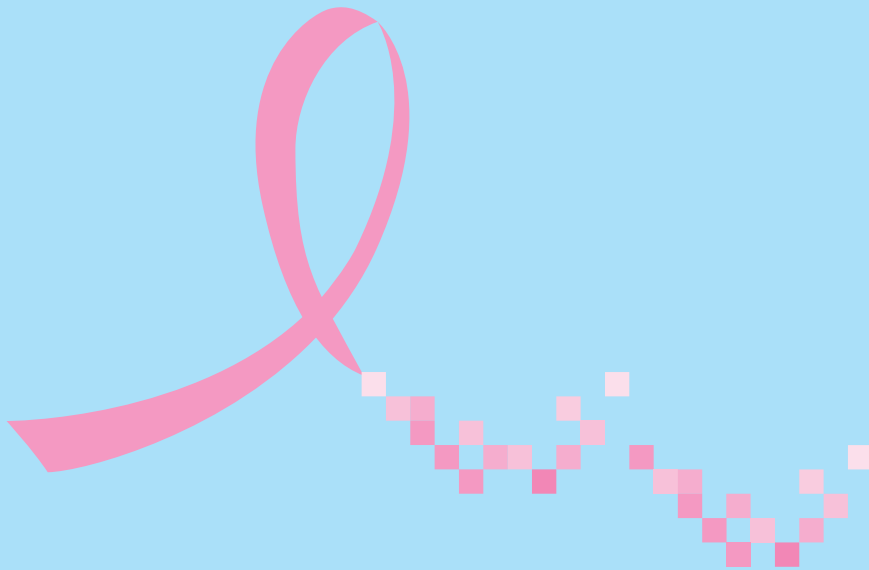
CHAPTER 2

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

CHAPTER 2
DISEASE PATTERN, TREATMENT TREND AND CLINICAL OUTCOME OF BREAST CANCER IN HONG KONG

This chapter reviews the clinical presentation, cancer characteristics and treatment methods using data collected from 12,023 breast cancer patients. Through analysis of these data, it provides insight into the current methods of clinical management of breast cancer and cancer characteristics and identifies potential areas of concern for the local community.

KEY FINDINGS

Clinical presentations

► 9,536 patients were diagnosed with invasive cancers and 1,492 were diagnosed with in situ cancers.

► 84.6% of patients discovered their first breast cancer by self-detection by chance. More invasive breast cancers were self-detected by chance (88.4%) than in situ breast cancers (58.0%).

► The most common self-detected presenting symptom was a painless lump (92.1%).

► After the onset of symptoms, only 19.4% of patients sought first medical consultation in less than three months.

► 4.5% of patients had synchronous bilateral breast cancer at first diagnosis, and 4.0% developed a contralateral breast cancer subsequently (metachronous cancer).

► Cancer staging was not conducted in 23.5% of the patients. The most common staging method used was Chest X-ray (73.8%). Positron emission tomography scan (PET scan) was used in 23.6% of patients. 5.6% and 9.0% of stage 0 and stage I patients, respectively, used PET scan and 18-30% of the patients with stages IIA or IIB diseases used PET scan.

► At diagnosis, the most common cancer stage was stage II (39.7%). Advanced cancer (stages III-IV) constituted to 15.3%. 11.3% of patients were diagnosed with in situ cancer.

► The mean invasive tumour size was 2.2cm (standard deviation: 1.4cm) and median of 1.9cm. The mean invasive tumour size in self-detected cancers by chance (2.2cm) was significantly larger than those screen-detected cancers (1.3cm) (p<0.001). 60.4% of invasive breast cancers had no positive lymph nodes. 77.0% of invasive breast cancers were either ER or PR positive. 21.8% of invasive breast cancers were c-erbB2/HER2 positive.

► The mean size of in situ breast cancer was 2.0cm (standard deviation: 1.5cm), and median of 1.6cm. Of the in situ breast cancers where mammography screening (MMG) was performed, 62.5% showed microcalcification by MMG. IHC study of biological characteristics of in situ breast cancer showed that 59.1% were either ER or PR positive and 29.1% were c-erbB2/HER2 positive.

Treatment

► 17.1% of patients were treated at solely private medical facilities, 48.9% solely used public medical facilities, and 34.0% used a mix of both private and public medical facilities.

► Number of treatments received by patients increased with increasing cancer stage, with the exception of those with stage IV breast cancer.

► 98.3% of patients had surgery. 52.9% had surgery at a private medical facility, while 47.1% had surgery at public medical facilities. 63.1% had mastectomy, while 35.1% had breast-conserving surgery. Of the patients that had reconstruction, 65.6% of patients had TRAM flap reconstruction surgery, while 19.5% had breast implants. Patients who had mastectomy increased with increasing age, while patients who had mastectomy and reconstruction or breast-conserving surgery reduced with increasing age. Use of breast-conserving surgery reduced with increasing cancer stage. Breast-conserving surgery was conducted in more private health care patients (44.8%) than public health care patients (26.2%).

► Axillary dissection (AD) was conducted in 43.4% of patients with negative clinical nodal status, while sentinel node biopsy was conducted in 9.4% of patients with positive clinical nodal status. The use of AD was positively correlated with increasing cancer stage.

► 60.5% patients had chemotherapy. Of the patients that underwent chemotherapy, 953 (13.1%) of patients also received targeted therapy.

► 62.2% of patients had radiotherapy as part of their treatment. 93.2% of patient who had breast-conserving surgery had radiotherapy.

► 66.7% of patients had endocrine therapy. The frequency of use of tamoxifen was negatively correlated with growing age, while the use of Aromatase inhibitors was positively correlated with growing age.

► 8% of patients had targeted therapy. The use of targeted therapy was positively correlated with increasing cancer stage. The most commonly used targeted therapy was Trastuzumab (94.7%), which is used to treat HER2 positive cancers.

► 39.9% of patients used complementary and alternative treatments.

Patient status

► 46.8% of the patient cohort had the last follow-up data within the last 2 years. The mean follow-up period was 4.9 years and median follow-up period was 4 years.

► 6.4% of the patient cohort experienced recurrence (either locoregional or distant recurrence, or both).

► The most common organ involved in distant recurrence was bone (52.9%), followed by lung (39.4%).

2.1 Clinical presentation

Self-detection by chance was the most frequent mode of first breast cancer detection (84.6%) (Figure 2.1). A recent study found that although 70-90% of Hong Kong Chinese women had heard of breast self-examination (BSE), clinical breast examination (CBE) and mammography screening (MMG), only half or less practiced regular screening[26]. The detection of breast cancer by health care service assisted screening methods (CBE, MMG and ultrasound screening (USG)) was very low in Hong Kong.

The proportion of patients who self-detected their first breast cancer by chance was lower in private medical service users in comparison to public medical service users and mixed health care users (Table 2.1). This highlights the importance of increased awareness of BSE, and the need for increased MMG screening in public health care facilities.
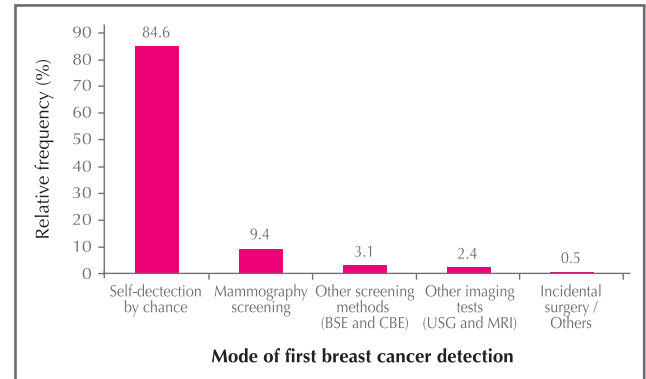
Figure 2.1 Mode of first breast cancer detection in the patient cohort (N=11,093)

BSE: breast self-examination;   CBE: clinical breast examination;
USG: ultrasound screening;   MRI: magnetic resonance imaging

Table 2.1 Mode of first breast cancer detection by type of medical service received at diagnosis (N=11,093)

Mode of first breast cancer detection	Private medical service users (N=1,857)		Public medical service users (N=5,413)		Mixed private / public medical service users (N=3,823)	
	Number	(%)	Number	(%)	Number	(%)
Self-detection by chance	1,420	(76.5)	4,630	(85.5)	3,330	(87.1)
Mammography screening	244	(13.1)	544	(10.0)	256	(6.7)
Other screening methods (BSE and CBE)	81	(4.4)	131	(2.4)	137	(3.6)
Other imaging tests (USG and MRI)	97	(5.2)	81	(1.5)	86	(2.2)
Incidental surgery / Others	15	(0.8)	27	(0.5)	14	(0.4)

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

The proportion of invasive breast cancers first self-detected by chance (88.4%) was much higher than in situ breast cancers (58.0%) (Table 2.2).

Table 2.2 Mode of first breast cancer detection by type of cancer (N=11,001)

	Type of cancer, Number (%)	
Mode of first breast cancer detection	**In situ (N=1,392)**	**Invasive (N=9,609)**
Self-detection by chance	807 (58.0)	8,493 (88.4)
Mammography screening	455 (32.7)	585 (6.1)
Other screening methods (BSE and CBE)	46 (3.3)	298 (3.1)
Other imaging tests (USG and MRI)	73 (5.2)	190 (2.0)
Incidental surgery / Others	11 (0.8)	43 (0.4)

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

Higher proportions of stages 0 or I cancers (32.3% and 11.6% respectively) were detected by mammography screening compared to that in stages III or IV cancers (2.9% and 1.7% respectively) (Table 2.3).

Table 2.3 Mode of first breast cancer detection by cancer stage (N=10,769)

	Cancer stage, Number (%)					
Mode of first breast cancer detection	**0 (N=1,262)**	**I (N=3,385)**	**IIA (N=2,980)**	**IIB (N=1,437)**	**III (N=1,470)**	**IV (N=235)**
Self-detection by chance	750 (59.4)	2,719 (80.3)	2,685 (90.1)	1,341 (93.3)	1,388 (94.4)	215 (91.5)
Mammography screening	407 (32.3)	393 (11.6)	141 (4.7)	38 (2.6)	42 (2.9)	4 (1.7)
Other screening methods (BSE and CBE)	40 (3.2)	131 (3.9)	97 (3.3)	33 (2.3)	25 (1.7)	10 (4.3)
Other imaging tests (USG and MRI)	57 (4.5)	128 (3.8)	43 (1.4)	19 (1.3)	9 (0.6)	4 (1.7)
Incidental surgery / Others	8 (0.6)	14 (0.4)	14 (0.5)	6 (0.4)	6 (0.4)	2 (0.9)

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

The most common presenting symptom on self-detected breast cancers by chance was a painless lump (92.1%) (Figure 2.2) .
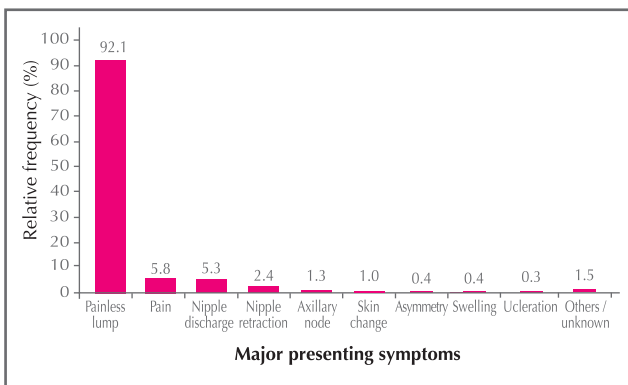
Figure 2.2 Major presenting symptoms of self-detected breast cancers (N=9,380)

2.1.1 Duration from onset of symptoms to first medical consultation

Of the self-detected breast cancers, after the onset of symptoms, only 19.4% of patients sought first medical consultation in less than three months. (Table 2.4).

Table 2.4 Duration from onset of symptoms to first medical consultation for patients who self-detected* their cancers (N=9,380)

	Number	(%)
Less than 1 month	909	(9.7)
1-3 months	908	(9.7)
4-12 months	318	(3.4)
More than 12 months	280	(3.0)
Not known	6,965	(74.3)

*self-detection by chance only

A higher proportion of patients who were private medical service users sought medical consultation in less than a month (21.6%) than public medical service users (5.6%) and mixed medical sevice users (10.3%) (Table 2.5).

Table 2.5 Duration from onset of symptoms to first medical consultation for patients who self-detected* their cancers by type of medical service (N=9,380)

	Private medical service users (N=1,420)		Public medical service users (N=4,630)		Mixed private / public medical service users (N=3,330)	
	Number	(%)	Number	(%)	Number	(%)
< 1 month	307	(21.6)	260	(5.6)	342	(10.3)
1-3 months	230	(16.2)	357	(7.7)	321	(9.6)
4-12 months	83	(5.8)	151	(3.3)	84	(2.5)
> 12 months	61	(4.3)	146	(3.2)	73	(2.2)
Not known	739	(52.0)	3,716	(80.3)	2,510	(75.4)

*self-detection by chance only

Higher proportions of stages III and IV patients took more than 12 months to seek first medical consultation than the patients who were diagnosed with early stage cancer (Stages I, IIA or IIB) (Table 2.6).

Table 2.6 Duration from onset of symptoms to first medical consultation for patients who self-detected* their cancers by cancer stage at diagnosis (N=8,348)

	Cancer stage, Number (%)				
	Stage I (N=2,719)	Stage IIA (N=2,685)	Stage IIB (N=1,341)	Stage III (N=1,388)	Stage IV (N=215)
<1 month	298 (11.0)	275 (10.2)	119 (8.9)	99 (7.1)	13 (6.0)
1-3 months	244 (9.0)	281 (10.5)	133 (9.9)	139 (10.0)	14 (6.5)
4-12 months	87 (3.2)	84 (3.1)	36 (2.7)	60 (4.3)	12 (5.6)
>12 months	62 (2.3)	56 (2.1)	44 (3.3)	53 (3.8)	25 (11.6)
Not known	2,028 (74.6)	1,989 (74.1)	1,009 (75.2)	1,037 (74.7)	151 (70.2)

*self-detection by chance only

2.2 Cancer characteristics

Of the 12,023 patients, 271 patients had synchronous bilateral breast cancer at first diagnosis, and 241 developed a contralateral breast cancer within, on average, 7.9 years (range: 0.5 – 34.5 years, median: 5.9 years) after diagnosis of an initial primary breast cancer (Figure 2.3).

Majority of the breast cancers were detected in the left upper outer or right upper outer quadrant of the breasts (45.9 and 49.4% respectively) (Figure 2.4).
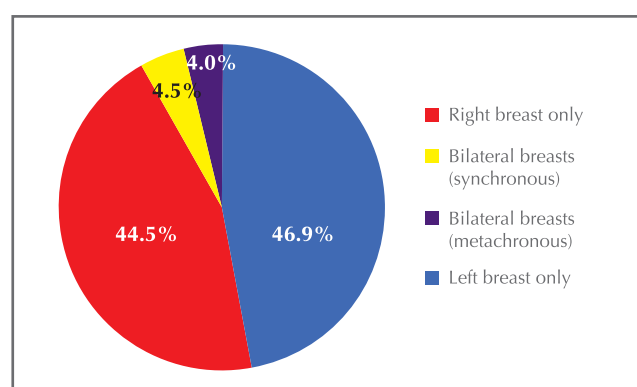
Figure 2.3 Laterality of 12,023 breast cancer cases
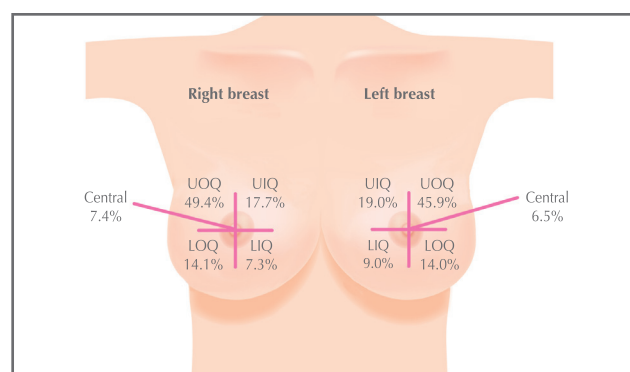
Figure 2.4 Locations of breast cancers (N=12,023)

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

Malignant breast cancer is diagnosed using diagnostic imaging and cytohistochemical biopsies. MMG is currently the most important imaging tool used during breast cancer diagnosis. USG and MRI are used for further investigation. Fine needle biopsy (FNA) and core needle biopsies (CNB) are used to confirm the breast lesion is malignant. 80.6% of patients were diagnosed using MMG, while 74.0% were diagnosed using USG and 6.7% were diagnosed using MRI.

Breast Imaging Reporting and Data System (BIRADS) is a classification system used by radiologists to determine likelihood of malignancy in the breast. The overall sensitivity of MMG was 80.5%, while the sensitivity of USG was 88.9% and MRI was 96.5% (Table 2.7).

Table 2.7 Sensitivity and diagnostic results of breast imaging tests (N=12,023)

	Mammography (N=9,696)		Breast ultrasound (N=8,900)		MRI (N=811)	
Proportion of subjects using the diagnostic test	80.6%		74.0%		6.7%	
Overall sensitivity*	80.5%		88.9%		96.5%	
BIRADS category						
Diagnostic / malignant (BIRADS 5)	2,897	(29.9%)	3,225	(36.2%)	615	(75.8%)
Suspicious abnormality (BIRADS 4)	4,905	(50.6%)	4,686	(52.7%)	168	(20.7%)
Probably benign (BIRADS 3)	626	(6.5%)	574	(6.4%)	11	(1.4%)
Benign (BIRADS 2)	435	(4.5%)	192	(2.2%)	6	(0.7%
Normal (BIRADS 1)	793	(8.2%)	216	(2.4%)	11	(1.4%)
Incomplete (BIRADS 0)	40	(0.4%)	7	(0.1%)	0	(0.0%)

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 have taken the test

FNA was used in 45.3% of patients; CNB was used in 51.0% of patients while excisional biopsy was used in 14.8% of patients. The overall sensitivity of FNA was 90.2%, while CNB had an overall sensitivity of 98.7% and excisional biopsy had a sensitivity of 100% (Table 2.8). As a standard of care, biopsy (sampling of breast cells or tissues for examination) was usually done before surgery to confirm the presence of cancer cells, in our patient cohort, 88.6% of the patients have biopsies done before surgery. Among them, 3,520 (36.5%) patients used FNA solely, 4,208 (43.6%) used CNB solely, while 1,924 (19.9%) patients used both FNA and CNB.

Table 2.8 Sensitivity and diagnostic results of breast tissue biopsies (N=12,023)

	FNA (N=5,444)		CNB (N=6,132)		Excisional biopsy (N=1,778)	
Proportion of subjects using the diagnostic test	45.3%		51.0%		14.8%	
Overall sensitivity*	90.2%		98.7%		100.0%	
Class						
Diagnostic / malignant (Class V)	3,278	(60.2%)	5,813	(94.8%)	1,778	(100.0%)
Suspicious (Class IV)	1,026	(18.8%)	137	(2.2%)	—	
Atypical (Class III)	608	(11.2%)	101	(1.6%)	—	
Benign (Class II)	261	(4.8%)	51	(0.8%)	—	
Scanty benign (Class I)	182	(3.3%)	28	(0.5%)	—	
Incomplete (Class 0)	89	(1.6%)	2	(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 have taken the test

Of the 7,802 patients diagnosed with MMG, opacity was observed in 59.2%, while microcalcification was observed in 50.7% of patients (Table 2.9).

Table 2.9 Mammographic findings of patient cohort who were diagnosed through mammography (N=7,802)

	Number	(%)
Opacity	4,617	(59.2%)
Microcalcifications	3,955	(50.7%)
Architectural distortion	1,034	(13.3%)
Asymmetric density	783	(10.0%)
Unclassified	378	(4.8%)

Majority of the patients (67.5%) had heterogeneous mammographic density of the breasts. 5.8% had extremely dense breasts (Figure 2.5).
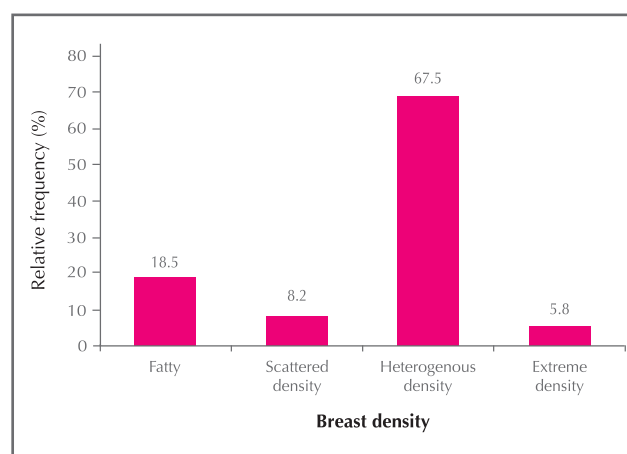
Figure 2.5 Mammographic density of breasts of breast cancer patients with diagnostic mammography (N=5,514)

2.2.2 Methods of cancer staging

After diagnosis of breast cancer, extent of disease is studied by further imaging. About a quarter (23.5%) of the patients did not have cancer staging while among those who had cancer staging, the most common method used for cancer staging was Chest X-ray (73.8%), USG of the abdomen (40.8%) and Positron emission tomography scan (PET scan) (23.6%) (Table 2.10). According to the 2010 practice guidelines of the National Comprehensive Cancer Network (NCCN), patients with early breast cancer, including stage I, stage II, or operable stage III breast cancer, are not recommended to use PET scan to determine the extent of disease[27]. However, among the patient cohort, 5.6% and 9.0% of stage 0 and stage I patients, respectively, used PET scan and 18-30% of the patients with stages IIA or IIB used PET scan to determine the extent of their disease (Table 2.11).

Table 2.10 Cancer staging in 10,531 breast cancer patients

Type of cancer staging method	Number	(%)
No cancer staging	2,477	(23.5)
Chest X-Ray (CXR)	5,942	(73.8)
Ultrasound abdomen (USG Abd)	3,284	(40.8)
Positron emission tomography scan (PET scan)	1,897	(23.6)
Bone scan	301	(3.7)
Computed tomography of body parts*	246	(3.1)
Magnetic resonance imaging whole body (MRI whole body)	35	(0.4)
Unspecified	724	(9.0)

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

Table 2.11 The use of PET scan as a form of staging methods by cancer stage (N=8,054)

	stage 0	stage I	stage IIA	stage IIB	stage III	stage IV	Unstaged	Total
No. (%) of patients used PET scan	44 (5.6%)	215 (9.0%)	399 (18.4%)	323 (30.0%)	639 (51.9%)	187 (79.6%)	90 (51.4%)	1,897 (23.6%)

At diagnosis, the most common cancer stage was stage II (39.7%). Advanced cancer (stages III-IV) constituted to 15.3%. 11.3% of patients were diagnosed with in situ cancer (Figure 2.6).

Out of 12,023 cancer cases, data from 11,034 cases with available pathology data were used for the following analyses on cancer characteristics. 9,536 patients were diagnosed with invasive cancers and 1,492 were diagnosed with in situ cancers. 6 patients were diagnosed with occult primary breast cancers.
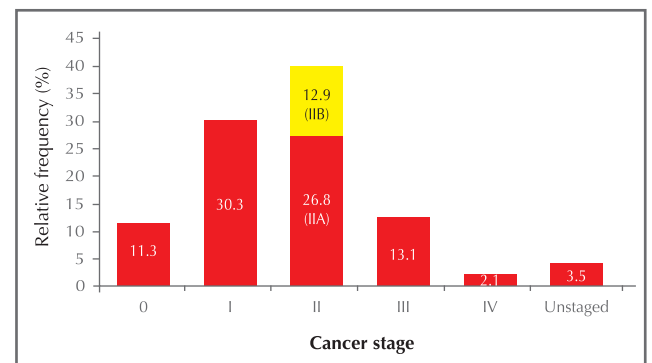
Figure 2.6 Cancer stage at diagnosis of breast cancer patients (N=12,023)

2.2.3 Characteristics of invasive breast cancer

Of the invasive breast cancers, 43.1% had a tumour size of 2.01-5cm, while 37.4% had a tumour size of 1.01-2cm (Figure 2.7). The mean tumour size was 2.2cm with a standard deviation of 1.4 and median of 1.9cm with a range of 0.01-22.0cm. The mean tumour size in self-detected cancers by chance (2.2cm) was significantly larger than those screen-detected cancers (1.3cm) (p<0.001).
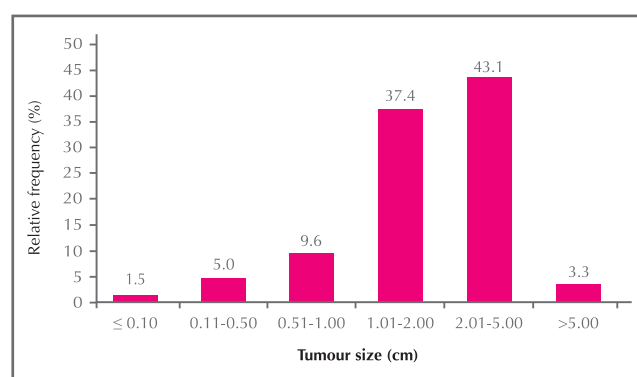
Figure 2.7 Distribution of tumour size (cm) of invasive breast cancers (N=9,081)

60.4% of invasive breast cancers had no positive lymph nodes, while 22.7% had spread to 1-3 lymph nodes. 3.9% had spread to 10 or more lymph nodes. 1.2% of patients had isolated tumour cells (ITC) and 4.2% of patients had micrometastasis (Figure 2.8).
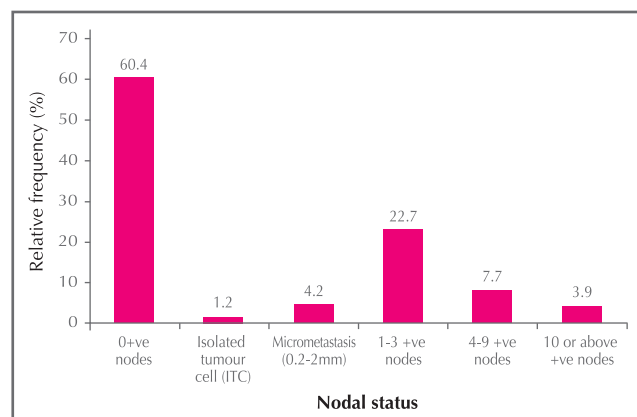
Figure 2.8 Number of positive lymph nodes in invasive breast cancers (N=9,412)

2.2.4 Characteristics of in situ breast cancer

Of the 1,294 patients with in situ breast cancer, 33.7% had tumours of 2.01cm-5.0cm, while 30.4% had tumours of 1.01–2cm in size. 4.1% had tumours larger than 5cm (Figure 2.9). The mean size of in situ breast cancer was 2.0cm with a standard deviation of 1.5cm, and median of 1.6cm. The range in size of in situ breast cancers was 0.02-10.0cm. Of the in situ breast cancers where MMG was performed, 62.5% showed microcalcification by MMG.
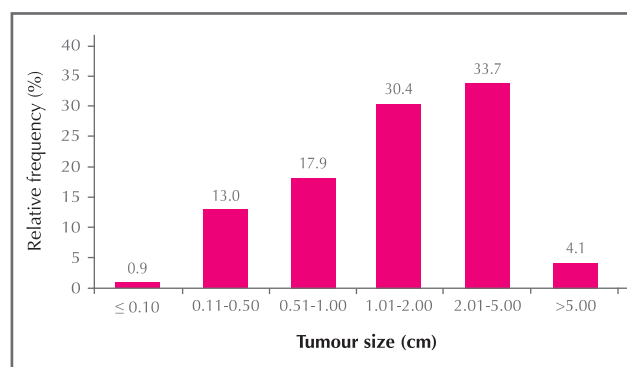
Figure 2.9 Distribution of tumour size (cm) of in situ breast cancers (N=1,294)

2.3 Histological and biological characteristics

After studying the sizes of the breast tumours, histological and biological characteristics of the cancer are studied. The histological and biological characteristics were related to the necessity of certain treatment such as endocrine therapy or targeted therapy, and they are also associated with the prognosis of the disease.

