Early and Accurate Screening is Key to Beating Breast Cancer

**Mammography is the gold standard in early detection of breast cancer, even before physical symptoms develop**

Breast cancer constitutes around 25% of all cancers in women and will affect 1 in 29 South Africans in their lifetimes. This figure is even higher in urban communities in South Africa, where the incidence is as high as 1 in 8 according to National Health Laboratory statistics. This insidious disease saw 1.7 million new diagnoses in 2012 alone and continues to be the subject of intensive educational campaigns to encourage women of all ages and socio-economic backgrounds to subscribe to early detection and diagnosis.

And with very good reason! “As frightening as the “Big C” is to all people, the good news is that modern medical advances and early screening and diagnosis are seeing more women than ever before surviving and beating cancer with less aggressive and invasive treatment. “ The need for early and accurate detection simply cannot be emphasized enough,” says Dr Jackie Smilg of the Radiological Society’s sub-specialty group, the Breast Imaging Society of South Africa (BISSA).

The goal of screening tests for breast cancer is to find it before it causes symptoms. Breast cancers found during screening exams are more likely to be smaller and still confined to the breast. The size of a breast cancer and how far it has spread are some of the most important factors in predicting the prognosis of a woman with this disease. As with all cancer screening, recommendations for breast cancer screening rely on a combination of factors involving evidence about the risk of the condition, the benefits and harms of screening, and the cost.

The gold standard for screening breast imaging remains the mammogram. Mammography reported by radiologists is the foundation of early detection of breast cancer. Regular mammograms can often help find breast cancer at an early stage, when treatment is most likely to be successful. One of the greatest advantages of a mammogram is that it can find breast changes years before physical symptoms develop. Results from many decades of research clearly show that women who have regular mammograms are more likely to have breast cancer found early, less likely to need aggressive treatment and more likely to be cured. It is also important to dispel the myths that the negligible doses of radiation used in modern mammography can possibly produce breast cancer or represent any danger to the body, including the thyroid gland. There is simply no scientific evidence anywhere to support this. The reality is that the overwhelming benefits of early detection afforded by mammography far outweigh any such misperceptions and myths.

“The latest mammography technology, Tomosynthesis, has brought an entirely new dimension to the fight against breast cancer. Digital tomosynthesis creates a 3-dimensional picture of the breast using X-rays. Contrast Mammography, where contrast investigates the vascularity of a lesion, is a new addition to breast imaging and promises to be a valuable problem solving tool. Adding annual screening tomosynthesis to 2D mammography beginning at age 40 is highly cost-effective compared with 2D mammography alone, according to a study published in the American Journal of Roentgenology (Aug 2016),” explains Dr Smilg.

In women with a significant family history of breast cancer or special circumstances, mammography can also be followed by ultrasound in both screening and symptomatic examinations and breast MRI.

Women are often irrationally persuaded by the fear of radiation risk, which is negligible, to use other ‘imaging techniques’ such as Thermography or the SureTouch system. “These imaging techniques are often operated by personnel with no medical training and no training in conventional
breast imaging. There is no evidence that either of these methods has any value in the screening and
detection of breast cancer when compared with mammography. They may do harm by missing
breast cancers, leading to delayed diagnosis and limited treatment options, if they are used as a
substitute for mammography,” she warns.

The Radiological Society of SA (RSSA) and its sub-specialty group, and the Breast Imaging Society of SA
(BISSA) continue to recommend that women get yearly mammograms starting at age 40. Early breast
cancer detection reduces deaths, extends life expectancy, and improves life quality. Early breast cancer
detection through mammography also enables less extensive surgery, fewer mastectomies, and less
frequent or aggressive chemotherapy. The RSSA and BISSA also agree with international organisations,
warning that any over-diagnosis claims are vastly inflated due to key methodological flaws in many
studies. It is important to point out that as shown by international studies, the vast majority of the 10%
of women returned for further examination following an inconclusive mammogram, simply received
additional mammographic views or an ultrasound for clarification. Only 1-2% of women were required
to undergo a needle biopsy as a result of a screening mammogram.

