MC1631 / 15-006137

A Randomized Trial of 15 Fraction versus 25 Fraction Pencil Beam Scanning Proton Radiotherapy After Mastectomy in Patients Requiring Regional Nodal Irradiation

NCT02783690

Document Date: 04/18/2018

MAYO CLINIC

Name and Clinic Number

Approval Date: **April 18, 2018**
Not to be used after: **April 17, 2019**

RESEARCH PARTICIPANT CONSENT AND PRIVACY AUTHORIZATION FORM

Study Title: MC1631: A randomized trial of 15 fraction vs 25 fraction pencil beam scanning proton radiotherapy after mastectomy in patients requiring regional nodal irradiation

IRB#: 15-006137

Principal Investigator: Dr. Robert W. Mutter and Colleagues

Please read this information carefully. It tells you important things about this research study. A member of our research team will talk to you about taking part in this research study. If you have questions at any time, please ask us.

Take your time to decide. Feel free to discuss the study with your family, friends, and healthcare provider before you make your decision.

To help you decide if you want to take part in this study, you should know:

- Taking part in this study is completely voluntary.
- You can choose not to participate.
- You are free to change your mind at any time if you choose to participate.
- Your decision won't cause any penalties or loss of benefits to which you're otherwise entitled.
- Your decision won't change the access to medical care you get at Mayo Clinic now or in the future if you choose not to participate or discontinue your participation.

For purposes of this form, Mayo Clinic refers to Mayo Clinic in Arizona, Florida and Rochester, Minnesota; Mayo Clinic Health System; and all owned and affiliated clinics, hospitals, and entities.

If you decide to take part in this research study, you will sign this consent form to show that you want to take part. A copy of this form will be put in your medical record and viewable from the Patient Portal. However, you may also request a paper copy.

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CONTACT INFORMATION

You can contact …	At …	If you have questions about …
Principal Investigators: Dr. Robert W. Mutter (Rochester) **Co-Principal Investigator** Dr. Carlos Vargas (Arizona) **Study Team Contacts:** Stephanie Gunderson (Rochester) Manuel Vargas Jr., R.N. (Arizona)	**Phone:** (507) 284-8227 **Phone:** (507) 293-0171 **Phone:** (480) 342- 1262 **Phone:** (480) 342-4146 **Address:** Mayo Clinic Rochester 200 1st St SW Rochester, MN 55905 Mayo Clinic Arizona 13400 East Shea Blvd Scottsdale, AZ 85259	▪ Study tests and procedures ▪ Research-related injuries or emergencies ▪ Any research-related concerns or complaints ▪ Withdrawing from the research study ▪ Materials you receive ▪ Research-related appointments
Mayo Clinic Institutional Review Board (IRB)	**Phone:** (507) 266-4000 **Toll-Free:** (866) 273-4681	▪ Rights of a research participant

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You can contact …	At …	If you have questions about …
Research Subject Advocate (The RSA is independent of the Study Team)	**Phone:** (507) 266-9372 **Toll-Free:** (866) 273-4681 **E-mail:** researchsubjectadvocate@mayo.edu	▪ Rights of a research participant ▪ Any research-related concerns or complaints ▪ Use of your Protected Health Information ▪ Stopping your authorization to use your Protected Health Information
Research Billing	**Rochester, MN:** (507) 266-5670 **Arizona:** (800) 603-0558	▪ Billing or insurance related to this research study

Other Information:
A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Website will not include information that can identify you. At most, the Website will include a summary of the results. You can search this Website at any time.

A description of this research study will be available on http://www.mayo.edu/research/clincial-trials. This website will not include information that can identify you. You can search this website at any time.

1. Why are you being asked to take part in this research study?

You are being asked to take part in this research study because you have been diagnosed with breast cancer and have had a mastectomy. Your physician feels that the best radiation option for you is proton radiotherapy.

2. Why is this research study being done?

The optimal dose and number of fractions of proton therapy for breast cancer is not known. This research is being done to compare the symptoms and outcomes of patients treated with 15 daily fraction proton radiation versus 25 daily fraction proton radiation therapy.

3. Information you should know

Who is Funding the Study?

Mayo Clinic Radiation Oncology is funding the study.

4. How long will you be in this research study?

You will be in this research study for five years. The duration of radiation therapy will be 15-25 business days, depending on which group you are assigned to. Follow up visits will be scheduled at the following time points: about 3 months after the completion of your treatments, 1 year, 2 years, 3 years, and 5 years after the completion of your treatments.