2.3.1 Invasive breast cancer

The histological characteristics, grading and multifocality and multicentricity of invasive breast cancers can be found in Table 2.12.

Table 2.12 Histological type, grading, multifocality and multicentricity of invasive breast cancers (N=9,536)

Histological type	Number	(%)
Invasive carcinoma of no specific type	8,074	(84.7)
Mucinous (colloid)	353	(3.7)
Lobular	351	(3.7)
Microinvasive	130	(1.4)
Papillary	89	(0.9)
Tubular	88	(0.9)
Carcinoma with medullary features	59	(0.6)
Mixed ductal and lobular	54	(0.6)
Borderline / malignant phyllodes	40	(0.4)
Micropapillary	31	(0.3)
Metaplastic carcinoma	28	(0.3)
Carcinoma with apocrine features	16	(0.2)
Carcinoma with neuroendocrine features	15	(0.2)
Adenoid cystic carcinoma	9	(0.1)
Cribriform carcinoma	8	(0.1)
Paget's disease of the nipple	5	(0.1)
Inflammatory	3	(0.0)
Secretory carcinoma	2	(0.0)
Lipid rich carcinoma	1	(0.0)
Sarcoma	1	(0.0)
Others	70	(0.7)
Not known	109	(1.1)

Grade	Number	(%)
Grade 1	1,659	(17.4)
Grade 2	3,880	(40.7)
Grade 3	3,169	(33.2)
Not known	828	(8.7)
Lymphovascular invasion	**2,732**	**(28.6)**
Multifocality	**938**	**(9.8)**
Number of foci		
2	504	(53.7)
3-4	176	(18.8)
≥5	100	(10.7)
Not known	158	(16.8)
Multicentricity	**263**	**(2.8)**
Number of quadrants		
2	227	(86.3)
3	16	(6.1)
4	9	(3.4)
Not known	11	(4.2)

Over three-quarters (77.0%) of invasive breast cancers were either ER or PR positive. 20.6% of invasive breast cancers were c-erbB2/HER2 positive (with IHC score 3) and 28.8% were weakly HER2 positive by immunohistochemistry (IHC), of these only 4.2% were positive by FISH/CISH test (Table 2.13).

Table 2.13 Biological characteristics of invasive breast cancers (N=9,536)

	Number	(%)
Estrogen receptor (ER) (96.4% of the patients had the test)		
Positive	7,076	(76.9)
Negative	2,121	(23.1)
Progesterone receptor (PR) (96.1% of the patients had the test)		
Positive	5,941	(64.8)
Negative	3,222	(35.2)
c-erbB2/ HER2 (92.9% of the patients had the test)		
Positive (IHC score 3)	1,830	(20.6)
Weakly positive (IHC score 2)	2,551	(28.8)
FISH / CISH +ve	*106*	*(4.2)*
Negative (IHC score 0/1)	4482	(50.6)
Ki-67 index (51.1% of the patients had the test)		
<14%	2,116	(43.4)
14-49%	2,139	(43.9)
≥50%	619	(12.7)

HER2: Human epidermal growth factor receptor 2

Breast cancer can be divided into different biological subtypes by combining the immunohistochemical (IHC) staining of several biological markers. The five biological subtypes are luminal A, luminal B (HER2 negative), luminal B (HER2 positive), c-erbB2/HER2 positive and triple negative breast cancer[28]. Breast cancer subtypes and their relative frequency by cancer stage can be found in Table 2.14.

Table 2.14 Biological subtypes of invasive tumours by cancer stage (N=8,784)

Biological subtypes	Cancer Stage, N (%)											
	I		IIA		IIB		III		IV		Total	
Luminal A*	918	(27.7)	541	(18.9)	244	(18.2)	146	(12.7)	11	(9.6)	1,860	(21.2)
Luminal B (HER2 negative)#	450	(13.6)	529	(18.4)	247	(18.4)	230	(20.0)	19	(16.7)	1,475	(16.8)
Luminal A/B (HER2 negative)†	944	(28.5)	764	(26.6)	393	(29.3)	330	(28.7)	48	(42.1)	2,479	(28.2)
Luminal B (HER2 positive)^	403	(12.2)	381	(13.3)	189	(14.1)	201	(17.5)	20	(17.5)	1,194	(13.6)
HER2 Positive❋	253	(7.6)	226	(7.9)	113	(8.4)	124	(10.8)	10	(8.8)	726	(8.3)
TND§	342	(10.3)	428	(14.9)	155	(11.6)	119	(10.3)	6	(5.3)	1,050	(12.0)
Total	**3,310**	**(37.7)**	**2,869**	**(32.7)**	**1,341**	**(15.3)**	**1,150**	**(13.1)**	**114**	**(1.3)**	**8,784**	**(100.0)**

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

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

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

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

❋ HER2 positive: ER and PR-, and HER2+

§   TND (Triple Negative Disease): ER-, PR-, and HER2-

2.3.2 In situ breast cancer

The histological typing, grade, multifocality and multicentricity of in situ breast cancers can be found in Table 2.15.

IHC study of biological characteristics of in situ breast cancer showed that 59.1% were either ER or PR positive. 28.9% c-erbB2/HER2 positive, and 32.5% were weakly c-erbB2/HER2 positive and of these only 0.6% were positive by FISH/CISH test (Table 2.16).

Table 2.15 Histological type, grade, multifocality and multicentricity of in situ breast cancers (N=1,492)

	Number	(%)
Histological type		
Ductal	1,364	(91.4)
Lobular	25	(1.7)
Mixed	48	(3.2)
Others	50	(3.4)
Not known	5	(0.3)
Necrosis	**547**	**(36.7)**
Nuclear Grade		
Low	351	(23.5)
Intermediate	492	(33.0)
High	551	(36.9)
Not known	98	(6.6)
Multifocality	**182**	**(12.2)**
Number of foci		
2	87	(47.8)
3	18	(9.9)
4 or more	6	(3.3)
Not known	71	(39.0)
Multicentricity	**32**	**(2.1)**
Number of quadrants		
2	25	(78.1)
3	2	(6.3)
Not known	5	(15.6)

Table 2.16 Biological characteristics of in situ breast cancers (N=1,492)

	Number	(%)
Estrogen receptor (ER)		
(72.5% of the patients had the test)		
Positive	864	(79.9)
Negative	217	(20.1)
Progesterone receptor (PR)		
(71.4% of the patients had the test)		
Positive	758	(71.2)
Negative	307	(28.8)
c-erbB2/ HER2 (67.2% of the patients had the test)		
Positive (IHC Score 3)	290	(28.9)
Weakly positive (IHC Score 2)	326	(32.5)
FISH / CISH +ve	*2*	*(0.6)*
Negative (IHC Score 0 / 1)	386	(38.5)
Ki-67 index (44.9% of the patients had the test)		
<14%	481	(71.8)
14-49%	171	(25.5)
≥50%	18	(2.7)

2.4 Treatment methods

Of the patients, 17.1% solely used private medical facilities while 48.9% solely used public medical facilities, 34.0% used a mix of both private and public medical facilities.

2.4.1 Surgical treatment

Almost all (98.3%, N=11,820) patients underwent surgery as part of their treatment. 52.9% of the patients had surgery at private medical facilities, while 47.1% had surgery at public medical facilities.

63.1% had mastectomy, while 35.1% had breast-conserving surgery. Of the patients that had mastectomy, 93.3% had total mastectomy while 5.5% had skin-sparing mastectomy and 0.8% had nipple-sparing mastectomy. Of the patients who had reconstruction, 65.6% of patients had TRAM flap reconstruction surgery, while 19.5% had breast implants.

Sentinel node biopsy (SNB) was conducted in 34.3% of patients, while axillary dissection (AD) was conducted in 48.5% of patients. Only 16.3% of patients had both SNB and AD (Table 2.17).

Table 2.17 Types of surgical operations in the patient cohort (N=12,023)

	Number	(%)
No surgery	174	(1.4)
Breast-conserving surgery	4,217	(35.1)
Mastectomy	7,582	(63.1)
Nodal surgery only	5	(0.0)
Type of surgery not known	16	(0.1)
Not known if surgery done	29	(0.2)
Mastectomy (N=7,582)		
Total mastectomy	7,077	(93.3)
Skin-sparing	418	(5.5)
Nipple-sparing	57	(0.8)
Areolar-sparing	12	(0.2)
Not known	18	(0.2)
Reconstruction (N=1,066)		
TRAM flap	699	(65.6)
Implant	208	(19.5)
LD flap	78	(7.3)
LD flap & implant	64	(6.0)
Not known	17	(1.6)
Nodal surgery (N=11,034)		
Sentinel node biopsy	3,785	(34.3)
Axillary dissection	5,356	(48.5)
Sentinel node biopsy & axillary dissection	1,803	(16.3)
Not known	90	(0.8)

The percentage of patients that underwent mastectomy was positively correlated with increasing age, while the percentage of patients that underwent mastectomy and reconstruction or breast-conserving surgery was negatively correlated with increasing age (Figure 2.10).
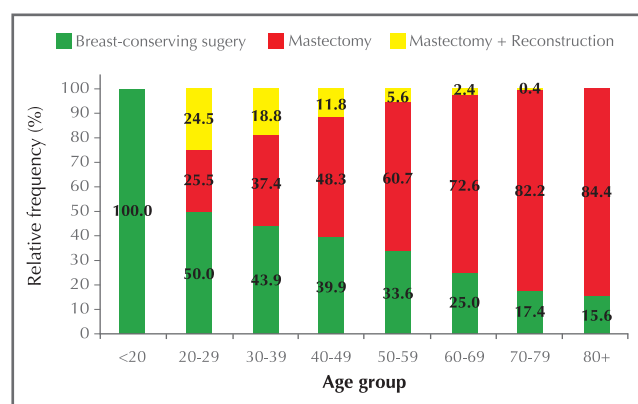
Figure 2.10 Type of surgery by age group (N=11,447)

For tumours larger than 1cm in size, there was a positive correlation between increasing tumour size and increased mastectomy and mastectomy and reconstruction, and a negative correlation with breast conserving surgery and increasing tumour size (Figure 2.11).
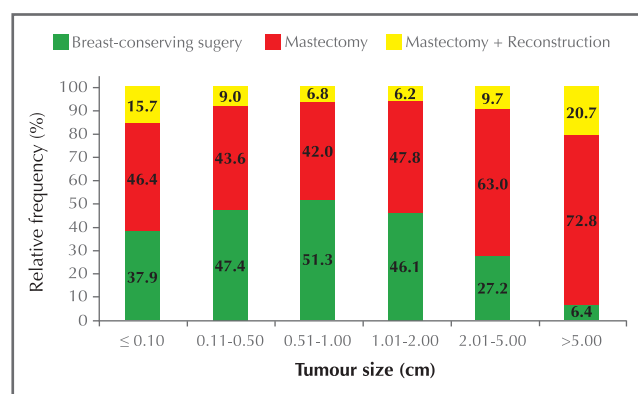
Figure 2.11 Type of surgery by tumour size (N=10,412)

Reduced use of breast-conserving surgery was observed with increasing cancer stage, while increased use of mastectomy was observed with increasing cancer stage (Figure 2.12).
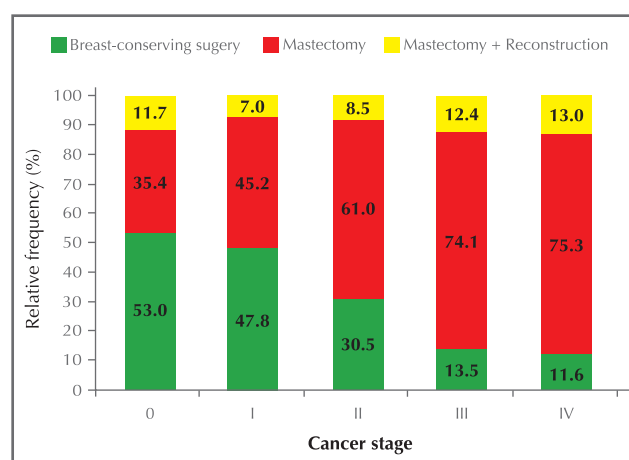
Figure 2.12 Type of surgery by cancer stage (N=11,457)

More breast-conserving surgery and mastectomy with reconstruction was conducted in patients in the private health care sector (44.8% and 9.6% respectively) than in the public health care sector (26.2% and 8.7% respectively) (Figure 2.13). More mastectomies were conducted in the public sector (65.1%) than the private sector (45.6%).
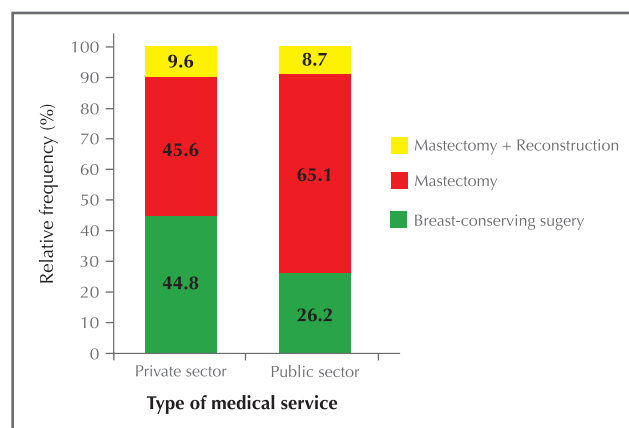
Figure 2.13 Type of surgery by type of medical service (N=11,376)
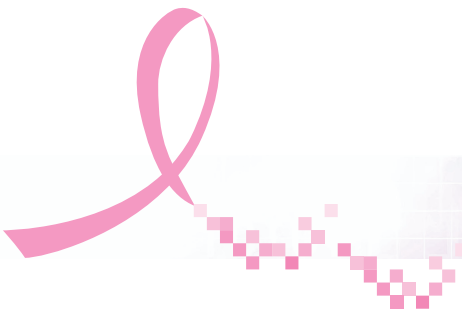
AD was conducted in 43.4% of patients with negative clinical nodal status, while SNB was conducted in 9.4% of patients with positive clinical nodal status (Figure 2.14). This data suggested the need for increased use of SNB in Hong Kong.

56.2% of patients with node positive invasive cancer had tumours of 2.01-5.0cm in size. 41.6% of patients with node negative breast cancers had tumours of 1.01-2.0cm in size (Figure 2.16).
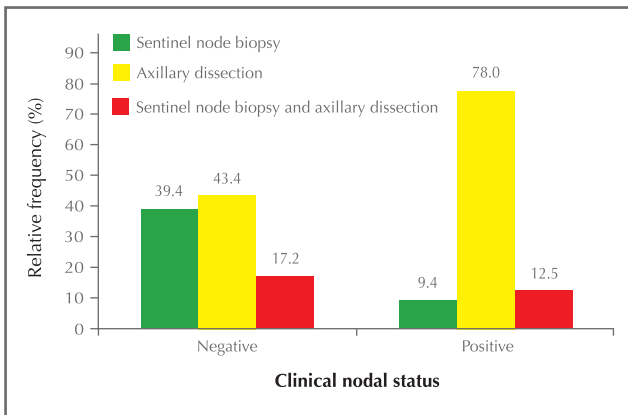
Figure 2.14 Type of nodal surgery by clinical nodal status (N=10,944)
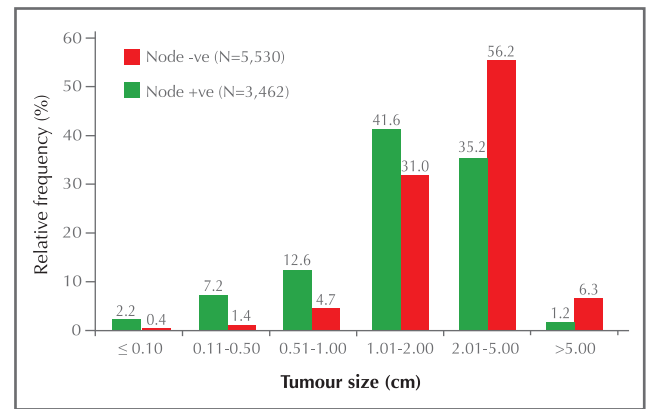
Figure 2.16 Distribution of tumour size in invasive cancer with negative or positive nodal status (N=8,992)

The use of AD was positively correlated with increasing cancer stage, while the use of SNB was negatively correlated with increasing cancer stage (Figure 2.15).

Figure 2.15 Type of nodal surgery in invasive cancer by cancer stage (N=9,821)

97.5% of patients that underwent SNB had no positive nodes, while 50.2% of patients that underwent AD had at least 1 positive node. 70.9% of patients that had both SNB and AD had at least 1 positive node (Figure 2.17).
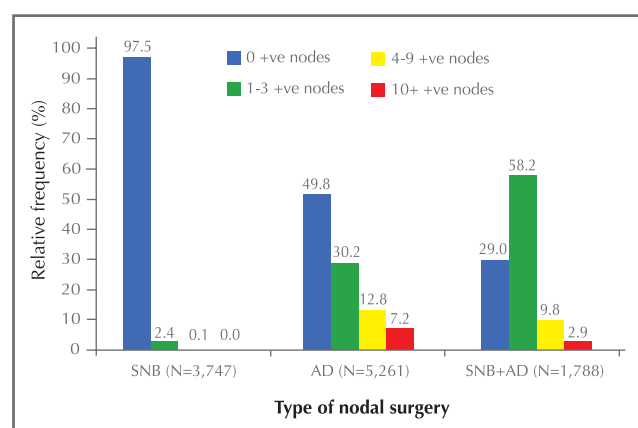
Figure 2.17 Number of positive nodes by type of nodal surgery (N=10,796)

SNB: Sentinel node biopsy; AD: Axillary dissection

2.4.2 Chemotherapy

Chemotherapy is a form of systemic treatment for micro- and macro-metastasis through the use of one or more cytotoxic drugs. 7,274 (60.5%) patients in the cohort underwent chemotherapy. 89.1% had adjuvant chemotherapy while 8.9% had neoadjuvant chemotherapy and 2.0% were treated with palliative chemotherapy. 84.8% of patients had chemotherapy in public medical facilities, while 15.2% of patients had chemotherapy in private medical facilities.

With the exception of stage IV breast cancer, the use of chemotherapy was correlated to increasing cancer stage (Figure 2.18). The lowered rate of chemotherapy use observed in stage IV patients might be due to the usual clinical practice that for those ER positive stage IV patients, palliative treatments consisting of hormonal therapy +/- radiotherapy, but not chemotherapy would be given.
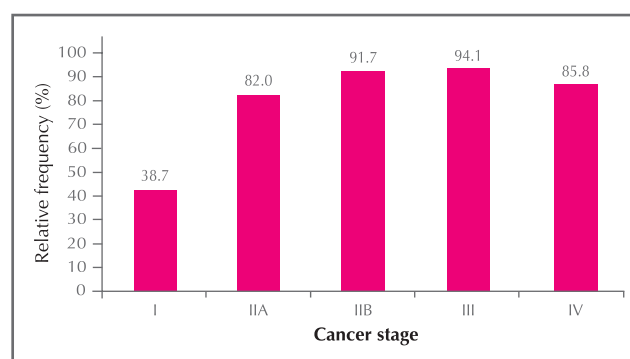
Figure 2.18 Chemotherapy treatment in patients at different cancer stages (N=10,111)

36.4% of stage I breast cancer patients aged 20-29 did not receive chemotherapy as part of their treatment, compared to 77.4% of patients aged 60-69 with stage I breast cancer did not receive chemotherapy. The use of chemotherapy in stage I breast cancer was negatively correlated with increasing age group. The chemotherapy in patients with stage IIA disease was highest for patients aged 20-29 (92.3%) and 40-49 (90.3%), use of chemotherapy was reduced in age groups of 50 and above (Table 2.18).

91.7% of patients with stage IIB disease had chemotherapy. The use of chemotherapy in stage IIB patients was also negatively correlated with increasing age.

Table 2.18 Rate of chemotherapy by age group and cancer stage at diagnosis (N=10,343)

	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	2	(100.0)	–*		–*		–*		–*	
20-29	21	(63.6)	24	(92.3)	16	(100.0)	8	(88.9)	2	(100.0)
30-39	197	(51.8)	327	(89.1)	157	(97.5)	153	(99.4)	17	(94.4)
40-49	623	(44.0)	1,037	(90.3)	545	(97.0)	579	(98.3)	83	(96.5)
50-59	403	(37.2)	846	(85.7)	455	(95.0)	471	(95.7)	82	(84.5)
60-69	95	(22.6)	275	(66.6)	195	(89.4)	202	(92.7)	18	(75.0)
70-79	1	(0.7)	19	(12.8)	11	(16.2)	23	(37.7)	4	(33.3)
80+	0	(0.0)	1	(3.3)	0	(0.0)	1	(5.0)	1	(20.0)

*No patient diagnosed with stages IIA, IIB, III and IV was aged <20.

The most widely used chemotherapy regimen in stage I patients was a combination of Adriamycin / Doxorubicin and Cyclophosphamide (AC), while in stage II or III, the most widely used was AC and Taxane. For stage IV patients, the most commonly used chemotherapy was a combination of 5FU, Adriamycin / Doxorubicin and Cyclophosphamide or 5FU, Epirubicin and Cyclophosphamide (Figure 2.19).

Of the patients that underwent chemotherapy, 953 (13.1%) of patients also received targeted therapy.
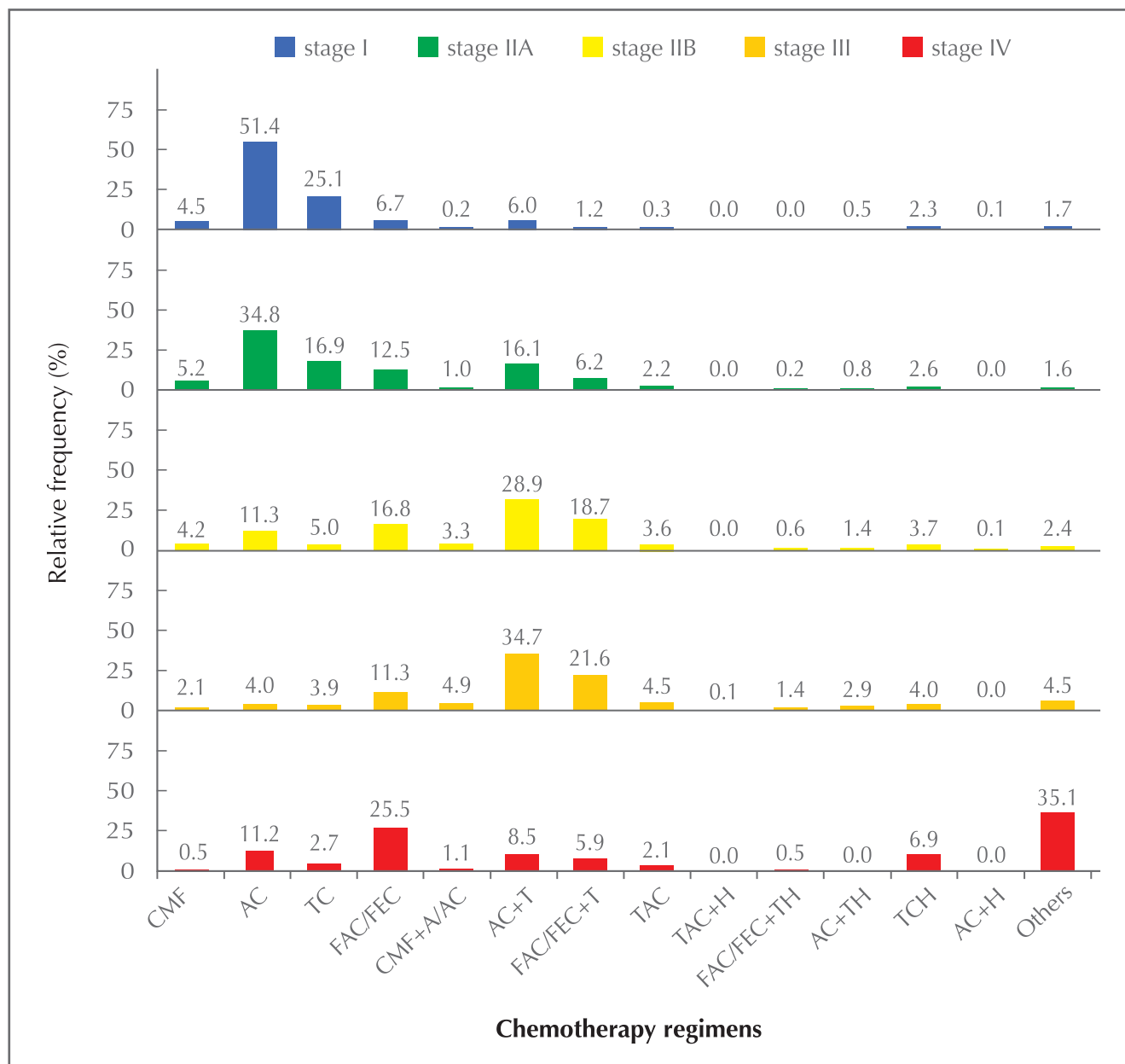
Figure 2.19 Type of chemotherapy regimens in patients by cancer stage (N=6,536)

C: Cyclophosphamide;   T: Taxane (Docetaxel in TC and TAC, Paclitaxel or Docetaxel in AC+T);
M: Methotrexate;   H: Trastuzumab;
F: 5FU;   TCH: Docetaxel / Carboplatin / Trastuzumab or Paclitaxel / Carboplatin / Trastuzumab
A: Adriamycin / Doxorubicin;   Others: Capecitabine, Gemcitabine or Vinorelbine
E: Epirubicin;
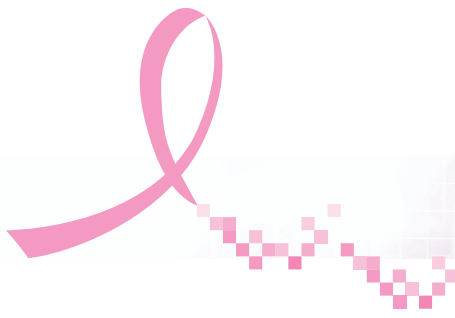
2.4.3 Radiotherapy

Radiotherapy uses ionizing radiation to treat cancer cells in the body. 7,474 (62.2%) of patients had radiotherapy as part of their treatment. Among them, 98.2% were adjuvant, 0.1% were neoadjuvant, and 1.7% were palliative. Of these patients, 85.7% of the patient cohort had radiotherapy at public health care facilities, and 14.3% had radiotherapy at private health care facilities.

