Indagine conoscitiva sui centri di oncofertilità

XII Commissione Affari Sociali, 3/4/2025

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IEO
Istituto Europeo di Oncologia

Sparing is caring: un futuro fertile per le giovani pazienti oncologiche

✓ **La Oncofertilità** è una **disciplina ponte** tra **oncologia e medicina della riproduzione** per assicurare a **tutte le pazienti in età riproduttiva** un **futuro fertile** (se interessate).

✓ **Aumento della sopravvivenza** per molte neoplasie diagnosticate durante l'infanzia, l'adolescenza e l'età fertile.

✓ La **fertilità** è **tra le prime 3 priorità per le giovani pazienti con cancro**

✓ **Molti trattamenti oncologici**, compresa la chirurgia ginecologica, la chemioterapia e i trattamenti endocrini **riducono la futura fertilità**

Woodruff et al; JARG 2021

Sparing is caring: un futuro fertile per le giovani pazienti oncologiche

… e non è solo la **preservazione della fertilità:**

✓ Il **counselling oncoriproduttivo** aumenta la **speranza** di **avere figli in futuro** e introduce il tema della **futura maternità da subito**

✓ **Il rimpianto** di **non aver avuto un counselling** riproduttivo **aumenta** i livelli di **ansia e stress** durante il **trattamento e il follow-up**

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RESEARCH

Thoughts about fertility among female adolescents and young adults with cancer: a qualitative study

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Abstract

Purpose Nine hundred female adolescents and young adults (AYAs) aged 15–39 are diagnosed with cancer in Denmark annually. Advances in cancer therapy have led to increased long-term survival; however, a serious side effect of cancer therapy is reduced fertility. The aim of our study was to explore the thoughts about fertility among female AYAs with cancer.

Methods Our study was conducted from September 2020 to March 2021 at the Copenhagen University Hospital, Rigshospitalet. Inclusion criteria were female AYAs with cancer aged 18–39. Twelve individual, semi-structured, qualitative interviews were performed with female AYAs with cancer (20–35 years). Data were analysed using thematic analysis.

Results Four main themes were found: (1) the female AYAs held on to a hope of having children in the future; (2) the female AYAs experienced time pressure and waiting time as a sprint as well as a marathon; (3) the female AYAs faced existential and ethical choices about survival and family formation; and (4) the female AYAs felt a loss of control of their bodies.

Conclusion Our study contributes with knowledge on how important holding on to the hope of children in the future is among female AYAs with cancer. Meanwhile, they are frustrated by the rushed decision on fertility preservation at diagnosis. The female AYAs also have existential and ethical concerns related to the choice of cancer therapy and fertility preservation. Finally, they suffer from altered body image, loss of femininity, and body control due to hormone therapy.

Keywords Adolescents and young adults · Cancer · Infertility · Concerns · Family formation · Fertility preservation

Introduction

In Denmark, approximately 900 female adolescents and young adults (AYAs) aged 15–39 are diagnosed with cancer every year [1]. For this patient group, identity development and reproductive health are essential themes given their current life situation [2]. This does not necessarily change with a cancer diagnosis — on the contrary, the issues may be reinforced, both at onset of a cancer diagnosis and into survivorship [3, 4].

Cancer therapy is often associated with permanent reduced fertility or even infertility [5]. For this reason, several international guidelines on fertility preservation in AYAs with cancer have recently been presented [6–9]. Despite these, numerous studies indicate a continuing problem regarding inadequate oncofertility counselling to AYAs with cancer [10]. We have previously explored and found that young female AYAs with cancer experienced the oncofertility counselling as unsystematized. The topic was often initiated by the patient and the information given varied, leading to mistrust and frustration [11]. Also, a minority of AYAs with cancer are referred to fertility specialists for counselling and fertility preservation prior to initiation of cancer therapy [12]. Compared to males, females are less likely to be referred and to receive fertility-preserving treatment [13].

