GBCC Seoul 2013

Breast cancer management issues in the clinic - Malaysia

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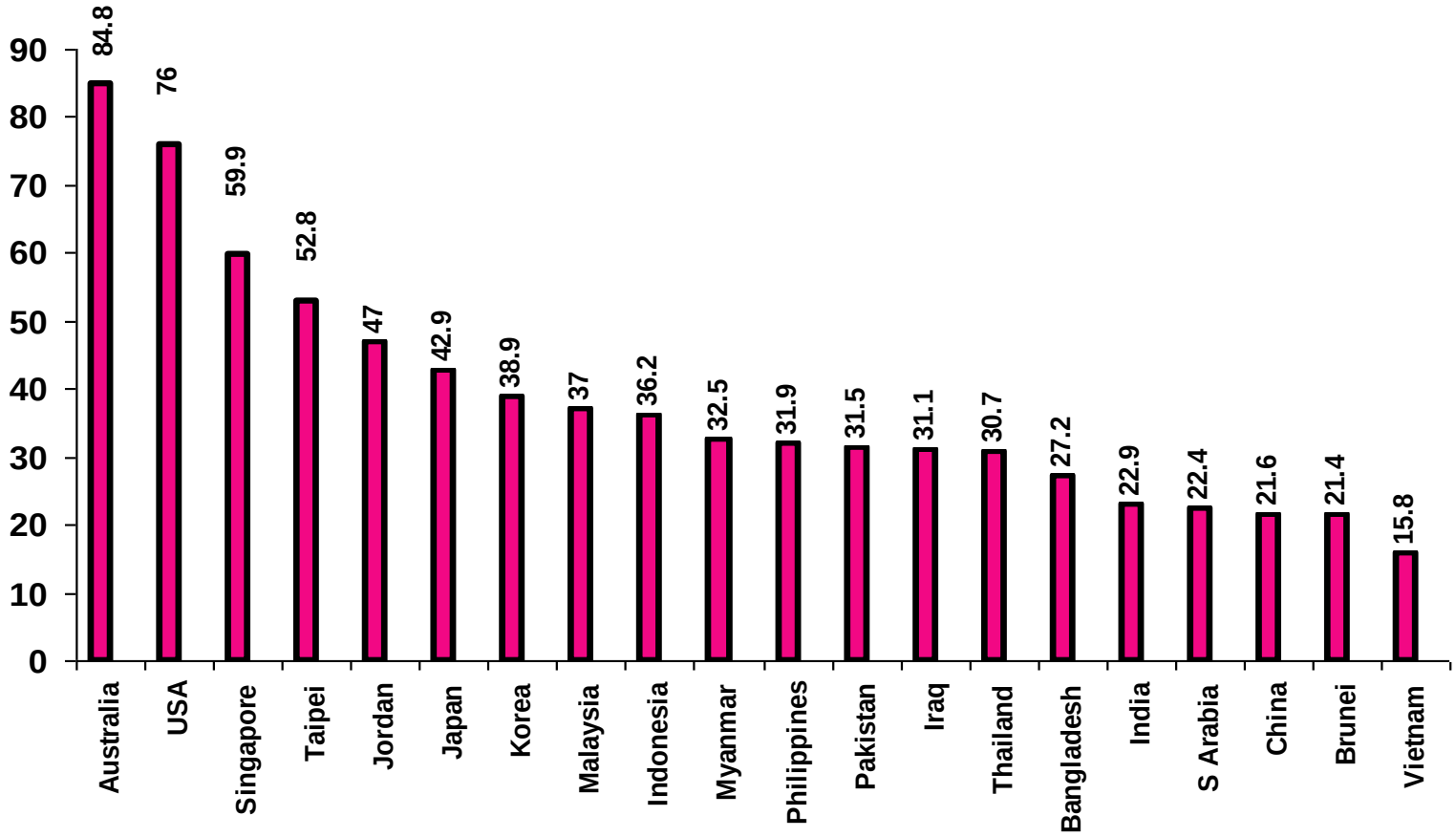
Breast cancer – Incidence in Asia
Globocan 2008



Female Breast Cancer– NCR Malaysia report 2003-2005
Age Incidence

Age	No	%	CR
0-9	5	0	0.1
10-19	10	0	0.2
20-29	181	1.5	3.7
30-39	1512	12.6	37.3
40-49	4050	33.9	117.4
50-59	3479	29.1	154.0
60-69	1822	15.2	141.5
70+	901	7.5	105.1

Prevalent age group 40-49

Highest age-specific incidence 50-59

48.1% below the age of 50

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Introduction

- Malaysia is a multiethnic country with three main races – Malays, Chinese and Indians.
- Patients also come from different socio-cultural and educational backgrounds
- It is important to be culturally sensitive when counselling women presenting with breast symptoms.
- Communication can be a major problem when we have a patient who speaks a language that the doctor is unable to understand.

Breast clinics in Malaysia

- The majority of patients with a breast lump is referred to the surgeon, and since there are only 28 breast surgeons in the country with a population of 26 million people, most breast cases are handled by the general surgeon.
- The role of the surgeon is to diagnose breast cancer in a timely fashion, with triple assessment ie clinical assessment, imaging and a percutaneous biopsy.
- The surgeon needs to work closely with the radiologist and the pathologist to arrive at a diagnosis.
- Once cancer is diagnosed the surgeon then needs to discuss management options with the patient based on a clinical assessment of the stage of disease.

Delayed presentation

- Delayed presentation is a problem especially in the more rural parts of Malaysia.
- With advanced cancers, the diagnosis is easily arrived at; however persuading the patient to have treatment can be a problem.
- About 10% of patients will try alternative treatment first before finally deciding that it is not working and agree to conventional treatment

Sabah – Queen Elizabeth Hospital

186 patients presenting in 2005-2006

- Stage 1 12.9%
- Stage 2 30.1%
- Stage 3 36.6%
- Stage 4 15.6%

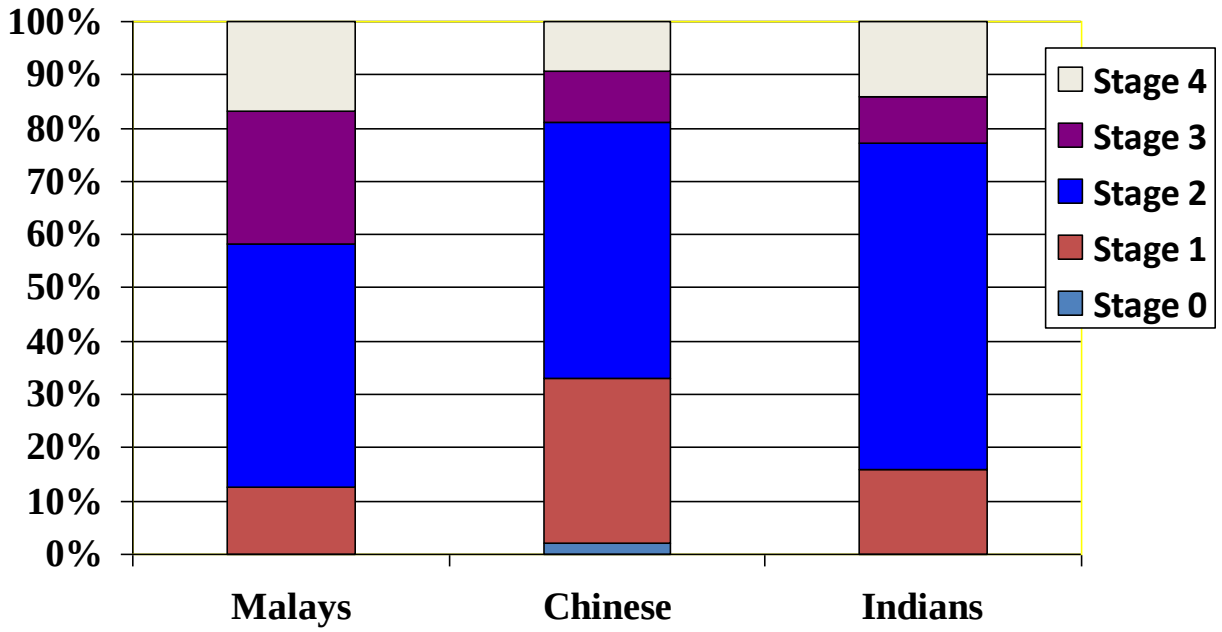
4 factors significantly related to late presentation were:

- Non-Chinese, Poor (earning < RM1000 per month, Rural, and Not educated

Leong BC, Chuah JA, Kumar VM and Yip CH. Breast cancer in Sabah, Malaysia: a two year prospective study. Asian Pac J Cancer Prev 2007;8(4):525-9.

