

Disclaimer: This algorithm has been developed for MD Anderson using a multidisciplinary approach considering circumstances particular to MD Anderson's specific patient population, services and structure, and clinical information. This is not intended to replace the independent medical or professional judgment of physicians or other health care providers in the context of individual clinical circumstances to determine a patient's care. This algorithm should not be used to treat pregnant women.

INITIAL PRESENTATION

Patients at risk for treatment-induced infertility

Care Team informs patients of:

- Risk of infertility from treatment(s)
- Options to preserve fertility if interested
- Availability of fertility counseling
- Confirmation that infertility risk has been explained
- Refer to fertility preservation informational resources
- Facilitate referral (if interested) for a fertility counseling
- Facilitate referral to ethics if needed

All patients should be asked if fertility is important¹, preferably in private

Patient interested in or uncertain about fertility preservation options¹?

EVALUATION

Yes
 Consult oncofertility specialist and determine if eligible for fertility preservation² (see [Appendix A](#) for fertility consults/referrals)

Eligible for fertility preservation?

No
 Consider patient educational material on fertility and family building after cancer treatment (see [Appendix C](#) for patient education and websites)

FOLLOW-UP

Yes
 Fertility preservation method completed³?

Yes
 Begin cancer treatment recommendations

No
 Individualized care based on clinical indications

Consider alternative options for fertility and family building⁴

¹ **Fertility consideration (if clinically appropriate)**

- Fertility decisions should be based on an patient's values, beliefs, morals, culture, and religious practices
- Assessment and informative discussion of fertility desires should be conducted as part of treatment planning options that may impact fertility options
- Fertility consult criteria:
 - Fertility concerns
 - Fertility risks

² **Assess need for:**

- Referral to psychiatry or reproductive medicine psychologist for decision and emotional support
- Financial counseling regarding fertility preservation by fertility specialist
- For patients ≤ 39 years of age, consider additional referral to AYA program

³ **Fertility preservation options and length of time needed prior to starting cancer treatment that can impact fertility:**

- Cryopreservation of embryos: 2-3 weeks needed
- Cryopreservation of oocyte: 2-3 weeks needed
- Cryopreservation of ovarian tissue: variable

Investigational fertility preservation options

- Ovarian suppression: up to 10 days needed

⁴ **Other options for fertility and parenthood**

- Donor eggs and embryos
- Adoption
- Gestational surrogacy
- Spontaneous conception
- Assisted reproduction

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INITIAL PRESENTATION

Patients at risk for treatment-induced infertility

- Care Team informs patients of:
- Risk of infertility from treatment(s)
 - Options to preserve fertility if interested
 - Availability of fertility counseling
 - Confirmation that infertility risk has been explained
 - Refer to fertility preservation informational resources
 - Facilitate referral (if interested) for fertility counseling
 - Facilitate referral to ethics if needed

All patients should be asked if fertility is important¹, preferably in private

Patient interested in or uncertain about fertility preservation options¹?

EVALUATION

Patient ≤ 39 years of age?

Yes
 Consider referral to AYA Program (see [Appendix A](#) for fertility consults/referrals and [Appendix B](#) for sperm banking)

No
 Consult oncofertility specialist and determine if eligible for fertility preservation² (see [Appendix A](#) for fertility consults/referrals and [Appendix B](#) for sperm banking)

No
 Consider patient educational material on fertility and family building after cancer treatment (see [Appendix C](#) for patient education and websites)

Eligible for fertility preservation?

FOLLOW-UP

Yes
 Fertility preservation method completed³?

Yes
 Begin cancer treatment recommendations

No
 Individualized care based on clinical indications

No
 Consider alternative options for fertility and family building⁴

¹ **Fertility consideration (if clinically appropriate)**

- Fertility decisions should be based on a patient's values, beliefs, morals, culture, and religious practices
- Assessment and informative discussion of fertility desires should be conducted as part of treatment planning options that may impact fertility options
- Fertility consult criteria:
 - Fertility concerns
 - Fertility risks

² **Assess need for:**

- Referral to psychiatry or reproductive medicine psychologist for decision and emotional support
- Financial counseling regarding fertility preservation by fertility specialist

³ **Fertility preservation options and length of time needed prior to starting cancer treatment that can impact fertility:**

- Cryopreservation of sperm: 1-3 days needed

Investigational fertility preservation options

- Cryopreservation of testicular tissue: variable

⁴ **Other options for fertility and parenthood**

- Donor sperm and embryos
- Adoption
- Spontaneous conception
- Assisted reproduction

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APPENDIX A: Fertility Consults & Referrals

Oncofertility Program at MD Anderson

Established in 2012, the MD Anderson Oncofertility Service offers comprehensive fertility counseling and services to MD Anderson patients before and after treatment. Housed in the Department of Gynecologic Oncology and Reproductive Medicine, it is staffed by two board-certified Reproductive Endocrinology and Infertility specialists and an Advanced Practice Provider with expertise in oncofertility. The service offers:

