

Late effects/side effects of breast cancer

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Aims

To increase awareness of fertility preservation referrals for younger women diagnosed with breast cancer

Review new studies in Endocrine Therapy Management

To highlight the sexual consequences of treatment for younger women diagnosed with breast cancer



Objectives

To discuss:

- Fertility issues in Younger Women with Breast Cancer
- Endocrine Therapy in Younger Women with Breast Cancer
- Sexuality concerns in Younger Women with Breast Cancer



Incidence of Younger Women with Breast Cancer

- Around 9,800 breast cancers in women under 50
- Breast cancer is the most common cancer in women aged under 40 in the UK
- Among women aged 35-39 in the UK, around 1,300 cases of breast cancer are diagnosed each year
- Younger women account for approx 20% of breast cancers at The Royal Marsden

cancerresearchuk.org (2012)



Effects of Breast Cancer Treatment on Fertility

- Chemotherapy can cause infertility by impairing ovarian function and affecting the quality and number of eggs (alkylating agents) Cyclophosphamide commonly used in breast cancer
- Taxanes not yet widely studied but evidence suggests they will also have a negative impact



Effects of Breast Cancer Treatment on Fertility

- Tamoxifen- does not directly impair fertility but due to long period of use women may naturally pass through menopause - Avoid pregnancy during use
- Herceptin- no direct affect but pregnancy to be avoided until treatment complete (up to 1 year)
- Both can affect the development of the foetus



Professional Recommendations

Every breast oncology service should have a designated pathway for prompt referral to a fertility specialist able to offer assisted conception; service provision should not be dependent on local IVF funding arrangements



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NICE Guidelines - Fertility Problems Assessment and Treatment

At diagnosis, the impact of the cancer and its treatment on future fertility should be discussed between the person diagnosed with cancer and their cancer team

Offer egg or embryo cryopreservation as appropriate to women of reproductive age (including adolescent girls) who are preparing for medical treatment for cancer that is likely to make them infertile if:

- they are well enough to undergo ovarian stimulation and egg collection and
- this will not worsen their condition and
- enough time is available before the start of their cancer treatment

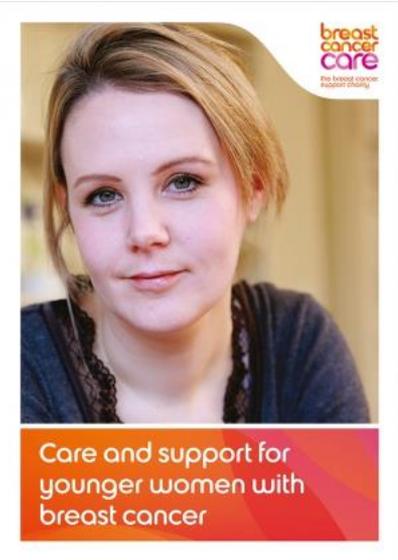


Breast Cancer Care: Standards of Care for Younger Women with Breast Cancer

As a younger woman with breast cancer you should:

- be given a full explanation **during initial treatment discussions** about the possible **impact of treatment on fertility**, including advice about contraception and pregnancy after treatment

- if appropriate, be given full information about and possibilities for **preserving fertility**, including information about the **chances of success** from fertility treatment and the **possible impact** of delaying breast cancer treatment



Breast Cancer Care: Key Fertility Findings 2013 Survey

- **34%** of breast HCPs (n=50) reported **not** discussing the possibility of treatment affecting the women's future fertility
- **Only 12%** of younger women reported being offered a referral to a fertility specialist (n=176)



Fertility Treatments

- **GnRH agonist** like Goserelin (Zoladex) during chemotherapy ? effective
- **Embryo cryopreservation** (freezing) - most commonly used and highest success rate, requires sperm partner or donor, can be stored for 10 yrs, partners permission required at time of implantation
- **Egg cryopreservation** (where no sperm is available) lower success rates due to fragility and damage to eggs during the thawing process

IVF (used for both egg and embryo techniques)

- Involves hormonal stimulation, egg retrieval and storage of eggs or embryos
- PGD pre-implantation genetic diagnosis - for BRCA affected women



Human Fertilisation and Embryology Authority (HFEA)

Less successful techniques and not widely available

- **Ovarian tissue cryopreservation**

Still in early stages of research - A section of tissue is removed and frozen, involves an operation - Tissue can then be implanted later on to start functioning and natural conception can take place - Very few live births from this technique

- **In vitro maturation (IVM)**

Very early stages, involves retrieving immature eggs that have not been stimulated by hormones - These can then be matured in the laboratory



Fertility Referrals

- LCA Guidance and recommendations for referral to fertility services. Sept 2014
- Referrals Pathways
- All referrals will also be checked for eligibility criteria for NHS funding in line with the patient's Clinical Commissioning Group.



