THE EUROPEAN SOCIETY
OF CONTRACEPTION
AND REPRODUCTIVE
HEALTH

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https://www.escrh.eu/education/TTTtool

Contraceptive use after cancer

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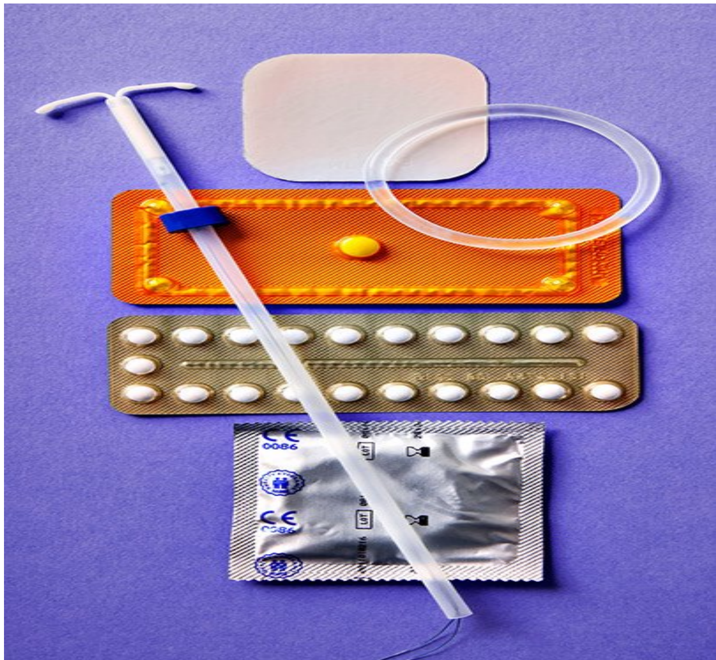
Conflicts of interest

- Adviser and lecturer for EXELTIS
- Lectures and Advisory boards Bayer
- Lectures and Advisory boards MSD
- Adviser NOVARTIS

Contraceptive use during and after cancer



Little is known:

- about unintended pregnancy,
- abortion ,
- contraceptive use
- contraception counseling

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in the context of cancer care.

Background

- Around **13%** of all cancers occur in people aged younger than 50 years.
- Some cancers and treatment **impair fertility**, but **many women are physically capable of conceiving**
- Women diagnosed with breast cancer might stop the pill but do not receive counselling about alternatives for contraception
- Young women **experience high levels of anxiety and distress** during cancer diagnosis and therapy and it can be devasting to become pregnant in this vulnerable period and cause major additional psychological distress, sadness and grieving.
- **Pregnancy during cancer treatment is strongly discouraged**, as radiotherapy and chemotherapy result in congenital malformation

The good news

- Earlier diagnosis and better treatment have improved cancer survivorship
- 80% of women diagnosed with breast cancer under the age of 50 will survive at least 5 years
- 80% of childhood cancer survivors achieve 5-year survival
- They differ with regard to age, cancer type , treatment type

Individual counselling is mandatory !

Myths and patient-related hurdles for use of contraception at cancer diagnosis and during follow-up

- Women feel overloaded with information in the moment of cancer diagnosis
- Some belief that after cancer treatment **they will be infertile**
- Others **belief** to be infertile as they do not have menstrual bleeding
- Some **belief** that hormones **have a negative impact on their future health**

Are women sexual active in the period of cancer diagnosis and treatment

Patel 2015	**Various cancers N=107**	**37% sexual active during treatment 15% used no contraception**
Quinn 2014	**Various cancers N=275**	**21% used no contraception, also they had resumed menses**

Does contraceptive counselling make a difference ?