Female AYAs often have fertility concerns when diagnosed with cancer, during their cancer course and into survivorship [14–16]. Biological motherhood can be unwillingly postponed due to recommendations on not becoming pregnant in fear of teratogenic risk and the risk of recurrence. For young breast cancer patients undergoing adjuvant endocrine therapy, this may be up to 5–10 years [17]. This

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Sparing is caring: un futuro fertile per le giovani pazienti oncologiche

Sin dal 2015 il Ministero della salute ha definito la necessità di tutela della fertilità nel paziente oncologico mediante la pubblicazione, il 27 maggio 2015, del documento « Piano nazionale per la fertilità », predisposto in esito ai lavori del Tavolo consultivo in materia di tutela e conoscenza della fertilità e prevenzione delle cause di infertilità.

A seguire, nel documento approvato il 21 febbraio 2019 dalla Conferenza Stato-regioni, Repertorio atto n. 27/CSR del 21 febbraio 2019, è esplicitato che il percorso diagnostico-terapeutico (PDTA) per la preservazione della fertilità nel paziente oncologico deve essere effettuato nell'ambito dei « Centri di oncofertilità » quali servizi integrati nella rete ospedaliera, all'interno delle Unità di Medicina e chirurgia della fertilità e come componente essenziale di una Rete oncologica dotata di tutte le professionalità.

Associazione Italiana di Oncologia Medica

Linee guida

PRESERVAZIONE DELLA FERTILITÀ NEI PAZIENTI ONCOLOGICI

Edizione 2021

In collaborazione con

Associazione Italiana Radioterapia e Oncologia clinica

Italian Germ cell cancer Group

siams Società Italiana di Andrologia e Medicina della Sessualità

SIGO SOCIETA' ITALIANA DI GINECOLOGIA E OSTETRICIA

Linea guida pubblicata nel Sistema Nazionale Linee Guida

Roma, 21 maggio 2021

Aggiornamento 10 gennaio 2022

ESMO GOOD SCIENCE BETTER MEDICINE BEST PRACTICE

ANNALS OF ONCOLOGY driving innovation in oncology

SPECIAL ARTICLE

Fertility preservation and post-treatment pregnancies in post-pubertal cancer patients: ESMO Clinical Practice Guidelines†

M. Lambertini[1,2], F. A. Peccatori[3], I. Demeestere[4], F. Amant[5,6], C. Wyns[7], J.-B. Stukenborg[8], S. Paluch-Shimon[9], M. J. Halaska[10], C. Uzan[11], J. Meissner[12], M. von Wolff[13], R. A. Anderson[14] & K. Jordan[12], on behalf of the ESMO Guidelines Committee*

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Available online 22 September 2020

Key words: cancer, Clinical Practice Guidelines, fertility, pregnancy

INTRODUCTION

Cancer remains a public health problem worldwide that also includes young adults.[1] Given the ongoing improvements in survival for most malignancies, a significant proportion of people affected by cancer face the consequences of treatment-related late effects, making survivorship an area of crucial importance.[2]

At the time of diagnosis, a significant proportion of young patients are concerned about the possible impact of anticancer treatments on their fertility and future chances of conception.[3,4] Failure to address these concerns may negatively influence their choices and adherence to the proposed anticancer treatments. Considering the rising trend in delaying childbearing and the higher number of patients who have not completed their family planning at the time of diagnosis, the demand for fertility preservation and information about the feasibility and safety of pregnancy following treatment completion is expected to increase.

These guidelines provide a framework for fertility preservation and post-treatment pregnancies in post-pubertal cancer patients and include new topics beyond the previous European Society for Medical Oncology (ESMO) recommendations published in 2013.[5] The specific issues faced by prepubertal patients, indications for fertility-sparing surgery and management of cancer diagnosed during pregnancy are beyond the scope of these guidelines.