Of the patients who had breast-conserving surgery, 93.2% underwent radiotherapy, while 45.7% of patients who had mastectomy underwent radiotherapy.
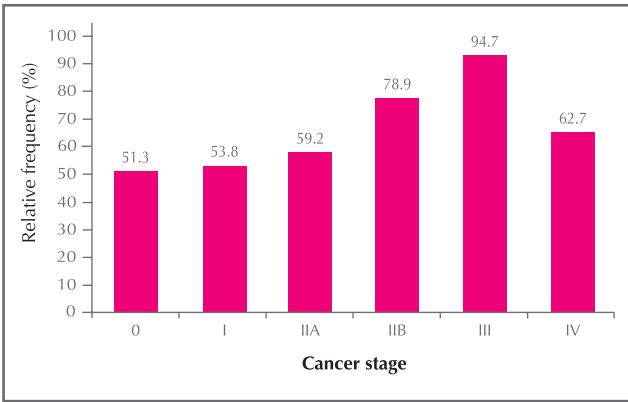
Figure 2.20   Radiotherapy rate in patients at different cancer stages (N=11,364)

Of the patients who underwent mastectomy and radiotherapy, majority (88.9%) of them were patients with stages IIA to III disease (Figure 2.21).
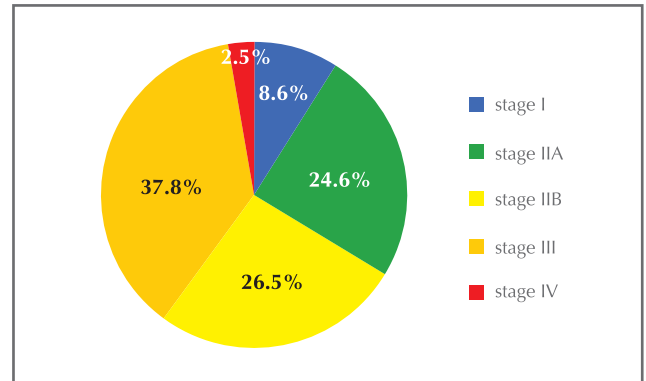
Figure 2.21   Distribution of cancer stages in patients treated with mastectomy and radiotherapy (N=3,321)

Radiotherapy for breast cancer involves localized irradiation of regions such as breast/chest wall, with or without regional nodes. For those with available radiotherapy details, around two-thirds (68.6%) of the patients who underwent mastectomy also received radiotherapy to chest wall and regional nodes while 84.3% of the patients who underwent breast-conserving surgery received radiotherapy to the breast only (Table 2.19).

Table 2.19 Irradiated regions among the patients receiving radiotherapy (N=7,474)

Target volume	Total (N=7,474) Number (%)		Breast-conserving Surgery (N=3,931) Number (%)		Mastectomy (N=3,463) Number (%)	
Breast	2,108	(28.2)	2,088	(53.1)	0	(0.0)
Breast + regional*	411	(5.5)	390	(9.9)	0	(0.0)
Chest wall	788	(10.5)	0	(0.0)	785	(22.7)
Chest wall + regional*	1,715	(22.9)	0	(0.0)	1,715	(49.5)
Unspecified	2,452	(32.8)	1,453	(37.0)	963	(27.8)

SCF: Supraclavicular fossa; IMC: Internal mammary chain;
*regional nodes: includes axilla and/or IMC and/or SCF

2.4.4 Endocrine therapy

Breast cancers that are hormone receptor positive can be treated using endocrine therapy. 8,020 (66.7%) patients had endocrine therapy. Among them, 97.1% were adjuvant, 0.4% were neoadjuvant, and 2.5% were palliative. 87.1% of patients had endocrine therapy in public health care facilities while 12.9% had endocrine therapy in private health care facilities. Endocrine therapy was used in over 74.1% of patients with stages I-IV breast cancer, but was only used in 17.7% of patients with stage 0 breast cancer (Figure 2.22).

Tamoxifen (TMX) and Aromatase Inhibitor (AI) are widely used endocrine therapy drugs. TMX blocks estrogen receptors on cells while AI lowers estrogen levels in the body. The use of TMX was negatively correlated with increasing age, while the use of AI was positively correlated with increasing age (Figure 2.23).
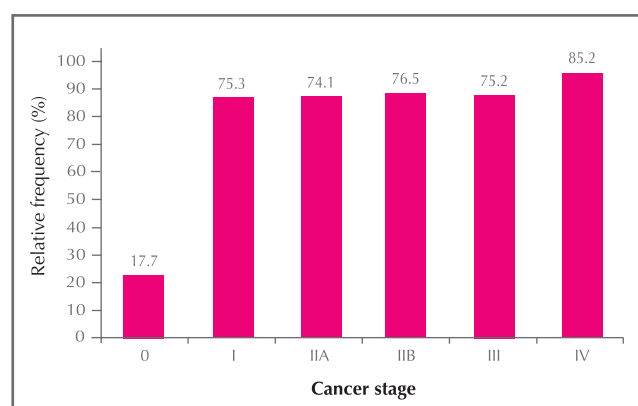
Figure 2.22 Endocrine therapy rates in patients by cancer stage (N=11,405)
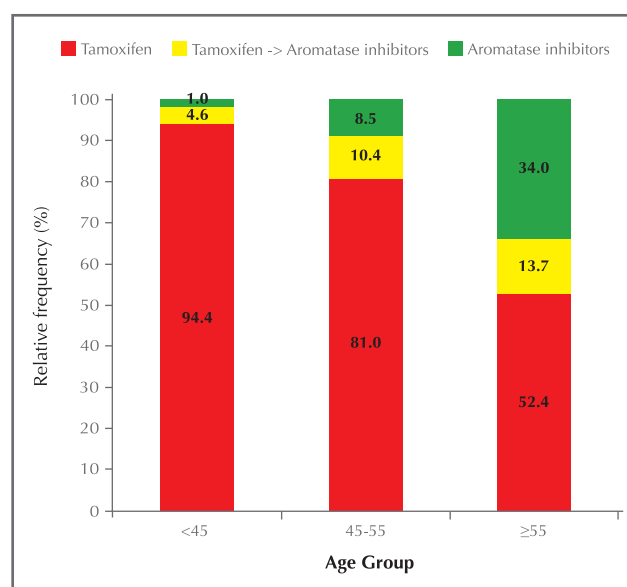
Figure 2.23 Forms of endocrine therapy used in patients by age group (N=7,376)

2.4.5 Targeted therapy

Targeted therapy is sometimes used in the treatment of breast cancer, which functions by blocking specific molecules required for tumour growth or carcinogenesis. Of the patient cohort, 967 (8.0%) had targeted therapy. Among them, 93.0% were adjuvant, 4.0% were neoadjuvant, and 3.0% were palliative. 86.0% of patients had targeted therapy in public health care facilities, while 14.0% had targeted therapy in private health care facilities.

The use of targeted therapy was positively correlated with increasing cancer stage (Figure. 2.24). The most commonly used targeted therapy drug was Trastuzumab (94.7%), which is used to treat HER2 positive cancers (Fig 2.25).
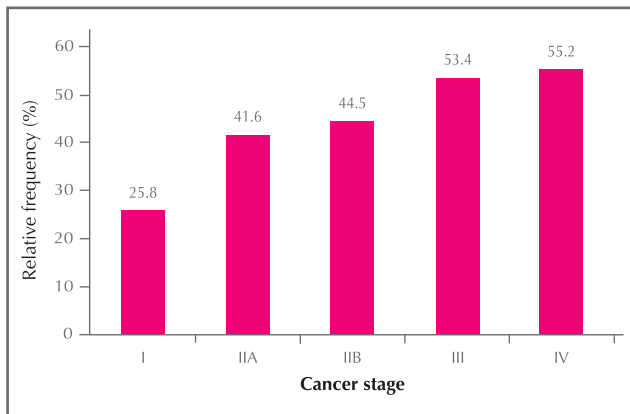
Figure 2.24 Targeted therapy rate in the HER2 positive patients by cancer stage (N=1,865)
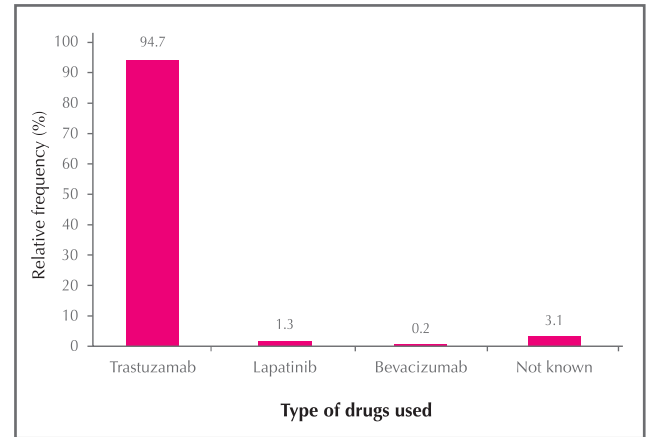
Figure 2.25 Type of drugs used for targeted therapy in patients (N=967)

2.4.6 Complementary and alternative therapies

Complementary and alternative treatments were used by 4,797 (39.9%) patients. Among them, 95.5% were adjuvant, 3.9% were neoadjuvant, and 0.7% were palliative. 89.2% of patients who used complementary or alternative therapy used Chinese medicine, while 53.1% used health foods and supplements (Figure 2.26).
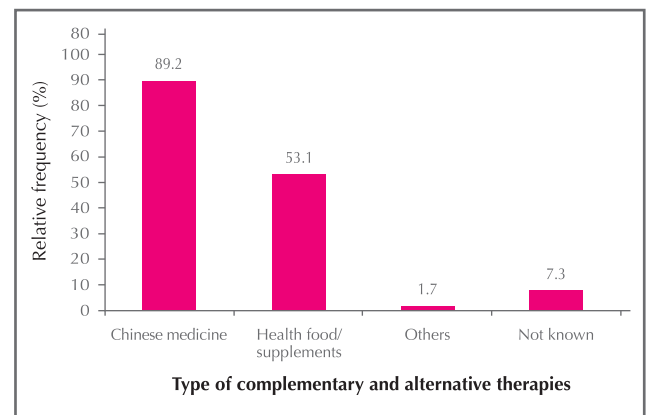
Figure 2.26 Type of complementary and alternative therapies used in 4,797 patients

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

2.4.7 Multimodality treatment

A combination of treatments is usually used for treating breast cancer. The multimodality treatment pattern of the patient cohort is studied here and is shown in Table 2.20. As complementary and alternative therapies are not a standard of care among breast cancer patients in Hong Kong, it is excluded in this part of analysis. Most patients with stage 0 breast cancer received one (41.3%) or two (49.4%) treatments mentioned in this chapter. 42.1% of

stage I and 40.3% of stage IIA patients had a combination of three treatments.

Around half of the patients with stage IIB (54.0%) and 62.6% of stage III patients had four treatments. However, around one-third of patients (36.1%) with stage IV breast cancer had a combination of three treatments.

Table 2.20 Number of treatments received by patients by cancer stages (N=11,606)

No. of treatment	Cancer stage, Number (%)						
	0 (N=1,363)	I (N=3,639)	IIA (N=3,220)	IIB (1,556)	III (N=1,576)	IV (N=252)	Total (N=11,606)
0	3 (0.2)	1 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	5 (2.0)	11 (0.1)
1	563 (41.3)	269 (7.4)	90 (2.8)	19 (1.2)	24 (1.5)	16 (6.3)	981 (8.5)
2	674 (49.4)	1,232 (33.9)	532 (16.5)	120 (7.7)	61 (3.9)	47 (18.7)	2,666 (23.0)
3	123 (9.0)	1,531 (42.1)	1,299 (40.3)	493 (31.7)	347 (22.0)	91 (36.1)	3,884 (33.5)
4	0 (0.0)	554 (15.2)	1,218 (37.8)	841 (54.0)	987 (62.6)	82 (32.5)	3,682 (31.7)
5	0 (0.0)	52 (1.4)	81 (2.5)	83 (5.3)	155 (9.8)	11 (4.4)	382 (3.3)

2.5 Patient status

Once treatment is completed, follow-up is done to ensure the efficacy of the treatment. To date, 46.8% of the patient cohort had the last follow-up data within the last 2 years. Of the patients, 35.4% of patients were followed up for 2-5 years, and 28.7% of patients were followed up for 5-10 years. Only 8.3% of patients were followed up for less than a year (Table 2.21). The mean follow-up period was 4.9 years and median follow-up period was 4 years.

679 (6.4%) of the patient cohort experienced recurrence, where 2.7% of the cases experienced locoregional recurrence solely, 2.5% experienced distant recurrence solely and 1.2% experienced both locoregional and distant recurrence at the same time. The mean and median recurrence time are shown in Table 2.21.

Table 2.21 Follow-up of 10,606 patients

Follow-up period	Number	(%)
< 1 year	878	(8.3)
1-2 years	1,817	(17.1)
2-5 years	3,757	(35.4)
5-10 years	3,046	(28.7)
10-15 years	810	(7.6)
>15 years	298	(2.8)
Mean follow-up period		4.9 years
Median follow-up period		4.0 years
Locoregional recurrence solely		
No. of locoregional recurrences	288	(2.7%)
Mean time to locoregional recurrence		5.5 years
Median time to locoregional recurrence		3.7 years
Distant recurrence solely		
No. of distant recurrences	266	(2.5%)
Mean time to distant recurrence		4.3 years
Median time to distant recurrence		3.4 years
Locoregional and distant recurrence		
No. of locoregional and distant recurrences	125	(1.2%)
Mean time to locoregional and distant recurrence		5.2 years
Median time to locoregional and distant recurrence		4.0 years
Mortality		
No. of deaths from breast cancer	70	(0.7%)
No. of deaths from unrelated causes	40	(0.4%)

Table 2.22 shows the number of cases with locoregional recurrence among patients with invasive breast cancer in different subgroups specified by surgery type and cancer stage. Similar rates of locoregional recurrence were observed in stages I and IIA patients. For stage IIB patients, the rate of locoregional recurrence was higher among patients with mastectomy than those received breast conserving surgery. However, higher rates of locoregional recurrence in patients with breast-conserving surgery than those with mastectomy were observed in stage III patients. The common sites for locoregional recurrence was breast (36.3%) or chest wall (30.8%) (Table 2.23).

Table 2.22 Number (%) of cases with locoregional recurrence among patients with invasive breast cancers in different subgroups specified by surgery type and cancer stage

| | Cancer stage, Number (% in the overall patient cohort with surgeries) | | | | |
	I	IIA	IIB	III	Total
BCS	43/1,549 (2.8%)	35/988 (3.5%)	8/297 (2.7%)	11/184 (6.0%)	97/3,018 (3.2%)
MTX	50/1,669 (3.0%)	64/1,891 (3.4%)	44/1,104 (4.0%)	63/1,196 (5.3%)	221/5,860 (3.8%)

BCS: breast-conserving surgery; MTX: mastectomy

Table 2.23 Sites involved in locoregional recurrence in patients (N=413)

Locoregional recurrence sites involved	N	(%)
Breast	150	(36.3)
Chest wall	127	(30.8)
Axilla	84	(20.3)
Supraclavicular	77	(18.6)
Internal mammary node	22	(5.3)
Not specified	40	(9.7)

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

The rate of locoregional recurrence solely was quite static (around 2%) among patients with invasive breast cancer across different cancer stages. The rate of distant recurrence solely was low across different cancer stages. The rate of locoregional and distant recurrence occurring at the same time was positively correlated with increasing cancer stage, from 0.4% in stage I patients to 3.0% in stage III patients.

The most common organ involved in distant recurrence was bone (52.9%), followed by lung (39.4%) (Table 2.25).

Table 2.24 Number (%) of locoregional and distant recurrence cases in patients with invasive breast cancer by cancer stage

| | Cancer stage, Number (%) | | | | |
Recurrence	I (N=3,221)	IIA (N=2,888)	IIB (N=1,405)	III (N=1,389)	Total (N=8,903)
Locoregional solely	81 (2.5%)	67 (2.3%)	23 (1.6%)	33 (2.4%)	204 (2.3%)
Distant solely	4 (0.1%)	4 (0.1%)	2 (0.1%)	8 (0.6%)	18 (0.2%)
Locoregional and distant	12 (0.4%)	33 (1.1%)	29 (2.1%)	41 (3.0%)	115 (1.3%)

The percentage of breast cancer specific deaths was highest in patients with stage III breast cancer (5.5%). Survival time ranged from 0.8-21.9 years. Information on biological subtypes of these patients can be found in Table 2.26.

Table 2.25 Organs involved in distant metastasis (N=391)

Distant organs affected	Number	(%)	Distant organs affected	Number	(%)
Bone	207	(52.9)	Adrenal	7	(1.8)
Lung	154	(39.4)	Thyroid glands	6	(1.5)
Liver	107	(27.4)	Ovary	4	(1.0)
Mediastinal nodes	68	(17.4)	Uterus	4	(1.0)
Neck	42	(10.7)	Pancreas	3	(0.8)
Brain	34	(8.7)	Spleen	2	(0.5)
Abdomen	10	(2.6)	Kidney	1	(0.3)
Contralateral nodal metastases	9	(2.3)	Unspecified	10	(2.6)

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

Table 2.26 Characteristics of breast cancer-specific deaths (N=70)

	Cancer stage at first diagnosis						
	0	I	IIA	IIB	III	IV	Unstaged
No. of cases (% of deaths in that cancer stage)	1 (0.1)	10 (0.3)	11 (0.4)	3 (0.2)	31 (2.2)	11 (5.5)	3 (0.9)
Survival time (range in years)	4.5	1.8 – 10.4	1.9 – 20.6	6.7 – 8.8	0.8 – 9.0	1.2 – 10.3	3.4 – 21.9
Biological subtypes							
Luminal A*	0	0	1	1	6	0	0
Luminal B (HER2 negative)#	0	2	2	0	5	0	0
Luminal A / B (HER2 negative)†	0	2	3	1	6	7	0
Luminal B (HER2 positive)^	1	1	1	1	6	1	1
HER2 Positive ✳	0	2	0	0	5	1	0
TND§	0	3	1	0	2	1	0
Not known	0	0	3	0	1	1	2

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

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

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

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

✳ HER2 positive: ER and PR-, and HER2+

§ TND (Triple Negative Disease): ER-, PR-, and HER2-

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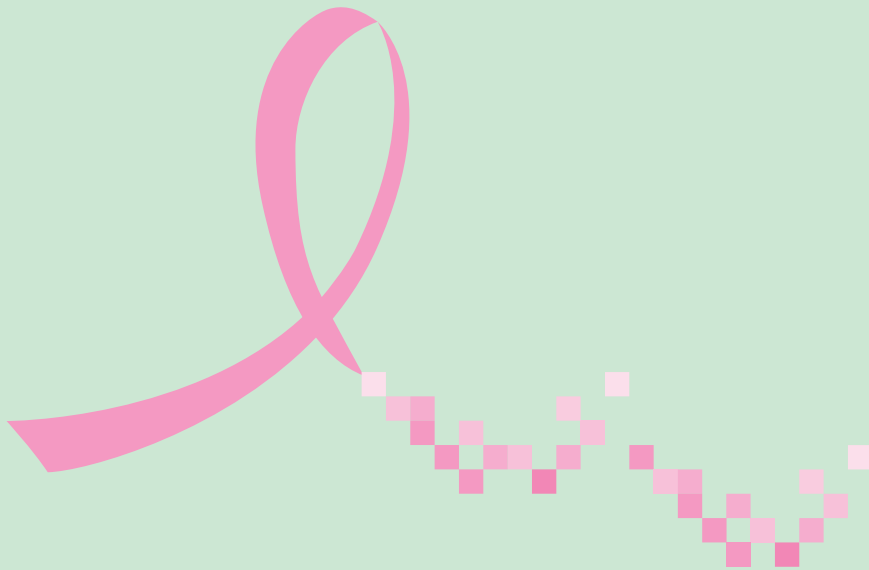
CHAPTER 3
PHYSICAL AND PSYCHOSOCIAL IMPACT OF BREAST CANCER AND ITS TREATMENT

This chapter analyses the psychosocial and physical impact of breast cancer on patients.

Key findings

Physical Impact

► 65.3% of patients who had surgery had no or minimal discomfort and 10.3% of patients had severe discomfort. The most common form of discomfort after surgery was wound pain (16.1%).

► 64.7% of patients who had radiotherapy had no or minimal discomfort and 12.9% of patients complaint about severe discomfort. The most common form of discomfort was dry skin (19.9%).

► 56.0% of patients who underwent chemotherapy complained about severe side effects. The most common forms of discomfort experienced were vomiting (25.6%), and loss of appetite (18.6%).

► 79.3% of patients underwent endocrine therapy and had no or minimal discomfort, and 8.0% of patients complained about severe discomfort. The most common form of discomfort was hot flushes (11.5%).

► 79.3% of patients who underwent targeted therapy had no or minimal discomfort and 7.5% of patients had severe discomfort. The most common complaint among these patients was fatigue (5.5%).

► 33.9% of patients who used complementary or alternative therapies said they felt more comfortable after the treatment.

Psychological/Social Impact

► At the time of diagnosis, 33.0% of patients accepted the result but felt depression.

► 53.4% of patients felt life was not fair after treatment.

► 54.1% of breast cancer survivors reported positive change in their outlook on life.

► 91.4% of patients reported a positive or no change in their self-image.

► 82.7% of patients reported lifestyle changes after diagnosis with breast cancer, the most common lifestyle change was diet (74.9%).

► 7.8% of patients felt depressed by their negative emotions with regards to breast cancer.

► 59.2% of patients always or sometimes worry about recurrence. Worry about recurrence was higher in younger age groups and reduced with increasing age.

3.1 Physical discomfort after treatment

10,311 patients were asked to complete the part 3 survey for the HKBCR report. The average time at which patients did the survey was 4.3 years after intial diagnosis.

3.1.1 Physical discomfort after surgery

65.3% of patients who had surgery had no or minimal discomfort while 10.3% of them had severe physical discomfort (Figure 3.1). The rate of patients reported having severe physical discomfort was highest among the patients who had mastectomy and reconstruction (Figure 3.2).
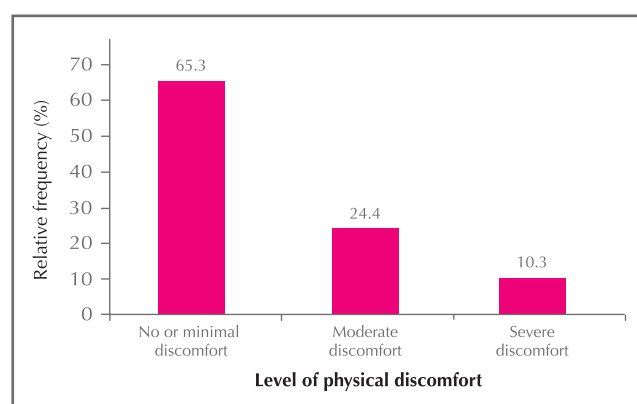
Figure 3.1 Level of physical discomfort after surgical operations (N=10,388)

The most common form of discomfort after surgery was wound pain (16.1%), followed by wound problems (7.2%) (Table 3.1).
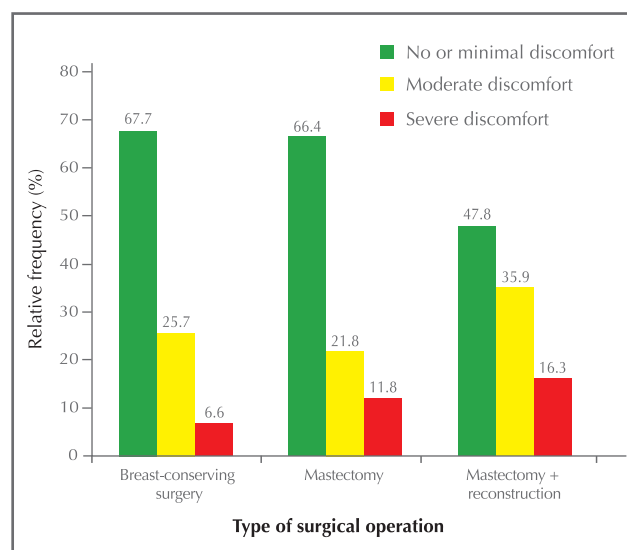
Figure 3.2 Level of physical discomfort by type of surgery (N=10,375)

Table 3.1 The five most common forms of discomfort after surgery (N=10,388)

	Number	(%)
Wound pain	1,669	(16.1)
Wound problems (infection / inflammation / tightness / poor wound healing)	743	(7.2)
Difficulty in arm movement	566	(5.4)
Numbness	356	(3.4)
Lymphoedema	337	(3.2)

3.1.2 Physical discomfort after radiotherapy

64.7% of patients who had radiotherapy had no or minimal discomfort while 12.9% of patients complained about severe discomfort (Figure 3.3). Discomfort was higher in patients who had chest wall irradiation (with or without regional nodes irradiation) than those who had breast irradiation (with or without regional nodes irradiation). (Figure 3.4).
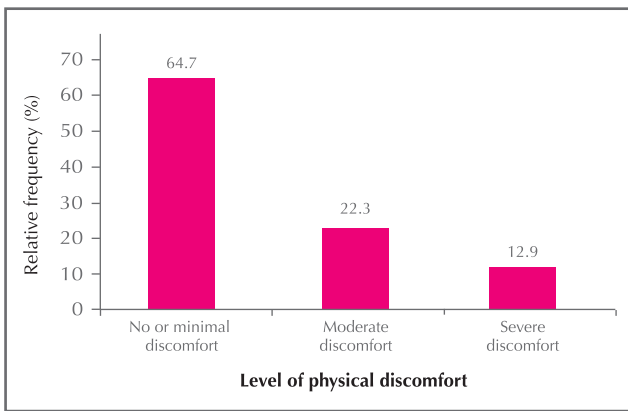
Figure 3.3 Level of physical discomfort after radiotherapy (N=6,275)
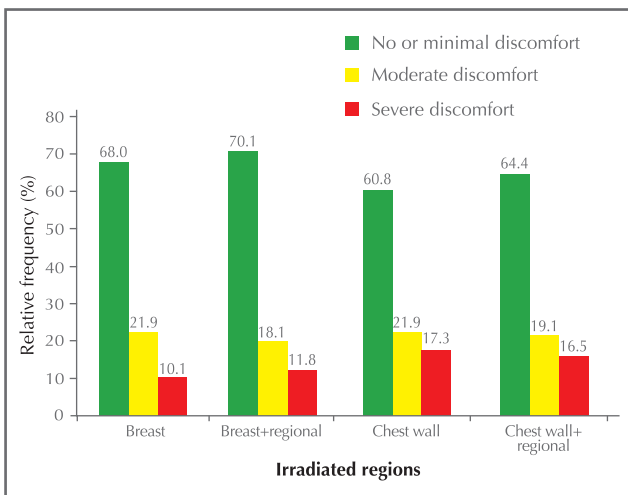
Figure 3.4 Level of physical discomfort after radiotherapy by irradiated regions (N=4,457)

The most common form of discomfort was dry skin (19.9%).