Breast Cancer in UMMC
Stage at presentation and race 2008 (442 cases)

Early Stage –Stage 1 and 2
Late Stage – Stage 3 and 4



Malays	72
Chinese	313
Indians	57

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Reasons for late presentation

- **Fatalism** is a major theme. The importance of evaluation of threat of the disease and treatment is compounded by a background of low breast health literacy or symptom recognition. Coping mechanisms towards fatalistic outcomes like denial and avoidance contribute to the phenomenon.
- **Belief in alternative therapy** as an active form of treatment and a more acceptable option of treatment.
- **Decision making -** Lack of individualistic and autonomous decision making, with women playing the role of a dutiful wife and daughter was observed. Women need sanctioning to see a doctor.

Nur Aishah Taib, Cheng-Har Yip, Wah-Yun Low Recognising Symptoms of Breast Cancer as a Reason for Delayed Presentation in Asian Women - The Psycho-socio-cultural Model for Breast Symptom Appraisal: Opportunities for Intervention. Asian Pacific J Cancer Prev, 12, 1-8

Joss-stick burns

Traditional treatment

Cuts

Decision making in early breast cancer

- The first decision maker is the surgeon
- Once the surgeon has decided on the plan of management with its various options, then there needs to be a discussion with the patient on the steps in the management
- It is important for the surgeon to early on in the consultation to decide who is the decision-maker.
- Often, the patient herself may not have autonomy in decision making.
- In women with early breast cancer who are suitable for breast conserving surgery, a patient decision aid giving all the pros and cons of each treatment option, in a language that can be understood by the patient is important.
- However some patients do not want to take the responsibility for decision making and leave it to the surgeon to decide.

Decision making by the surgeon

- For clinically Stage 1 and 2 breast cancer, surgery is the preferred primary treatment.
- The indications and contraindications for breaast conserving surgery is well-known, and the surgeons makes the first decision which is

DOES THE PATIENT NEED A MASTECTOMY

Breast conserving surgery

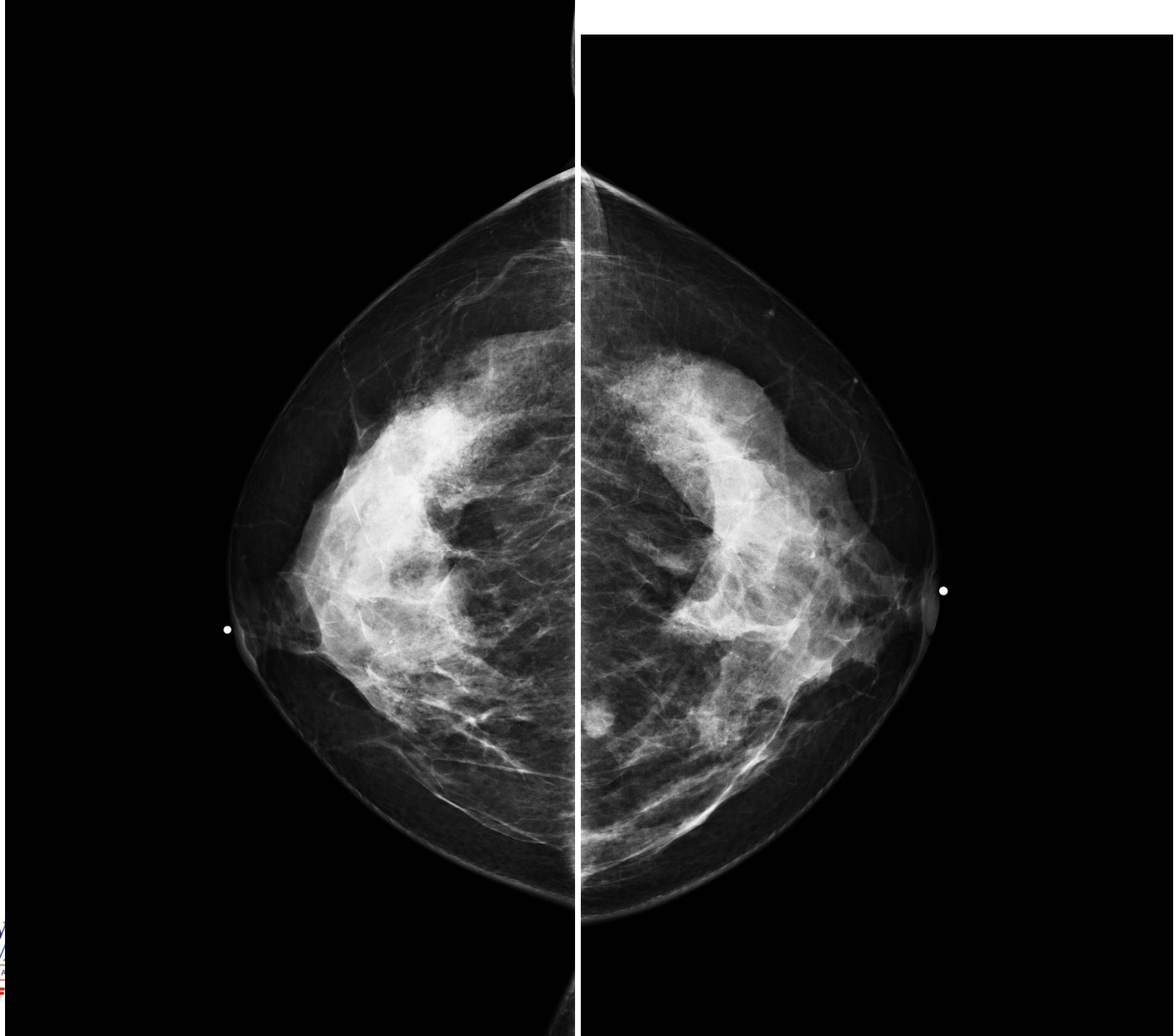
- Removal of the lump with a clear margin
- Removal of lymph nodes for staging
- Radiotherapy essential
- Good cosmetic outcome possible