5. What will happen to you while you are in this research study?

Before you begin the study:
Before beginning any research activities you will sign this informed consent form. You will need to have the following exams, tests and procedures. These exams, tests and procedures may be part of regular cancer care and may be done even if you do not join this study.

- History and physical exam, including a breast assessment/exam
- Mammogram
- Questionnaires
- Digital Photograph
- Cosmetic Assessment
- Echocardiography (if applicable)
- Radiation Toxicity Assessment
- Research Blood Sample (if applicable)
- Serum pregnancy test (if you are of child-bearing potential)

If you consent to be on this study, you will also be asked to consent to participate in:

- The Mayo Clinic Department of Radiation Oncology registry. For the registry, a baseline blood sample will be drawn prior to radiation for future research purposes. We hope these samples will help us learn more about why some patients develop side effects from radiotherapy.

- A study evaluating cardiac function with echocardiography for patients receiving radiation therapy. For the cardiac function study, an echocardiograph will be performed prior to treatment, during treatment, at the end of treatment; 3 months post treatment, and 1 year post treatment (Rochester site only)

If all the required tests and exams show that you can be in the study and if you choose to take part, you will be "randomized" to one of the study arms described below. Randomization means that you are put into a study arm by chance (like a coin toss).

Arm 1: Proton radiotherapy delivered over 25 daily fractions
Arm 2: Proton radiotherapy delivered over 15 fractions daily fractions

Last day of Radiation Therapy:
The following tests and assessments will be performed:

- Obtain a history and physical exam, including a breast assessment/exam
- Questionnaires
- Digital Photograph
- Cosmetic Assessment
- Echocardiography (if applicable)
- Radiation Toxicity Assessment
- Research blood sample (if applicable)

Follow up Post Radiation Therapy:
The following tests and assessments will be performed during the follow up visits at about 3 months after the completion of your treatments, 1 year, 2 years, 3 years, and 5 years after finishing radiation.

- Obtain a history and physical exam, including a breast assessment/exam
- Questionnaires
- Digital Photograph
- Cosmetic Assessment
- Radiation Toxicity Assessment
- Echocardiography (this will occur at 3 months and 12 months post treatment if applicable)
- Research blood sample (at 3 months and 12 months post-treatment if applicable)

Quality of Life/Cosmesis Study
During this study, we will ask you to fill out questionnaires which will take about 10 minutes to fill out. This questionnaire will allow us to gather information from you about things like how you feel after treatment, how satisfied you are with the appearance of your reconstructed breast (if applicable) after your surgery and radiation therapy, and how you are able to carry out your day-to-day activities. We hope that you will answer all of the questions, but if any questions make you uncomfortable, you may skip those questions and not give an answer.

If you decide to take part in this study, your study team will also fill out questionnaires that ask for a medical opinion of the appearance of your breasts before and after completion of your therapy. They will be completed at the study visits that include a breast assessment/exam.

Digital Photograph
Photographs of your chest will also be taken during these same visits. The photographs will only include your chest. Your face will not be in the photos and your name and other personal information will not be given out. This information will help doctors better understand what effects the radiation therapy is having. In the future, this information may help patients and doctors as they decide what radiation therapy to use to treat breast cancer.

You may change your mind about completing the questionnaires or having the photos of your chest taken at any time. It will not affect your taking part in the main study.

6. What are the possible risks or discomforts from being in this research study?

Proton radiation risks
Likely *(These side effects occur in **10% or more** of patients):*

- Reddening of the skin during treatment and for several weeks following treatment
- Tanning of the skin lasting months and may be permanent
- Change in the skin or how the reconstructed breast looks
- Mild thickening or firming of the soft tissue and skin on touch
- Tiredness and weakness during treatment and for several weeks following treatment
- Swelling of soft tissues or reconstructed breast
- Peeling of the skin in the area treated with radiation
- Mild pain at the site of radiation treatment requiring over the counter pain relievers

Less likely *(these side effects occur in **3-9%** of patients):*

- Soreness or tightness in muscles of the chest wall
- Severe pain at the site of radiation treatment requiring prescription pain relievers
- Prominent thickening or firming of the soft tissues or reconstructed breast on touch
- Esophagitis

Rare but serious *(these side effects occur in less than **3%** of patients):*

- Cough
- Difficulty breathing
- Inflammation of the heart muscle
- Rib fracture

- Slight increase in risk of developing heart disease
- Risk of developing another cancer due to radiation therapy

Blood Draw Risks:
The risks of drawing blood include pain, bruising, lightheadedness, and/or fainting, or rarely, infection at the site of the needle stick.