ASSESSMENT OF GONADOTOXICITY

Oncofertility counselling

All cancer patients of reproductive age should receive complete oncofertility counselling as early as possible in the treatment planning process, irrespective of type and stage of disease. This should include discussion of the patients' current or future family desire, their health and prognosis, the potential impact of the disease and/or proposed anticancer treatment on their fertility and gonadal function, chances of future conception, pregnancy outcomes and offspring, as well as the need for effective contraception in the context of systemic anticancer treatment.[6] To ensure that patients fully understand the risk of treatment-related gonadotoxicity, they should be offered complete oncofertility counselling even if there is no interest in future children at the time of diagnosis.

Oncofertility counselling should be individualised based on patient/couple- and disease/treatment-related factors, with patient interest and age as well as type of treatment being the most important (Table 1). Written information and/or online resources should be provided to all patients, whenever possible, and should be documented in the

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E-mail: clinicalguidelines@esmo.org (ESMO Guidelines Committee).

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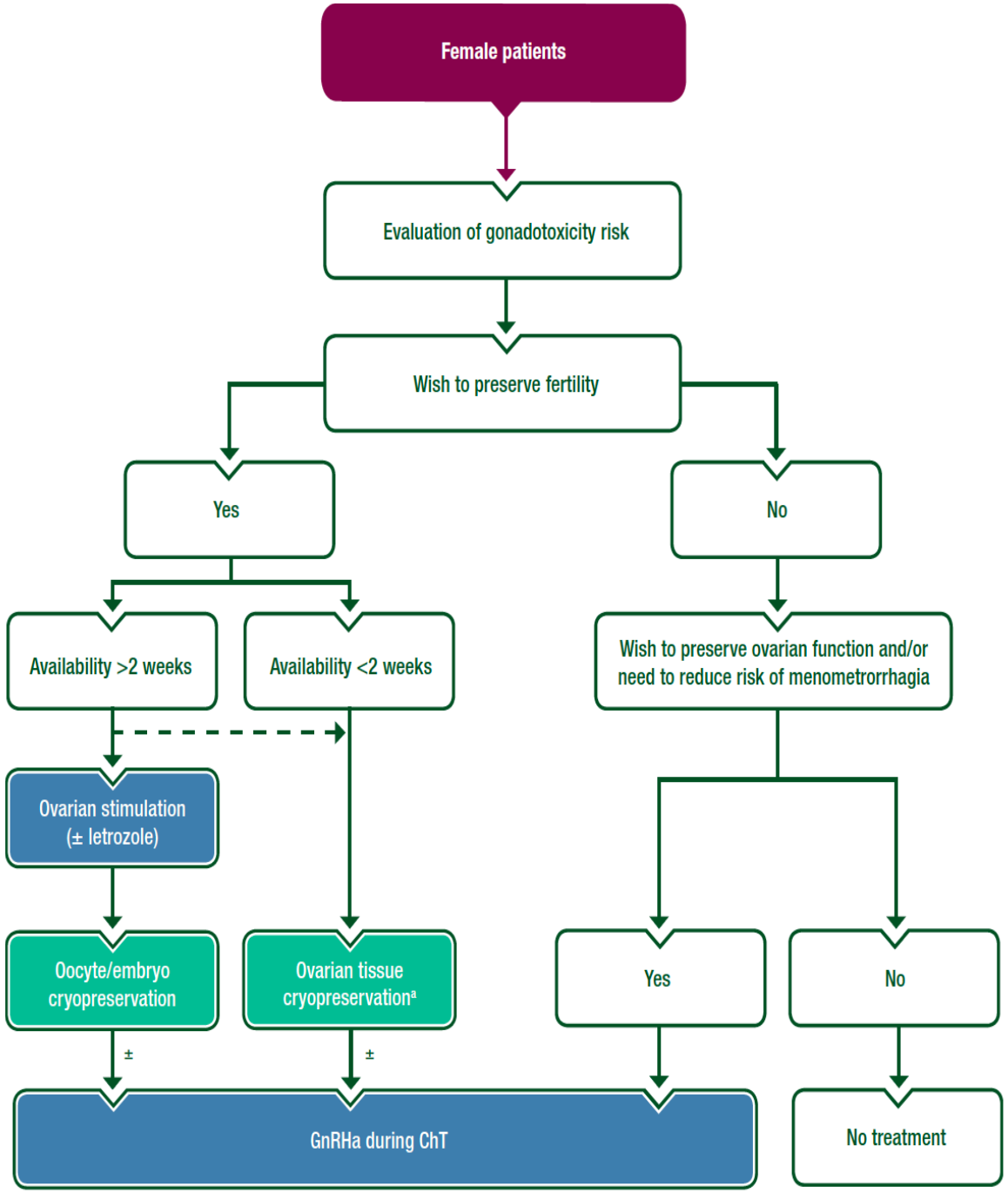