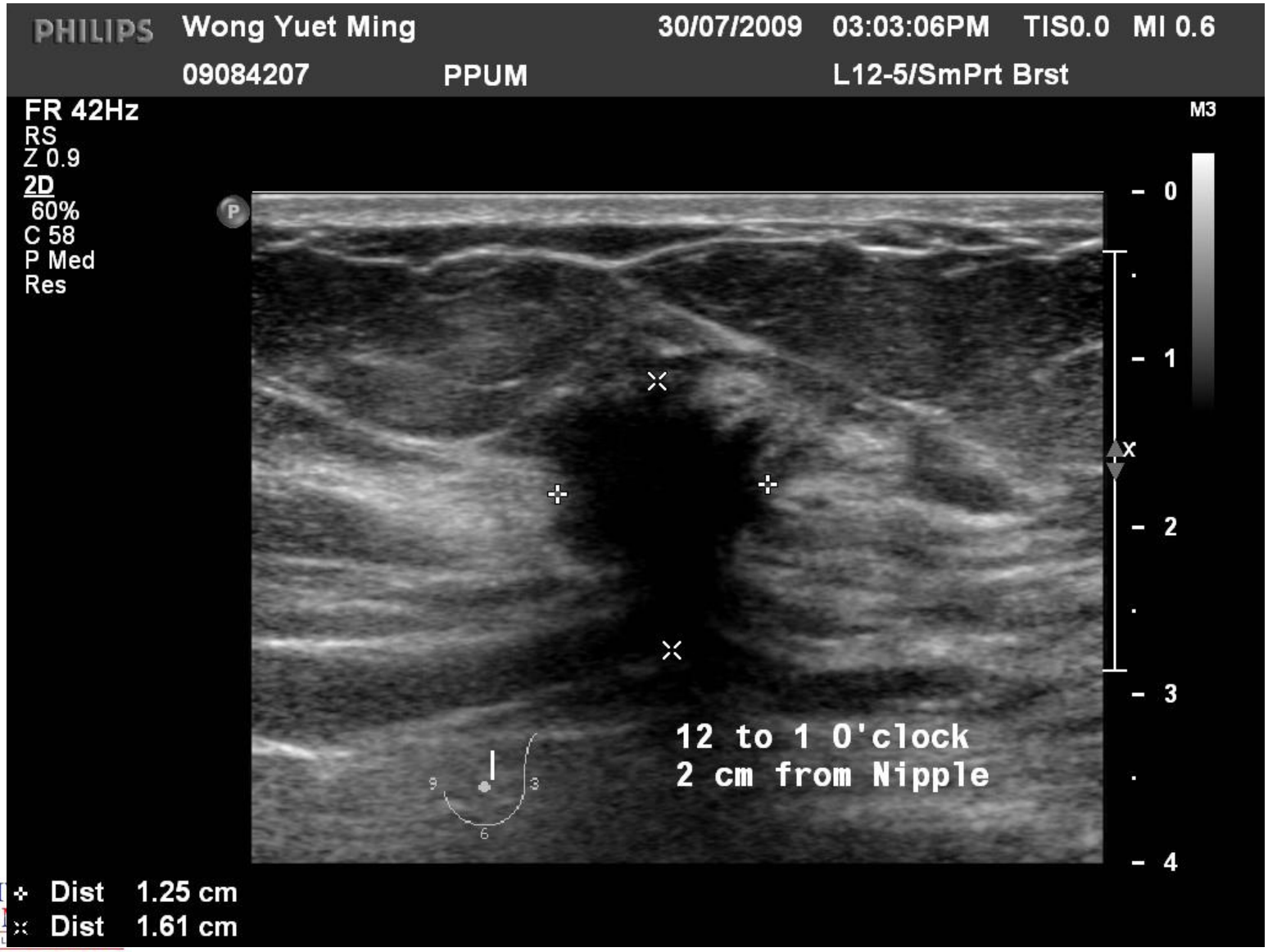
Breast conserving surgery

- However if a large volume of tissue is removed, the discrepancy between the two breasts can be quite obvious
- Studies have shown that If more than 20% of the breast was removed, the cosmetic score was poor.
- When excision of greater than 20% of breast tissue is anticipated, then a breast reconstruction procedure should be considered.

Contraindications to BCS

- Multifocal tumours clinically or on imaging *(talk to your radiologist)*
- Extensive microcalcification on mammogram
- Large tumour size in relation to the breast
- Pregnancy (except third trimester)
- Connective tissue disease, refusal for radiotherapy

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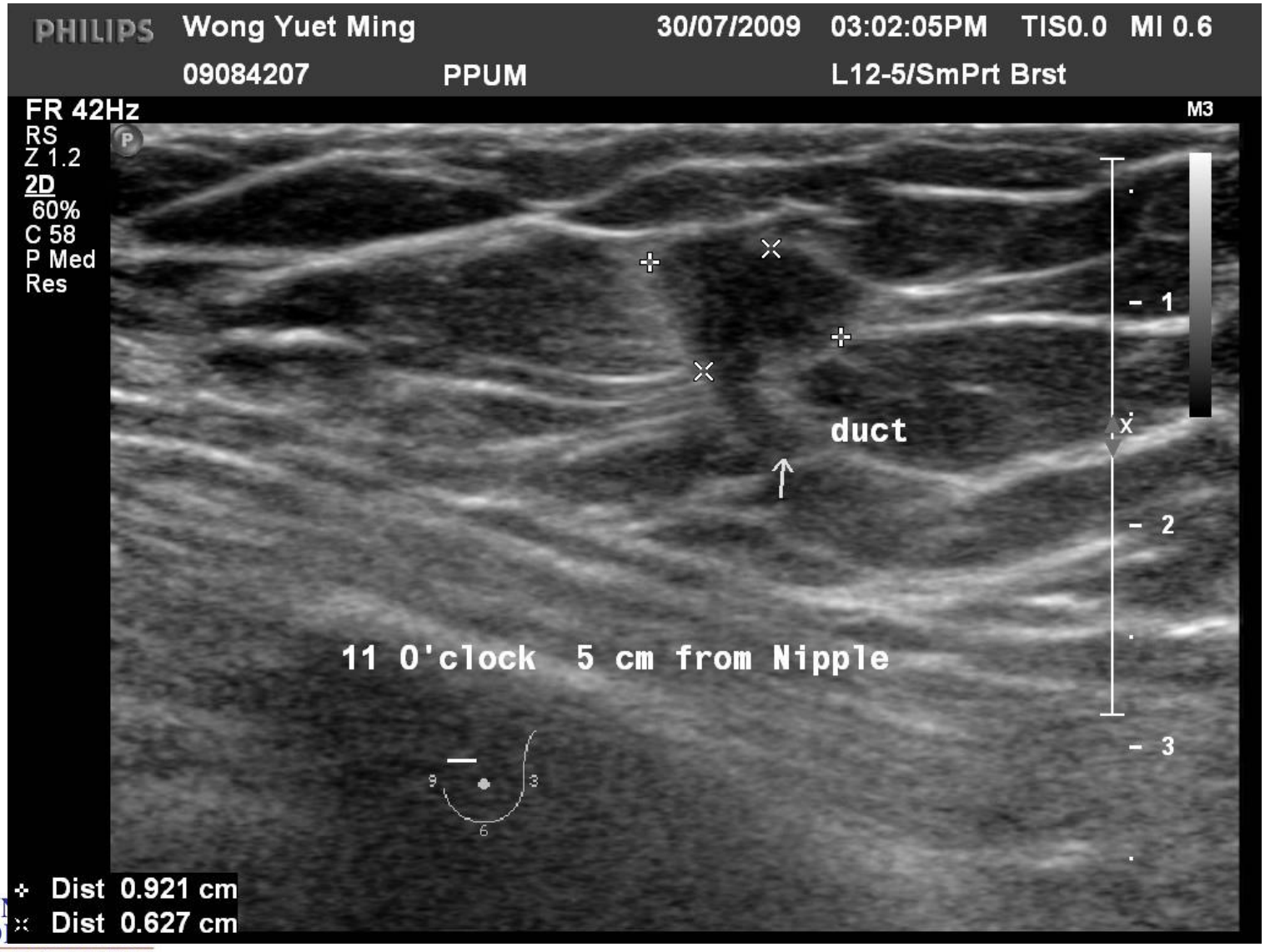
12 to 1 O'clock
2 cm from Nipple
Dist 1.25 cm
Dist 1.61 cm

