Fertility Preservation to Cancer Treatment

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. This algorithm should not be used to treat pregnant women.

Provider\(^1\) informs patients of:
- Risk of infertility from treatment(s)
- Options to preserve fertility if interested
- Availability of fertility specialist

Nurses role:
- Confirmation that infertility risk has been explained
- Refer to fertility preservation informational resources
- Facilitate referral (if interested) to a fertility specialist

All patients should be asked if fertility is important, preferably in private.\(^2\)

Patients at risk for treatment-induced infertility and interested in or uncertain about fertility preservation options?\(^2\)

- Yes
  - Consult fertility specialist and determine if eligible for fertility preservation.\(^3\)
  - See Appendix A for sperm banking and fertility consults.
- No
  - Provide patient educational material on fertility and family building after cancer treatment. See Appendix B for websites and patient education.

Fertility preservation method completed?\(^2\)

- Yes
  - Eligible for fertility preservation?
    - Yes
      - Begin cancer treatment recommendations
    - No
      - Consider alternative options for fertility and family building.\(^2\)
- No
  - Individualized care based on clinical indications

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\(^1\) Provider is defined as physician, pharmacist, nurse practitioner or physician assistant.

\(^2\) Important Information (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:
  - Male greater or equal to 10 years old*\(^1\)
  - Premenopausal female greater or equal to 10 years old*\(^1\)
- See policy assent for pediatric patients

\(^3\) Assess need for:
- Referral to psychiatry or reproductive medicine psychologist for decision and emotional support
- Financial counseling regarding fertility preservation by fertility specialist

\(^4\) Other Options for Fertility and Parenthood
- Donor eggs, sperm, and embryos
- Adoption
- Gestational Surrogacy

\(^5\) Fertility Preservation Options and length of time needed prior to starting cancer treatment that can impact fertility:
- Cryopreservation of sperm 1-3 days needed
- Cryopreservation of embryos 2-3 weeks needed
- Cryopreservation of oocyte 2-3 weeks needed

Investigational Fertility Preservation Options
- Ovarian Suppression up to 10 days needed
- Cryopreservation of ovarian or testicular tissue

Approved by The Executive Committee of the Medical Staff 11/29/2016
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APPENDIX A: Sperm Banking and Fertility Consults

Consult for female fertility preservation or counseling for male fertility preservation at MD Anderson

Go to Medications and Orders in OneConnect. Select Ambulatory Referral to Gynecologic Oncology Center and choose Onco Fertility button.

For urgent consults, e-mail: Terri Woodard, MD at tlwoodard@mdanderson.org or Deborah Holman, RN, MSN, WHNP-BC at daholman@mdanderson.org

Sperm banking at Baylor College of Medicine’s Department of Urology

Special Procedures Lab- upfront cost for analysis and one year storage $550-$650, without insurance infectious disease testing may be additional.

Phone number 713-798-4027

Lab hours are Monday through Friday, 8 a.m. to 5 p.m.

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.

Same day appointments are often available.

Consult for pediatric fertility preservation or counseling at MD Anderson

Go to Medications and Orders in OneConnect. Select Ambulatory Referral to Gynecologic Oncology Center and choose Onco Fertility button.

Call the Child and Adolescent Center Clinic at 713-792-6610

For inpatient consults and urgent consults, page Donna A. Bell, MSN, RN, NP-C at 713-606-2256 or page John Andrew Livingston, MD at 713-606-1790.
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APPENDIX B: Patient Education and Websites

<table>
<thead>
<tr>
<th>MDACC Patient Education (available through patient education online)</th>
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<tbody>
<tr>
<td>Fertility Options for Men and Women</td>
</tr>
<tr>
<td>Fertility Options for Men who Need Cancer Treatment</td>
</tr>
<tr>
<td>Fertility Options for Women Who Need Cancer Treatment</td>
</tr>
<tr>
<td>Pregnancy and Cancer</td>
</tr>
<tr>
<td>Pregnancy Test</td>
</tr>
<tr>
<td>Preventing Pregnancy during Cancer Treatment</td>
</tr>
<tr>
<td>Sexuality and Cancer</td>
</tr>
<tr>
<td>Pathfinder--Fertility and Cancer: Provides a list of pamphlets, books and websites that are available to patients.</td>
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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.

Videos- Fertility Options for Female patients

The Female Reproductive System: [http://www3.mdanderson.org/streams/FullVideoPlayer.cfm?mediaID=297C3559-01F5-4F33-B2FC-8B046AEA7C85](http://www3.mdanderson.org/streams/FullVideoPlayer.cfm?mediaID=297C3559-01F5-4F33-B2FC-8B046AEA7C85)
Family Planning After Cancer Treatment: [http://www3.mdanderson.org/streams/FullVideoPlayer.cfm?mediaID=0BE83F30-C1E7-48AF-8035-52EE778DDF63](http://www3.mdanderson.org/streams/FullVideoPlayer.cfm?mediaID=0BE83F30-C1E7-48AF-8035-52EE778DDF63)
Fertility Consultation: [http://www3.mdanderson.org/streams/FullVideoPlayer.cfm?mediaID=45EB224B-D593-4B52-8D1D-E9AF5130B97E](http://www3.mdanderson.org/streams/FullVideoPlayer.cfm?mediaID=45EB224B-D593-4B52-8D1D-E9AF5130B97E)
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SUGGESTED READINGS

Anderson RA, Wallace H, et al. (2013). Antimüllerian hormone, the assessment of the ovarian reserve, and the reproductive outcome of the young patient with cancer.

Cobo A, Garcia-Velasco JA, Domingo J, et al. (2013). Is vitrification of oocytes useful for fertility preservation for age-related fertility decline and in cancer patients?

Cobo A, Garcia-Velasco JA, Domingo J, et al. (2013). Is vitrification of oocytes useful for fertility preservation for age-related fertility decline and in cancer patients?


This practice consensus algorithm is based on majority expert opinion of the Fertility Policy Workgroup and Algorithm by the faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following medical, radiation, and surgical oncologists.

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