ASCO Special Articles

Check for updates

Fertility Preservation in People With Cancer: ASCO Guideline Update

H. Irene Su, MD[1]; Christina Lacchetti, MHSc[2]; Joseph Letourneau, MD[3]; Ann H. Partridge, MD[4]; Rubina Qamar, MD[5]; Gwendolyn P. Quinn, PhD[6]; Joyce Reinecke, JD[7]; James F. Smith Jr, MD[8]; Megan Tesch, MD[4]; W. Hamish Wallace, MD, FRCPCH[9]; Erica T. Wang, MD[10]; and Alison W. Loren, MD[11]

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ABSTRACT

ASCO Guidelines provide recommendations with comprehensive review and analyses of the relevant literature for each recommendation, following the guideline development process as outlined in the ASCO Guidelines Methodology Manual. ASCO Guidelines follow the ASCO Conflict of Interest Policy for Clinical Practice Guidelines.

Clinical Practice Guidelines and other guidance ("Guidance") provided by ASCO is not a comprehensive or definitive guide to treatment options. It is intended for voluntary use by clinicians and should be used in conjunction with independent professional judgment. Guidance may not be applicable to all patients, interventions, diseases or stages of diseases. Guidance is based on review and analysis of relevant literature, and is not intended as a statement of the standard of care. ASCO does not endorse third-party drugs, devices, services, or therapies and assumes no responsibility for any harm arising from or related to the use of this information. See complete disclaimer in Appendix 1 and 2 (online only) for more.

PURPOSE To provide updated fertility preservation (FP) recommendations for people with cancer.

METHODS A multidisciplinary Expert Panel convened and updated the systematic review.

RESULTS One hundred sixty-six studies comprise the evidence base.

RECOMMENDATIONS People with cancer should be evaluated for and counseled about reproductive risks at diagnosis and during survivorship. Patients interested in or uncertain about FP should be referred to reproductive specialists. FP approaches should be discussed before cancer-directed therapy. Sperm cryopreservation should be offered to males before cancer-directed treatment, with testicular sperm extraction if unable to provide semen samples. Testicular tissue cryopreservation in prepubertal males is experimental and should be offered only in a clinical trial. Males should be advised of potentially higher genetic damage risks in sperm collected soon after cancer-directed therapy initiation and completion. For females, established FP methods should be offered, including embryo, oocyte, and ovarian tissue cryopreservation (OTC), ovarian transposition, and conservative gynecologic surgery. In vitro maturation of oocytes may be offered as an emerging method. Post-treatment FP may be offered to people who did not undergo pretreatment FP or cryopreserve enough oocytes or embryos. Gonadotropin-releasing hormone agonist (GnRHa) should not be used in place of established FP methods but may be offered as an adjunct to females with breast cancer. For patients with oncologic emergencies requiring urgent oncologic therapy, GnRHa may be offered for menstrual suppression. Established FP methods in children who have begun puberty should be offered with patient assent and parent/guardian consent. The only established method for prepubertal females is OTC. Oncology teams should ensure prompt access to a multidisciplinary FP team. Clinicians should advocate for comprehensive FP services coverage and help patients access benefits.