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DFOV 25.5 cm
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R 17.5mm
A 89.0mm
S 77.2mm
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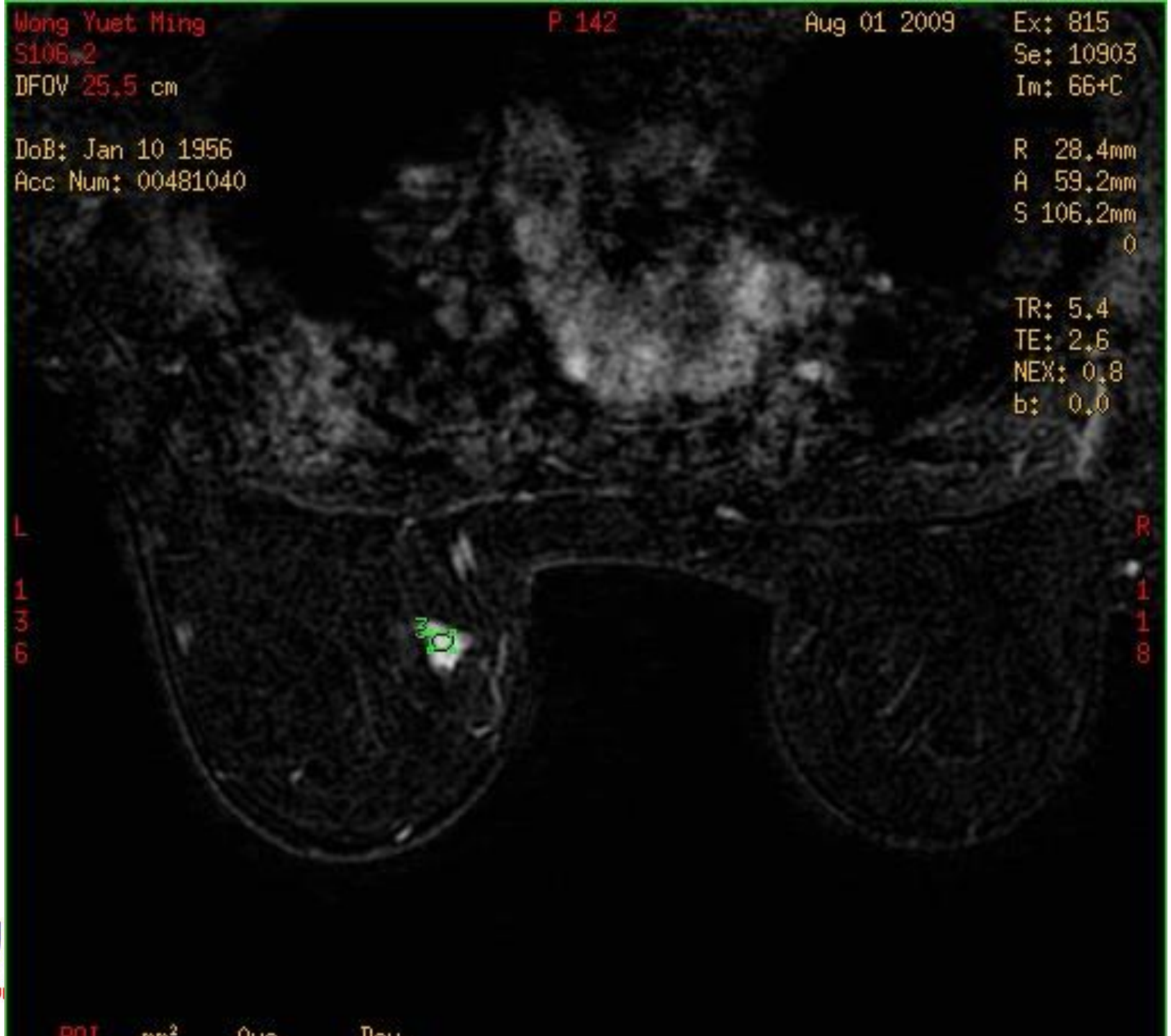
Wong Yuet Ming
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DFOV 25.5 cm
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Im: 66+C
DoB: Jan 10 1956
Acc Num: 00481040
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A 59.2mm
S 106.2mm
0
TR: 5.4
TE: 2.6
NEX: 0.8
b: 0.0
L
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136
118

World wide variation in mastectomy rates

Country	Mastectomy rate	Country	Mastectomy rate
Spain	**66%**	**Belgium`**	**37%**
USA	**56%**	**Britain**	**31%**
Netherlands	**48%**	**France**	**28%**

EBCC Hamburg 2004

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Mastectomy rate in UMMC, Kuala Lumpur

Year	Mastectomy Rate
2005	73.1%
2006	72.2%
2007	75.1%
2008	75.4%

Reasons for variation in mastectomy rates

- Access to radiotherapy
- Doctor's and patient's attitudes
- Presence of a screening programme

Decision making in EBC

- A multifaceted process.
- Tumour characteristics - not the only factor that influences decision-making.
- Demographic, Social attitudes and Cultural factors are also important.
- Explores relationship between patients, healthcare professionals and patients' family members.(5-7)

Guadagnoli E, Ward P: Patient participation in decision-making. Soc Sci Med 47:329-339, 1998

Keating NL, Weeks JC, Borbas C, et al: Treatment of early stage breast cancer: Do surgeons and patients agree regarding whether treatment alternatives were discussed? Breast Cancer Res Treat 79:225-231, 2003

Decision making in EBC

- Some identified factors – level of education, fear of recurrence, radiation effects, body image and sexuality.

- In Malaysia, significant other/family members, cultural/traditions, and medical pluralism also play major roles in decision making and treatment seeking behaviour.

Katz SJ et al: Patient Involvement in Surgery Treatment Decisions for Breast Cancer. J Clin Oncol Vol 23 No 24:5526-5533, 2005
Taib NA, Yip CH, Low WY Why Women Present With Advanced Breast Cancer In Malaysia, A Qualitative Enquiry

Decision making in EBC

- **Information provision important** because
  - helps women understand their diagnosis and make treatment decisions
  - Other reasons: gaining sense of control, reducing anxiety, changing behaviour and formulating a plan for the future

Butow P, Maclean M, Dunn S, Tattersall M and Boyer M (1997) 'The dynamics of change: Cancer patients' preferences for information, involvement and support,' *Annals of Oncology* 8: 857–863.

Henman M, Butow P, Brown R, Boyle F, Tattersall M (2002) 'Lay constructions of decisionmaking in cancer,' *Psycho-Oncology* 11: 295–306.

Factors influencing decision – making in early breast cancer

- Understanding the factors that influence treatment decision making in early-stage breast cancer in a sampled Malaysian population allows better provision of healthcare, decreases psychological morbidity and encourages greater compliance to treatment; in turn, enhances successful treatment results.

Halkett GKB, Arbon P, Scutter SD, Borg M (2005) 'The experience of making treatment decisions for women with early stage breast cancer: A diagrammatic representation,' *European Journal of Cancer Care* 14: 249–255.
Fallowfield LJ, Hall A, Maguire P, Baum M, A'Hern RP (1994) 'Psychological effects of being offered a choice of surgery for breast cancer,' *British Medical Journal* 309:448.

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Methodology

- Retrospective questionnaire analysis
- **Inclusion criteria:**
- EBC (I - IIb: T1-T2, N1), solitary tumours
- first line treatment = surgery, no neoadjuvant therapy.
- Surgery between 2008-2010.
- Modified questionnaire
- Patients identified during clinic follow-up (Breast and Oncology)
- Questionnaire administered to patient by a research nurse
- Chi-square test and Logistic regression was used to analyse the data.
- 165 patients recruited

Univariate analysis – factors affecting decision making

- From univariate analysis, 7 factors were identified to be significant (p value <0.05) :
  - Age (p=0.043)
  - Marital status (p=0.007)
  - Level of education (p=0.000)
  - Surgeon's recommendation (p=0.000)
  - Sexuality (p=0.003)
  - Body image (p=0.000)
  - Avoidance of radiotherapy (p=0.002)

Univariate analysis – factors affecting decision making

- **Age**: % in BCS group decrease with increasing age

  – **85%: </=40yrs**, 62.5%: 41-55yrs, 52.6%: >55 yrs
- **Marital status**:

  - married women tend to choose BCS (62.0% vs 38%) vs widowed/divorced women who tend to choose MAC (66.7% vs 33.3%).

  - Single women tended to choose BCS (81.0% vs 19.0%).
- **Education**: women with **tertiary education**, tended to choose BCS over MAC (82.0% vs 18%).
- Although not statistically significant, noted larger percentage of Chinese women chose MAC over BCS while Malay women tended to choose BCS.
- **Surgeon's recommendation** – regarded highly in both groups, BCS gp: 89% reported and MAC gp: 89.1% reported

Univariate analysis – factors affecting decision making

- **Sexuality** – rated 'very important' chose to undergo BCS (52.1% vs 47.9%)
- **Body image** – rated 'very important' (70.8% vs 29.2%) and 'somewhat important' (73.8% vs 26.2%) chose BCS.
- **Avoidance of RT** – rated 'very important' chose MAC (54.5% vs 45.5%) and BCS group shown to rate avoidance of RT as 'not important' (68.4% vs 31.6%).
- Worry of recurrence, husband's influence and family influence not statistically significant in our sampled population.