BCC Fertility Referrals Kit

AIM : improve communication between breast and fertility clinics, ensuring that all young women are offered the opportunity to discuss their fertility preservation

INCLUDES:

- Fertility referral pathway
- Urgent fertility referral form
- Patient fertility consultation information
- Tips for healthcare professionals using the toolkit



Younger Women Champions with Breast Cancer Care

- Nurse specialists from around UK
- Meetings and sharing good practice and knowledge
- Collaboration in the developed a National Referral Fertility Toolkit to assist breast teams to make swift and appropriate referral to fertility services
- Focus on Younger Breast Cancer issues, fertility, sexuality, relationships, family, work.....



Pregnancy after Breast Cancer

- General advice wait at least two years – greatest risk of recurrence
- No increased risk of abnormality in children
- Important to discuss individually with specialists
- POSITIVE trial (Pregnancy Outcome and Safety of Interrupting Therapy for women with endocrine responsive breast cancer)

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Pregnancy and Breast Cancer



POSITIVE Study

The POSITIVE Trial: Pregnancy **O**utcome and **S**afety of **I**nterrupting **T**herapy for Women with Endocrine Respons**I**VE Breast Cancer.

- Aims to investigate if temporary interruption of endocrine therapy to achieve pregnancy is associated with a higher risk of breast cancer recurrence
- Additional study objectives and endpoints include: specific indicators related to fertility, pregnancy and the biology of breast cancer in young women
- Interested Centre's can also participate in a companion study on fertility concerns, decisional conflicts and psychological well-being for this patient cohort
- Sponsored by the International Breast Cancer Study Group (IBCSG)



Breast Cancer and Endocrine Therapy in Younger Women

- Tamoxifen
- GnRH agonist
- GnRH agonist + AI
- Duration of treatment - extended from 5-10 years

ATLAS 2013



Suppression of Ovarian Function Trial (SOFT)

- Phase III randomized
- Adjuvant tamoxifen vs tamoxifen plus ovarian suppression vs exemestane plus ovarian suppression - for 5 years.
- 2033 Premenopausal women
- Eligible: any operable breast cancer regardless of tumour stage and/or nodes.
 - Adjuvant or neo-adjuvant chemotherapy allowed
- Mean follow-up 67 months
- Primary Endpoint: disease-free survival



Tamoxifen and Exemestane Trial (TEXT)

- Phase III randomized
- Tamoxifen plus ovarian suppression versus AI exemestane plus ovarian suppression, for 5 years.
- 2359 Premenopausal women
- Eligible: operable breast cancer regardless of tumour stage and/or nodes.
- The tamoxifen/OS and AI/OS arms of SOFT would be added to the parallel arms of TEXT for the primary analysis of the tamoxifen versus AI question
- Primary end point: DFS



Overall Results

- Women who received chemotherapy had substantial reduction in risk of BC recurrence when OS added to Tamoxifen
- Risks were lowered even further in the group that received OS with an AI
- Benefits were particularly evident in women younger than 35
- S/E of menopausal symptoms greater in OS group although overall QOL similar in all groups. These S/E improved over time



Female Sexual Consequences of Treatment

Menopausal symptoms

Vasomotor Hot Flushes and Night Sweats:

Self-management advice for Vasomotor Symptoms [hot flushes night sweats]: layered clothing; cotton clothing and bedding; regular exercise; reduction in caffeine; spicy foods, alcohol & smoking. Use of practical aids such as ‘Chillows’.

Higher Level Interventions Disruptive Vasomotor Symptoms:

- Relaxation techniques, Yoga, regular physical activity
- Evidence-based Complementary Therapies, Acupuncture, CBT
- Pharmacological intervention.



Female Sexual Consequences of Treatment

Vulvo- Vaginal Changes: vaginal dryness, dyspareunia

Self-management advice:

- non-hormonal vaginal moisturizer 2-3 x per week regardless of whether sexually active or otherwise; use of water, silicone or oil-based vaginal lubricants when penetrative intercourse attempted
- avoid heavily perfumed / astringent soaps / shower, bathing or feminine hygiene products; avoid vaginal douching; consider use of emollients to wash vulva / perineum .
- Encourage smoking cessation as appropriate.

Higher Level Interventions Persistent Vulvo-Vaginal Symptoms: Consider Menopause clinic referral. Consider Gynaecological assessment.



Female Sexual Consequences of Treatment

- Psychological/ Psychosexual concerns :Loss of desire, Treatment induced orgasmic changes
- Altered Body Image

Consideration of psychological, couple or psychosexual counselling.





Sexual Consequences pathway

HNA Prompt Sheet: Sexual Consequences for Women

- NICE Menopause Guidelines 2015
- Menopause Matters



Thank You



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