Additional information is available at www.asco.org/survivorship-guidelines.

ACCOMPANYING CONTENT

Appendix

Data Supplement

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Evidence Based Medicine Committee approval: December 16, 2024

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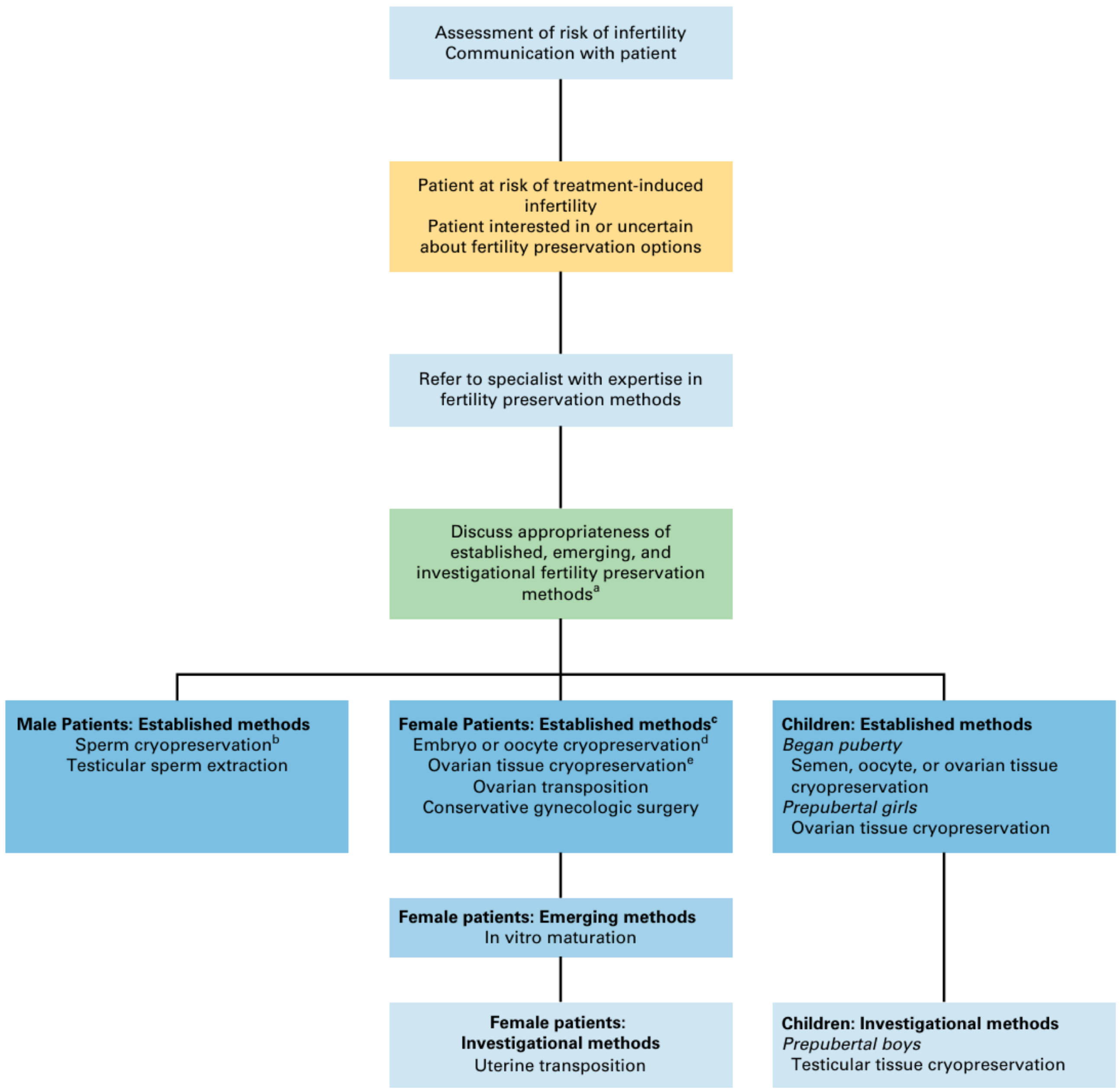
View Online Article