Factors affecting decision-making = multivariate analysis

	df	Sig.	Odds ratio	95.0% C.I.for Odds ratio	
				Lower	Upper
Body image					
Not at all important	2	0.013			
Somewhat important	1	0.077	3.449	0.873	13.625
Very important	1	0.004	10.893	2.17	54.672
Avoidance of radiotherapy					
Not at all important	2	0.015			
Somewhat Important	1	0.008	9.303	1.77	48.889
Very important	1	0.016	5.489	1.38	21.83
Surgeon's recommendation					
Neither	2	0.000			
BCS	1	0.000	19.631	4.515	85.352
mastectomy	1	0.000	387.46	59.391	2527.735

Who makes the decision?

- Hawley et al (28) attempts to address this in their study where they looked at patient, doctor and healthcare system factors associated with women's actual involvement in surgical breast cancer treatment (i.e., mastectomy vs. BCS with or without radiation therapy) decision making; and the match between women's actual and preferred level of involvement.
- They found that 38% of women reported a shared surgical treatment decision, 39% reported a patient-based decision, and 22% reported a surgeon-based decision.
- Two-thirds (66%) reported a match between actual and preferred involvement in the breast cancer surgery decision, while 21% reported having more involvement than they preferred, and 13% reported having less involvement than they preferred.

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Hawley et al, Factors Associated with Patient Involvement in Surgical Treatment Decision Making for Breast Cancer. *Patient Educ Couns*. 2007 March ; 65(3): 387–395

Preop counselling

- Although women should be counselled about the increase in the incidence of local recurrence with BCS compared with mastectomy, about the risk of a second operation if margins are involved, about the need for radiotherapy if BCS is carried out and possible breast reconstruction if mastectomy was done
- Produce a brochure or information sheet for patients that summarises different aspects of the two surgical treatment options when comparing the two types of surgery.
- It does not take away the need for effective communication between surgeon and patient but serves as a checklist when providing information to patients. It may also serve as a reminder of the key points of consultation for patients to go over when at home with husband and/or family.

MAKING DECISIONS ABOUT YOUR BREAST CANCER TREATMENT:

A decision aid for women with early breast cancer

PATIENT NAVIGATION PROGRAMME

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Advantages and disadvantages

	Lumpectomy	Mastectomy	Alternative treatment	No treatment
How long will I live? (Cancer is considered cured if it does not come back in 5 years)	In 5 years, out of 100 women with breast cancer, 80 live and 20 will die (with radiotherapy)	Same as lumpectomy	No good information is available. Ask the practitioner	Most women will die within 5 years
Will the cancer come back?	In 5 years, out of 100 women, 10 will have a relapse with radiotherapy and 30 will relapse without radiotherapy	In 5 years, out of 100 women, 15 will have a relapse on the chest wall	No good information is available. Ask the practitioner	Most women will die within 5 years
Will I need another operation?	May be. If there are cancer cells remaining. This happens in 5 out of 100 women	No. Unless you choose breast reconstruction	No.	No.
Will I get lymphoedema?	Out of 10 women, 1-2 will get lymphoedema	Same as lumpectomy	No.	No.

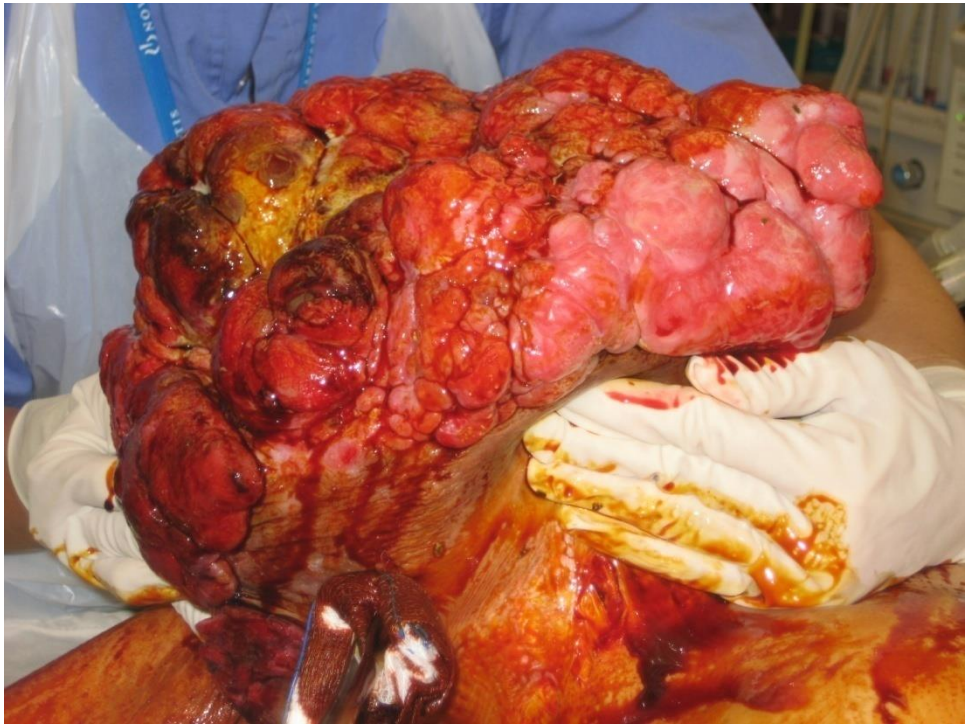
# of each treatment option

	Lumpectomy	Mastectomy	Alternative treatment	No treatment
Will I lose my breast?	No. However, if the tumour margins are involved or if there is a recurrence in the future, a mastectomy will be recommended	Yes. However, you may consider breast reconstruction	No. However, if the treatment does not work, the breast will become deformed	No. However, when the cancer grows, the breast will become deformed
Is chemotherapy recommended?	Yes (depending on oncologist recommendation)	Yes (depending on oncologist recommendation)	No.	No.
Is radiotherapy recommended?	Yes.	No (Unless the axillary lymph nodes are involved or the tumour is very large or involving the margins)	No.	No.
How much does it cost?	(To be completed by your doctor/ nurse)	(To be completed by your doctor/ nurse)	(To be completed by the practitioner)	No cost. However, you may need treatment as the cancer grows and this will incur cost.

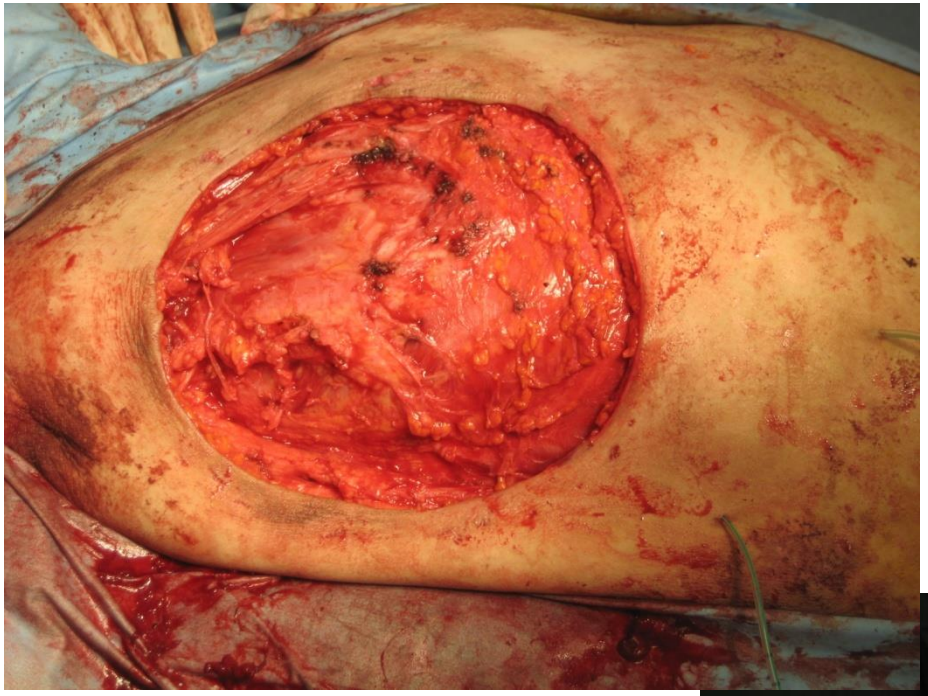
Decision making in advanced breast cancer

- In locally advanced breast cancer, with multimodality treatment utilising a combination of chemotherapy, surgery, radiotherapy and hormonal therapy, 5-year survival of almost 50% possible with local control rates of 80%.
- If operable, surgery can be offered first, especially when there is ulceration or bleeding, as surgery will achieve rapid control of symptoms.
- The definition of “inoperability” is variable and depends on the surgeon.
- For women presenting with advanced breast cancer, chemotherapy first have the advantage of determining response to systemic treatment and hence prognosis.
- Fears of the side effects of chemotherapy need to be addressed.