Reproductive risks:
You should not become pregnant while undergoing radiotherapy on this study because the radiation therapy in this study can affect an unborn baby. Women should not breastfeed a baby while on this study. If you are a woman able to have children and have not been surgically sterilized (tubal ligation or hysterectomy), as part of your clinical care you will have a pregnancy test done within 7 days of starting radiotherapy and agree to use acceptable birth control (see list below). If you are pregnant, you will not be allowed to participate. You should not become pregnant while on this study, but if you should become pregnant while you are on this study, you must tell your study doctor immediately. Ask about counseling and more information about preventing pregnancy.

If you are sexually active and able to become pregnant while undergoing radiotherapy on this study, you must agree to use one of the birth control methods listed below:

- Approved hormonal contraceptives, such as birth control pills, patches, injections, vaginal ring, or implants
- Barrier methods (such as a condom or diaphragm) used with a spermicide (a foam, cream, or gel that kills sperm)
- An intrauterine device (IUD)
- Abstinence (no sex)

Future Testing Risks:
Some future studies may examine your DNA, which is the genetic information you inherited from your parents (genetic testing).

1) Loss of privacy: There is a small chance that your personal medical information could accidentally be spread. We cannot guarantee that your information will not be released. In this case, information could potentially be used to discriminate against you. A federal law, the Genetic Information Nondiscrimination Act (GINA), makes it illegal for employers and insurers to use certain kinds of information about your genes to discriminate against you.

2) Risks related to test results:

- **Deciding whether to learn results**: If researchers believe they have valuable test results, then they will ask the Radiation Oncology group if the results are something that should be given to participants. This group will also decide the best way to return results to participants.

- **Learning test results**: The risks of learning results can include emotional upset, changes in family relationships, insurance or job discrimination. It may be necessary to return to Mayo Clinic to meet with a health care professional to get test results.

Unforeseeable Risks:
Many side effects go away shortly after the radiotherapy is stopped, but in some cases side effects can be serious, long lasting, or may never go away. Some side effects may not be known. Side effects may range from mild to life-threatening. Other drugs may be given to make side effects less serious and less uncomfortable. Talk to the researcher and/or your healthcare provider about side effects and ask any other questions.

7. Are there reasons you might leave this research study early?

You may decide to stop at any time. You should tell the Principal Investigator if you decide to stop and you will be advised whether any additional tests may need to be done for your safety.

In addition, the Principal Investigator or Mayo Clinic may stop you from taking part in this study at any time:

- if it is in your best interest,
- if you don't follow the study procedures,
- if the study is stopped.

If you leave this research study early, or are withdrawn from the study, no more information about you will be collected; however, information already collected about you in the study may continue to be used.

We will tell you about any new information that may affect your willingness to stay.

8. What if you are injured from your participation in this research study?

Where to get help:
If you think you have suffered a research-related injury, you should promptly notify the Principal Investigator listed in the Contact Information at the beginning of this form. Mayo Clinic will offer care for research-related injuries, including first aid, emergency treatment and follow-up care as needed.

Who will pay for the treatment of research related injuries:
Care for such research-related injuries will be billed in the ordinary manner, to you or your insurance. You will be responsible for all treatment costs not covered by your insurance, including deductibles, co-payments and coinsurance.

9. What are the possible benefits from being in this research study?

Taking part in this study may or may not make your health better. While researchers hope that delivering proton radiation therapy over 3 weeks will be as safe and effective against cancer compared to treatment over 5 weeks, there is no proof of this yet. We do know that the information from this study will help researchers learn more about using larger daily doses of proton radiation therapy given in fewer treatments over a shorter period of time as a treatment for cancer. This information could help future cancer patients.

10. What alternative do you have if you choose not to participate in this research study?

You don't have to be in this study to receive treatment for your condition. Your other choices may include:

- Getting radiation therapy treatment for your cancer without being in a study
- Taking part in another study
- Getting no treatment.

Talk to the Principal Investigator or your doctor if you have any questions about any of these treatments or procedures.

11. What tests or procedures will you need to pay for if you take part in this research study?

You won't need to pay for tests and procedures which are done just for this research study. These tests and procedures are:

- Venipuncture to obtain blood specimen
- Obtaining/storing tumor tissue
- Echocardiography (that is not considered standard of care)

You and/or your insurance will need to pay for tests and procedures that are part of this research study because they are needed for your regular medical care. You and/or your insurance might also have to pay for other drugs or treatments given to help control side effects. Before you take part in this study, you should call your insurer to find out if the cost of these tests and/or procedures will be covered. In some cases, insurance will not pay for services ordinarily covered because these services were performed in a research study. You will have to pay for any costs not covered by your insurance. Therefore, taking part in this research study may lead to added costs to you. Discuss the costs that will or will not be covered with your doctor.