Fertility Preservation Assessment and Discussion Algorithm for People with Cancer



Le criticità organizzative

- ✓Creare **rete** tra i **centri oncologici**, compresi gli IRCCS oncologici, e i **centri di oncofertilità** (modello **HUB & SPOKES**)
- ✓**Censimento nazionale** (non solo tramite registro PMA) delle **strutture qualificate a svolgere counselling di oncofertilità e procedure di raccolta di gameti**
- ✓Creazione di **reti interregionali delle strutture qualificate** per discutere casi particolari con tracciabilità della discussione

Le criticità dell'accesso

- ✓ **Ampliare l'accesso** ai PDTA per la preservazione della fertilità in oncologia **anche alle pazienti che nel follow-up abbiano una documentata riduzione del potenziale riproduttivo per le pregresse terapie**
- ✓ **Ampliare l'accesso** ai PDTA per la preservazione della fertilità in oncologia anche alle **donne sane portatrici di varianti patogenetiche oncopredisponenti, candidate alla asportazione profilattica delle tube e delle ovaie durante l'età fertile** (ad esempio soggetti con varianti patogenetiche BRCA1, BRCA2, sindrome di Lynch, sindrome di Li Fraumeni etc)

Le criticità scientifiche

- ✓ Creare un **tavolo tecnico** che definisca in modo univoco e valido su tutto il territorio Nazionale i **criteri di accesso alla preservazione dei gameti** (età, valori di AMH, conta follicolare)
- ✓ Creazione di un tavolo tecnico per lo **studio della tossicità gonadica dei nuovi farmaci** compresi gli anticorpi farmaco-coniugati, l'immunoterapia, i nuovi inibitori di chinasi
- ✓ Valutare per **le pazienti oncologiche PDTA ad hoc** per **donazione eterologa di gameti** (ovodonazione) nel rispetto delle normative della legge 40

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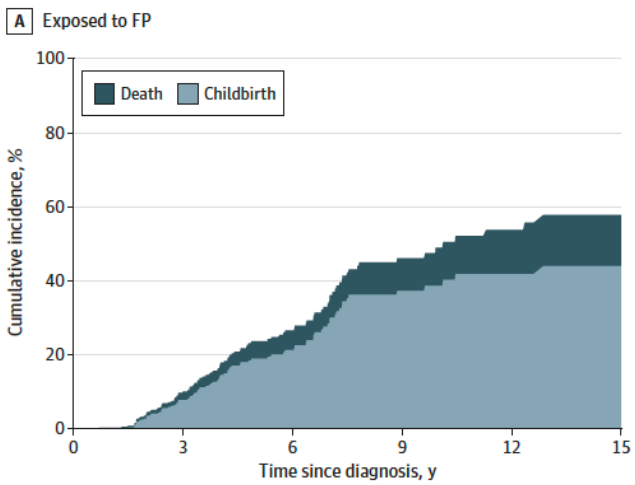
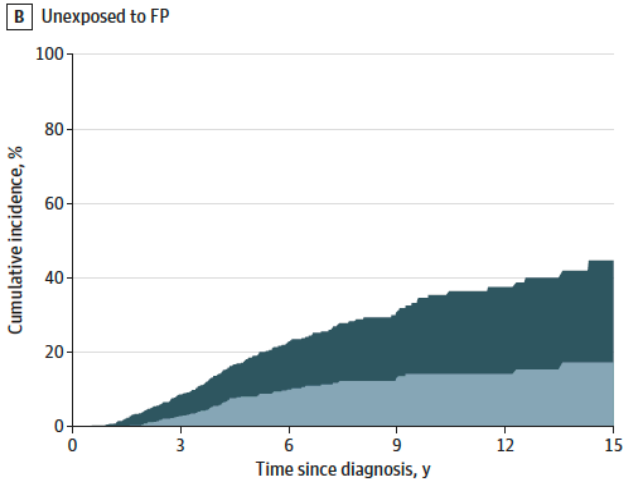