- Comprehensive, patient-centered fertility counseling before and after cancer treatment
- Assessment of fertility status
- Discussion of options for parenthood after cancer
- Streamlined access to fertility preservation methods including ovarian and testicular tissue freezing, egg freezing, sperm banking, and embryo freezing through our partnership with Baylor College of Medicine
- Streamlined access to post-treatment fertility options including ovulation induction, intrauterine insemination, in vitro fertilization (IVF) and third-party reproduction (donor eggs, donor sperm, donor embryos and gestational carriers)
- Discussion of preimplantation genetic testing, including PGT-A and PGT-M for patients who carry inherited mutations that can cause cancer
- Collaborative care with the oncologist

To order consult or referral

- **Ambulatory referral:** Place order for Ambulatory Referral to Gynecologic Oncology Center and choose Onco Fertility button. For other gynecological concerns, consider referral to “General Gynecology”
- **Inpatient consult:** Place order for Consult to Fertility Specialist and e-mail: fertility@mdanderson.org
- **For any urgent consults and referral:** e-mail: fertility@mdanderson.org

Adolescents and Young Adults (AYA) at MD Anderson

The MD Anderson AYA program serves patients whether in active treatment or post-therapy survivorship. The AYA team includes both pediatric and adult oncologists, two Advanced Practice Providers with expertise in survivorship and late effects, a psychologist with training in vocational counseling, and a dedicated social work counselor. Through our comprehensive services, the program can help AYAs with coping, relationships, school, career goals, long-term health, quality of life issues, and fertility concerns. In regard to fertility, the service offers:

- AYA patient navigator to assist in coordination of inpatient sperm banking
- Fertility risk counseling
- Education regarding fertility preservation options
- Referral to male and female reproductive specialists including the MD Anderson Oncofertility Service for fertility preservation and family building options
- Assistance identifying financial and support resources

To order consult or referral

- **Ambulatory referral:** place order for Ambulatory referral to AYA and select Fertility counseling as reason for referral
- **Inpatient consult:**
Page Donna A. Bell, MSN, RN, NP-C at 713-606-2256 or
Page John Andrew Livingston, MD at 713-606-1790
- **For general questions:**
 - Call the Child and Adolescent Center Clinic at 713-792-6610
 - E-mail: aya@mdanderson.org

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APPENDIX B: Sperm Banking

Baylor Special Procedures Lab	Fairfax Cryobank
<ul style="list-style-type: none"> • Contact information: 6624 Fannin St., Suite 1705 Houston, TX 77030 Phone: 713-798-4027 Fax: 713-798-6679 • Lab hours: Monday through Friday 9 AM to 4 PM • Cost: out-of-pocket \$550. It covers preparation and one year of banking. Additional payment if infectious disease testing is not covered by patient’s insurance. Costs are subject to change, patient can ask at time of making appointment. • Special Procedures Lab <ul style="list-style-type: none"> ○ Treating team can directly refer to Baylor Special Procedures Lab ○ Patients need to have a cryopreservation referral form completed by their physician. To request a referral, call 713-798-4027 ○ The form should be completed and faxed to Baylor requesting cryopreservation: fax number: 713-798-6679 ○ Appointment is required. Call facility and state “urgent” if sperm banking needs to be done on the same day ○ Baylor will draw their own FDA required infectious disease testing at patient appointment and bill the insurance for ID testing • Sperm banking from inpatient consult <ul style="list-style-type: none"> ○ Must notify lab that sample will be arriving shortly. The lab requires to prepare special equipment set up for sperm banking ○ Blood and testing to be drawn by inpatient staff and urine sample provided by patient for transport to lab ○ Baylor lab will coordinate payment with patient over the phone 	<ul style="list-style-type: none"> • Contact information: 1213 Hermann Dr. Suite 580 Houston, TX 77004 Phone: 713-936-9600 Fax: 713-583-8583 • Lab hours: Monday through Friday 9 AM to 5 PM. Accept samples until 1 PM. • Cost: out-of-pocket \$350. It covers banking, initial processing of sample and one year of banking. Cost are subject to change, contact lab to confirm. Grants for sperm banking are available for AYA patients • Special Procedures Lab <ul style="list-style-type: none"> ○ Require HIV, Hepatitis B & C. ○ Facility can draw required infectious disease testing or accept outside lab results.

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APPENDIX C: Patient Education and Websites

MDACC Patient Education (available through Patient Education Online)

- Fertility Preservation Options for Men and Women
- Fertility Options for Men Diagnosed with Cancer: Sperm Banking
- Fertility Options for Women Diagnosed with Cancer
- Pregnancy Test
- Fertility and Cancer Recommended Resources (The Learning Center): Provides a list of pamphlets, books and websites that are available to patients

Websites

www.ReproductiveFacts.org: The patient education website of the American Society for Reproductive Medicine. Under the publications tab, it includes printable informational booklets and fact sheets about a variety of issues including “Age and Fertility,” “Assisted Reproductive Technologies,” “Cancer and Fertility Preservation,” “Adoption,” and “Third Party Reproduction.”

www.livestrong.org: The national LIVESTRONG initiative dedicated to providing reproductive information, support and hope to cancer patients and survivors whose medical treatments present the risk of infertility. In addition to providing patient education and support, it also offers financial assistance for fertility and family building services.

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