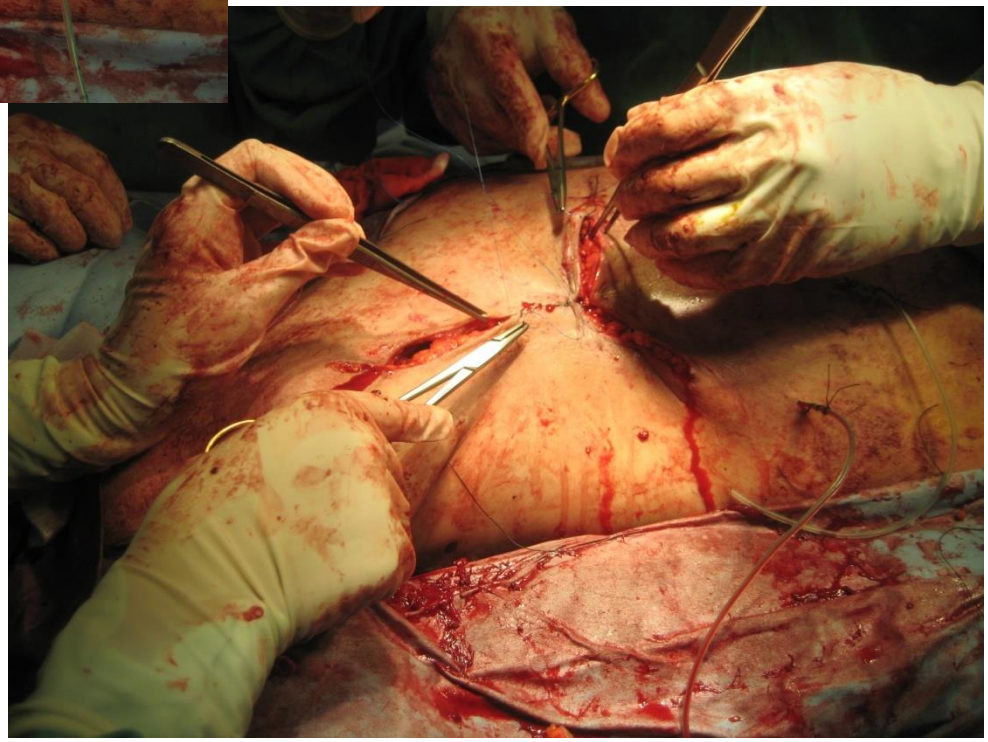
33 year old Indonesian woman with a large malignant phyllodes tumour



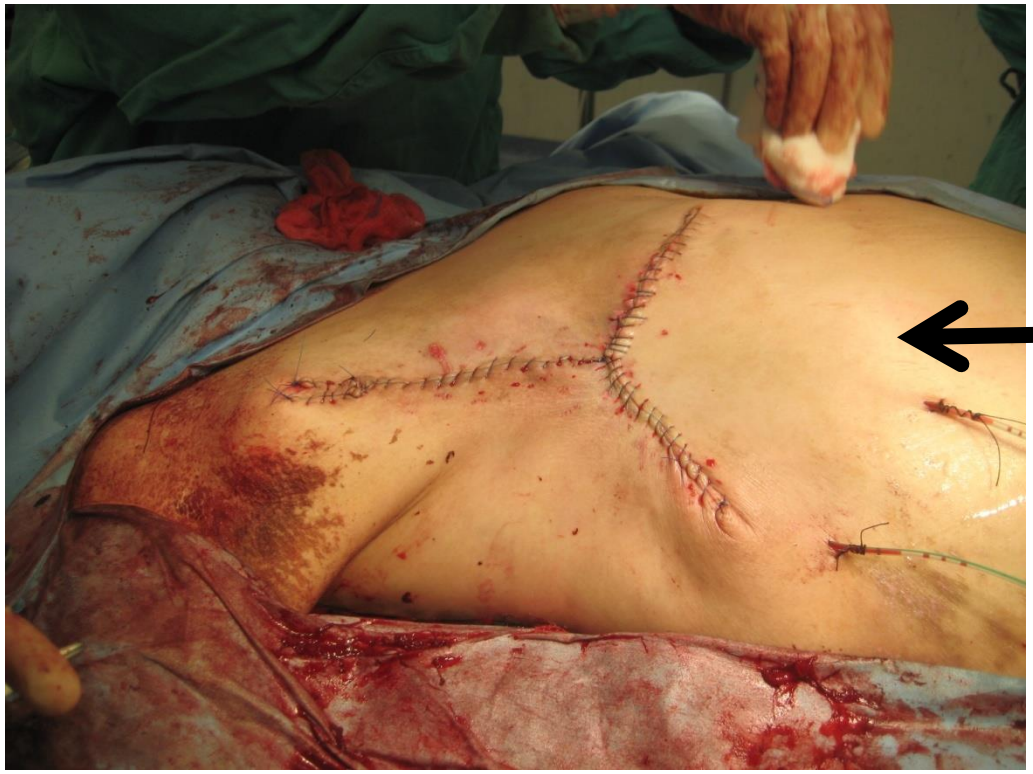
Assess operability



Large defect left
Possible to
close primarily?



Primary closure
possible!!



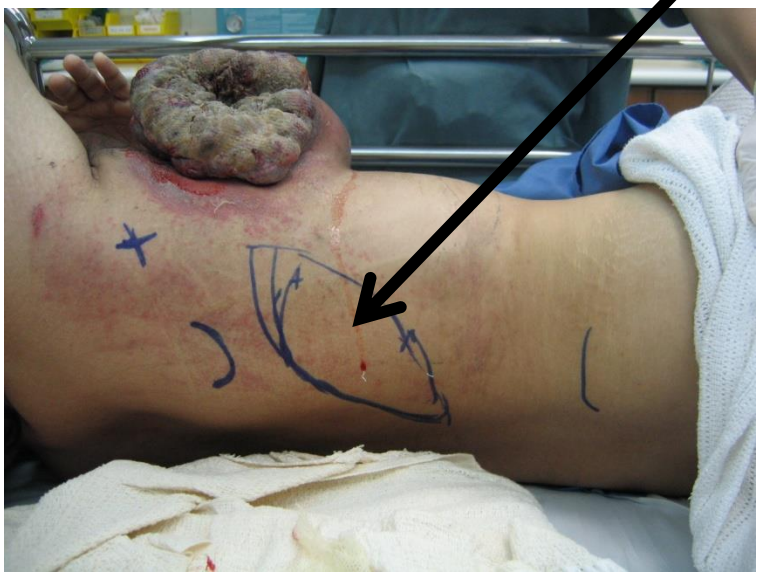
Abdominal advancement flap

Is this operable??

30 year old Malay woman, diagnosed with early breast cancer, refused treatment, and returned 1 year later with a large ulcerating lesion. Had sought traditional treatment all over Malaysia and Indonesia.

Yes….it is operable.