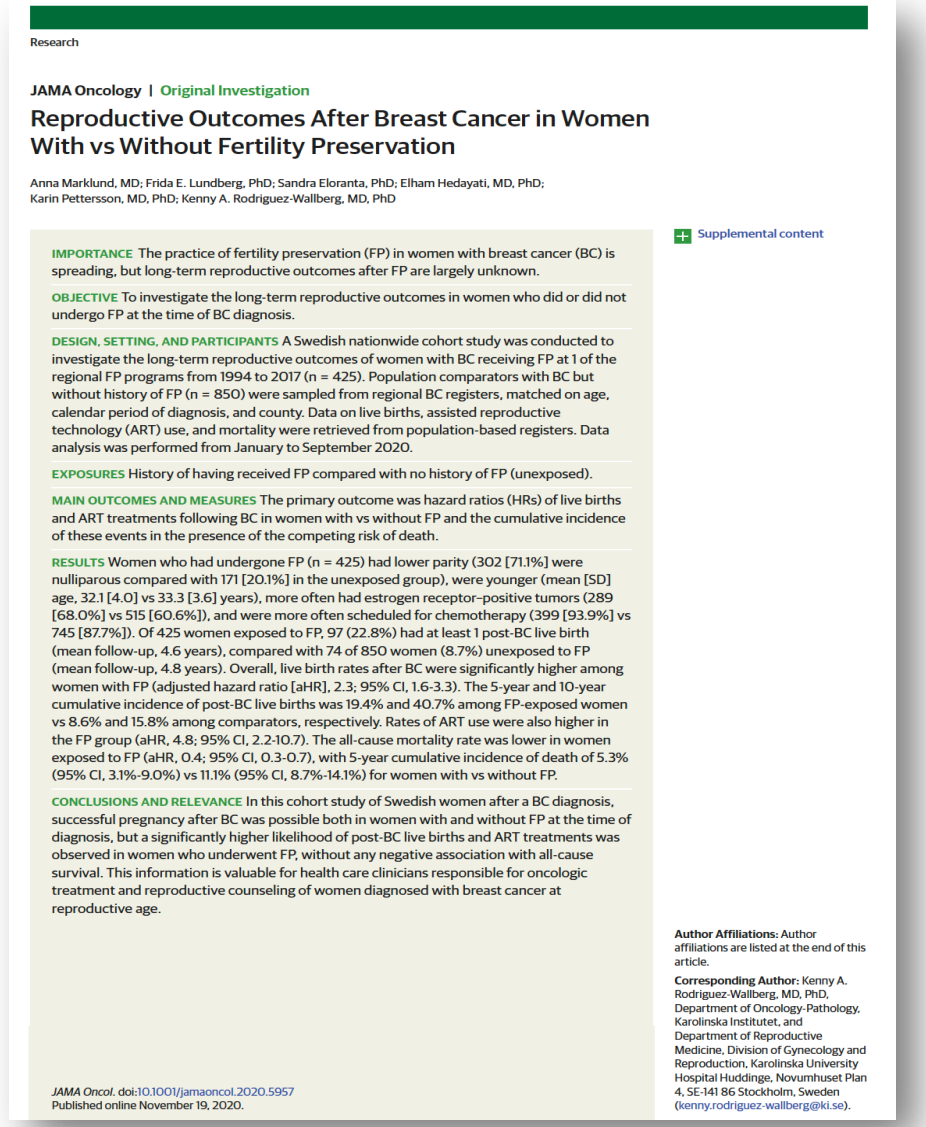
	Exposed to FP	
	5-y CIF (95% CI)	10-y CIF (95% CI)
Death	5.3 (3.1-9.0)	13.8 (8.0-23.4)
Childbirth	19.4 (15.2-24.6)	40.7 (33.0-49.5)