Table 3.2 The five most common forms of discomfort after radiotherapy (N=6,275)

	Number	(%)
Dry skin	1,250	(19.9)
Skin burns	577	(9.2)
Pain	317	(5.1)
Fatigue	162	(2.6)
Skin ucleration	140	(2.2)

3.1.3 Physical discomfort after chemotherapy

56.0% of patients who underwent chemotherapy complained about severe side effects (Figure 3.5).
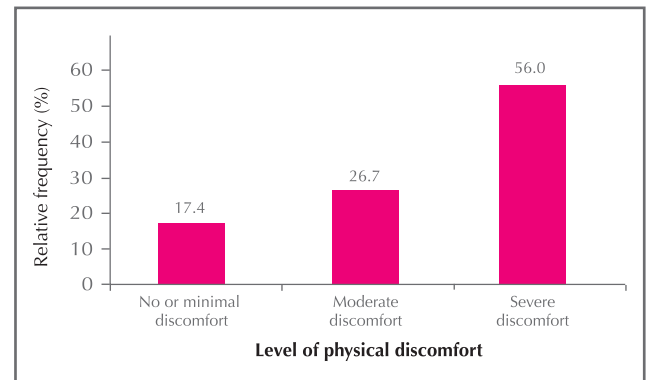
Figure 3.5 Level of physical discomfort after chemotherapy (N=6,383)

The most common forms of discomfort experienced were vomiting (25.6%), and loss of appetite (18.6%) (Table 3.3).

Table 3.3 The five most common forms of discomfort after chemotherapy (N=6,383)

	Number	(%)
Vomiting	1,636	(25.6)
Loss of appetite	1,188	(18.6)
Hair loss	982	(15.4)
Weakness	617	(9.7)
Nausea	573	(9.0)

Table 3.4 The five most common forms of discomfort after endocrine therapy (N=6,523)

	Number	(%)
Hot flushes	749	(11.5)
Bone pain	293	(4.5)
Menstrual Disorder	160	(2.5)
Tiredness	140	(2.1)
Weight gain	126	(1.9)

3.1.4 Physical discomfort after endocrine of therapy

79.3% of patients who had endocrine therapy had no or minimal discomfort, while only 8.0% of patients complained about severe discomfort (Figure 3.6). The most common forms of discomfort were hot flushes (11.5%) followed by bone pain (4.5%) (Table 3.4).

3.1.5 Physical discomfort after targeted therapy

79.3% of patients who had targeted therapy had no or minimal discomfort while 7.5% of patients had severe discomfort (Figure 3.7). The most common complaint among these patients was fatigue (5.5%) (Table 3.5).
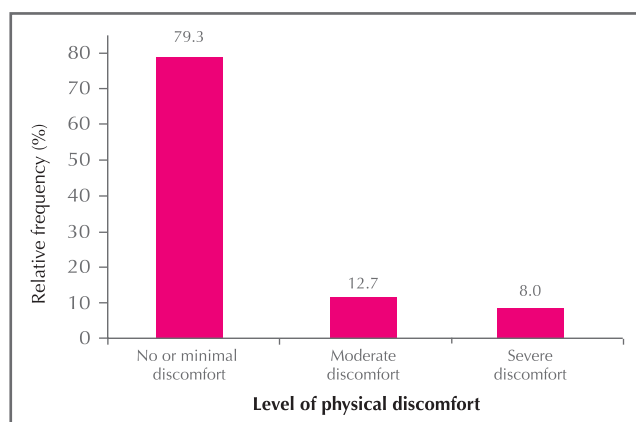
Figure 3.6 Level of physical discomfort after endocrine therapy (N=6,523)
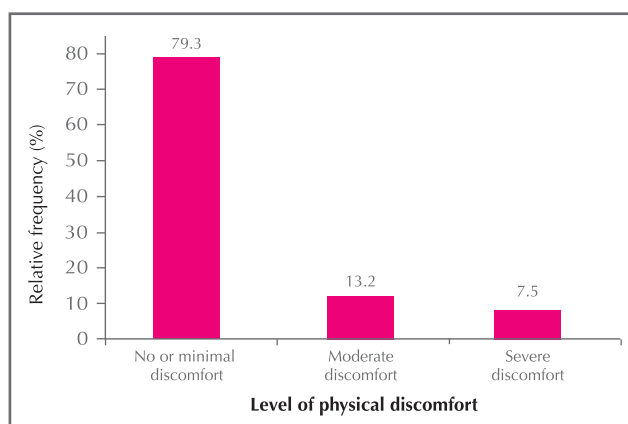
Figure 3.7 Level of physical discomfort after targeted therapy (N=749)

CHAPTER 3

Table 3.5 The five most common forms of discomfort after targeted therapy (N=749)

Discomfort	Number	(%)
Fatigue	41	(5.5)
Pain	19	(2.5)
Numbness	13	(1.7)
Others organs affected	12	(1.6)
Dizziness	10	(1.3)

3.1.6 Physical discomfort after complementary and alternative therapies

33.9% of patients who used complementary or alternative therapies said they felt more comfortable after the treatment, while 54.4% complained about no or minimal discomfort (Figure 3.8).
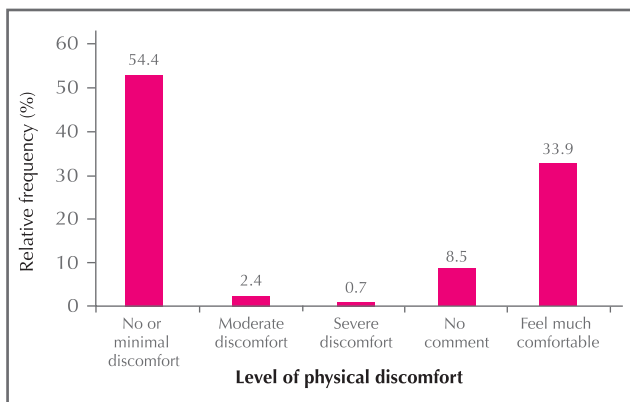
Figure 3.8 Level of physical discomfort after complementary and alternative therapies (N=4,634)

3.2 Psychosocial impacts and adjustments after diagnosis and treatment

3.2.1 Psychosocial impacts after diagnosis and treatment

The psychosocial and support care needs of breast cancer patients is not currently well understood. Analysis of the patient cohort survey data showed that in Hong Kong, at the time of diagnosis, 33.0% of patients accepted the result but felt depression and 21.2% were in denial. After treatment, 53.4% of patients felt life was not fair. 54.1% of breast cancer survivors reported positive change in their outlook on life, and 91.4% had a positive or no change in their self-image (Table 3.6).

Positive change in the outlook on life was negatively correlated with increasing age while no change in the outlook on life was positively correlated with increasing age (Figure 3.9). Negative change in patients' self-image reduced with increasing age. With the exception of patients aged under 29, positive change in self-image also reduced with increasing age. The under-20 age group had low patient numbers and therefore the data may not be representative. In the 20-29 age group, positive change in self-image was lower than that of patients aged, 30-59 (Fig 3.10).
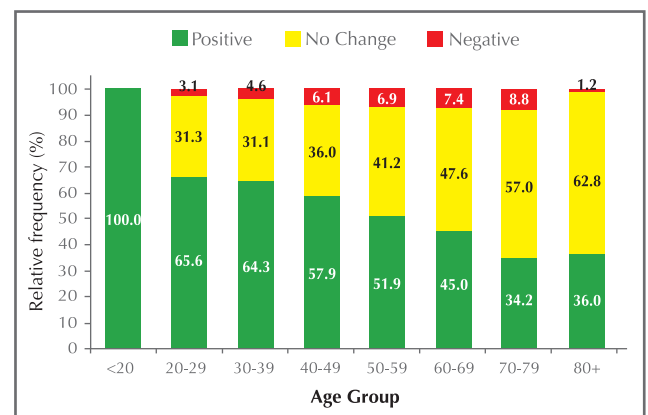
Figure 3.9 Change in outlook on life by age group (N=9,988)

Table 3.6 Psychosocial impacts of breast cancer on patients

	Number	(%)
Feelings at time of breast cancer diagnosis (N=10,042)		
Acceptance and positive attitude to fight	2,206	(22.0)
Calm acceptance	2,158	(21.5)
Acceptance with depression	3,314	(33.0)
Lack of acceptance ("It cannot be true.")	2,131	(21.2)
Acceptance with anger ("Something must be wrong.")	233	(2.3)
Feelings after breast cancer treatments (N=8,144)		
Life was not fair	4,347	(53.4)
Cancer was an alarm that caught patient by surprise	2,721	(33.4)
Cancer took away something from patient	565	(6.9)
Cancer changed patient's value system	511	(6.3)
Change in outlook on life (N=10,120)		
Positive	5,475	(54.1)
Negative	643	(6.4)
No change	4,002	(39.5)
Change in self-image (N=10,137)		
Positive	4,241	(41.8)
Negative	871	(8.6)
No change	5,025	(49.6)
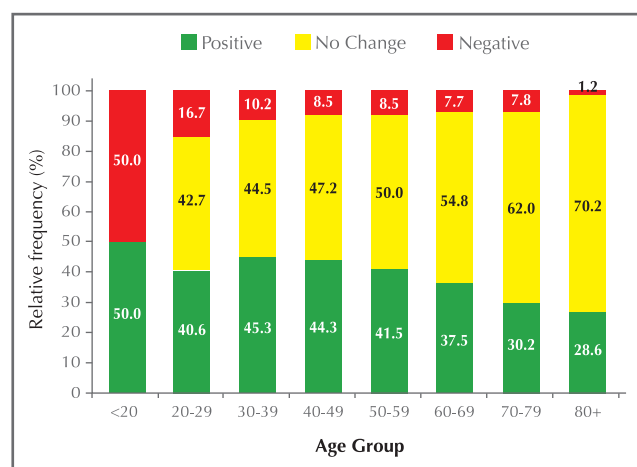
Figure 3.10 Change in self-image by age group (N=10,007)

3.2.2 Psychosocial adjustments and coping strategies

Of the 10,311 patients in the patient cohort, 8,529 (82.7%) reported lifestyle changes after diagnosis with breast cancer. The most common lifestyle change was change in diet (74.9%), followed by increased exercise (61.5%). 12.5% of patients quit their job.

54.4% of patients managed their negative emotions by direct verbal expression, 11% of patients ignored their negative emotions, while 7.8% of patients felt depressed.

Table 3.7 Psychosocial adjustments and coping strategies for survivorship

	Number	(%)
Types of lifestyle changes (N=8,529)		
Changing diet	6,389	(74.9)
Doing more exercise	5,246	(61.5)
Taking health supplements	2,208	(25.9)
Reducing workload	1,704	(20.0)
Quitting job	1,067	(12.5)
Way of managing negative emotions (N=10,311)		
Direct verbal expression	5,617	(54.4)
Divert attention from them	3,549	(34.4)
Ignoring them	1,137	(11.0)
Feeling depressed	809	(7.8)
Others	706	(6.8)
Level of worry about recurrence (N=10,108)		
Never	2,325	(23.0)
Seldom	1,794	(17.7)
Sometimes	4,903	(48.5)
Always	1,086	(10.7)

3.2.3 Levels of worry about recurrence

59.2% of patients always or sometimes worry about recurrence (Table 3.7). The number of patients that always or sometimes worry about recurrence reduced with increasing age, while the number of patients who seldom or never worry about recurrence increased with increasing age (Fig 3.11).
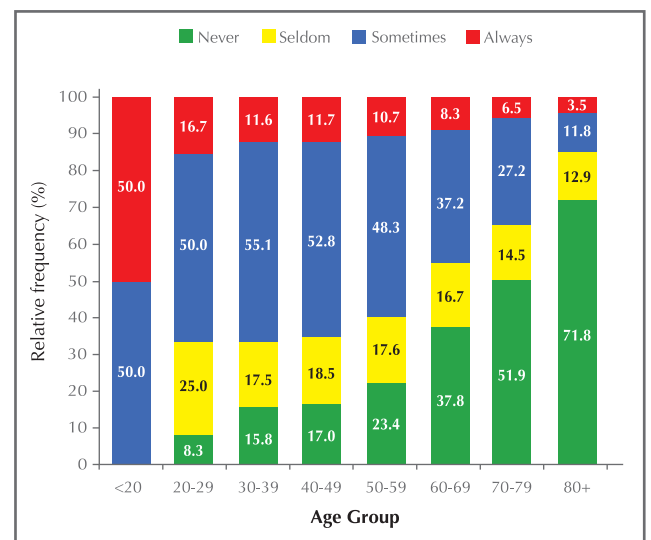
Figure 3.11 Level of worry about recurrence by age group (N=9,976)

GLOSSARY

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 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 Ki67). By combining these biological markers in the primary tumour rather than assessing them individually, further prognostic and predictive information can be gained. The surrogate definitions of intrinsic biological subtypes of breast cancers includes luminal A (ER+ and/or PR+, Ki67 low and HER2-), luminal B (HER2 negative) (ER+ and/or PR+, HER2-, and Ki67 high), luminal B (HER2 positive) (ER+ and/or PR+, any Ki67 and HER2+), HER2-positive (ER-, PR- and HER2+) and triple negative (ER-, PR-, HER2-).

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

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 Classification

According to the latest AJCC Cancer Staging Classification 2010[29], 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 $\leq$ 20mm;
T2: 20mm < tumour size $\leq$ 50mm; T3: tumour size>50mm;
T4: any size with direct extension to the chest wall and / or to the skin (ulceration or skin nodules)

N0: no positive nodes; N1mi: > 0.2-2.0 mm or more than 200 cells; N1: 1-3 positive nodes; N2: 4-9 positive nodes; N3: $\geq$ 10 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). They have 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.

Lobular carcinoma in situ (LCIS) is considered a precancerous lesion, a risk factor for developing invasive cancer in future, but is not classified as breast cancer.

Invasive breast cancer

An invasive cancer is one that has already grown beyond the outer lining of the layer of cells 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. Fat necrosis is a benign (non-cancerous) breast condition that may occur when fatty breast tissues swell or become tender spontaneously or as a result of an injury to the breast.

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 hormonal therapy drugs block progesterone from binding.

Radiation therapy

Radiation therapy is the use of radiation to destroy cancer cells. External sources of radiation used include linear accelerators, cobalt, and betatrons. 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12,345名乳癌患者的資料。

▶ 患者確診乳癌的平均年齡為50.9歲，年齡中位數為49.6歲。

▶ 香港乳癌患者確診的年齡高峰期為40-59歲（69.0%）。

高危因素

▶ 患者共通的十大高危因素：

	%
缺乏運動（每周少於3小時）	76.9
從未餵哺母乳	65.5
高度精神壓力（超過一半時間）	37.3
超重／肥胖	37.0
沒有生育／35歲後首次生育	24.2
飲食以肉類及乳類製品為主	14.4
有家族乳癌病史	14.3
提早初經（<12歲）	13.4
使用荷爾蒙補充劑	5.2
夜間工作	5.0

檢查習慣

▶ 整體而言，患者缺乏乳房檢查習慣。少於半數患者定期接受臨床乳房檢查，少於四分之一患者定期進行自我乳房檢查或乳房X光造影檢查。

▶ 患者年齡愈高，乳房檢查習慣愈少。

癌症特徵、組織學和生物學特徵

▶ 84.6%患者是自己無意中發現乳癌的，當中發現的入侵性乳癌比率遠高於無意中發現原位乳癌的比率（88.4%比58.0%）。

▶ 16.1%患者在出現乳癌癥狀後超過一個月才首次求醫。

▶ 81.3%患者確診時的癌症期數屬於早期（0-II期）；15.2%屬於晚期（III-V期），3.5%沒有癌症分期。確診患者中，9,536人（86.4%）屬入侵性乳癌。

▶ 入侵性乳癌腫瘤的平均大小為2.2厘米（標準偏差：1.4厘米）。當中自我發現與定期檢查發現的腫瘤平均大小對比：2.2厘米比1.3厘米。46.4%患者的入侵性腫瘤大於2厘米。

▶ 13.5%患者（1,492人）患有原位乳癌，腫瘤平均大小為2厘米（標準偏差：1.5厘米）。37.8%患者的原位腫瘤大於2厘米。

入侵性及原位癌個案的組織學及生物學特徵：

	入侵性乳癌 %	原位癌 %
組織學類別		
乳腺管癌	84.7%	91.4%
乳小葉癌	3.7%	1.7%
其他	11.6%	6.9%
生物學特性		
ER+	76.9%	79.9%
PR+	64.8%	71.2%
HER2+	21.8%	28.9%
Ki67 指數 ≥ 14%	56.6%	28.2%
ER-PR-HER2-	12.0%	——
入侵淋巴管	28.6%	——

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

► 17.1%患者在私營醫療機構就醫；48.9%在公營醫療機構診治；34.0%在私營及公營醫療機構接受治療。

► 群組中，除第IV期患者外，癌症期數愈高，採用不同治療方法的數目愈多。

► 49.4%的0期患者採用兩種治療方法，9.0%接受三種治療方法。

► 42.1%的I期患者採用三種治療方法，15.2%接受四種治療方法。

| | 整體 | 醫療服務 | | 期數 | | | | | |
| | | 私營 | 公營 | 0 | I | IIA | IIB | III | IV |
	%	%	%	%	%	%	%	%	%
手術	**98.3**	**52.9**	**47.1**						
乳房保留手術	35.1	44.8	26.2	53.0	47.8	30.5		13.5	11.6
乳房切除手術	63.1	55.2	73.8	47.1	52.2	69.5		86.5	88.3
化療	**60.5**	**15.2**	**84.8**	—	**38.7**	**82.0**	**91.7**	**94.1**	**85.8**
放射性治療	**62.2**	**14.3**	**85.7**	**51.3**	**53.8**	**59.2**	**78.9**	**94.7**	**62.7**
內分泌治療	**66.7**	**12.9**	**87.1**	**17.7**	**75.3**	**74.1**	**76.5**	**75.2**	**85.2**
靶向治療	**8.0**	**14.0**	**86.0**	—	**25.8***	**41.6***	**44.5***	**53.4***	**55.2***

*只包含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

治療方式	嚴重不適患者比率（%）	主要不良反應（患者比例，%）
化療	56.0	嘔吐（25.6%）、食慾不振（18.6%）、脫髮（15.4%）
放射性治療	12.9	皮膚乾燥（19.9%）、皮膚灼傷（9.2%）
手術	10.3	傷口痛楚（16.1%）
內分泌治療	8.0	潮熱（11.5%）
靶向治療	7.5	疲倦（5.5%）

► 化療是最多患者感到難受的治療方法，56.0%患者接受化療後感到嚴重不適，26.7%患者感到中度不適。

確診和治療對患者的心理及生活影響

► 33.0%患者確診乳癌後接受結果但感到情緒低落，53.4%患者感到人生不公平。59.2%患者經常或有時憂慮復發。

► 54.1%患者表示人生觀有正面改變，41.8%患者的自我形象有正面改變。

► 82.7%患者表示在確診乳癌後調節了生活習慣。最多患者改變的生活習慣是飲食習慣（74.9%），其次是多做運動（61.5%）。

► 面對負面情緒時，有54.4%患者的處理方法是直接向人傾訴及34.4%的患者會轉移注意力。

第一章
預防和及早發現乳癌

第一章　預防和及早發現乳癌

本章綜述香港乳癌患者的統計資料、社會經濟狀況和生活模式,分析數據來自香港乳癌資料庫中12,053名患者的登記資料。通過分析,可以辨別增加乳癌風險的主要因素,並且了解到造成香港乳癌發病率增加的潛在風險因素。

主要分析結果

▶ 患者確診的平均年齡為50.9歲(標準偏差:10.4歲),年齡中位數為49.6歲

▶ 罹患乳癌的高峰年齡組為40歲至49歲(38.5%)

▶ 香港乳癌資料庫患者群組中已知的十大乳癌高危因素:
  • 缺乏運動(每周少於3小時)(76.9%)
  • 從未餵哺母乳(65.5%)
  • 高度精神壓力(超過一半時間)(37.3%)
  • 超重/肥胖(37.0%)
  • 從未生育/35歲後首次生育(24.2%)
  • 飲食以肉類及乳類製品為主(14.4%)
  • 有家族乳癌病史(14.3%)
  • 提早初經(<12歲)(13.4%)
  • 使用荷爾蒙補充劑(5.2%)
  • 經常夜間工作(5.0%)

▶ 乳房檢查習慣:
  • 各年齡組別都只有少於25%患者定期進行自我乳房檢查。
  • 各年齡組別都只有少於45%患者定期接受臨床乳房檢查,各年齡組別都只有少於25%患者接受乳房X光造影檢查或乳房超聲波檢查。
  • 一般而言,除40歲以下的患者外,從來沒有進行自我乳房檢查或臨床乳房檢查的患者比例與年齡增長成正比。

1.1 患者統計資料

乳癌患者的年齡分佈隨不同人口群組而出現顯著的分別[2-4]，因此針對特定人口群組來分析乳癌患者的年齡分佈是很重要的。

年齡分佈數據的分析顯示，雖然乳癌患者的確診年齡分佈為18.8歲至101.5歲，但是高峰年齡組為40歲至49歲（38.5%），其次是50歲至59歲（30.5%）（圖1.1）。患者的平均確診年齡為50.9歲，標準偏差為10.4歲，年齡中位數為49.6歲。
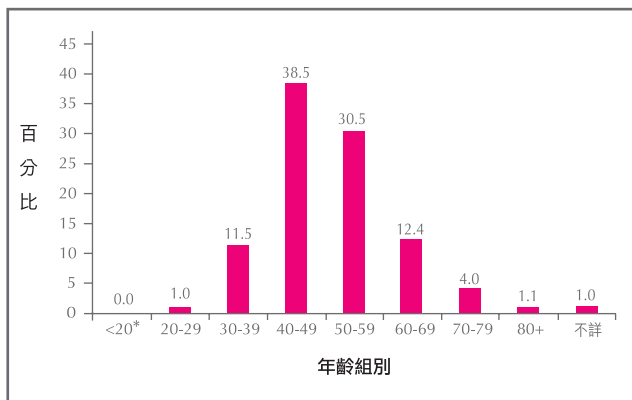
圖1.1 患者確診年齡的分佈（人數=12,053）
* <20歲的年齡組別共有2名患者

按職業分析，57.1%患者為受僱或自僱人士。專業／文職人員患者的比例（31.3%）高於非文職／勞動工作者（23.3%）（圖1.2）。在職患者群組的平均每周工作時間為46.4小時，標準偏差為每周14.4小時。

很多研究正探討乳癌與夜間輪班工作，長期暴露在人造光之下的關聯[5-9]。國際癌症資料庫協會（IARC）於2007年已把輪班工作列為「可能致癌」的類別。不過，近期一項觀察研究分析發現，睡眠時間長短、干擾生理節奏和乳癌之間並無關聯[10]。因此，乳癌風險與夜間輪班工作的關聯仍然具爭議性。

在患者群組之中，577人（8.4%）在確診前需要夜間工作，患者夜間工作時間的中位數為每年84個晚上。
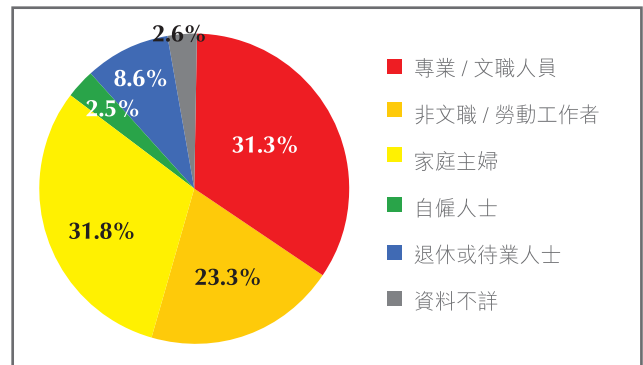
圖1.2 患者的職業（人數=12,053）

七成患者（69.6%）的教育程度為中學或以上，小學或以下教育程度的患者佔29.3%（圖1.3）。大約三分一患者（35.2%）的每月家庭收入是港幣30,000元或以上，而20.7%患者的每月家庭收入少於港幣10,000元（圖1.4）。
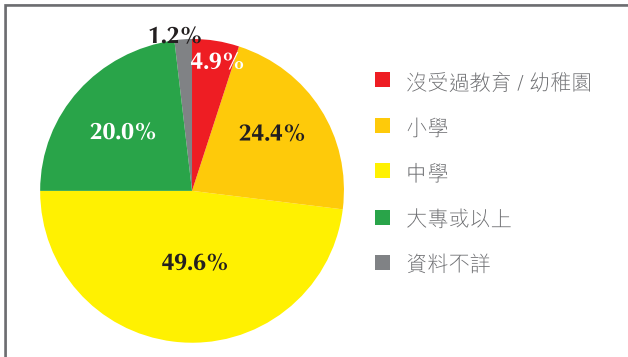
圖1.3 患者的教育水平（人數=12,053）
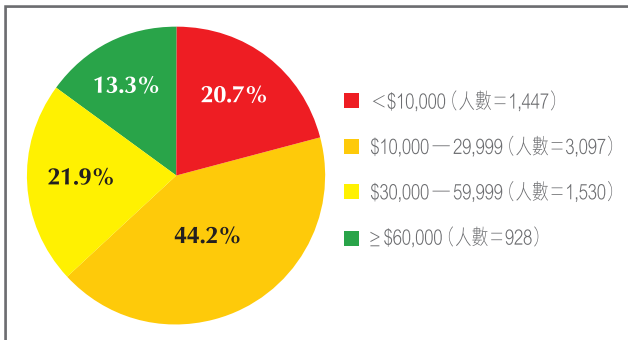
圖1.4 患者群組的每月家庭收入（港幣）（人數=7,002）

超過一半（56.2%）患者在新界居住，23.3%患者居住在九龍，而16.0%患者居住在香港島（圖1.5）。
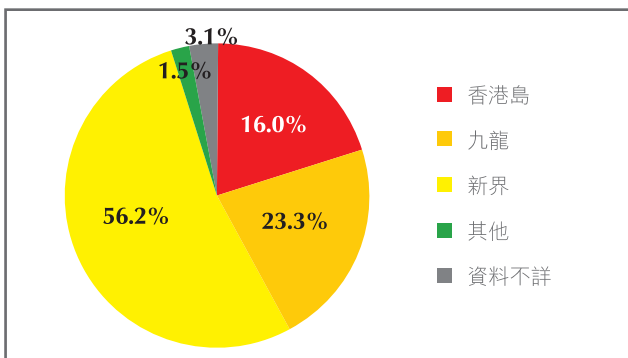
圖1.5 患者的居住地區分佈（人數=12,053）

患者當中最普遍的胸圍尺碼是34吋（24.8%，圖1.6），罩杯尺碼則為B級或以下（52.9%，圖1.7）。
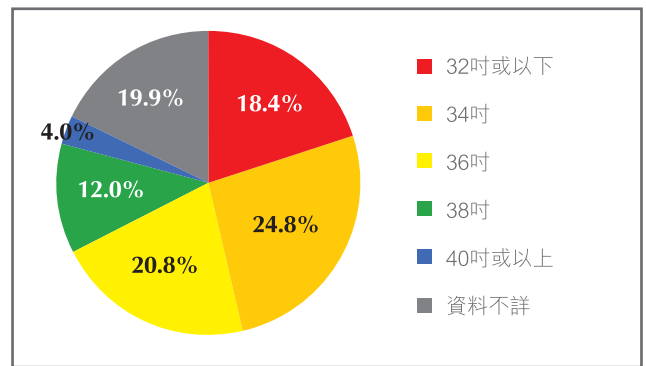
圖1.6 患者的胸圍尺碼（人數=12,053）
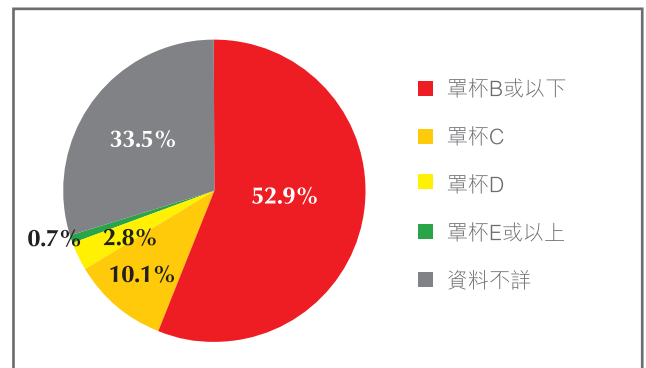
圖1.7 患者的胸圍罩杯大小（人數=12,053）