“The short-term anxiety that could come from an inconclusive test result simply doesn’t outweigh the
thousands of lives saved each year by mammography screening. Ultimately any inconclusive result
warrants further and deeper investigation. Women should decide for themselves whether the short-
term anxiety outweighs the risk of dying from breast cancer. When it comes to dealing with a
potentially life-threatening disease as pervasive as cancer, it makes absolute sense to opt for the most
effective, decisive and conclusive screening technology, which remains the mammogram,” adds Dr
Smilg.

The RSSA/BISSA encourages all women to start regular mammography from the age of 40 and
continue to do so every year until age 70, regardless of whether they have symptoms or have an
abnormality – early detection is the key objective. Women at high risk, usually due to a history of
breast cancer in a close family relative, should have annual mammograms and MRI, starting at an
age five years before the age their family member was diagnosed with breast cancer or at 40 years
– whichever comes first. High risk is defined as a lifetime risk > 20-25%. Your doctor will help you
calculate this or it can be done online at http://www.cancer.gov/bcrisktool/

Women should regularly check their breasts for any irregularities and have a clinical breast
examination by a GP or gynaecologist at least once a year. Any abnormality, regardless of age or
family history warrants an immediate medical consultation with a healthcare professional. Many lumps
may turn out to be harmless, but it is essential that all of them are checked.

In support of Breast Health Awareness Month (October 2016), all participating members of the
RSSA/BISSA are offering a 10% or more discount on mammograms and breast MRI, not paid for by
medical aid schemes, during the month of October and first half of November 2016. Terms and
conditions apply. For a list of participating members contact the RSSA on 011 794 4395, e-mail
radsoc@iafrica.com or visit www.rssa.co.za
Who is at risk of developing breast cancer?

Every woman is potentially at risk of getting breast cancer. However, there are certain factors that would put women in a higher risk category. The risk factors include:

**Age** - The risk of developing breast cancer increases as one gets older, however 1 out of 8 invasive breast cancers are found in women younger than 45.

**Family history** - Breast cancer risk is higher among women whose close blood relatives have this disease. Having one first-degree relative (parent, sibling, child or maternal grandmother) with breast cancer approximately doubles a woman's risk. Having 2 first-degree relatives increases her risk about three-fold.

**Personal history** - A woman with cancer in one breast has a 3-4 times increased risk of developing a new cancer in the other breast or in another part of the same breast. This is different from a recurrence (return) of the first cancer.

**Dense breast tissue** - Women with dense breast tissue (as identified on a mammogram) have more glandular tissue and less fatty tissue, and have a higher risk of breast cancer. Unfortunately, dense breast tissue can also make it harder for doctors to spot problems on mammograms.

**Overweight or obese women** – Research has shown that being overweight or obese increases the risk of breast and other cancers. Now, a larger study suggests that overweight and obese women diagnosed with early-stage, hormone-receptor-positive breast cancer have a higher risk of the cancer coming back (recurrence) and are less likely to survive the disease. Healthy eating and weight management is very important.

**Lifestyle factors** – excessive alcohol use, little to no physical activity, smoking and diets high in saturated fats increase the risk of breast cancer.

**Radiation to chest before 30 years of age** - Radiation to the chest to treat another cancer (not breast cancer), such as Hodgkin’s disease or non-Hodgkin's lymphoma, results in a higher-than-average risk of breast cancer.

**Race/ethnicity** - White women are slightly more likely to develop breast cancer than African American, Hispanic, and Asian women.

**Hormonal environment** - Women who haven’t had a full-term pregnancy or have their first child after age 30 have a higher risk of breast cancer compared to women who gave birth before age 30. Breastfeeding can lower breast cancer risk, especially if a woman breastfeeds for longer than 1 year. Women who started menstruating (having periods) younger than age 12 have a higher risk of breast cancer later in life. The same is true for women who go through menopause when they're older than 55. Current or recent past users of HRT have a higher risk of being diagnosed with breast cancer.

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Date: September 2016