Closure with a lat dorsi flap



Inoperability really depends on the surgeon's assessment. In this case, surgery was required for quick local control as the patient came with a bleeding and infected cancer. SSG for skin cover is never an option because these sort of cases will need post-operative radiotherapy or chemotherapy and SSG takes a fairly long time to heal

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Adjuvant therapy

- If all the disciplines involved in management is available in one centre, then multidisciplinary meetings can be held to discuss each patient's treatment; however in reality, some of the specialties may not be available.
- In Malaysia, there are only 60 oncologists and only 7 public oncology centres (where radiotherapy is available)
- Hence the surgeon has to counsel patients about what adjuvant therapy they need before referring them to the oncologist
- The surgeon has to know when to refer, hence guidelines are essential

Indications for adjuvant chemotherapy

From the Clinical Practice Guidelines for Management of Breast Cancer, MOH Malaysia, 2010

Adjuvant chemotherapy should be offered to all women with any of the following risk factors especially in pre-menopausal women:

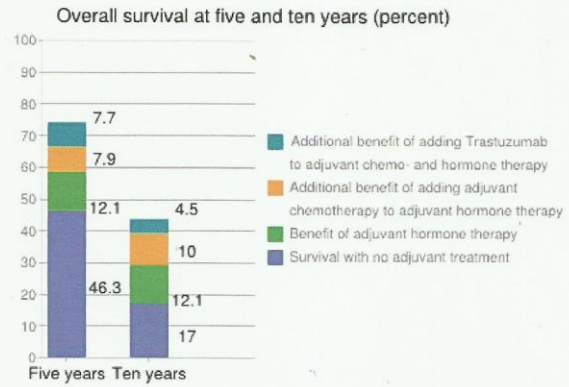
- One or more positive axillary lymph nodes
- ER and PR negative disease
- HER2 3+ disease
- Tumour size > 2 cm
- Grade 3 disease

Communicating risk to patients

- Use of breast cancer treatment outcome calculators such as PREDICT, Adjuvantonline, CancerMath
- These are tools for discussing benefit of each adjuvant therapy to patients - hormone therapy, chemotherapy, and trastuzumab
- Example – a 64 year old woman with a 3.5 cm infiltrating ductal carcinoma Grade 3, ER pos, HER2 pos, Ki 67 25%, what are the benefits of chemotherapy, hormone therapy, and trastuzumab
- Use PREDICT at http://www.predict.nhs.uk/predict.shtml

PREDICT Tool: Breast Cancer Survival

Patient name	_____
Age at diagnosis	64
Mode of detection	○ Screen-detected ◉ Symptomatic ○ Unknown
Tumour size	35 mm (blank if unknown)
Tumour grade	○ 1 ○ 2 ◉ 3 ○ Unknown
Number of positive nodes	3 (blank if unknown)
ER status	◉ Positive ○ Negative ○ Unknown
HER2 status	◉ Positive ○ Negative ○ Unknown
KI67 status	◉ Positive ○ Negative ○ Unknown
Gen chemo regimen	○ No chemo ◉ Second ○ Third



Five year survival
46 out of 100 women are alive at 5 years with no adjuvant therapy after surgery
An extra 12 out of 100 women treated are alive because of hormone therapy
An extra 20 out of 100 women treated are alive because of hormone therapy & chemotherapy
An extra 28 out of 100 women treated are alive because of hormone therapy, chemotherapy & Trastuzumab

Ten year survival
17 out of 100 women are alive at 10 years with no adjuvant therapy after surgery
An extra 12 out of 100 women treated are alive because of hormone therapy
An extra 22 out of 100 women treated are alive because of hormone therapy & chemotherapy
An extra 27 out of 100 women treated are alive because of hormone therapy, chemotherapy & Trastuzumab

*Disclaimer: **PREDICT** can only provide a general guide to possible outcomes in any individual case. As we are all different, for the more complete picture in your case, you should speak to your own specialist. You may wish to print this page out and share it with your specialist.*

Adjuvant! Online

Decision making tools for health care professionals

Welcome to Adjuvant! Online

The purpose of Adjuvant! is to help health professionals and patients with early cancer discuss the risks and benefits of getting additional therapy (adjuvant therapy: usually chemotherapy, hormone therapy, or both) after surgery.

The goal is to help health professionals make estimates of the risk of negative outcome (cancer related mortality or relapse) without systemic adjuvant therapy, estimates of the reduction of these risks afforded by therapy, and risks of side effects of the therapy. These estimates are based on information entered about individual patients and their tumors (for example, patient age, tumor size, nodal involvement, histologic grade, etc.) These estimates are then provided on printed sheets in simple graphical and text formats to be used in consultations.

Because of the complexity of interpretation of some of the input information (ambiguities about tumor size, margins, etc.), the information should be entered by a health professional with some experience in oncology (cancer medicine).

Adjuvant! Online

Decision making tools for health care professionals

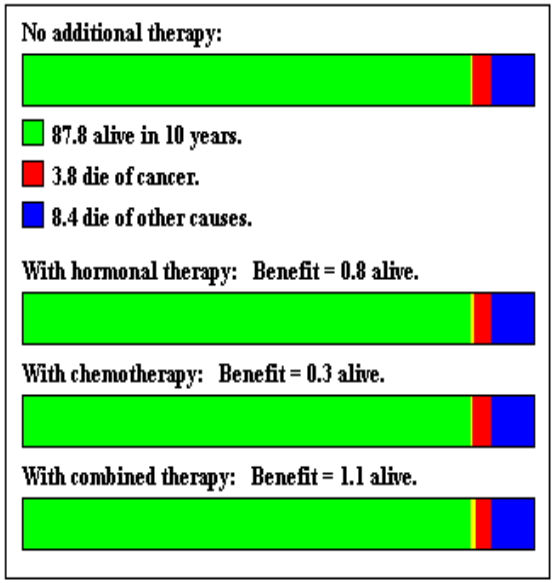
Adjuvant! for Breast Cancer (Version 8.0)

Patient Information

Age:	60
Comorbidity:	Minor Problems
ER Status:	Undefined
Tumor Grade:	Undefined
Tumor Size:	0.1 - 1.0 cm
Positive Nodes:	0
Calculate For:	Mortality
10 Year Risk:	4 Prognostic

Adjuvant Therapy Effectiveness

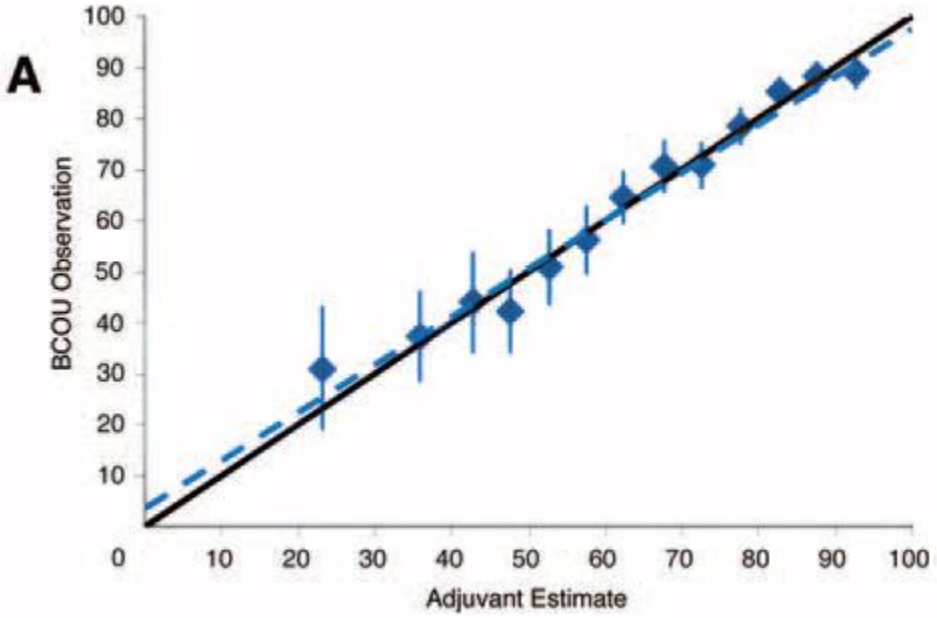
Horm:	Tamoxifen (Overview 2000)
Chemo:	CMF-Like (Overview 2000)
Hormonal Therapy:	23
Chemotherapy:	10
Combined Therapy:	31