1.2 高危因素及健康紀錄

1.2.1 吸煙

吸煙及飲酒是增加乳癌風險的已知高危因素。

很多研究曾經探討吸煙對乳癌的影響，但未有確定結果[11]。近期一些研究顯示，吸煙的年輕婦女收經後罹後乳癌的風險大幅增加[12]，也增加了患上雌激素受體（ER）呈陽性乳癌的風險[13]。這個患者群組當中，4.5%是吸煙者，平均吸煙18.3年，標準偏差為10.9年。這些患者每星期吸煙3.6包，標準偏差為每星期3.1包。45.0%患者在確診時已經戒煙6.8年，標準偏差為8.3年。

1.2.2 飲酒

國際癌症資料庫協會認為，酒精與入侵性乳癌有因果關係[14]。4.7%患者飲酒，平均年期是14.6年，標準偏差為10.4年。這些患者每星期平均飲酒4.5杯。最普遍飲用的酒精飲料是紅酒（28.3%）、啤酒（23.7%）、啤酒及紅酒（14.1%）。14.6%患者在確診時已經戒酒。

1.2.3 飲食、運動習慣及精神壓力水平

68.2%乳癌患者有均衡飲食習慣，而14.4%患者則以肉類 / 乳類製品為主。45.6%患者從不運動，而31.3%患者每周運動少於3小時。有37.3%患者處於高度精神壓力狀態中生活，而27.9%患者則處於中度精神壓力（表1.1）。

表 1.1 患者確診前的飲食習慣、運動習慣及精神壓力水平（人數=12,053）

	人數	（%）
飲食習慣		
肉類 / 乳類製品為主	1,739	（14.4）
茹素或蔬果為主	1,647	（13.7）
均衡飲食	8,219	（68.2）
資料不詳	448	（3.7）
運動習慣		
從不運動	5,495	（45.6）
每周運動＜3小時	3,774	（31.3）
每周運動≥3小時	2,678	（22.2）
資料不詳	106	（0.9）
精神壓力狀態		
高度壓力*	4,497	（37.3）
中度壓力**	3,365	（27.9）
輕微壓力	4,026	（33.4）
資料不詳	165	（1.4）

 * 高度壓力：多於一半時間
** 中度壓力：25-50%時間

1.2.4 身高、體重及體重指數

體重指數（BMI）是根據個人的身高和體重來評估人體脂肪量的有效方法。患者的平均身高157.8厘米，標準偏差為5.6厘米，而平均體重則為56.8公斤，標準偏差為9.1公斤。

體重指數增加已被視為是乳癌的風險因素之一，尤其在於收經後的婦女[15-16]。Renehan等在2008年發表的報告指出，體重指數每上升5kg/m²，收經後患上乳癌的相對風險增加12%[17]。雖然有42.9%患者體重指數正常，但是37.1%患者屬於過重或肥胖（表1.2）。

表1.2 確診前的體重指數（人數=12,053）

	人數	（%）
體重指數BMI		
≥ 25.0（肥胖）	2,443	（20.3）
23.0-24.9（過重）	2,019	（16.8）
18.5-22.9（正常）	5,172	（42.9）
< 18.5（過輕）	848	（7.0）
資料不詳	1,571	（13.0）

1.2.5 乳癌家族史

具有乳癌家族史是罹患乳癌的重要危險因素，越多家族成員曾患乳癌，個人罹患乳癌的風險也隨之增加。14.3%患者有家族成員曾患乳癌，而大部份患者（84.3%）都沒有乳癌家族病歷（表1.3）。

表1.3 患者確診前的家族乳癌病歷（人數=12,053）

乳癌家族病歷史	人數	（%）
沒有	**10,157**	**（84.3）**
有		
直系親屬	1,205	（10.0）
非直系親屬	488	（4.0）
資料不詳	35	（0.3）
不知道	**168**	**（1.4）**

1.2.6 個人腫瘤病歷

有17.2%患者曾有腫瘤病歷，當中只有2%曾患惡性腫瘤（表1.4）。這些患者當中，最普遍的惡性腫瘤是甲狀腺癌（12.9%）和直腸癌（11.2%）（表1.5）。

表1.4 患者確診前的個人腫瘤病歷（人數=12,053）

腫瘤病歷	人數	（%）
沒有	9,668	（80.2）
良性腫瘤	1,772	（14.7）
惡性腫瘤	241	（2.0）
腫瘤性質不詳	57	（0.5）
腫瘤病歷不詳	315	（2.6）

表1.5 患者曾患惡性腫瘤的類別（人數=241）

惡性腫瘤類別	人數	（%）
甲狀腺癌	31	（12.9）
直腸癌	27	（11.2）
子宮癌	18	（7.5）
子宮頸癌	14	（5.8）
淋巴癌	7	（2.9）
卵巢癌	7	（2.9）
鼻咽癌	6	（2.5）
肺癌	5	（2.1）
腸癌	4	（1.7）
泌尿系統癌	4	（1.7）
肝癌	3	（1.2）
皮膚癌	3	（1.2）
胃癌	3	（1.2）
骨癌	2	（0.8）
食道癌	2	（0.8）
血癌	2	（0.8）
髓質癌	2	（0.8）
乙結腸癌	2	（0.8）
舌癌	2	（0.8）
其他*	6	（2.5）
資料不詳	98	（40.7）

*其他癌症包括：腦癌、輸卵管癌、鼻腔癌、頸癌、腮腺癌、
　　唾腺癌

1.2.7 良性乳房疾病病歷

患上良性乳房疾病是處於生育年齡女性的常見現象。雖然大部分良性乳房疾病都無須擔憂，但是某些疾病，例如異常增生和乳頭狀瘤病，都是乳癌的已知危險因素。乳癌風險關聯程度視乎病變的情況[18-20]。患者當中，15.1%患者曾有良性乳房疾病病歷。這些患者當中，1%患者曾患異常增生，0.2%患者曾患乳頭狀瘤病（表1.6）。

表1.6 患者確診前的乳房疾病病歷

	人數	（%）
乳房疾病病歷	1,814	（15.1）
乳房疾病的種類		
纖維乳腺瘤	828	（45.6）
囊變性纖維瘤	117	（6.4）
乳頭狀瘤	28	（1.5）
乳頭狀瘤病	3	（0.2）
異常增生	18	（1.0）
其他（乳腺增生、其他良性腫瘤）	836	（46.1）

1.2.8 患者提早初經、延遲收經及生育紀錄

婦女罹患乳癌的風險與多項生育因素息息相關，例如提早初經、延遲收經、遲生育或不曾生育、沒有餵哺母乳經驗及生育次數等[21-22]。初經到首次懷孕期間，乳房特別容易出現癌病變[23]。在乳癌患者群組中，乳癌患者的平均初經年齡是13.3歲，平均收經年齡是49.3歲。

患者群組中，有13.4%出現提早初經情況。48.6%患者為已收經婦女，當中，4.5%屬延遲收經。大約五分一（21.1%）患者從未生育，4%患者在35歲之後才首次生育。有孩子的患者當中，平均首次生育年齡為26.8歲（表1.7）。患者的生育次數詳列於表1.8。

65.5%患者不曾餵哺母乳（表1.7）。餵哺母乳的平均時間為15.4個月，標準偏差為21.3個月，範圍介乎0.1個月到252個月。

表1.7　患者的初經、收經及生育紀錄

	人數	（%）
初經（人數=12,053）		
提早初經（<12歲）	1,617	（13.4）
正常初經（≥12歲）	9,609	（79.7）
年齡不詳	827	（6.9）
更年期（人數=5,861）		
延遲收經（>55歲）	264	（4.5）
正常收經（≤55歲）	4,764	（81.3）
收經年齡不詳	833	（14.2）
生育紀錄（人數=11,616）		
沒有生育	2,447	（21.1）
首次生育≤35歲	8,425	（72.5）
首次生育>35歲	469	（4.0）
首次生育年齡不詳	275	（2.4）
餵哺母乳（人數=12,053）		
有	3,677	（30.5）
沒有（曾生育）	5,392	（44.7）
沒有（不曾生育）	2,443	（20.3）
沒有（生育紀錄不詳）	64	（0.5）
資料不詳	477	（4.0）

表1.8 患者的生育次數（人數=9,169）

生育次數	人數	（%）
1	2,453	（26.8）
2	4,109	（44.8）
3	1,612	（17.6）
4	565	（6.2）
5	208	（2.3）
6	100	（1.1）
7	36	（0.4）
8	12	（0.1）
10+	7	（0.1）
資料不詳	67	（0.7）

1.2.9 使用口服避孕藥

使用口服避孕藥會否增加罹患乳癌風險眾説紛紜，需要更多資料才能下結論。患者群組當中，32.8%的婦女曾使用口服避孕藥，當中12.4%患者服用超過5年（表1.9）。

表1.9 患者確診前使用口服避孕藥的情況
（人數=12,053）

口服避孕藥使用情況	人數	（%）
沒有服用	7,692	（63.8）
服用少於5年	1,859	（15.4）
服用了5-10年	1,049	（8.7）
服用超過10年	444	（3.7）
服用年期不詳	598	（5.0）
使用與否不詳	411	（3.4）

1.2.10 使用荷爾蒙補充劑

使用荷爾蒙補充劑用於紓緩更年期面對的症狀，但服用荷爾蒙補充劑會增加婦女患上乳癌的風險[24-25]。患者群組中只有大約十分一（10.7%）患者收經後曾服用荷爾蒙補充劑，當中3.6%患者服用超過5年（表1.10）。

表1.10 已收經患者在確診前使用荷爾蒙補充劑的情況
（人數=5,861）

荷爾蒙補充劑服用情況	人數	（%）
沒有服用	5,003	（85.4）
服用少於5年	340	（5.8）
服用了5-10年	182	（3.1）
服用超過10年	31	（0.5）
服用年期不詳	75	（1.3）
使用與否不詳	230	（3.9）

1.2.11 患者十大高危因素

不少高危因素都和乳癌風險增加有關。香港乳癌資料庫就高危因素的研究顯示，缺乏運動（76.9%）是最常見的高危因素，其次是缺乏母乳餵哺經驗（65.5%），第三是高度精神壓力（37.3%）（表1.11）。

多項高危因素會造成乳癌風險累計增加。59.7%患者擁有三項或以上高危因素（表1.8）。

表1.11 患者罹患乳癌十大高危因素（人數=12,053）

高危因素	人數	（%）
缺乏運動（每周少於3小時）	9,269	（76.9）
從未餵哺母乳	7,899	（65.5）
高度精神壓力（超過一半時間）	4,497	（37.3）
超重／肥胖	4,462	（37.0）
沒有生育／35歲後首次生育	2,916	（24.2）
飲食以肉類及乳類製品為主	1,739	（14.4）
有家族乳癌病史	1,728	（14.3）
提早初經（<12歲）	1,617	（13.4）
使用荷爾蒙補充劑	628	（5.2）
夜間工作*	599	（5.0）

* 夜間工作是指在晚上11時至清晨6時之間工作，上表所紀錄的是一年內超過一個晚上工作也歸入「夜間工作」。
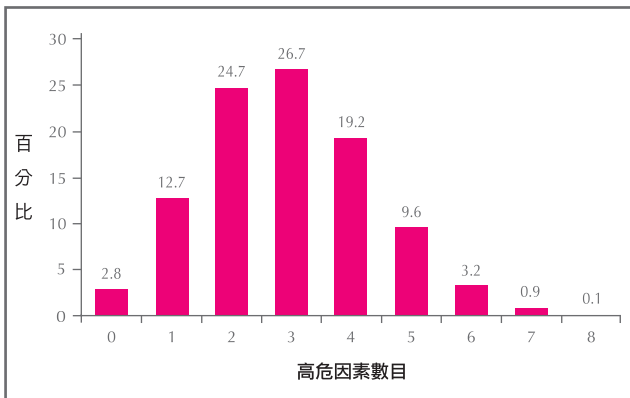
圖1.8 患者確診前擁有的乳癌高危因素數目
（人數=12,053）

1.3 乳房檢查習慣

定期乳房檢查能及早發現乳癌，亦是減低乳癌死亡率的最有效方法。香港乳癌基金會建議，40歲或以上婦女應每月進行自我乳房檢查，並且定期接受臨床乳房檢查和乳房X光造影檢查。乳房密度高的婦女，除了乳房X光造影檢查之外，也可考慮同時接受乳房超聲波檢查。

只有少於四分一患者有定期進行自我乳房檢查、乳房X光造影檢查或乳房超聲波檢查。年齡越大的群組，越多人從沒有進行自我乳房檢查和乳房超聲波檢查。不過，除40-49歲群組外，從沒有進行乳房X光造影檢查的患者人數也與年齡成正比。

年齡在59歲或以下的患者，大約有40%有定期進行臨床乳房檢查，但是年齡組別60歲到69歲，以及70歲或以上婦女，定期進行檢查的分別只有27.8%和11.9%。除了40歲以下的婦女外，從沒有進行臨床乳房檢查的人數與年齡增長成正比（表1.12）。

表1.12 按年齡組別分析患者乳房檢查的習慣

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	565 （37.4）	1,700 （36.6）	1,494 （40.7）	701 （46.9）	382 （62.0）
不定期	586 （38.8）	1,703 （36.7）	1,206 （32.8）	424 （28.4）	152 （24.7）
每月	332 （22.0）	1,150 （24.8）	882 （24.0）	338 （22.6）	63 （10.2）
資料不詳	27 （1.8）	86 （1.9）	90 （2.5）	31 （2.1）	19 （3.1）
臨床乳房檢查					
從不	689 （45.6）	1,910 （41.2）	1,637 （44.6）	873 （58.4）	465 （75.5）
不定期	193 （12.8）	571 （12.3）	459 （12.5）	162 （10.8）	54 （8.8）
定期*	608 （40.3）	2,081 （44.9）	1,498 （40.8）	415 （27.8）	73 （11.9）
資料不詳	20 （1.3）	77 （1.7）	78 （2.1）	44 （2.9）	24 （3.9）
乳房X光造影檢查#					
從不		3,179 （68.5）	2,307 （62.8）	1,018 （68.1）	507 （82.3）
不定期		417 （9.0）	415 （11.3）	151 （10.1）	39 （6.3）
定期*		951 （20.5）	869 （23.7）	285 （19.1）	45 （7.3）
資料不詳		92 （2.0）	81 （2.2）	40 （2.7）	25 （4.1）
乳房超聲波檢查#					
從不		3,154 （68.0）	2,519 （68.6）	1,131 （75.7）	513 （83.3）
不定期		417 （9.0）	350 （9.5）	109 （7.3）	34 （5.5）
定期*		868 （18.7）	649 （17.7）	183 （12.2）	35 （5.7）
資料不詳		200 （4.3）	154 （4.2）	71 （4.8）	34 （5.5）

*「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

以居住地區分析患者乳房檢查習慣的結果顯示，在從沒進行自我乳房檢查、臨床乳房檢查、乳房X光造影檢查或乳房超聲波檢查的患者群組中，居住香港島患者的比例低於九龍區和新界區。居住在香港島的患者定期接受經由醫療機構檢測（臨床乳房檢查、乳房X光造影檢查及乳房超聲波檢查）的比例，高於九龍及新界患者（表1.13）。

表1.13　按居住地區分析患者檢查乳房的習慣

檢查乳房方式	居住地區，人數（%）		
	香港島	九龍	新界
自我乳房檢查			
從不	580　（30.1）	1,223　（43.6）	2,887　（42.6）
不定期	854　（44.3）	946　（33.7）	2,110　（31.2）
每月	419　（21.7）	572　（20.4）	1,691　（25.0）
資料不詳	76　（3.9）	65　（2.3）	85　（1.3）
臨床乳房檢查			
從不	580　（30.1）	1,461　（52.1）	3,363　（49.7）
不定期	275　（14.3）	332　（11.8）	787　（11.6）
定期*	991　（51.4）	950　（33.9）	2,543　（37.5）
資料不詳	83　（4.3）	63　（2.2）	80　（1.2）
乳房X光造影檢查 #			
從不	789　（47.9）	1,694　（69.6）	4,279　（72.6）
不定期	237　（14.4）	226　（9.3）	520　（8.8）
定期*	550　（33.4）	463　（19.0）	999　（17.0）
資料不詳	70　（4.3）	51　（2.1）	92　（1.6）
乳房超聲波檢查 #			
從不	855　（51.9）	1,784　（73.3）	4,429　（75.2）
不定期	214　（13.0）	205　（8.4）	451　（7.7）
定期*	409　（24.8）	353　（14.5）	865　（14.7）
資料不詳	168　（10.2）	92　（3.8）	145　（2.5）

*「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
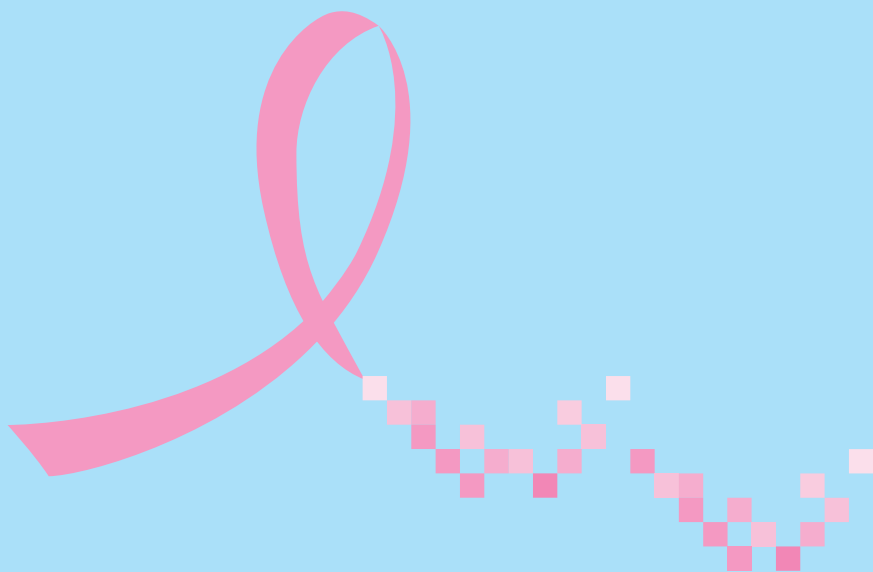
第二章
香港乳癌病況、治療趨勢及臨床結果

第二章　香港乳癌病況、治療趨勢及臨床結果

本章共收集12,023個乳癌個案的資料，探討患者群組的臨床表現、癌症特性及治療方法。通過分析這些數據，可以深入了解目前乳癌的臨床管理方法和癌症特性，並分辨出本地社區需要關注的潛在領域。

主要分析結果

臨床表現

- ► 9,536名患者被確診患有入侵性乳癌，1,492名患者被確診患有原位乳癌。

- ► 84.6%的患者都是無意中發現乳癌的。自己無意中發現入侵性乳癌（88.4%）比無意中發現原位乳癌（58.0%）為多。

- ► 自我發現的乳癌癥狀中，最常見的是無痛腫塊（92.1%）。

- ► 只有19.4%患者在出現癥狀後的三個月內首次求診。

- ► 4.5%的患者在首次確診時，左右兩邊乳房都同時患有乳癌，而4.0%患者其後另一邊乳房也出現乳癌。

- ► 23.5%的患者沒有接受過任何乳癌期數的檢定。最普遍確定乳癌期數的檢測方法是胸部X光（73.8%）。23.6%的患者採用正電子素描。5.6%的0期和9.0%的 I 期患者，以及18-30%的IIA或IIB期患者都採用了正電子素描。

- ► 最普遍的乳癌期數為第 II 期（39.7%），晚期癌症（III至IV期）則佔15.3%。而11.3%的患者確診時為原位癌（圖2.6）。

- ► 入侵性腫瘤平均大小為2.2厘米（標準偏差：1.4厘米），中位數為1.9厘米。患者無意中發現的腫瘤平均大小（2.2厘米）明顯大於經乳房X光造影檢查發現的腫瘤（1.3厘米）（$p<0.001$）。60.4%的入侵性乳癌沒有陽性淋巴結。77%的入侵性乳癌屬雌激素受體或黃體素受體呈陽性。21.8%的入侵性乳癌第二型人類上皮生長因子受體（c-erbB2/HER2）呈陽性。

- ► 原位癌的腫瘤平均大小為2.0厘米（標準偏差：1.5厘米），中位數為1.6厘米。在進行乳房X光造影檢查的原位癌中，乳房X光造影檢查偵測到62.5%患者有微鈣化點。原位癌生物學特性的免疫組織化學研究發現，59.1%屬雌激素受體或黃體素受體呈陽性。29.1%第二型人類上皮生長因子受體（c-erbB2/HER2）呈陽性。

治療方法

▶ 在接受乳癌治療方面，17.1%患者只使用私營醫療設施，48.9%患者只使用公營醫療設施，34%患者混合使用公私營醫療設施。

▶ 除第IV期的乳癌患者外，患者的癌症期數愈高，所接受的治療方法愈多。

▶ 98.3%患者曾接受手術，其中52.9%患者在私營醫療機構進行手術，47.1%患者在公營醫療機構接受手術。63.1%患者接受了乳房切除手術，當中35.1%患者接受乳房保留手術。進行乳房重建的患者當中，65.6%採用橫向腹直肌皮瓣乳房重建手術，19.5%採用乳房植入物。患者年齡愈高，選擇乳房切除手術的比率愈高；年紀愈大，接受乳房切除及進行乳房重建手術，或接受乳房保留手術的比例則愈低。期數越高的患者，越少採用乳房保留手術。私營醫療機構的患者進行乳房保留手術的比率（44.8%）高於公營醫療機構的患者（26.2%）。

▶ 臨床淋巴結呈陰性的患者當中，43.4%接受了腋下淋巴切除手術，而臨床淋巴結呈陽性的患者當中，9.4%接受了前哨淋巴結切片手術。患者癌症期數愈高，接受腋下淋巴切除手術的比率愈高。

▶ 60.5%患者曾接受化療。接受化療的患者之中，953人（13.1%）同時接受靶向治療。

▶ 62.2%患者以放射性治療作為治療的一部份。93.2%接受乳房保留手術的患者曾接受放射性治療。

▶ 66.7%患者接受內分泌治療。隨著患者年齡增高，使用三苯氧胺的比率遞減，而使用芬香環轉化酶抑制劑則增加。

▶ 8%患者接受靶向治療。患者的癌症期數愈高，接受靶向治療的比率也愈高。最常用於靶向治療的藥物是曲妥珠單抗（Trastuzumab）（94.7%），用於治療第二型人類上皮生長因子受體呈陽性的癌症患者。

▶ 39.9%患者使用輔助及另類療法。

患者狀況

▶ 香港乳癌資料庫的患者群組中，有46.8%患者曾提供過去兩年的跟進數據。平均跟進年期為4.9年，中位數為4年。

▶ 6.4%患者出現復發（局部區域性復發、遠端復發或兩者皆有）。

▶ 最常見受遠端復發影響的器官是骨（52.9%），其次是肺部（39.4%）。

2.1 臨床表現

大部份婦女（84.6%）都是無意中發現乳癌的（圖2.1）。近期一項研究發現，70%至90%的香港華人婦女對乳房自我檢查、臨床乳房檢查、乳房X光造影檢查有所聽聞，但只有半數或更少人進行定期檢查[26]。在香港，經由醫療機構檢測（臨床乳房檢查、乳房X光造影檢查、乳房超聲波檢查）發現乳癌的比率非常低。

使用私營醫療機構服務的患者，自己無意中發現乳癌的比例，低於使用公營醫療機構服務和同時使用公私營醫療機構服務的患者（表2.1）。這個差異反映加強自我乳房檢查警覺的重要性，以及增加公營醫療機構中乳房X光造影檢查服務的需要。
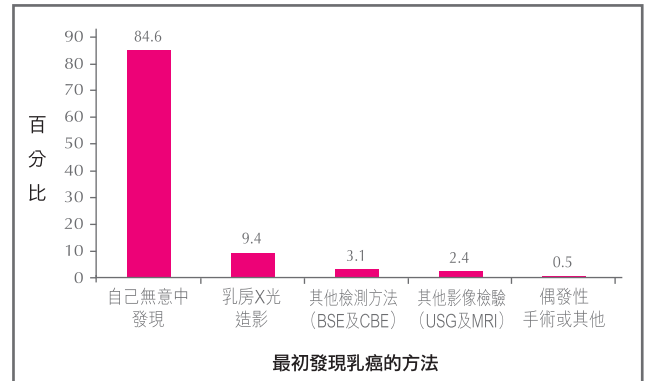
圖2.1 患者最初發現乳癌的方式（人數=11,093）

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=11,093）

最初發現乳癌的模式	私營醫療服務使用者（人數 = 1,857）		公營醫療服務使用者（人數 = 5,413）		混合公私營醫療服務使用者（人數 = 3,823）	
	人數	（%）	人數	（%）	人數	（%）
自己無意中發現	1,420	（76.5）	4,630	（85.5）	3,330	（87.1）
乳房X光造影檢查	244	（13.1）	544	（10.0）	256	（6.7）
其他檢測方法（乳房自我檢查、臨床乳房檢查）	81	（4.4）	131	（2.4）	137	（3.6）
其他造影檢驗（乳房超聲波檢查、磁力共振掃描）	97	（5.2）	81	（1.5）	86	（2.2）
偶發性手術／其他	15	（0.8）	27	（0.5）	14	（0.4）

自己無意中發現的入侵性乳癌（88.4%）比率遠高於無意中發現的原位癌（58.0%）（表2.2）。

表2.2 按癌症種類分析最初發現乳癌的模式（人數=11,001）

最初發現乳癌的模式	原位癌，人數（%） （人數 = 1,392）	入侵性乳癌，人數（%） （人數 = 9,609）
自己無意中發現	807（58.0）	8,493（88.4）
乳房X光造影檢查	455（32.7）	585（6.1）
其他檢測方法（乳房自我檢查、臨床乳房檢查）	46（3.3）	298（3.1）
其他造影檢驗（乳房超聲波檢查、磁力共振掃描）	73（5.2）	190（2.0）
偶發性手術 / 其他	11（0.8）	43（0.4）

