H-34973- HIGH RESOLUTION MICROENDOSCOPY FOR THE DETECTION OF ESOPHAGEAL SQUAMOUS CELL NEOPLASIA: A RANDOMIZED, MULTICENTER TRIAL OF ACCURACY, YIELD, AND CLINICAL IMPACT

Background
You are invited to take part in a research study. Please read this information and feel free to ask any questions before you agree to take part in the study. We are testing a new instrument or "probe" to see if we can get better pictures of abnormal areas of the esophagus in people at risk of or have esophageal squamous cell cancer (SCC). The standard of care procedure is an upper endoscopy (procedure to examine a person's esophagus) using Lugol's Iodine as a dye or stain for abnormal areas or areas that might be disease. You are scheduled or going to be scheduled for this procedure by your doctor for your regular medical care. We are comparing the 2 kinds of imaging, so some people will get just the usual (standard) way kind of imaging. Some people will get the standard AND the new probe type of imaging. The decision is made for you in a process called "randomization." It is like flipping a coin, only a computer decides for us. Neither you nor the study team get to choose if you get the extra (research) imaging.

A researcher at Rice University in Houston, Texas, who is collaborating or sharing knowledge on this study, holds patents (ownership rights given by law) to the specimen imaging probe being used. The technologies have been licensed to Remicalm LLC in which the Rice University researcher holds an ownership stake.

This research study is funded by National Cancer Institute

Purpose
The purpose of this study is to find out if the use of a medical imaging instrument called a high resolution microendoscope can help doctors see precancerous or abnormal tissue in subjects with esophageal squamous cell cancer. Esophageal squamous cell cancer (SCC) is cancer of the esophagus which is the upper part of the muscular tube through which food passes from the mouth to the stomach. It is the common cause of digestive (having to do with the digestion of food) cancer all over the world. Early diagnosis is still regarded as the best method of improving survival from this disease; and endoscopy is the most widely used technique for early detection and diagnosis. The specimen imaging probe being used in this study is considered investigational or being research because it has not been approved by the Food and Drug Administration (FDA). The use of the probe also requires Proflavine, a contrast agent (dye), to be sprayed on the tissue in the esophagus to highlight abnormal areas. The use of this contrast agent is also considered investigational because it is not approved by the Food and Drug Administration (FDA) for this use. We are testing this new probe and Proflavine against the standard way of finding SCC which is Lugol's dye and the usual endoscope.

Procedures
A total of 1300 subjects at 3 institutions will be asked to participate in this study. You will be one of approximately 300 subjects to be asked to participate at this location.

This is a study taking place in the U.S. and in China.

The research will be conducted at the following location(s):

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Study Participation (Day of scheduled routine endoscopy)

To perform an esophageal biopsy (a medical procedure to remove tissue for examination), a small amount of esophageal tissue (about the size of ½-1 pencil eraser) is removed with a wire-shaped device that is inserted into the endoscope. It is standard of care to have areas that do not look normal to be biopsied. Biopsies will be taken, per standard of care, from all abnormal appearing areas of the esophagus that were sprayed with a standard of care dye called Lugol’s Iodine. No ‘extra’ biopsies will be obtained in this study. If you agree to participate in this study, you will be randomized (assigned by chance, like the flip of a coin) for research purposes to one of two groups for your upper endoscopy: Group A and Group B. Both groups will receive standard of care endoscopy and biopsies. Group A will have additional research-specific procedures done.

Neither you nor the study doctor will choose what study treatment you get. You will have an equal chance of being in either study group. You will not be told which study treatment you are getting, however your study doctor will know.

Group A subjects will have routine upper endoscopy with standard of care endoscope, Lugol’s iodine sprayed on the esophageal tissue, and biopsies taken of abnormal (damaged) tissue. In addition, for research, the specimen imaging probe and Proflavine contrast dye will be used along with the augmented reality (computer enhanced image) glasses.

Group B subjects will have routine upper endoscopy with standard of care endoscope, Lugol’s iodine sprayed on the esophageal tissue, and biopsies taken of abnormal (damaged) tissue.

Procedures
Both groups will be given sedation (sleep medication). After you are sedated (asleep), both groups will undergo a white light endoscopy followed by Lugol’s iodine staining of the esophageal tissue using a standard endoscopic spray catheter (tube). The endoscopist will then record the location and level of each abnormal area and the clinical plan of action recorded.

If you are in Group A, the abnormal areas highlighted by the Lugol’s Iodine in your esophagus will then be sprayed with 5-10 ml (1-2 teaspoons) of Proflavine.