If you have billing or insurance questions, call Research Billing at the telephone number provided in the "Contact Information" section of this form.

12. Will you be paid for taking part in this research study?

You will not be paid for taking part in this study.

13. What will happen to your samples?

We would like to keep some of the tissue that is left over from your diagnostic evaluation or your lumpectomy surgery for future research. In addition, we would like to collect 3 teaspoons of blood for research before you start treatment, when you finish treatment, and at your 3 month and 12 month follow ups. If you agree, your tissue and blood will be kept and may be used in research to learn more about cancer and other diseases.

Researchers at other institutions may ask for your sample for future research studies. Your sample will be sent to the Researcher in a coded format, which protects your identity.

Some of the future studies may examine your DNA, which is the genetic information you inherited from your parents (genetic testing). The Principal Investigator may contact you if there are findings which may be useful for your health care. You would be given general information on the potential risks, benefits, and costs of choosing to learn about the findings.

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Please read the following statements and mark your choices:

1. I permit my sample to be stored and used in future testing for the study and for future breast cancer research.

   ☐ Yes ☐ No Please initial here: _____Date: _____

2. I permit my sample to be stored and used in future research at Mayo Clinic to learn about, prevent, or treat any other health problems:

   ☐ Yes ☐ No Please initial here: _____Date: _____

3. I permit Mayo Clinic to give my sample to researchers at other institutions:

   ☐ Yes ☐ No Please initial here: _____Date: _____

There is a very small chance that some commercial value may result from the use of your donated sample. If that happens, you won't be offered a share in any profits.

You may request to have your sample destroyed by writing to the Principal Investigator at the address provided in the "Contact Information" section of this consent form.

Because we cannot predict how your sample will be used in the future, we cannot promise that samples can be retrieved and destroyed.

14. How will your privacy and the confidentiality of your records be protected?

Mayo Clinic is committed to protecting the confidentiality of information obtained about you in connection with this research study.

During this research, information about your health will be collected. Under Federal law called the Privacy Rule, health information is private. However, there are exceptions to this rule, and you should know who may be able to see, use and share your health information for research and why they may need to do so. Information about you and your health cannot be used in this research study without your written permission. If you sign this form, it will provide that permission.

Health information may be collected about you from:

- Past, present and future medical records.
- Research procedures, including research office visits, tests, interviews and questionnaires.

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Why will this information be used and/or given to others?

- To do the research.
- To report the results.
- To see if the research was done correctly.

If the results of this study are made public, information that identifies you will not be used.

Who may use or share your health information?

- Mayo Clinic research staff involved in this study.

With whom may your health information be shared?

- The Mayo Clinic Institutional Review Board that oversees the research.
- Other Mayo Clinic physicians involved in your clinical care.
- Researchers involved in this study at other institutions.
- Federal and State agencies (such as the Food and Drug Administration, the Department of Health and Human Services, the National Institutes of Health and other United States agencies) or government agencies in other countries that oversee or review research.
- A group that oversees the data (study information) and safety of this research.

Is your health information protected after it has been shared with others?

Mayo Clinic asks anyone who receives your health information from us to protect your privacy; however, once your information is shared outside Mayo Clinic, we cannot promise that it will remain private and it may no longer be protected by the Privacy Rule.

Your Privacy Rights

You do not have to sign this form, but if you do not, you cannot take part in this research study.

If you cancel your permission to use or share your health information, your participation in this study will end and no more information about you will be collected; however, information already collected about you in the study may continue to be used.

If you choose not to take part or if you withdraw from this study, it will not harm your relationship with your own doctors or with Mayo Clinic.

You can cancel your permission to use or share your health information at any time by sending a letter to the address below:

Mayo Clinic
Office for Human Research Protection
ATTN: Notice of Revocation of Authorization
200 1st Street SW
Rochester, MN 55905

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Alternatively, you may cancel your permission by emailing the Mayo Clinic Research Subject Advocate at: researchsubjectadvocate@mayo.edu.

Please be sure to include in your letter or email:

- The name of the Principal Investigator,
- The study IRB number and /or study name, and
- Your contact information.

Your permission lasts forever, unless you cancel it.

ENROLLMENT AND PERMISSION SIGNATURES:

Your signature documents your permission to take part in this research.

Printed Name Date (mm/dd/yyyy) Time (hh:mm am/pm)

Signature

Person Obtaining Consent

- I have explained the research study to the participant.
- I have answered all questions about this research study to the best of my ability.

Printed Name Date (mm/dd/yyyy) Time (hh:mm am/pm)

Signature