透過乳房X光造影檢查發現多為0期或I期乳癌（分別是32.3%及11.6%），III期或IV期的患者（分別是2.9%及1.7%）為少（表2.3）。

表2.3 按癌症期數分析最初發現乳癌的模式（人數=10,769）

最初發現乳癌的模式	癌症期數，人數（%）					
	0 期 （人數=1,262）	I 期 （人數=3,385）	IIA 期 （人數=2,980）	IIB 期 （人數=1,437）	III 期 （人數=1,470）	IV 期 （人數=235）
自己無意中發現	750（59.4）	2,719（80.3）	2,685（90.1）	1,341（93.3）	1,388（94.4）	215（91.5）
乳房X光造影檢查	407（32.3）	393（11.6）	141（4.7）	38（2.6）	42（2.9）	4（1.7）
其他檢測方法（乳房自我檢查、臨床乳房檢查）	40（3.2）	131（3.9）	97（3.3）	33（2.3）	25（1.7）	10（4.3）
其他造影檢驗（乳房超聲波檢查、磁力共振掃描）	57（4.5）	128（3.8）	43（1.4）	19（1.3）	9（0.6）	4（1.7）
偶發性手術/其他	8（0.6）	14（0.4）	14（0.5）	6（0.4）	6（0.4）	2（0.9）

自己無意中發現的乳癌癥狀中，最常見的是無痛腫塊（92.1%）（圖2.2）。
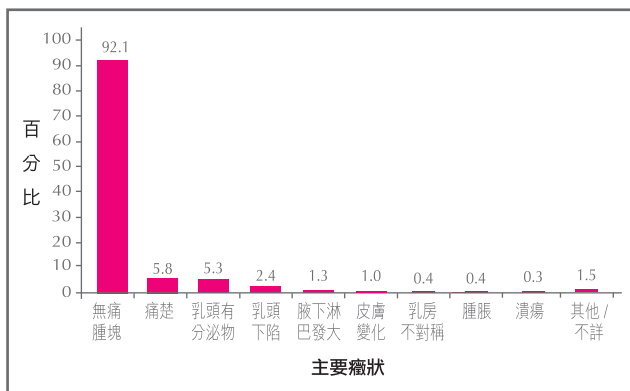
圖2.2 患者自己無意中發現的主要乳癌癥狀（人數=9,380）

2.1.1 由出現癥狀至首次求醫相隔的時間

自我發現乳癌的患者在發現癥狀後，只有19.4%患者在出現癥狀後的三個月內首次求診（表2.4）。

表2.4 無意中發現乳癌的患者由出現癥狀至首次求醫相隔的時間（人數=9,380）

	人數	（%）
少於一個月	909	（9.7）
1-3個月	908	（9.7）
4-12個月	318	（3.4）
超過12個月	280	（3.0）
資料不詳	6,965	（74.3）

在使用私營醫療機構服務的患者當中，出現乳癌癥狀後一個月內首次求醫的比率（21.6%），高於使用公營醫療服務機構（5.6%）及公私營混合醫療機構服務的患者（10.3%）（表2.5）。

表2.5 按醫療服務種類分析無意中發現乳癌患者由出現癥狀至首次求醫相隔的時間（人數=9,380）

	私營醫療服務使用者（人數 = 1,420）		公營醫療服務使用者（人數 = 4,630）		混合公私營醫療服務使用者（人數 = 3,330）	
	人數	（%）	人數	（%）	人數	（%）
少於1個月	307	（21.6）	260	（5.6）	342	（10.3）
1-3個月	230	（16.2）	357	（7.7）	321	（9.6）
4-12個月	83	（5.8）	151	（3.3）	84	（2.5）
超過12個月	61	（4.3）	146	（3.2）	73	（2.2）
資料不詳	739	（52.0）	3,716	（80.3）	2,510	（75.4）

第III期和IV期乳癌患者在出現癥狀12個月後才首次求醫的比例高於乳癌較早期的患者（I期、IIA、IIB期）（表2.6）。

表2.6 按癌症期數分析無意中發現乳癌患者由出現癥狀至首次求醫相隔的時間（人數=8,348）

	癌症期數，人數（%）				
	I 期 （人數 = 2,719）	IIA 期 （人數 = 2,685）	IIB 期 （人數 = 1,341）	III 期 （人數 = 1,388）	IV 期 （人數 = 215）
少於1個月	298（11.0）	275（10.2）	119（8.9）	99（7.1）	13（6.0）
1-3個月	244（9.0）	281（10.5）	133（9.9）	139（10.0）	14（6.5）
4-12個月	87（3.2）	84（3.1）	36（2.7）	60（4.3）	12（5.6）
超過12個月	62（2.3）	56（2.1）	44（3.3）	53（3.8）	25（11.6）
資料不詳	2,028（74.6）	1,989（74.1）	1,009（75.2）	1,037（74.7）	151（70.2）

2.2 乳癌特徵

在12,023名乳癌患者中，271名患者在首次確診時左右兩邊乳房同時都發現乳癌，241名患者則於首次確診後平均7.9年（年期介乎0.5年至34.5年，中位數為5.9年），另一邊乳房出現乳癌（圖2.3）。

乳癌最常出現在左右兩邊乳房的位置是上外側（分別是45.9%及49.4%）（圖2.4）。
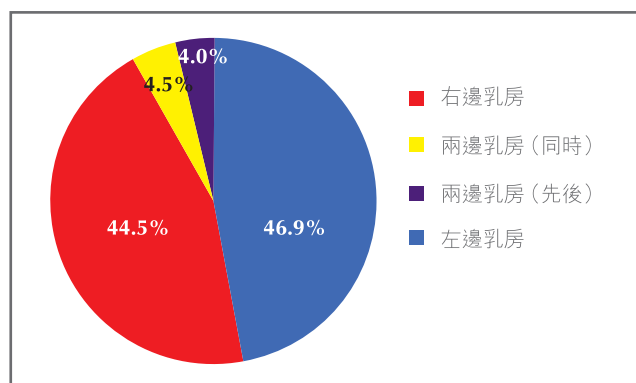
圖2.3 12,023名患者兩側乳房的發病位置

圖例：
■ 右邊乳房 46.9%
■ 兩邊乳房（同時）4.5%
■ 兩邊乳房（先後）4.0%
■ 左邊乳房 44.5%
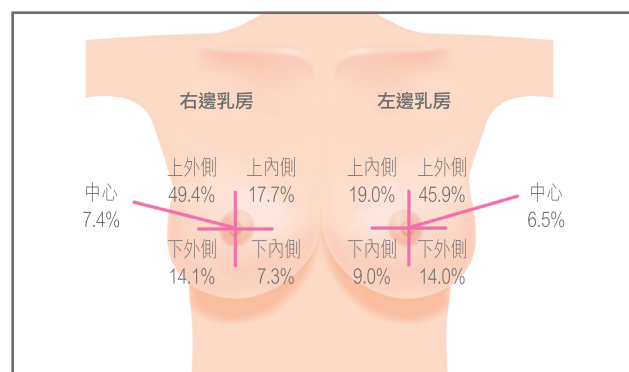
圖2.4 乳癌的位置（人數=12,023）

* 乳癌位置包括多中心性腫瘤的數據

右邊乳房：上外側 49.4%、上內側 17.7%、中心 7.4%、下外側 14.1%、下內側 7.3%
左邊乳房：上內側 19.0%、上外側 45.9%、中心 6.5%、下內側 9.0%、下外側 14.0%

2.2.1 乳癌診斷測試

診斷乳癌的流程包括使用影像檢查及活組織切片檢查法，以斷定腫瘤是否惡性。乳房X光造影檢查是診斷乳癌的「黃金標準」，乳房超聲波掃描及磁力共振掃描則用作進一步檢測。幼針穿刺活組織抽取檢查及粗針活組織切片檢查則用作診斷腫瘤是否惡性。群組中，80.6%患者是使用乳房X光造影檢查診斷的，採用乳房超聲波檢查及磁力共振掃描的患者分別為74.0%及6.7%。

乳房影像報告及數據系統（BIRADS）是放射科專家醫生用以斷定乳房惡性腫瘤可能性的分類系統。乳房X光造影的整體偵測敏感度為80.5%，乳房超聲波掃描是88.9%，而磁力共振掃描則是96.5%（表2.7）。

表2.7　乳房影像檢驗的敏感度及診斷結果（人數=12,023）

	乳房X光造影檢查 （人數 = 9,696）		乳房超聲波檢查 （人數 = 8,900）		磁力共振掃描 （人數 = 811）	
患者使用率	80.6%		74.0%		6.7%	
整體敏感度*	80.5%		88.9%		96.5%	
BIRADS 類別						
確診／惡性（BIRADS 5）	2,897	（29.9%）	3,225	（36.2%）	615	（75.8%）
懷疑不正常（BIRADS 4）	4,905	（50.6%）	4,686	（52.7%）	168	（20.7%）
可能良性（BIRADS 3）	626	（6.5%）	574	（6.4%）	11	（1.4%）
良性（BIRADS 2）	435	（4.5%）	192	（2.2%）	6	（0.7%）
正常（BIRADS 1）	793	（8.2%）	216	（2.4%）	11	（1.4%）
不完整（BIRADS 0）	40	（0.4%）	7	（0.1%）	0	（0.0%）

BIRADS：乳房影像報告及數據系統　　*敏感度：結果為陽性的個案數目（診斷類別屬BIRADS 4至5）除以個案總數

為診斷腫瘤是否屬於惡性，45.3%患者曾接受幼針穿刺活組織抽取檢查，51.0%及14.8%患者分別接受粗針活組織切片檢查及切除式切片檢查。幼針穿刺活組織抽取檢查的整體偵測敏感度為90.2%；粗針活組織切片檢查則為98.7%；切除式切片檢查的偵測敏感度更高達100%（表2.8）。在手術前通常會進行活組織切片（抽取乳房細胞或組織樣本作檢驗），以確認癌細胞的存在。患者群組中，88.6%患者在手術前完成了活組織切片檢驗。當中3,520名患者（36.5%）僅使用幼針穿刺活組織抽取檢查；4,208名患者（43.6%）僅使用粗針活組織切片檢查；1,924名患者（19.9%）使用了兩者。

表2.8 乳癌活組織檢測的敏感度及診斷結果（人數=12,023）

	幼針穿刺活組織 抽取檢查 （人數 = 5,444）		粗針活組織 切片檢查 （人數 = 6,132）		切除式 切片檢查 （人數 = 1,778）	
患者使用率	45.3%		51.0%		14.8%	
整體敏感度*	90.2%		98.7%		100.0%	
等級						
確診 / 惡性（等級 V）	3,278	（60.2%）	5,813	（94.8%）	1,778	（100.0%）
可疑（等級IV）	1,026	（18.8%）	137	（2.2%）	——	
非典型（等級 III）	608	（11.2%）	101	（1.6%）	——	
良性（等級II）	261	（4.8%）	51	（0.8%）	——	
極少良性（等級I）	182	（3.3%）	28	（0.5%）	——	
不完整（等級0）	89	（1.6%）	2	（0.0%）	——	

*敏感度：結果為陽性的個案數目（診斷等級屬III至V）除以個案總數

在7,802名已接受乳房X光造影檢查的患者中，59.2%患者的檢測結果為有陰影，而有微鈣化點的則有50.7%（表2.9）。

表2.9 以乳房X光造影檢查確診的患者群組檢測結果（人數=7,802）

	人數	（%）
陰影	4,617	（59.2%）
微鈣化點	3,955	（50.7%）
乳腺結構異常	1,034	（13.3%）
不對稱密度	783	（10.0%）
其他	378	（4.8%）

圖2.5 以乳房X光造影檢查確診的患者群組乳房密度（人數=5,514）

多數患者（67.5%）的乳房都有不均勻的乳房密度。5.8%患者的乳房密度極高（圖2.5）。

2.2.2 確定乳癌期數的方法

乳癌確診後，患者須接受進一步的影像檢驗，以偵測癌細胞的範圍。大約四分一（23.5%）患者沒有接受過任何乳癌期數的檢定。在有接受期數檢定的患者中，最普遍確定乳癌期數的檢測方法是胸部X光（73.8%），40.8% 患者採用超聲波腹部掃描，而23.6%患者則採用正電子素描（表2.10）。美國國立綜合癌症網絡的2010年臨床指南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），採用正電子素描來斷定疾病的範圍[27]。不過，在患者群組當中，5.6%的0期和9.0%的 I 期患者，以及18%-30%的IIA或IIB期患者都採用了正電子素描來斷定他們疾病的範圍（表2.11）。

表2.10 10,531名乳癌患者檢定乳癌期數的方法

乳癌期數檢定方法	人數	（%）
沒有接受期數檢定	2,477	（23.5）
胸部X光	5,942	（73.8）
超聲波腹部掃描	3,284	（40.8）
正電子素描	1,897	（23.6）
骨骼掃描	301	（3.7）
部分身體部位電腦掃描*	246	（3.1）
磁力共振掃描（整個身體）	35	（0.4）
不詳	724	（9.0）

*身體部位包括腹部、喉部、盆骨、腦部或整個身體

表2.11 按癌症期數分析使用正電子素描作為斷定期數方法（人數＝8,054）

	0期	I期	IIA期	IIB期	III期	IV期	未能分期	總數
採用正電子素描患者人數	44（5.6%）	215（9.0%）	399（18.4%）	323（30.0%）	639（51.9%）	187（79.6%）	90（51.4%）	1,897（23.6%）

最普遍的乳癌期數為第II期（39.7%），晚期癌症（III至IV期）則佔15.3%。而11.3%的患者確診時為原位癌（圖2.6）。

在12,023宗個案中，11,034宗具有可用的病理學數據，用作分析以下癌症特徵。9,536人被確診患有入侵性乳癌，1,492人被確診患有原位癌，6名患者被確診患有潛伏原發性乳癌。
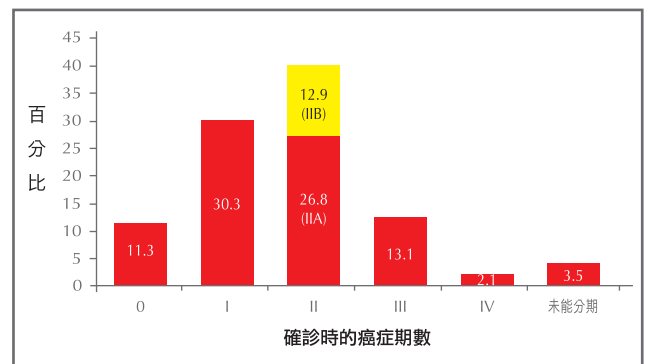
圖2.6 乳癌患者確診時的癌症期數（人數=12,023）

2.2.3 入侵性乳癌特徵

入侵性乳癌個案中，43.1%的腫瘤大小為2.01至5厘米，37.4%的腫瘤大小為1.01至2.0厘米（圖2.7）。平均腫瘤大小為2.2厘米，標準偏差為1.4厘米，中位數為1.9厘米，幅度介乎0.01至22.0厘米。患者無意中發現的腫瘤平均大小（2.2厘米）明顯大於經檢查發現的腫瘤（1.3厘米）（p<0.001）。
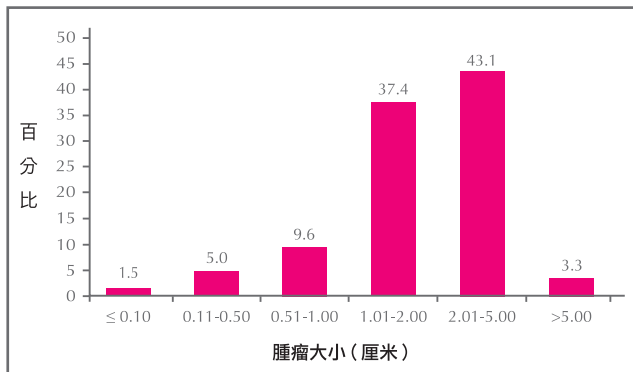
圖2.7　入侵性乳癌個案的腫瘤大小（厘米）分佈
　　　（人數=9,081）

患有入侵性乳癌的患者群組中，60.4%患者沒有陽性淋巴結，22.7%患者擴散到1至3個淋巴結。3.9%患者擴散到10個或以上淋巴結。1.2%患者有零星癌細胞，而4.2%患者的淋巴結出現輕微擴散（圖2.8）。
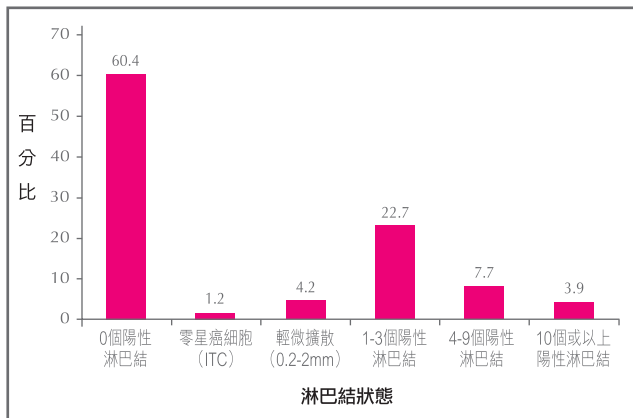
圖2.8　入侵性乳癌個案的陽性淋巴結數目
　　　（人數=9,412）

2.2.4 原位癌特徵

在患者群組中，1,294人確診患上原位乳癌，33.7%患者的腫瘤大小為2.01至5.0厘米，30.4%患者的腫瘤大小為1.01至2.0厘米，4.1%患者的腫瘤大小超過5.0厘米（圖2.9）。原位乳癌個案的腫瘤平均大小為2.0厘米，標準偏差為1.5厘米，中位數為1.6厘米。原位乳癌個案腫瘤大小幅度介乎0.02至10.0厘米。在進行乳房X光造影檢查的原位乳癌中，乳房X光造影檢查偵測到62.5%患者有微鈣化點。
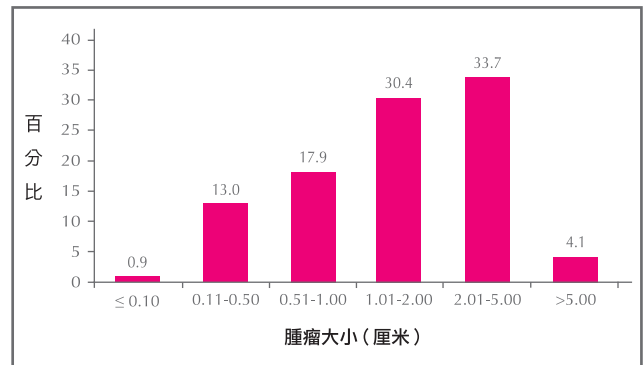
圖2.9　原位癌個案的腫瘤大小（厘米）分佈
　　　（人數=1,294）

2.3　組織學及生物學特性

在分析乳癌腫瘤大小之後，現在探討癌症的組織學及生物學特性。組織學及生物學特性與某些療法（例如內分泌治療或靶向治療）的必要性有關，他們也跟疾病的預後評估有關。

2.3.1 入侵性乳癌

入侵性乳癌個案的組織學特性、級別、腫瘤的多灶性及多中心性的資料，詳列於表2.12。

表2.12 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=9,536）

組織學類別	人數	（%）
入侵性乳腺管癌（沒指定類別）	8,074	（84.7）
黏液性癌（膠態）	353	（3.7）
乳小葉癌	351	（3.7）
微侵襲癌	130	（1.4）
乳突狀癌	89	（0.9）
管狀癌	88	（0.9）
髓狀癌	59	（0.6）
乳腺管及乳小葉混合型	54	（0.6）
臨界性／惡性葉狀莖瘤	40	（0.4）
微小乳突狀癌	31	（0.3）
化生癌	28	（0.3）
分泌癌	16	（0.2）
神經內分泌癌	15	（0.2）
腹樣囊性癌	9	（0.1）
篩狀癌	8	（0.1）
乳頭柏哲氏病	5	（0.1）
炎性癌	3	（0.0）
乳腺分泌癌	2	（0.0）
脂性癌	1	（0.0）
肉瘤	1	（0.0）
其他	70	（0.7）
資料不詳	109	（1.1）

級別	人數	（%）
第1級	1,659	（17.4）
第2級	3,880	（40.7）
第3級	3,169	（33.2）
資料不詳	828	（8.7）
淋巴管入侵	**2,732**	**（28.6）**
腫瘤多灶性	**938**	**（9.8）**
腫瘤病灶數目		
2	504	（53.7）
3-4	176	（18.8）
≥5	100	（10.7）
資料不詳	158	（16.8）
腫瘤多中心性	**263**	**（2.8）**
涉及乳房範圍		
2	227	（86.3）
3	16	（6.1）
4	9	（3.4）
資料不詳	11	（4.2）

在入侵性乳癌患者群組中，超過四分三（77.0%）患者屬雌激素受體或黃體素受體呈陽性。20.6%患者屬第二型人類上皮生長因子受體呈陽性（免疫組織化學3分）以及28.8%屬免疫組織化學（IHC）中的第二型人類上皮生長因子受體呈輕微陽性，當中只有4.2%在FISH/CISH測試中呈陽性（表2.13）。

表2.13　入侵性乳癌的生物學特性（人數=9,536）

	人數	（%）
雌激素受體（ER）（96.4%患者接受測試）		
呈陽性	7,076	（76.9）
呈陰性	2,121	（23.1）
黃體素受體（PR）（96.1%患者接受測試）		
呈陽性	5,941	（64.8）
呈陰性	3,222	（35.2）
第二型人類上皮生長因子受體（92.9%患者接受測試）		
呈陽性（IHC 3分）	1,830	（20.6）
呈輕微陽性（IHC 2分）	2,551	（28.8）
FISH / CISH測試呈陽性	*106*	*（4.2）*
呈陰性（IHC 0/1分）	4482	（50.6）
Ki-67指數（51.1%患者接受測試）		
<14%	2,116	（43.4）
14-49%	2,139	（43.9）
≥ 50%	619	（12.7）

生物學上，乳癌可以按照免疫組織化學的數據，區分為不同的生物學亞型。五個生物學亞型是管狀A型、管狀B型（第二型人類上皮生長因子受體呈陰性）、管狀B型（第二型人類上皮生長因子受體呈陽性）、第二型人類上皮生長因子受體呈陽性（c-erbB2/HER2＋）及三陰性[28]。以癌症期數分析入侵性乳癌腫瘤的生物學類型詳列於表2.14。

表2.14 以癌症期數分析入侵性腫瘤的生物學亞型（人數=8,784）

生物學類型	癌症期數，人數（%）					
	I	IIA	IIB	III	IV	總數
管狀A型*	918（27.7）	541（18.9）	244（18.2）	146（12.7）	11（9.6）	1,860（21.2）
管狀B型（第二型人類上皮生長因子受體呈陰性）#	450（13.6）	529（18.4）	247（18.4）	230（20.0）	19（16.7）	1,475（16.8）
管狀A/B型（第二型人類上皮生長因子受體呈陰性）✧	944（28.5）	764（26.6）	393（29.3）	330（28.7）	48（42.1）	2,479（28.2）
管狀B型（第二型人類上皮生長因子受體呈陽性）^	403（12.2）	381（13.3）	189（14.1）	201（17.5）	20（17.5）	1,194（13.6）
第二型人類上皮生長因子受體呈陽性※	253（7.6）	226（7.9）	113（8.4）	124（10.8）	10（8.8）	726（8.3）
三陰性§	342（10.3）	428（14.9）	155（11.6）	119（10.3）	6（5.3）	1,050（12.0）
總和	**3,310（37.7）**	**2,869（32.7）**	**1,341（15.3）**	**1,150（13.1）**	**114（1.3）**	**8,784（100.0）**

* 管狀A型：ER+及／或PR+、HER2-及Ki-67指數低（<14%）

\# 管狀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%）

✧ 管狀A／B型（第二型人類上皮生長因子受體呈陽性）：ER+及／或PR+、HER2-及Ki-67指數不詳

^ 管狀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-、PR-及HER2+

§ 三陰性：ER-、PR-及HER2-

2.3.2 原位癌

原位癌個案的組織學分類、級別、腫瘤的多灶性及多中心性的資料，詳列於表2.15。

表2.15 原位癌個案的組織學分類、級別、腫瘤的多灶性及多中心性（人數=1,492）

	人數	（%）
組織學類別		
乳腺管	1,364	（91.4）
乳小葉	25	（1.7）
混合	48	（3.2）
其他	50	（3.4）
資料不詳	5	（0.3）
壞疽	**547**	**（36.7）**
核分級		
低	351	（23.5）
中度	492	（33.0）
高	551	（36.9）
資料不詳	98	（6.6）
腫瘤多灶性	**182**	**（12.2）**
腫瘤病灶數目		
2	87	（47.8）
3	18	（9.9）
4或以上	6	（3.3）
資料不詳	71	（39.0）
多中心性	**32**	**（2.1）**
涉及乳房範圍		
2	25	（78.1）
3	2	（6.3）
資料不詳	5	（15.6）

原位癌生物學特性的免疫組織化學研究發現，59.1%屬雌激素受體或黃體素受體呈陽性（ER+/PR+）。28.9%屬第二型人類上皮生長因子受體呈陽性（c-erbB2/HER2＋），32.5%屬第二型人類上皮生長因子受體呈輕微陽性，當中只有0.6%患者在FISH/CISH測試中呈陽性（表2.16）。

表2.16 原位癌個案的生物學特性（人數=1,492）

	人數	（%）
雌激素受體（ER）（72.5%患者接受測試）		
呈陽性	864	（79.9）
呈陰性	217	（20.1）
黃體素受體（PR）（71.4%患者接受測試）		
呈陽性	758	（71.2）
呈陰性	307	（28.8）
c-erbB2 / 第二型人類上皮生長因子受體（67.2%患者接受測試）		
呈陽性（IHC 3分）	290	（28.9）
呈輕微陽性（IHC 2分）	326	（32.5）
FISH / CISH測試呈陽性	*2*	*（0.6）*
呈陰性（IHC 0/1分）	386	（38.5）
Ki-67指標（44.9%患者接受測試）		
<14%	481	（71.8）
14-49%	171	（25.5）
≥50%	18	（2.7）

2.4 治療方法

乳癌患者群組中，17.1%患者只使用私營醫療設施，48.9%患者只使用公營醫療設施，34%患者混合使用公私營醫療設施。

2.4.1 手術治療

幾乎所有患者（98.3%，人數=11,820）都曾接受手術作為治療的一部分。52.9%患者在私營醫療機構進行手術，47.1%患者在公營醫療機構接受手術。

63.1%患者接受了乳房切除手術，35.1%患者接受乳房保留手術。接受乳房切除手術的患者當中，93.3%為全乳房切除，5.5%選擇保留皮膚切除乳房手術，0.8%選擇保留乳頭切除乳房手術。在接受乳房重建手術的患者中，65.6%採用橫向腹直肌皮瓣重建，19.5%採用乳房植入物。

34.3%患者接受了前哨淋巴結切片手術，48.5%患者進行腋下淋巴切除。只有16.3%患者進行前哨淋巴結切片及腋下淋巴切除（表2.17）。

表2.17 患者接受乳房手術的種類（人數=12,023）

	人數	（%）
沒做手術	174	（1.4）
乳房保留手術	4,217	（35.1）
乳房切除手術	7,582	（63.1）
只進行淋巴結節手術	5	（0.0）
手術類別不詳	16	（0.1）
有否進行手術不詳	29	（0.2）
乳房切除手術（人數=7,582）		
全乳切除手術	7,077	（93.3）
保留皮膚切除手術	418	（5.5）
保留乳頭切除手術	57	（0.8）
保留乳暈切除手術	12	（0.2）
資料不詳	18	（0.2）
乳房重建手術種類（人數=1,066）		
橫向腹直肌皮瓣（TRAM瓣）	699	（65.6）
植入物	208	（19.5）
LD瓣	78	（7.3）
LD瓣及植入物	64	（6.0）
資料不詳	17	（1.6）
淋巴結節手術（人數=11,034）		
前哨淋巴結切片	3,785	（34.3）
腋下淋巴切除	5,356	（48.5）
前哨淋巴結切片及腋下淋巴切除	1,803	（16.3）
資料不詳	90	（0.8）