If you are in Group A, you will be imaged further with the "specimen imaging probe" inserted through the endoscope before your biopsies are taken. The use of this specimen imaging probe will not change your standard of care procedures. The imaging microscope (about an inch in length) will be inserted through the hollow tube of the endoscope. The probe has a camera on the end, which will look for areas of abnormal tissue and will take images of the esophagus tissue. The endoscopist will use the augmented reality glasses to view the HRME device images and the endoscopic images at the same
time. The endoscopist will give his/her clinical interpretation and plan and then we will use the device software to record an automated diagnosis in real time. We will also record the revised plan of action. Biopsies will be taken, per standard of care, in all abnormal appearing areas of the esophagus that were highlighted by Lugol’s.

After all of the biopsies and imaging are done, the endoscope and probe (Group A only) will be removed.
You will be taken to a special area in the hospital afterwards to recover.
You will be given the pathology results (close study of the abnormal tissue with a microscope) of all tissue that is removed from your esophagus. You will not be given the imaging results (Group A).

Both groups will be contacted by the study doctor or the study coordinator within 7 days after your procedure to check on any side effects you may be experiencing.

You will be given contact information for the study coordinator and the study doctor to call if you experience any side effects over the next 30 days.

Study participants at the Jilin site will also be asked to complete a short survey about barriers to esophageal cancer screening. A research assistant will administer the survey that asks about beliefs and attitudes that may affect how patients see and understand screening practices.

**Research related health information**

Authorization to Use or Disclose (Release) Health Information that Identifies You for a Research Study

If you sign this document, you give permission to people who give medical care and ensure quality from Baylor College of Medicine, Baylor St. Luke’s Medical Center (BSLMC), and HCHD: Harris County Hospital District Ben Taub to use or disclose (release) your health information that identifies you for the research study described in this document.

The health information that we may use or disclose (release) for this research includes:

- Information from health records such as diagnoses, progress notes, medications, lab or radiology findings, etc.
- Specific information concerning alcohol abuse
- Specific information concerning drug abuse
- Demographic information (name, D.O.B., age, gender, race, etc.)

The health information listed above may be used by and or disclosed (released) to researchers, their staff and their collaborators on this research project, the Institutional Review Board, Baylor College of Medicine, Baylor St. Luke’s Medical Center (BSLMC), HCHD: Harris County Hospital District Ben Taub, and NIH: NATIONAL INSTITUTES OF HEALTH and their representatives.
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Agents of the U.S. Food and Drug Administration may inspect the research records including your
health information. Agents of regulatory agencies such as the U.S. Department of Health and Human
Services will be permitted to inspect the research records including your health information.

The data coordinating center will have access to the research records including your health information.

Use or Disclosure Required by Law

Your health information will be used or disclosed when required by law.

Your health information may be shared with a public health authority that is authorized by law to collect or
receive such information for the purpose of preventing or controlling disease, injury, or disability and
conducting public health surveillance, investigations or interventions.

Baylor College of Medicine, Baylor St. Luke's Medical Center (BSLMC), and HCHD: Harris County
Hospital District Ben Taub are required by law to protect your health information. By signing this
document, you authorize Baylor College of Medicine, Baylor St. Luke's Medical Center (BSLMC), and
HCHD: Harris County Hospital District Ben Taub to use and/or disclose (release) your health
information for this research. Those persons who receive your health information may not be required by
Federal privacy laws (such as the Privacy rule) to protect it and may share your information with others
without your permission, if permitted by laws governing them.

Please note that the research does not involve treatment. Baylor College of Medicine, Baylor St. Luke's
Medical Center (BSLMC), and HCHD: Harris County Hospital District Ben Taub may not condition
(withhold or refuse) treating you on whether you sign this Authorization.

Please note that you may change your mind and revoke (take back) this Authorization at any time. Even
if you revoke this Authorization, researchers, their staff and their collaborators on this research project,
the Institutional Review Board, NIH: NATIONAL INSTITUTES OF HEALTH and their representatives,
regulatory agencies such as the U.S. Department of Health and Human Services, FDA, Baylor College
of Medicine, data coordinating center, Baylor St. Luke's Medical Center (BSLMC), and HCHD: Harris
County Hospital District Ben Taub may still use or disclose health information they already have
obtained about you as necessary to maintain the integrity or reliability of the current research. If you
revoke this Authorization, you may no longer be allowed to participate in the research described in this
Authorization.

To revoke this Authorization, you must write to: Sharmila Anandasabapathy
Baylor College of Medicine
One Baylor Plaza, MS: BCM271
Houston, TX 77030

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Approved from April 12, 2018 to March 21, 2019 Chair Initials: J. K.
This authorization does not have an expiration date. If all information that does or can identify you is removed from your health information, the remaining information will no longer be subject to this authorization and may be used or disclosed for other purposes.

No publication or public presentation about the research described above will reveal your identity without another authorization from you.

**Potential Risks and Discomforts**

Many side effects go away soon after the procedure, but in some cases, side effects may be serious, long-lasting or permanent, and may even cause death. It is important that you tell the study staff about any side effects that you may have had even if you do not think it is related to the procedure.