G.Merki USZ

Contraceptive counselling

Lancet 2015: S. Han: International Network on Cancer, Infertility and Pregnancy

- Contraception counselling is just as important as infertility counselling
- In this database 3% of women became pregnant during cancer staging or treatment (34y median age)
- At pregnancy diagnosis contraception had been absent in 45% or unknow 34%
- Pregnancy outcome:
  - Termination 31%
  - Spontaneous abortion 7%
  - EUG 3%
  - Livebirth 59%

Unintended pregnancy during the first year of breast cancer diagnosis

- Unselected consecutive cohort study
- Women < 40 years at BC diagnosis n=100
- Frequency of unintended pregnancy during the first year of diagnosis

Results

- 58% were using an uneffective contraceptive method
- The rate of unintended pregnancy in this subgroup was 3.5% (n=2)

Güth, U. et al.: Breast 2015

Contraceptive counselling prior to adjuvant cancer therapy - Interview of oncologists

Of 101 oncologists only 20% confirmed that they

- informed that reliable contraception is necessary before starting adjuvant therapy
- ask patients during therapy if they use contraception
- routinely refer their patients to specialist counselling by a gynaecologist

Güth, U., Bitzer,J. et al.: Breast 2015

Abortion rates in childhood cancer survivors

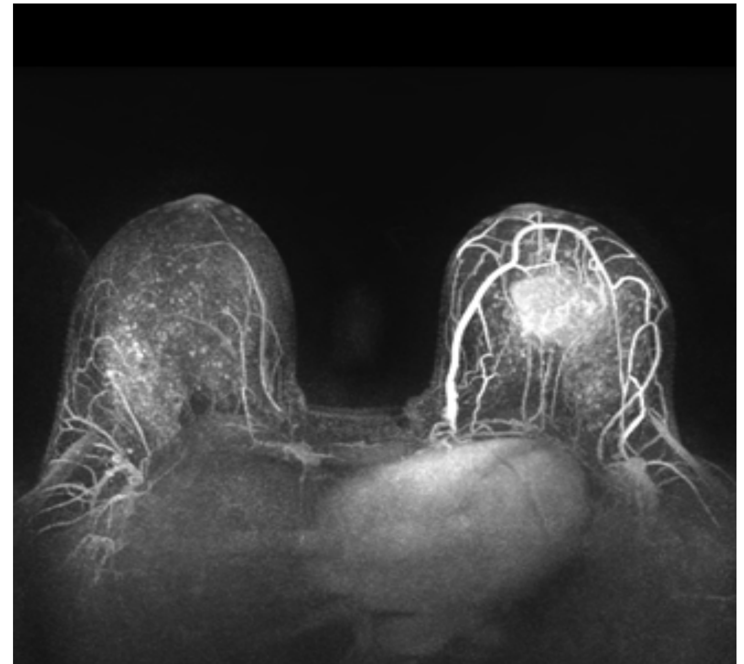
- 17% of pregnancies in 1915 survivors of childhood cancer ended in abortion
- Cancer survivors had abortions at higher rates than siblings
- In a Danish study abortion rates were 19% and did not differ from siblings or hte general population (20%).

Britton. L. et al.: CJON.ONS.ORG 2017

There are lots of different counselling situations for young cancer patients and different aspects to consider

nonhormonally mediated cancers -leukemia

hormonally mediated cancers – Breast cancer



Malignancies requiring myelosuppressive therapy

- The VTE risk usually increases in all women with a malignany
- CHC are absolutely contraindicated
- With cytopenia and prolonged myelosuppression reliable control of menstruation is necessary
- In nonhormonally mediated cancers suppression of bleeding with progestins is possible
- Consider, oral preparations may be difficult to tolerate in chemotherpeutic regimens
- Use GnRh sc analoga to suppress HPO axis during the course of anticipated cytopenia
- In breast cancer patients any hormonal treatment is contraindicated

Posttreatment contraceptive counselling

- Survey 2010, 174 questions , California, n= 2532 (1941 completed) , age 18-40 years Cancer was diagnosed 1993-2007

Women with unprotected intercourse during the last month, menstruation and no wish to conceive	21.1%
Breast cancer p. were at higher risk than other cancer p	20% vs 10%
Received pretreatment counselling	66.7%
Counselling was not associated with decreased risk	P=93
Use of a contraceptive method: *Barrier:25% Hormonal : 24%, female/male ster. 38%, IUD 7%*	46%

Sexually active cancer survivors are at threefold increased risk of unintended pregnancy in comparison with the US population

Quinn,M. et al.: Contraception 2014

Contraception after cancer treatment
Why do women not use contraception ?