患者年齡愈高,選擇乳房切除手術的比率愈高;年齡愈高,接受乳房切除手術後進行乳房重建手術,或接受乳房保留手術的比例則愈低(圖2.10)。

患者癌症期數愈高,接受乳房保留手術的比率愈低,而接受乳房切除手術的比率則愈高(圖2.12)。
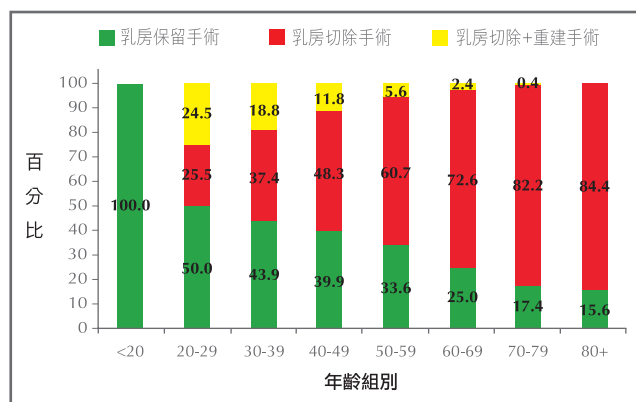
圖2.10 按年齡組別分析手術類型(人數=11,447)
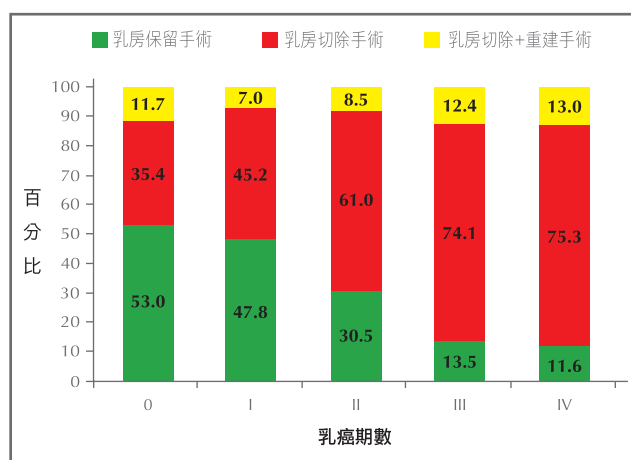
圖2.12 按癌症期數分析手術類型(人數=11,457)

在腫瘤直徑大於1厘米的患者中,腫瘤愈大則接受乳房切除及乳房切除和重建手術的比率愈高,接受乳房保留手術的比率則愈低(圖2.11)。

使用私營醫療機構服務的患者,接受乳房保留手術及乳房切除和重建手術的比率(分別是44.8%及9.6%),高於公營醫療機構的患者(26.2%及8.7%)(圖2.13)。在公營機構接受乳房切除手術的患者比率(65.1%)則高於私營機構(45.6%)。

圖2.11 按腫瘤大小分析手術類型(人數=10,412)
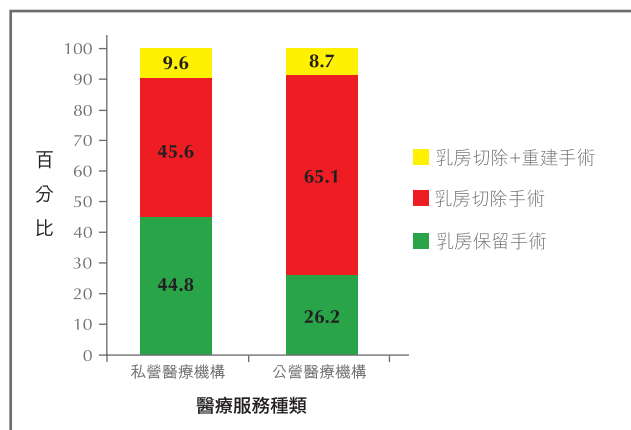
圖2.13 按患者接受治療的醫療服務種類分析手術類型(人數=11,376)

臨床淋巴結呈陰性的患者當中，43.4%接受了腋下淋巴切除手術，而臨床淋巴結呈陽性的患者當中，9.4%接受了前哨淋巴結切片手術（圖2.14）。此項數據顯示，有需要在香港增加採用前哨淋巴結切片手術。

淋巴結受癌細胞入侵的入侵性乳癌患者當中，56.2%的腫瘤大小介乎2.01至5.0厘米。41.6%淋巴結呈陰性的乳癌患者的腫瘤大小介乎1.01至2.0厘米（圖2.16）。
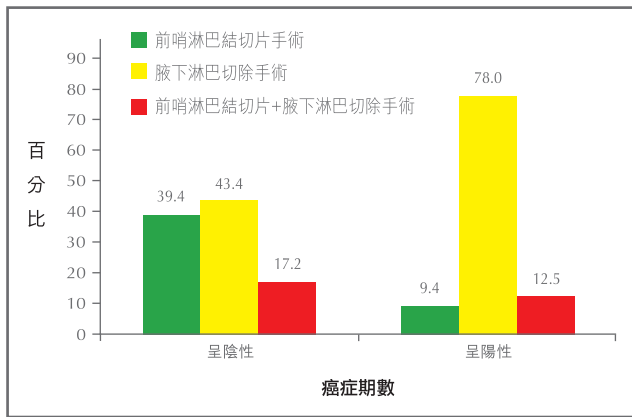
圖2.14 按臨床淋巴結狀況分析淋巴結節手術的種類（人數=10,944）
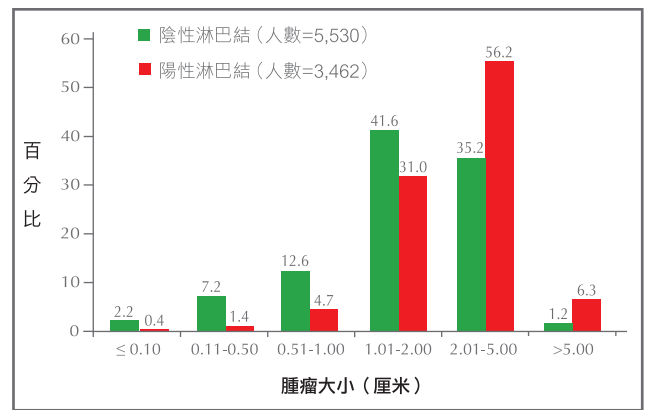
圖2.16 入侵性乳癌個案的陰性或陽性淋巴結腫瘤大小分佈（人數=8,992）

患者癌症期數愈高，接受腋下淋巴切除手術的比率愈高，接受前哨淋巴結切片手術的比率則愈低（圖2.15）。
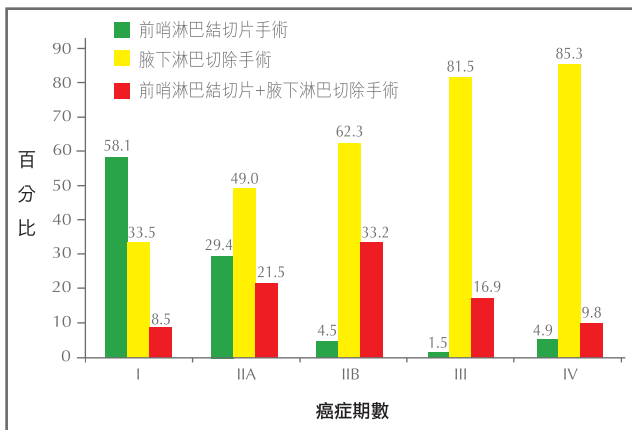
圖2.15 以癌症期數分析入侵性乳癌個案接受淋巴結節手術的種類（人數=9,821）

接受前哨淋巴結切片手術的患者當中，97.5%沒有淋巴結呈陽性，50.2%接受腋下淋巴切除手術的患者至少有一個淋巴結呈陽性。70.9%接受前哨淋巴結切片及腋下淋巴切除手術的患者至少有一個淋巴結呈陽性（圖2.17）。

除了IV期以外，其餘各期的癌症患者隨著期數愈高，採用化療的比率愈高（圖2.18）。IV期患者採用化療比率較低，可能是因為對雌激素受體呈陽性的IV期乳癌患者的一般臨床做法，是給予包含荷爾蒙治療 +/- 放射性治療的紓緩療法，而並非使用化療。
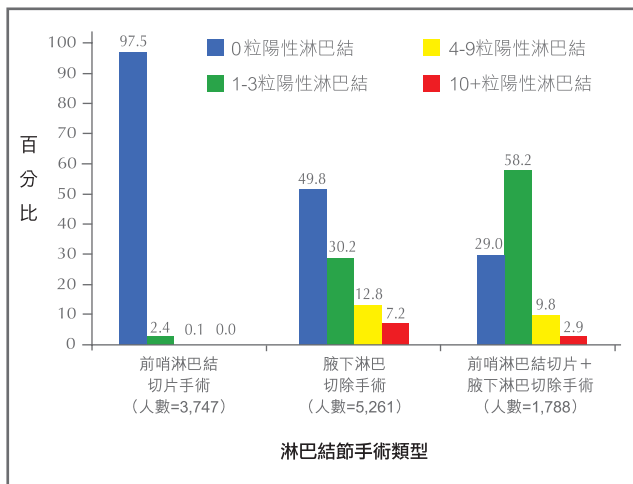
圖2.17 按淋巴結節手術類型分析陽性淋巴結數目
（人數=10,796）

2.4.2 化學治療
化療是採用一種或多種細胞毒性藥物對付體內癌細胞顯微轉移或大規模轉移的系統性治療方法。群組中，7,274名（60.5%）患者曾接受化療。當中，89.1%患者接受術後輔助性化療，8.9%患者接受手術前的前置化療，2.0%患者接受紓緩性化療。84.8%患者在公營醫療機構接受化療，15.2%患者在私營醫療機構進行。
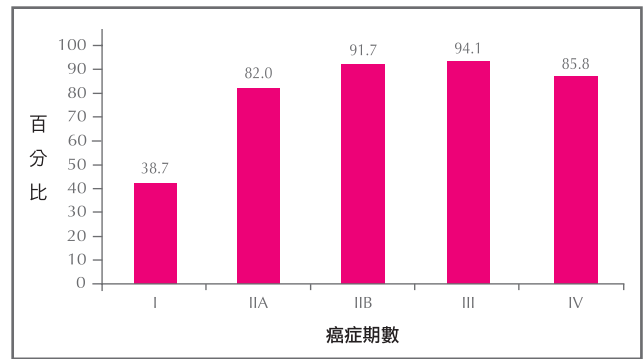
圖2.18 以癌症期數分析患者接受化療的比率
（人數=10,111）

乳癌I期患者中，36.4%的20至29歲年齡組別患者沒有接受化療，而年齡組別為60至69歲的患者則為77.4%。I期的患者年齡愈高，接受化療的比率愈低。IIA期乳癌患者群組當中，最多接受化療的年齡層是20至29歲（92.3%），其次是40至49歲（90.3%），50歲及以上年齡組別採用化療的比率下跌（圖2.18）。

91.7%乳癌IIB期患者接受了化療。這個期數患者接受化療的比率也與年齡呈反比。

表2.18 以確診時年齡及癌症期數分析接受化療的比率（人數=10,343）

年齡組別	I期		IIA期		IIB期		III期		IV期	
	接受化療的患者人數（同年齡組別及癌症期數患者百分比，%）									
<20	2	(100.0)	—*		—*		—*		—*	
20-29	21	(63.6)	24	(92.3)	16	(100.0)	8	(88.9)	2	(100.0)
30-39	197	(51.8)	327	(89.1)	157	(97.5)	153	(99.4)	17	(94.4)
40-49	623	(44.0)	1,037	(90.3)	545	(97.0)	579	(98.3)	83	(96.5)
50-59	403	(37.2)	846	(85.7)	455	(95.0)	471	(95.7)	82	(84.5)
60-69	95	(22.6)	275	(66.6)	195	(89.4)	202	(92.7)	18	(75.0)
70-79	1	(0.7)	19	(12.8)	11	(16.2)	23	(37.7)	4	(33.3)
80 +	0	(0.0)	1	(3.3)	0	(0.0)	1	(5.0)	1	(20.0)

* 沒有低於20歲患者在確診時達到IIA、IIB、III、IV等期數。

乳癌I期患者最廣泛使用的化療藥物是Adriamycin / Doxorubicin及Cyclophosphamide（AC）混合藥物療法，II期和III期則是AC及Taxane。對IV期患者而言，最常使用的化療是5FU、Adriamycin / Doxorubicin及Cyclophosphamide的混合或5FU、Epirubicin及Cyclophosphamide的混合（圖2.19）。

接受化療的患者之中，953人（13.1%）同時接受靶向治療。
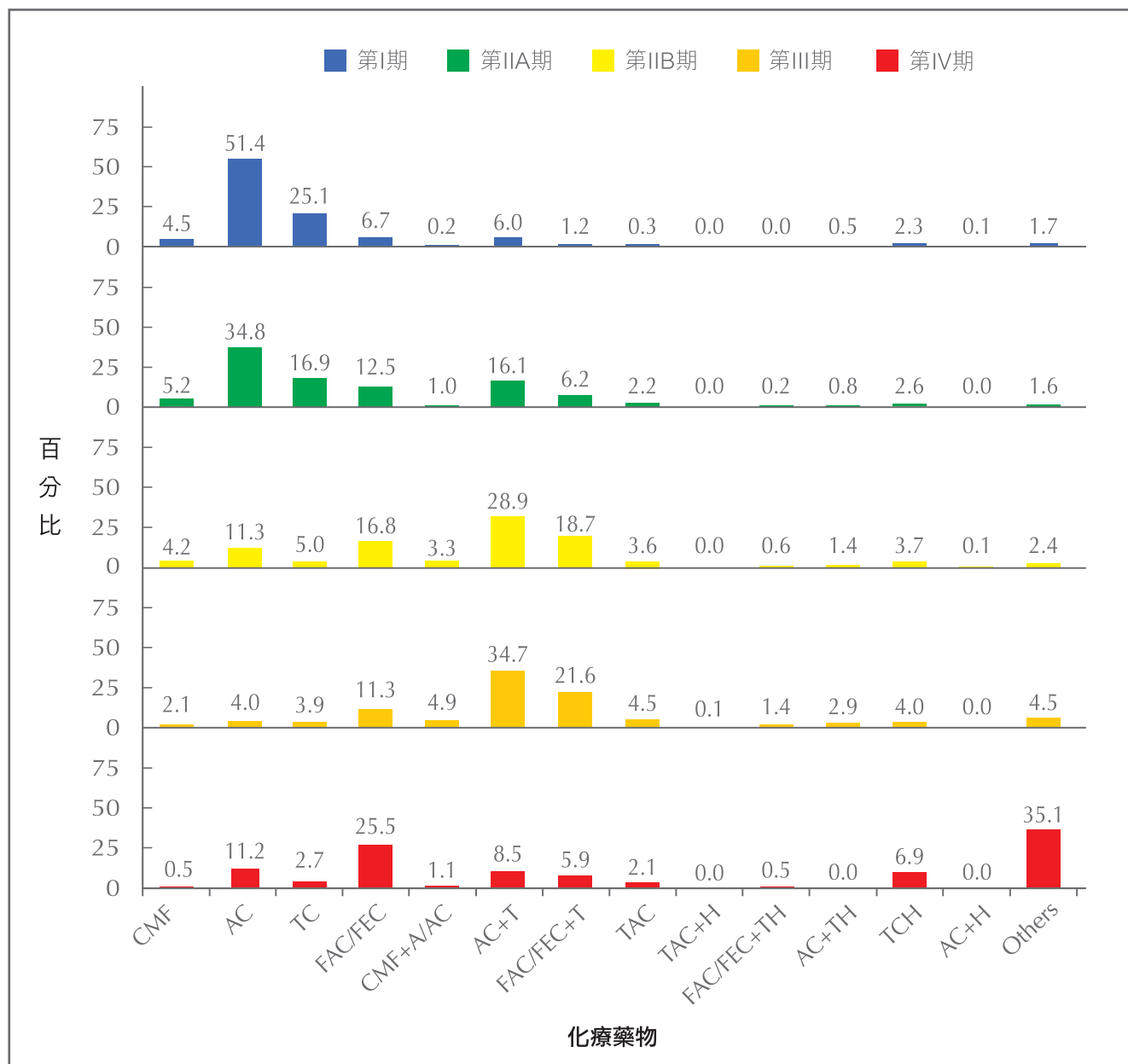
圖2.19 以癌症期數分析患者使用的化療藥物種類（人數=6,536）

C: Cyclophosphamide;   T: Taxane (Docetaxel in TC and TAC, Paclitaxel or Docetaxel in AC+T);

M: Methotrexate;   H: Trastuzumab;

F: 5FU;   TCH: Docetaxel / Carboplatin / Trastuzumab or Paclitaxel / Carboplatin / Trastuzumab

A: Adriamycin / Doxorubicin;   Others: Capecitabine, Gemcitabine, or Vinorelbine

E: Epirubicin;

2.4.3 放射性治療

放射性治療（又稱電療）是利用游離輻射來對付身體內的癌細胞。群組中，7,474名（62.2%）患者以電療作為治療的一部份。其中98.2%患者接受術後輔助性電療，0.1%接受手術前的前置電療，1.7%接受紓緩性電療。85.7%患者在公營醫療機構接受電療，14.3%在私營醫療機構進行。

93.2%接受乳房保留手術的患者接受電療，而接受乳房切除手術的患者，有45.7%接受電療。

圖2.21　接受乳房切除手術及放射性治療患者的
　　　　癌症期數分佈（人數=3,321）

圖2.20　不同癌症期數患者接受放射性治療的比率
　　　　（人數=11,364）

乳癌的電療包括對局部位置的電療，例如乳房/胸壁，無論有或沒有周邊淋巴結。對於有電療資料的患者，大約三分二（68.6%）接受切除乳房手術的患者同時接受對胸壁及周邊淋巴結的電療，而84.3%接受乳房保留手術的患者只接受對乳房的電療（表2.19）。

接受乳房切除手術以及電療的患者當中，大部份（88.9%）是IIA期到III期的患者（圖2.21）。

表2.19 接受放射性治療患者的電療位置（人數=7,474）

電療位置	總人數 （人數 = 7,474） 人數 （%）	乳房保留手術 （人數 = 3,931） 人數 （%）	乳部切除手術 （人數 = 3,463） 人數 （%）
乳房	2,108（28.2）	2,088（53.1）	0（0.0）
乳房 + 周邊*	411（5.5）	390（9.9）	0（0.0）
胸壁	788（10.5）	0（0.0）	785（22.7）
胸壁 + 周邊*	1,715（22.9）	0（0.0）	1,715（49.5）
資料不詳	2,452（32.8）	1,453（37.0）	963（27.8）

*周邊淋巴結：包括腋下淋巴區及 / 或內乳鏈及 / 或鎖骨上窩

2.4.4 內分泌治療

荷爾蒙受體呈陽性的乳癌患者，可接受內分泌治療。8,020名患者（66.7%）接受了內分泌治療。其中97.1%作為手術後輔助性治療；0.4%作為手術前的前置治療；2.5%作為紓緩性治療。87.1%患者在公營醫療機構接受內分泌治療，12.9%患者在私營醫療機構進行。癌症期數屬I至IV期的患者中，超過74.1%接受內分泌治療，而癌症期數屬0期的乳癌患者中，只有17.7%接受內分泌治療（圖2.22）。

三苯氧胺及芬香環轉化酶抑制劑是最常被使用的內分泌治療藥物。三苯氧胺可阻截雌激素傳送到細胞，而芬香環轉化酶抑制劑可以減低人體內雌激素的數量。隨著患者年齡增加，使用三苯氧胺的比率遞減，而使用芬香環轉化酶抑制劑則增加（圖2.23）。
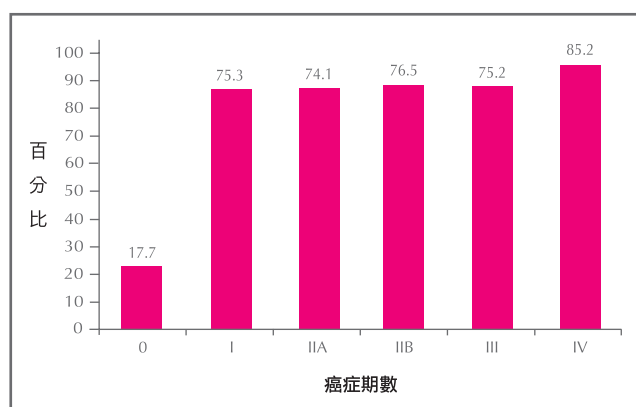
圖2.22 不同癌症期數患者接受內分泌治療的比率（人數=11,405）
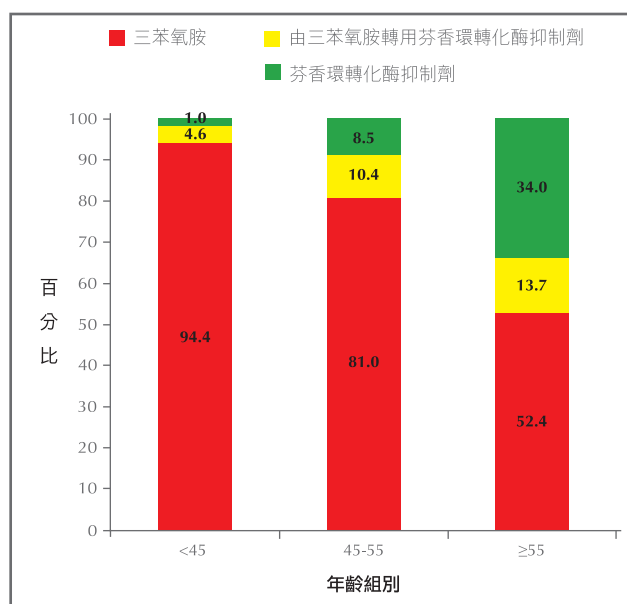
圖2.23 按年齡組別分析患者使用內分泌治療的形式（人數=7,376）

2.4.5 靶向治療

靶向治療有時用於乳癌的治療，其作用是阻截腫瘤生長或癌變所需的分子。患者群組中，967人（8.0%）接受了靶向治療，其中93%屬術後輔助性治療；4.0%屬手術前的前置治療；3.0%屬紓緩性治療。86.0%患者在公營醫療機構接受靶向治療，14.0%在私營醫療機構進行。

患者的癌症期數愈高，接受靶向治療的比率也愈高（圖2.24）。最常用於靶向治療的藥物是曲妥珠單抗（Trastuzumab）（94.7%），用於治療第二型人類上皮生長因子受體呈陽性的癌症患者（圖2.25）。

圖2.25 患者使用靶向治療的藥物種類
（人數=967）

2.4.6 輔助及另類療法

4,707名患者（39.9%）使用了輔助及另類療法，其中95.9%屬術後輔助性治療；3.9%屬手術前的前置治療；0.7%屬紓緩性治療。89.2%患者使用中醫藥作為輔助及另類療法，53.1%患者服用健康食品及補充劑（圖2.26）。

圖2.24 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靶向治療的比率（人數=1,865）
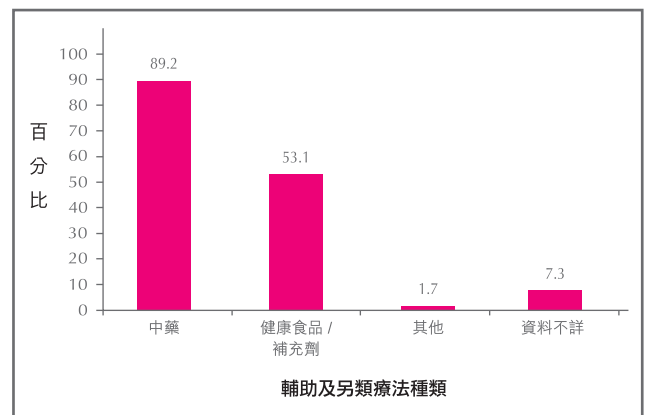
圖2.26 4,707名患者使用輔助及另類療法的種類
其他包括：太極、氣功、自然療法、針灸及艾灸、按摩、瑜伽

2.4.7 組合治療

多種療法混合使用常見於乳癌的治療。患者群組的組合治療模式，詳見表2.20。由於輔助及另類療法在香港並非乳癌患者的治療標準，因此排除於本部分的分析以外。大部份0期乳癌患者都接受本章所提及的一項

（41.3%）或兩項（49.4%）的治療方法。42.1% I期及40.3% IIA期乳癌患者接受三項治療方法。

大約一半IIB期（54.0%）及62.6% III期的乳癌患者接受四項療法。約有三成半IV期乳癌患者接受三項療法。

表2.20　不同癌症期數患者使用的治療方法數目（人數=11,606）

治療方法數目	癌症期數，人數（%）						
	0（人數=1,363）	I（人數=3,639）	IIA（人數=3,220）	IIB（人數=1,556）	III（人數=1,576）	IV（人數=252）	總數（人數=11,606）
0	3（0.2）	1（0.0）	0（0.0）	0（0.0）	2（0.1）	5（2.0）	11（0.1）
1	563（41.3）	269（7.4）	90（2.8）	19（1.2）	24（1.5）	16（6.3）	981（8.5）
2	674（49.4）	1,232（33.9）	532（16.5）	120（7.7）	61（3.9）	47（18.7）	2,666（23.0）
3	123（9.0）	1,531（42.1）	1,299（40.3）	493（31.7）	347（22.0）	91（36.1）	3,884（33.5）
4	0（0.0）	554（15.2）	1,218（37.8）	841（54.0）	987（62.6）	82（32.5）	3,682（31.7）
5	0（0.0）	52（1.4）	81（2.5）	83（5.3）	155（9.8）	11（4.4）	382（3.3）

2.5　患者狀況

香港乳癌資料庫會跟進患者完成治療後的健康情況。目前，資料庫接受統計的患者群組中，有46.8%患者曾提供過去2年的跟進數據；跟進了2至5年的患者有35.4%；跟進了5至10年的患者有28.7%；跟進了少於1年的患者不到一成（8.3%）（表2.21）。平均跟進年期為4.9年，中位數為4年。

679名患者（6.4%）出現復發，2.7%只出現局部區域性復發，2.5%只出現遠端復發，而1.2%同時出現局部區域性復發和遠端復發。復發的平均時間和中位數詳列於表2.21。

表2.21 跟進訪問10,606名患者的結果

跟進時間	人數	（%）
＜1年	878	（8.3）
1-2年	1,817	（17.1）
2-5年	3,757	（35.4）
5-10年	3,046	（28.7）
10-15年	810	（7.6）
＞15年	298	（2.8）
平均跟進時間		4.9年
跟進時間中位數		4.0年
局部區域性復發		
局部區域性復發人數	288	（2.7%）
平均復發時間		5.5年
復發時間中位數		3.7年
遠端復發		
遠端復發人數	266	（2.5%）
平均復發時間		4.3年
復發時間中位數		3.4年
局部區域性及遠端復發		
局部區域性及遠端復發人數	125	（1.2%）
平均復發時間		5.2年
復發時間中位數		4.0年
死亡率		
死於乳癌的人數	70	（0.7%）
死於其他原因的人數	40	（0.4%）

