



# myBreast Cancer at SG51 and towards SG100

I imagine myself as a cancer physician during the time of our country's independence.

## The year was 1965.

Breast cancer was thought of as a localised disease and the dogma of the day called for drastic surgery to deliver a cure. Radical surgery, pioneered by Dr. W. S. Halsted before the First World War, was still practiced. Women underwent mutilating surgery – not only was the diseased breast entirely removed, out came the pectoralis muscles of the chest wall as well as the entire axillary content under the armpit.

Yet, after such mutilation, less than two out of ten women with breast cancer were cured of their disease long term.

“Why not be more radical?” we doctors thought to ourselves. This started the shift towards “extended radical mastectomy” with surgical removal of structures under the rib cage.

If there was ever a period of extremist fervor in medical history, this must have been it.

I imagine myself as a cancer physician the year Changi airport was built.

## The year was 1981.

A new preacher, Dr. Bernard Fisher, propagated a new dogma: Breast cancer is a whole-body, not local disease from the get-go. And radical surgery was fools' errand. We finally stopped falling over ourselves to “out-radicalised” one another. A whole-body disease required a whole-body solution.

We moved to a more scientific method of delivering chemotherapy and endocrine therapy after surgery to mop up breast cancer cells potentially lodged in all body sites.

In a step-wise fashion, chemotherapy became progressively more refined and efficacious yielding incremental improvement in cure rates of early breast cancer.

The theory of the role played by oestrogen in breast cancer was beginning to see the light of day. The search for a drug to block the binding of oestrogen to the surface receptor of the cancer cell was on.

Tamoxifen, a failed contraceptive drug, was retrieved from the trashcan and first proven to improve cure rates of early breast cancer.

If there was ever a great success story of “recycling” in medical history, this must have been it.

Tamoxifen withstood the test of time and remained a pillar of breast cancer treatment today. Thankfully, so did Changi airport and it remain the region's premium air hub.

I imagine myself as a cancer physician during the time of Singapore's transition from the first to second generation leadership and the baton was passed from Mr. Lee Kuan Yew to Mr. Goh Chok Tong.

## The year was 1990.

This was also a time of significant transition in breast cancer treatment. The pendulum, having swung from removing everything from breast to muscles to leaving the muscles alone, now swung towards the opposite end of leaving most of the breast and axillary lymph nodes in the armpit alone.



Study after study essentially showed that removing the whole breast made not one iota of difference to long-term survival versus removing just the malignant tumour followed by radiotherapy. Breast conserving treatment preserved more than just the breast. It preserved the aesthetics post cancer surgery. It preserved the psychological well being of the cancer patient.

I imagine...no, I recall myself as a cancer physician when parliament made the historic decision to grant the first casino licenses to two integrated resorts in Singapore.

### The year was 2005.

This was the year that early breast cancer treatment drew a poker full house. The smart drug, trastuzumab, first proved its ability to reduce relapse rate in a subgroup of early breast cancer by a whopping fifty percent.

Targeted therapy (a.k.a. smart drugs) had previously been shown to prolong survival in metastatic breast cancer. To demonstrate the potential of increasing the cure rate of early breast cancer was a game changer, no less.

From a poker full house, our hand had improved to a royal flush. SG50 in the year 2015 had seen advanced breast cancer of a hitherto difficult to subtype – described as HER2 positive - improve the overall survival to close to five years with dual targeted therapy. What was in the past dismissively labeled as a terminal medical condition, had achieved unprecedented survival.

I imagine myself as a cancer physician during the time our planned MRT network is finally complete.

### The year is 2030.

Just as we can reach our destinations by train regardless of geographic location in Singapore, advanced breast cancer can be controlled indefinitely through the advances in cancer immunotherapy and targeted therapy regardless of where the cancer has spread. Much like diabetes today, though not completely curable, advanced breast cancer can be successfully kept under control allowing life to go on with a near normal quality-of-life.

### I imagine myself as a retired cancer physician in 2050.

Breast cancer, both in the early and advanced forms, will be eminently curable.

This article is written by Dr Wong Seng Weng. Dr Wong is currently the Medical Director and Consultant Medical Oncologist of The Cancer Centre (Singapore Medical Group) at the Paragon and Mount Elizabeth Novena Specialists' Centres.

Dr Wong obtained his basic medical degree from the National University of Singapore (NUS) under the Lim Boon Keng and Tan Siak Kew Scholarships and graduated on the Dean's List for outstanding academic achievement. He completed his post-graduate training in Internal Medicine and obtained his Membership of the Royal College of Physicians of the United Kingdom (MRCP UK). Thereafter, he achieved Specialist Accreditation with the Ministry of Health Singapore and was admitted as Fellow of the Academy of Medicine of Singapore (FAMS) and College of Physicians of Singapore. Dr Wong continued his practice in the National University Hospital and was appointed clinical tutor of the clinical faculty of the National University of Singapore. Apart from pursuing his clinical practice, Dr Wong was keenly involved as an investigator in over twenty clinical trials exploring novel methods of cancer treatment. He previously held the posts of Consultant Medical Oncologist and Senior Partner of the Raffles Cancer Centre in charge of all oncology services at the Raffles Hospital. He was also appointed as Chairman of the Singapore Medical Group Medical Board.

Apart from his practice at The Cancer Centre, Dr Wong is currently also a visiting consultant of the National University Hospital where he is a tutor

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In the area of research, he holds the appointment of Adjunct Clinician Scientist of the Institute of Bioengineering and Nanotechnology (IBN) in the Agency for Science, Technology and Research (A\*STAR).

Dr Wong is part of the editorial advisory board of the oncology newspaper Oncology Tribune.

Dr Wong is an active member of the American Society of Clinical Oncology (ASCO) as well as the European Society for Medical Oncology (ESMO) and Singapore Society of Oncology. He lectured widely at international cancer conferences in Vietnam, China, India, Bangladesh, Malaysia and Indonesia.

Dr Wong specializes in the diagnosis and treatment of adult cancers with special interest in breast cancers, lung cancers and gastrointestinal cancers.