Print Results PDF | Access Help and Clinical Evidence | Images for Consultations

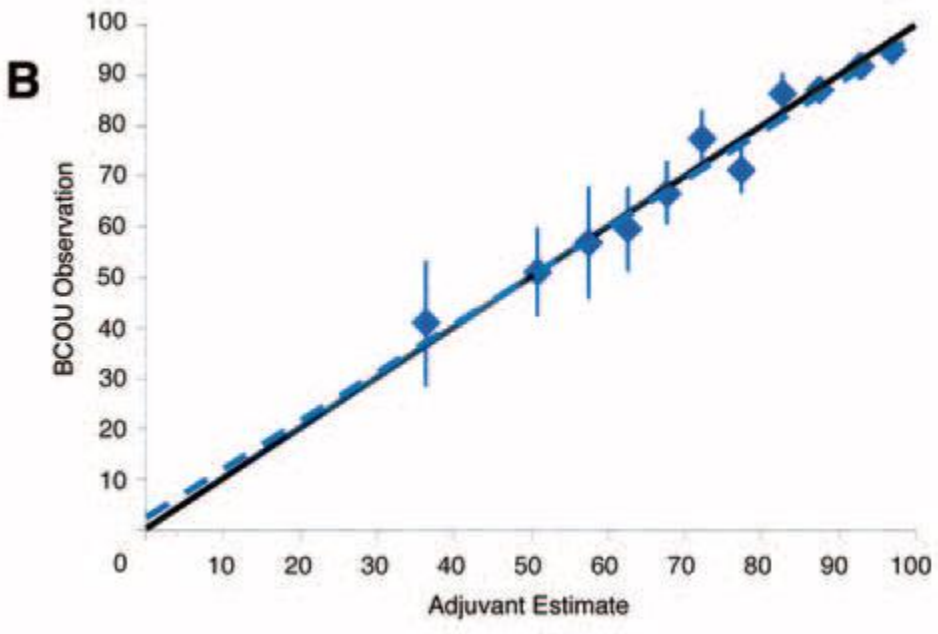
Canada (2005)

Overall survival



Olivotto IA, Bajdik CD, Ravdin PM, Speers CH, Coldman AJ, Norris BD, Davis GJ, Chia SK, Gelmon KA: Population-based validation of the prognostic model ADJUVANT! for early breast cancer. *J Clin Oncol* 2005, 23(12):2716-2725

Breast cancer specific survival



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Malaysia?

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European Journal of Cancer
Volume 48, Issue 7 , Pages 982-989, May 2012

Next »

Adjuvant! Online is overoptimistic in predicting survival of Asian breast cancer patients

Nirmala Bhoo-Pathy, Cheng-Har Yip, Mikael Hartman, Nakul Saxena, Nur Aishah Taib, Gwo-Fuang Ho, Lai-Meng Looi, Awang M. Bulgiba, Yolanda van der Graaf, Helena M. Verkooijen

published online 27 February 2012.

Abstract | Full Text | PDF | Images | References

Abstract

Background: Adjuvant! Online is a free web-based tool which predicts 10-year breast cancer outcomes and the efficacy of adjuvant therapy in patients with breast cancer. As its prognostic performance has only been validated in high income Caucasian populations, we validated the model in a middle income Asian setting.

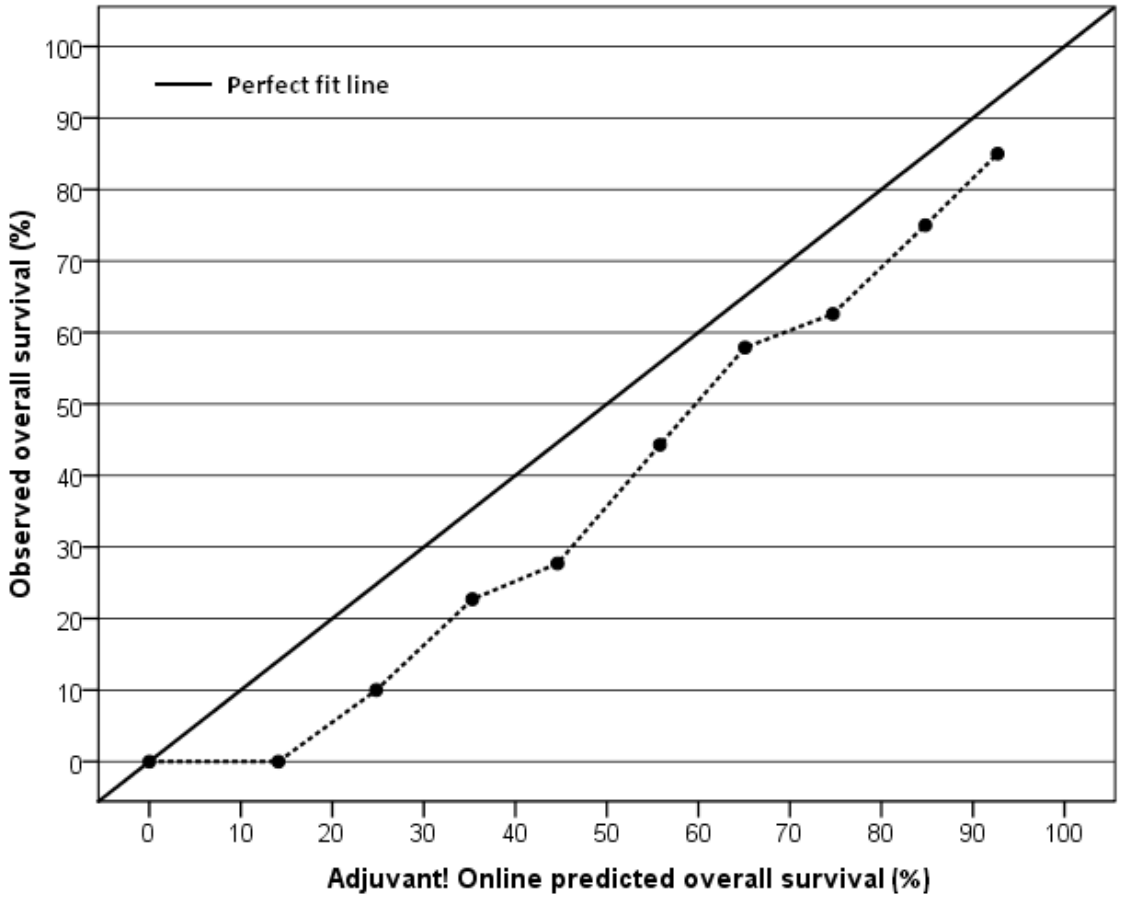
Methods: Within the University Malaya Hospital-Based Breast Cancer Registry, all 631 women who were surgically treated for invasive non-metastatic breast cancer between 1993 and 2000 were identified. The discriminative performance of Adjuvant! Online was tested using receiver operating characteristic (ROC) analysis. Calibration of the model was evaluated by comparing predicted 10-year overall survival with observed 10-year survival.

Findings: Adjuvant! Online was fairly capable in discriminating between good and poor survivors, as attested by the area under ROC curve of 0.73 (95% Confidence Interval: 0.69–0.77). Overall, Adjuvant! Online predicted 10 year survival (70.3%) was significantly higher than the observed 10 year survival (63.6%, difference of 6.7%; 95% CI: 3.0–10.4%). The model was especially overoptimistic in women under 40 years and in women of Malay ethnicity, where survival was overestimated by approximately 20% (95% CI: 9.8–29.8%) and 15% (95% CI: 5.3–24.5%) respectively.

Interpretation: Even though Adjuvant! Online is capable of discriminating between good and poor survivors, it systematically overestimates survival. These findings suggest that the model requires adaptation prior to use in Asian settings.

Keywords: Breast cancer, Prognostication tool, Asia

Observed 10-year overall survival against Adjuvant! predicted 10-year overall survival in 631 Asian women with stage I-III breast cancer.



Bhoo-Pathy N, Yip CH, Hartman M, Saxena N, Taib NA, Ho GF, Looi LM, Bulgiba AM, van der Graaf Y, Verkooijen HM. Adjuvant! Online is overoptimistic in predicting survival of Asian breast cancer patients. Eur J Cancer. 2012 May;48(7):982-9. (Tier 1 IF 4.8)) HIR acknowledged

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Conclusion

- In Malaysia, communication can be difficult because of the wide variation in ethnicity, language, and socioeconomic class
- The doctor needs to facilitate decision making by the patient
- Compliance to treatment is an issue and good communication, patient education and counseling in the clinic are essential
- The patient needs to be supported along the whole trajectory of her treatment from the beginning to the end