表2.22展示按手術種類及癌症期數，分析局部區域性復發的個案數目。I期和IIA期患者的局部區域性復發率相若。接受乳房切除手術的IIB期患者的局部區域性復發率，高於接受乳房保留手術的同期患者。不過，接受乳房保留手術的III期患者，復發率高於乳房切除手術的患者。最常見的局部區域性復發位置為乳房（36.3%）和胸壁（30.8%）（表2.23）。

表2.22 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）				
	I	IIA	IIB	III	總數
乳房保留手術	43/1,549 (2.8%)	35/988 (3.5%)	8/297 (2.7%)	11/184 (6.0%)	97/3,018 (3.2%)
乳房切除手術	50/1,669 (3.0%)	64/1,891 (3.4%)	44/1,104 (4.0%)	63/1,196 (5.3%)	221/5,860 (3.8%)

表2.23 患者出現局部區域性復發的位置
（人數=413）

局部區域性復發位置	人數	（%）
乳房	150	（36.3）
胸壁	127	（30.8）
腋下	84	（20.3）
鎖骨	77	（18.6）
內部乳腺	22	（5.3）
其他	40	（9.7）

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。

患者群組當中，不同癌症期數的局部區域性復發率相當穩定（約2%）。遠端復發率在不同癌症期數中都較低。癌症期數愈高，同時出現局部區域性復發和遠端復發的復發率也愈高，從I期患者的0.4%上升到III期患者的3.0%。

最常見受遠端復發影響的器官是骨（52.9%），其次是肺部（39.4%）（表2.25）。

乳癌造成的死亡個案以III期乳癌患者的百分比最高（5.5%）。存活時間幅度介乎0.8至21.9年。這些患者的生物學亞型資料詳見表2.26。

表2.24 不同癌症期數入侵性乳癌患者的局部區域復發率和遠端復發率

復發類型	癌症期數，人數（%）				
	I （人數=3,221）	IIA （人數=2,888）	IIB （人數=1,405）	III （人數=1,389）	總數 （人數=8,903）
局部區域性復發	81（2.5%）	67（2.3%）	23（1.6%）	33（2.4%）	204（2.3%）
遠端復發	4（0.1%）	4（0.1%）	2（0.1%）	8（0.6%）	18（0.2%）
局部區域性復發及遠端復發	12（0.4%）	33（1.1%）	29（2.1%）	41（3.0%）	115（1.3%）

表2.25 遠端擴散影響的器官（人數=391）

受影響的遠端器官	人數	（%）	受影響的遠端器官	人數	（%）
骨	207	（52.9）	腎上腺	7	（1.8）
肺部	154	（39.4）	甲狀腺	6	（1.5）
肝	107	（27.4）	卵巢	4	（1.0）
縱隔腔淋巴結	68	（17.4）	子宮	4	（1.0）
頸	42	（10.7）	胰	3	（0.8）
腦	34	（8.7）	脾	2	（0.5）
腹部	10	（2.6）	腎	1	（0.3）
對側淋巴結轉移	9	（2.3）	其他	10	（2.6）

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。

表2.26 乳癌死亡個案的特性（人數=70）

	確診時的癌症期數						
	0	I	IIA	IIB	III	IV	期數不詳
死亡人數（所屬期數的死亡率%）	1（0.1）	10（0.3）	11（0.4）	3（0.2）	31（2.2）	11（5.5）	3（0.9）
存活時間（年）	4.5	1.8 — 10.4	1.9 — 20.6	6.7 — 8.8	0.8 — 9.0	1.2 — 10.3	3.4 — 21.9
生物學亞型							
管狀A型*	0	0	1	1	6	0	0
管狀B型（第二型人類上皮生長因子受體呈陰性）#	0	2	2	0	5	0	0
管狀A/B型（第二型人類上皮生長因子受體呈陰性）✧	0	2	3	1	6	7	0
管狀B型（第二型人類上皮生長因子受體呈陽性）^	1	1	1	1	6	1	1
第二型類上皮生長因子受體呈陽性※	0	2	0	0	5	1	0
三陰性§	0	3	1	0	2	1	0
資料不詳	0	0	3	0	1	1	2

* 管狀A型：ER+及／或PR+、HER2-及Ki-67指數低（<14%）

\# 管狀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%）

✧ 管狀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Ki-67指數不詳

^ 管狀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-、PR-及HER2+

§ 三陰性：ER-、PR-及HER2-
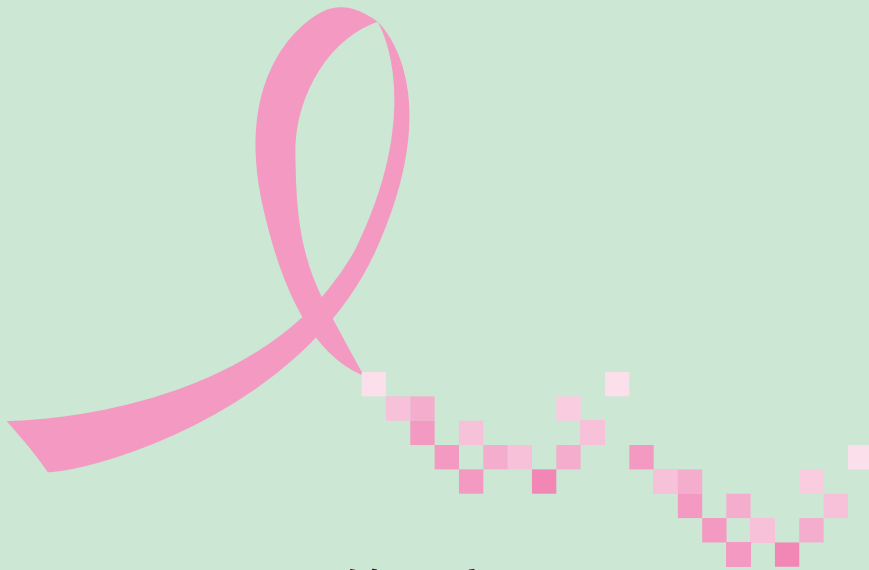
第三章

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

本章旨在探討確診和治療對乳癌患者造成的身體、心理及生活上的影響。

主要分析結果

身體影響

► 65.3%患者在手術後沒有不適或只感到輕微不適，而10.3%患者感到嚴重身體不適。接受手術後最常見的不適是傷口痛楚（16.1%）。

► 64.7%患者在接受放射性治療後沒有不適或感到輕微不適，12.9%患者表示有嚴重不適。最常見的不適是皮膚乾燥（19.9%）。

► 56.0%接受化療的患者表示有嚴重的副作用。最常見的身體不適是嘔吐（25.6%）及食慾不振（18.6%）。

► 79.3%接受內分泌治療的患者沒有不適或感到輕微不適，8.0%感到嚴重不適。最常見的不適是潮熱（11.5%）。

► 79.3%接受靶向治療的患者沒有不適或感到輕微不適，而7.5%患者感到嚴重不適。最常見的不適是疲倦（5.5%）。

► 33.9%接受輔助性治療或另類療法的患者表示治療後感到較為舒適。

心理及生活的影響

► 在確診時，33.0%患者接受結果但感到情緒低落。

► 治療後，53.4%患者感到人生不公平。

► 54.1%患者表示人生觀有正面改變。

► 91.4%患者表示自我形象有正面改變或沒有改變。

► 82.7%患者表示在確診乳癌後生活模式有改變，最常見生活模式改變是飲食習慣（74.9%）。

► 7.8%患者因為負面情緒而感到情緒低落。

► 59.2%患者經常或有時擔心復發。擔心復發的程度以年輕的年齡組別最高。年紀愈大，擔心程度愈低。

3.1 治療後的身體不適

10,311名乳癌患者獲邀請參與香港乳癌資料庫的第三部分調查。患者參與調查的平均時間是首次確診後的4.3年。

3.1.1 手術後的身體不適

在接受手術的患者中，65.3%患者在手術後沒有不適或只感到輕微不適，而10.3%患者感到嚴重身體不適（圖3.1）。患者表示感到嚴重身體不適的比例，以進行過乳房切除及重建手術的患者最高（圖3.2）。

圖3.2 按手術類型分析身體不適的程度
（人數=10,375）

圖3.1 手術後感到身體不適的程度（人數=10,388）

接受手術後最常見的不適是傷口痛楚（16.1%），其次是傷口問題（7.2%）（表3.1）。

表3.1 手術後五種最常見的身體不適（人數=10,388）

	人數	（%）
傷口痛楚	1,669	（16.1）
傷口問題（感染／發炎／繃緊／傷口難以癒合）	743	（7.2）
手臂活動困難	566	（5.4）
麻痺	356	（3.4）
淋巴水腫	337	（3.2）

3.1.2 放射性治療後的身體不適

在接受放射性治療的患者中，64.7%患者在治療後沒有不適或感到輕微不適，12.9%患者表示有嚴重不適（圖3.3）。曾接受胸壁放射性治療（無論有沒有進行周邊淋巴結放射性治療）的患者感到不適的人數，相比接受乳房放射性治療（無論有沒有進行周邊淋巴結放射性治療）的患者較多（圖3.4）。

放射性治療後最常見的不適是皮膚乾燥（19.9%）。

表3.2 放射性治療後五種最常見的身體不適（人數=6,275）

	人數	（%）
皮膚乾燥	1,250	（19.9）
皮膚灼傷	577	（9.2）
痛楚	317	（5.1）
疲倦	162	（2.6）
皮膚潰瘍	140	（2.2）
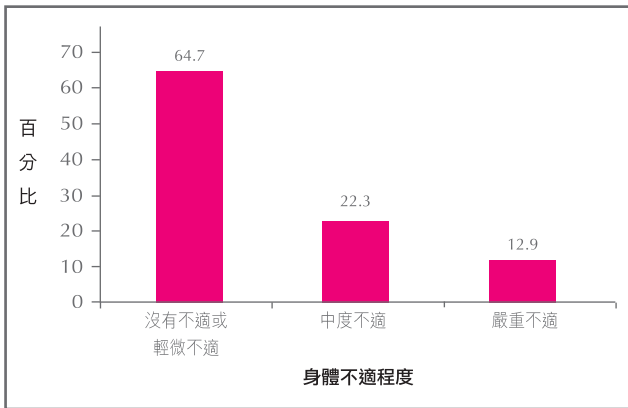
圖3.3 放射性治療後身體不適的程度（人數=6,275）

3.1.3 化療後的身體不適

在接受化療的患者中，56.0%患者表示有嚴重的副作用（圖3.5）。
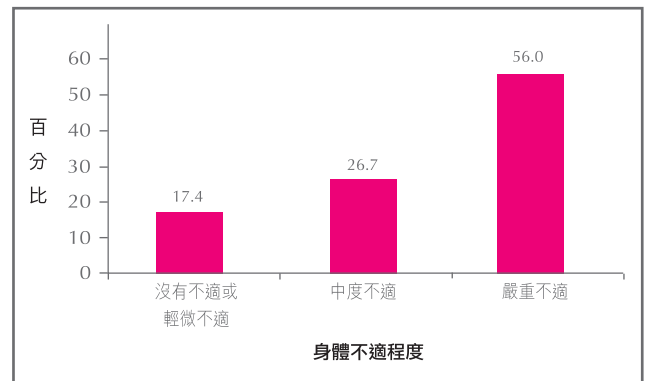
圖3.5 化療後身體不適的程度（人數=6,383）

接受化療後最常見的身體不適是嘔吐（25.6%）及食慾不振（18.6%）（表3.3）。

圖3.4 接受放射性治療部位的不適程度（人數=4,457）

表3.3 化療後五種最常見的身體不適
（人數=6,383）

	人數	（%）
嘔吐	1,636	（25.6）
食慾不振	1,188	（18.6）
脫髮	982	（15.4）
身體虛弱	617	（9.7）
噁心作嘔	573	（9.0）

表3.4 內分泌治療後五種最常見的身體不適
（人數=6,523）

	人數	（%）
潮熱	749	（11.5）
骨痛	293	（4.5）
月經失調	160	（2.5）
疲倦	140	（2.1）
體重增加	126	（1.9）

3.1.4 內分泌治療後的身體不適

接受內分泌治療的患者中，79.3%患者沒有不適或感到輕微不適，只有8.0%患者感到嚴重不適（圖3.6）。最常見的不適是潮熱（11.5%），其次是骨痛（4.5%）（表3.4）。

3.1.5 靶向治療後的身體不適

在接受靶向治療的患者中，79.3%患者沒有不適或感到輕微不適，而7.5%患者感到嚴重不適（圖3.7）。最常見的不適是疲倦（5.5%）（表3.5）。
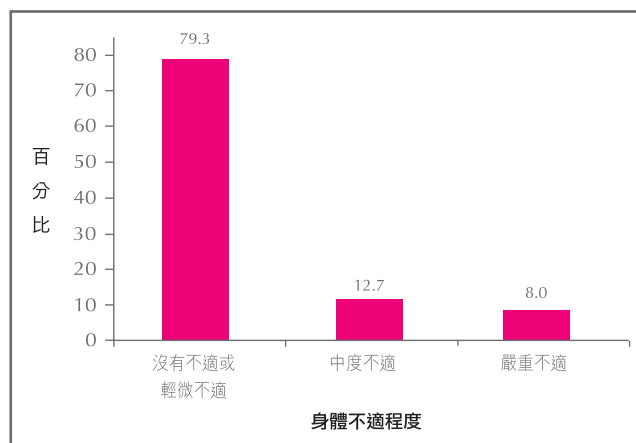
圖3.6 內分泌治療後身體不適程度（人數=6,523）
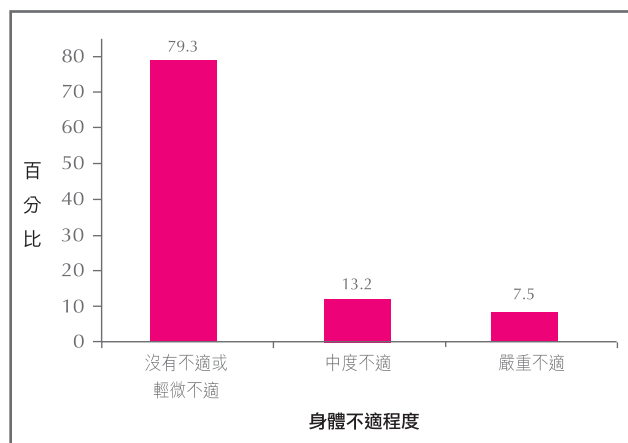
圖3.7 靶向治療後身體不適程度（人數=749）
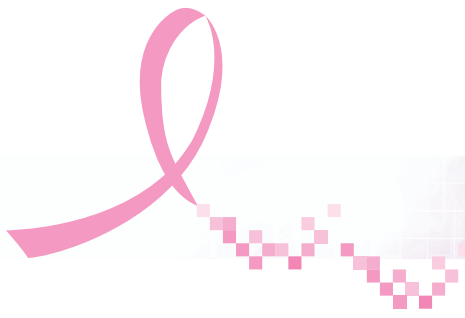
表3.5 靶向治療後五種最常見的身體不適
（人數=749）

不適	人數	（%）
疲倦	41	（5.5）
痛楚	19	（2.5）
麻痺	13	（1.7）
影響其他器官	12	（1.6）
暈眩	10	（1.3）

3.1.6 輔助性治療及另類療法後的身體不適

在接受輔助性治療或另類療法的患者中，33.9%患者表示治療後感到較為舒適，而54.4%患者沒有不適或感到輕微不適（圖3.8）。
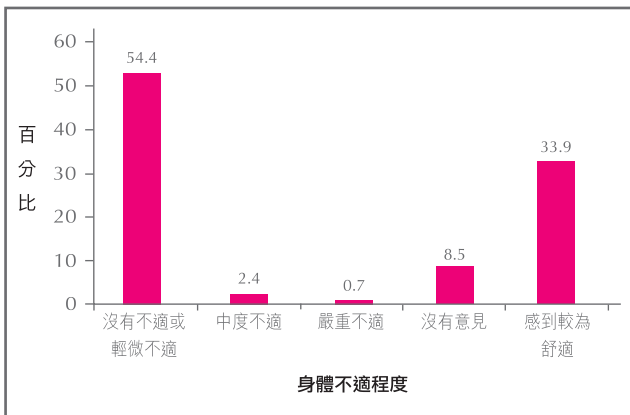
圖3.8 輔助性治療及另類療法後身體不適程度
（人數=4,634）

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

目前對乳癌患者的心理和生活及支援照顧方面的需要還不太了解。對患者群組的調查數據分析顯示，香港患者在確診時，33.0%接受結果但感到情緒低落，21.2%感到不能接受。治療後，53.4%患者感到人生不公平。54.1%患者表示她們的人生觀有正面改變，91.4%對自我形象有正面改變或沒有改變（表3.6）。

乳癌患者年紀愈大，人生觀正面改變愈少，人生觀沒有改變則愈多（圖3.9）。患者年紀愈大，自我形象的負面改變愈少。除了29歲以下的患者，患者年紀愈大，自我形象的正面改變愈少。20歲以下年齡組別由於患者人數較少，因此數據可能不具代表性。相比30至59歲的患者，較少20至29歲的患者有正面的自我形象改變（圖3.10）。
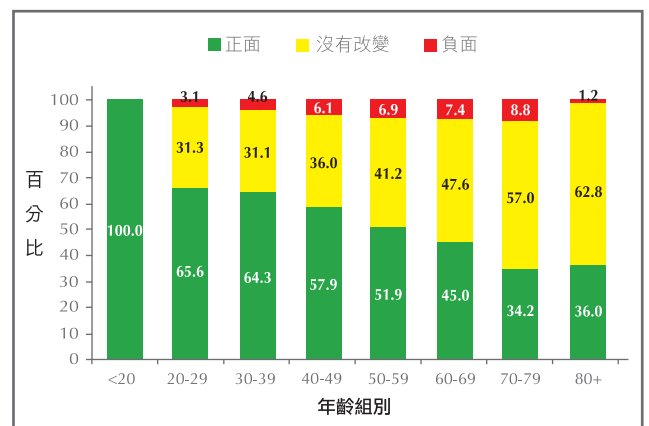
圖3.9 按年齡組別分析患者人生觀的轉變
（人數=9,988）

表3.6 乳癌為患者帶來的心理影響

	人數	（%）
得悉乳癌確診後的感受（人數=10,042）		
接受並以正面態度對抗	2,206	（22.0）
平靜接受	2,158	（21.5）
接受但情緒低落	3,314	（33.0）
拒絕接受（「不可能是事實！」）	2,131	（21.2）
憤怒地接受（「一定是搞錯了！」）	233	（2.3）
接受乳癌治療後的感受（人數=8,144）		
人生不公平	4,347	（53.4）
對癌症感到措手不及	2,721	（33.4）
感到若有所失	565	（6.9）
癌症改變了價值觀	511	（6.3）
人生觀的轉變（人數=10,120）		
正面	5,475	（54.1）
負面	643	（6.4）
沒有改變	4,002	（39.5）
自我形象的轉變（人數=10,137）		
正面	4,241	（41.8）
負面	871	（8.6）
沒有改變	5,025	（49.6）
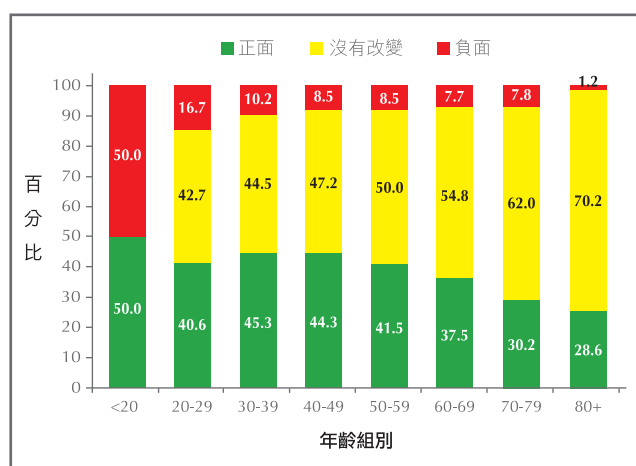
圖3.10 按年齡組別分析患者自我形象的轉變
（人數=10,007）

3.2.2 心理和生活調節及對應策略

在10,311名患者群組中，8,529名患者（82.7%）表示確診乳癌後調整了生活模式。最常見的生活模式改變是飲食習慣的改變（74.9%），其次是多做運動（61.5%）。12.5%患者辭掉工作。

54.4%患者以直接向人傾訴來管理負面情緒，11%患者忽視負面情緒，7.8%患者感到情緒低落。
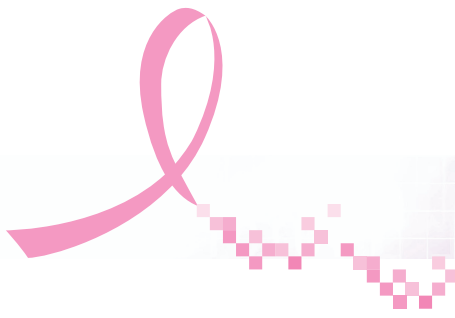
表3.7　為存活而作出的心理和生活調節及應對策略

	人數	（%）
改變生活習慣（人數=8,529）		
改變飲食習慣	6,389	（74.9）
多做運動	5,246	（61.5）
服用健康補充劑	2,208	（25.9）
減少工作量	1,704	（20.0）
辭掉工作	1,067	（12.5）
處理負面情緒的方法（人數=10,311）		
直接向人傾訴	5,617	（54.4）
分散注意	3,549	（34.4）
忽視負面情緒	1,137	（11.0）
感到情緒低落	809	（7.8）
其他	706	（6.8）
憂慮復發程度（人數=10,108）		
從不	2,325	（23.0）
甚少	1,794	（17.7）
有時	4,903	（48.5）
經常	1,086	（10.7）

3.2.3 擔心復發的程度

59.2%患者經常或有時憂慮復發（表3.7）。患者年紀愈大，經常或有時憂慮復發的比率愈低，甚少或從不憂慮復發的比率則愈高（圖3.11）。
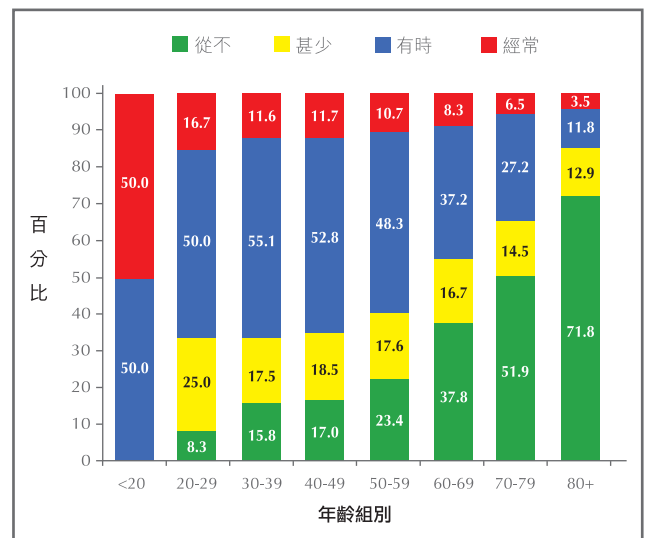
圖3.11　按年齡組別分析患者憂慮復發的程度
（人數=9,976）

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化驗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。

兩邊的乳癌

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），或相隔六個月以上在兩邊乳房先後出現（非同時性腫瘤）。

生物亞型

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Ki67指數。通過在原發腫瘤結合這些生物學標記，而非獨立評核，可以得出進一步的預後及預測性資料。

乳癌可分為5個生物學亞型包括管狀A型（ER+及／或PR+、Ki67指數低及HER2-），管狀B型（HER2呈陰性）（ER+及／或PR+、HER2-、及Ki67指數高），管狀B型（HER2呈陽性）（ER+及／或PR+、任何Ki67指數及HER2+），HER2-呈陽性（ER-、PR-及HER2+）以及三陰性（ER-、PR-、HER2-）。

乳房保留手術

乳房保留手術是指將乳房腫瘤切除、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乳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

移除乳房腫瘤的外科手術，是基本的乳癌治療方法。

癌症分類

根據最新美國癌症聯合委員會AJCC癌症階段分類（2010）[29]，乳癌可以分為不同階段，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個陽性結；N2：4至9個陽性結；N3：≧10個陽性結
M0：沒有腫瘤轉移；M1：有腫瘤轉移證據
*T1涵蓋T1mi
** T0及T1腫瘤只有微小結腫瘤轉移，排除於IIA階段之外，入於IB階段

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。

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，以抑制荷爾蒙產生或發揮作用的治療方法。原理是殺死依靠荷爾蒙生長的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HER2基因數量超乎正常水平，癌細胞表層的HER2蛋白便會過多，即HER2蛋白過度表現。過多的HER2蛋白會加速癌細胞的生長和分裂，因此HER2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，癌細胞維持在乳腺管生長（原位乳腺管癌），而沒有入侵乳房裏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。

乳小葉原位癌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。

入侵性乳癌

腫瘤的生長超出原發位置的細胞表層，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（IHC）染色方法，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。高水平的Ki-67指數顯示具侵略性的腫瘤。目前，指數高於14%被認定為高Ki-67生長指數。

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。

全乳切除手術

將整個乳房切除的外科手術，通常用於乳癌或其他嚴重乳房疾病。

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。脂肪壞疽是一種良性（非癌症）的乳房狀態，在多脂肪的乳房組織脹大或變軟，或乳房受傷時出現。

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。

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。放射線的外部來源包括線性加速器，鈷及貝加加速器。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）的可能性就愈高。但風險因素不一定等於病因。

前哨淋巴抽檢術

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。

橫向腹直肌肌皮瓣手術（TRAM瓣）

乳房重建的方式之一。將從腹直肌吸收血液的下腹壁組織上移到胸部，以製造出隆起的乳房形態，此手術通常不涉及植入物，而下腹在肌肉和組織被移走後，會變得平坦。

三陰性乳癌

癌細胞缺乏雌激素受體、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（通常出現於入侵性腺管癌）。

圖表索引

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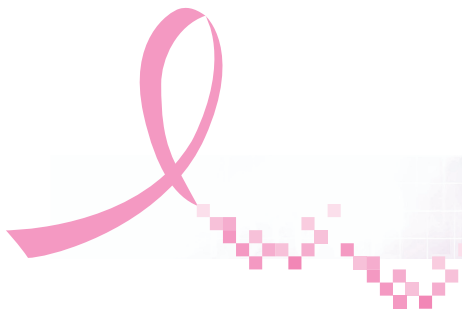
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HOW TO GET INVOLVED
參與香港乳癌資料庫及乳癌在線

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七號報告（2015年9月出版）
Subscribe to the Hong Kong Breast Cancer Registry Report No. 7 (to be published in September 2015)

姓名Name_____　　機構Organisation_____

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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 contibute to a better understanding of breast cancer and improvement of breast cancer care in Hong Kong.

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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$_____

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　　☐ HK$1,000　　☐ HK$500　　☐ HK$300　　☐ HK$200　　☐ HK$_____

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　　　　　　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
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　Crossed Cheque (payable to "Hong Kong Breast Cancer Foundation")

☐ 信用卡 Credit Card　　　☐ VISA　　　☐ Master Card

有效日期 Expiry Date: ____D _____M _____Y　　信用卡號碼 Card Number: _____

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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 –
a new milestone for the medical community and the public health sector

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」─醫療及公共健康界別的新里程

「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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