- Survivors might presume they are infertile
- Health history related reasons
- Being stressed and overwhelmed

Quinn,M. et al.: Contraception 2014

Recommendation 1

Pregnancy intention screening is necessary for **all women** in their reproductive years

One Key Question for all primary providers:

Would you like to become pregnant within future?

Recommendation 2

Women with cancer and medical conditions

- Ask the key question !
- **Yes**: Counsel not only at diagnosis and before treatment but follow-up over the next years, consider the **preservation of fertility** before
- **No**: Contraception in these women can be understood as a valuable tool for timing pregnancies for periods of better health and optimise fetal outcome
- **Ambivalent:** go step by step

Table 2 Summary of contraceptive options

Type of contraception	Preparation	Failure rate	Benefits	Contraindications	Considerations
Barrier	Condom	18–21%	STI protection Easily accessible	None	
	Diaphragm	12%	Non-hormonal	None	Requires fitting by health care provider
Combined estrogen/progesterone	Pill (take daily) Vaginal ring (change monthly) Patch (change weekly)	9% 9% 9%	Ovarian cancer risk reduction Can treat heavy menstrual bleeding, painful periods, endometriosis	Severe hypertension Stroke Severe cardiac disease Migraine with aura Smoking and age > 35 SLE (with APA) History of VTE Hepatocellular adenoma or hepatoma Decompensated liver cirrhosis Breast cancer or other estrogen-dependent malignancy	Not recommended in active cancer given VTE risk
Systemic progesterone only	Pill (take daily) Injection (administered every 3 months)	9% 6%	Endometrial cancer risk reduction Can treat heavy menstrual bleeding, painful periods, endometriosis	Breast cancer	Can cause irregular bleeding Injection may delay fertility after cessation
Intrauterine device	Levonorgestrel releasing (effective up to 3 or 5 years)	0.2–0.8%	Can treat heavy menstrual bleeding and induce amenorrhea in a portion of women Convenient use	Distorted uterine cavity GTD with suspicion of intrauterine disease Active purulent cervicitis or PID	Can reduce polyps and endometrial hyperplasia in women taking tamoxifen
	Copper (effective up to 10 years)	0.2–0.8%	Non-hormonal Convenient use	Distorted uterine cavity GTD with suspicion of intrauterine disease Active purulent cervicitis or PID	Can increase menstrual pain and bleeding Can be used as emergency contraception
Implant	Subcutaneous arm implant (effective up to 3 years)	0.05%	Simple insertion Convenient use	Breast cancer	Can result in unpredictable bleeding pattern
Permanent sterilization	Bilateral tubal ligation Vasectomy	0.15–0.5%	Only permanent form of contraception	Contraindications to surgery	Irreversible, risk of patient regret Less surgical risk for vasectomy compared to tubal ligation

STI, sexually transmitted infection; *SLE*, systemic lupus erythematosus; *APA*, antiphospholipid antibody; *VTE*, venous thromboembolism; *GTD*, gestational trophoblastic disease; *PID*, pelvic inflammatory disease

Recommendation 3

Women with cancer not desiring pregnancy

Recommend contraception, even in the absence of regular cycles

Consider the potential higher VTE risk in cancer patients associated with CHC

Consider potential non-contraceptive benefits

Conclusion

- Data on contraceptive use in female cancer survival are limited
- Women continue to be sexual active also during cancer treatment
- The abortion rate in young female cancer survivors seems to be slightly higher than in the general population
- An unintended pregnancy in this situation causes a high level of distress and anxiety
- For some of these women highly specialised counselling is necessary