	Unexposed to FP	
	5-y CIF (95% CI)	10-y CIF (95% CI)
Death	11.1 (8.7-14.1)	23.2 (18.3-29.2)
Childbirth	8.6 (6.4-11.4)	15.8 (12.0-20.7)

Table. Long-term Reproductive Outcomes

Outcome	No. of events	Person-years	HR (95% CI) Model 1[a]	HR (95% CI) Model 2[b]
Post-BC live birth[c]				
Unexposed to FP	74	3753	1 [Reference]	1 [Reference]
Exposed to FP	97	1865	2.6 (1.9-3.5)	2.3 (1.6-3.3)



Research

JAMA Oncology | Original Investigation

Reproductive Outcomes After Breast Cancer in Women With vs Without Fertility Preservation

Anna Marklund, MD; Frida E. Lundberg, PhD; Sandra Eloranta, PhD; Elham Hedayati, MD, PhD; Karin Pettersson, MD, PhD; Kenny A. Rodriguez-Wallberg, MD, PhD

IMPORTANCE The practice of fertility preservation (FP) in women with breast cancer (BC) is spreading, but long-term reproductive outcomes after FP are largely unknown.

OBJECTIVE To investigate the long-term reproductive outcomes in women who did or did not undergo FP at the time of BC diagnosis.

DESIGN, SETTING, AND PARTICIPANTS A Swedish nationwide cohort study was conducted to investigate the long-term reproductive outcomes of women with BC receiving FP at 1 of the regional FP programs from 1994 to 2017 (n = 425). Population comparators with BC but without history of FP (n = 850) were sampled from regional BC registers, matched on age, calendar period of diagnosis, and county. Data on live births, assisted reproductive technology (ART) use, and mortality were retrieved from population-based registers. Data analysis was performed from January to September 2020.

EXPOSURES History of having received FP compared with no history of FP (unexposed).

MAIN OUTCOMES AND MEASURES The primary outcome was hazard ratios (HRs) of live births and ART treatments following BC in women with vs without FP and the cumulative incidence of these events in the presence of the competing risk of death.

RESULTS Women who had undergone FP (n = 425) had lower parity (302 [71.1%] were nulliparous compared with 171 [20.1%] in the unexposed group), were younger (mean [SD] age, 32.1 [4.0] vs 33.3 [3.6] years), more often had estrogen receptor–positive tumors (289 [68.0%] vs 515 [60.6%]), and were more often scheduled for chemotherapy (399 [93.9%] vs 745 [87.7%]). Of 425 women exposed to FP, 97 (22.8%) had at least 1 post-BC live birth (mean follow-up, 4.6 years), compared with 74 of 850 women (8.7%) unexposed to FP (mean follow-up, 4.8 years). Overall, live birth rates after BC were significantly higher among women with FP (adjusted hazard ratio [aHR], 2.3; 95% CI, 1.6-3.3). The 5-year and 10-year cumulative incidence of post-BC live births was 19.4% and 40.7% among FP-exposed women vs 8.6% and 15.8% among comparators, respectively. Rates of ART use were also higher in the FP group (aHR, 4.8; 95% CI, 2.2-10.7). The all-cause mortality rate was lower in women exposed to FP (aHR, 0.4; 95% CI, 0.3-0.7), with 5-year cumulative incidence of death of 5.3% (95% CI, 3.1%-9.0%) vs 11.1% (95% CI, 8.7%-14.1%) for women with vs without FP.

CONCLUSIONS AND RELEVANCE In this cohort study of Swedish women after a BC diagnosis, successful pregnancy after BC was possible both in women with and without FP at the time of diagnosis, but a significantly higher likelihood of post-BC live births and ART treatments was observed in women who underwent FP, without any negative association with all-cause survival. This information is valuable for health care clinicians responsible for oncologic treatment and reproductive counseling of women diagnosed with breast cancer at reproductive age.

Supplemental content

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Grazie!

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