Allergic reaction (anaphylaxis)
There is the possibility of a severe allergic reaction to the Proflavine contrast dye in which you may have difficulty breathing and your blood pressure may drop. There are procedures in place to treat you in the endoscopy room in the event that this happens.

Specimen Imaging Probe
There are no known risks from the use of the imaging probe.

Sedation
There may be additional risks from the added time of additional sedation, such as decreased blood pressure.

Aspiration (inhaling) of fluid into the lungs during endoscopy
This might cause inflammation in the lungs. Safeguards to prevent this from happening while you are under anesthesia will be in place during and after the procedure, and your breathing and other vital signs will be carefully monitored.

If you experience any symptoms other than those that your study doctor has informed you are associated with the procedure, please let your study doctor know.

Pregnancy
Insufficient information is available on the use of Proflavine in pregnancy. Drugs can have harmful effects on the fetus at any stage of pregnancy.

Loss of Privacy
There always exists the potential for loss of private information; however, there are procedures in place to minimize this risk. Your name, medical record number, or other information that could identify you will be replaced on research forms with a subject identification number. You will not be identified by name in any study information. We will store anything with your name or other identifiers in locked files. The study team will have your name and other identifiers but will not share that with anyone outside the study team.

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Study staff will update you in a timely way on any new information that may affect your decision to stay in the study. There is a small risk for the loss of confidentiality. However, the study personnel will make every effort to minimize these risks.

Potential Benefits
You will receive no direct benefit from your participation in this study. However, your participation may help the investigators better understand and detect esophageal squamous cell cancer from what is learned in this study.

Alternatives
The following alternative procedures or treatments are available if you choose not to participate in this study: Instead of being in this research study you may have the routine endoscopy with Lugol’s Iodine and biopsies. In all cases, you will receive appropriate medical care, including treatment for pain and other symptoms of esophageal squamous cell cancer. If you choose not to take part in this study, you will not be penalized or lose benefits that you are entitled to.

Investigator Withdrawal of Subject from a Study
The investigator or sponsor may decide to stop you from taking part in this study at any time. You could be removed from the study for reasons related only to you (for example, if you move to another city, if you do not take your study medication, or if you have a serious reaction to your study medication) or because the entire study is stopped. The sponsor, investigator, Food and Drug Administration, or Institutional Review Board may stop the study at any time.

Subject Costs and Payments
You and/or insurance company will be responsible for the costs of the endoscopy and the biopsies that are performed for standard of care. You will not be charged for the specialized imaging or the contrast sprays that are part of the research if you are randomized to Group A. Group B does not have additional research procedures.

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

Research Related Injury
If you are injured or made sick from taking part in this research study, medical care will be provided. Generally, this medical care will be billed to you and/or your health care insurance. In some cases, the costs of this care may be paid by someone else. In the event of injury, contact the Principal Investigator.

In the event of Injury resulting from this research, Ben Taub Hospital and/or the Harris Health System are not able to offer financial compensation nor to absorb the costs of medical treatment. However, necessary facilities, emergency treatment and professional services will be available to you, just as they are to the general community.

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Last Amendment: 4/26/2018  Approved from April 12, 2018 to March 21, 2019  Chair Initials: J. K.
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Research personnel will try to reduce, control, and treat any complications from this research. If you are
injured because of this study, you will receive medical care that you or your insurance will have to pay for
just like any other medical care.

Subject's Rights
Your signature on this consent form means that you have received the information about this study and
that you agree to volunteer for this research study.

You will be given a copy of this signed form to keep. You are not giving up any of your rights by signing
this form. Even after you have signed this form, you may change your mind at any time. Please contact
the study staff if you decide to stop taking part in this study.

If you choose not to take part in the research or if you decide to stop taking part later, your benefits and
services will stay the same as before this study was discussed with you. You will not lose these
benefits, services, or rights.

The investigator, SHARMILA ANANDASABAPATHY, and/or someone he/she appoints in his/her place
will try to answer all of your questions. If you have questions or concerns at any time, or if you need to
report an injury related to the research, you may speak with a member of the study staff: SHARMILA
ANANDASABAPATHY at 713-798-8108 during the day and (713) 798-1000 and ask for the
gastroenterologist (GI doctor) on call after hours.

Members of the Institutional Review Board for Baylor College of Medicine and Affiliated Hospitals (IRB)
can also answer your questions and concerns about your rights as a research subject. The IRB office
number is (713) 798-6970. Call the IRB office if you would like to speak to a person independent of the
investigator and research staff for complaints about the research, if you cannot reach the research staff,
or if you wish to talk to someone other than the research staff.
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Signing this consent form indicates that you have read this consent form (or have had it read to you), that your questions have been answered to your satisfaction, and that you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.

 Subject ____________________________ Date ____________________________

 Investigator or Designee Obtaining Consent ____________________________ Date ____________________________

 Witness (if applicable) ____________________________ Date ____________________________

 Translator (if applicable) ____________________________ Date ____________________________

Approved from April 12, 2018 to March 21, 2019
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