

Prospective Evaluation of Biliary Tissue Sampling With ERCP

NCT04572711

May 10, 2020



IRB Minimal Risk Protocol Template

Note: If this study establishes a human specimen repository (biobank) for research purposes, do not use this template. Use the Mayo Clinic Human Specimen Repository Protocol Template found on the IRB home page under Forms and Procedures at <http://intranet.mayo.edu/charlie/irb/>

First-time Use: Use this template to describe your study for a new IRB submission.

1. Complete the questions that apply to your study.
2. Save an electronic copy of this protocol for future revisions.
3. When completing your IRBe application, you will be asked to upload this document to the protocol section.

Modification: To modify this document after your study has been approved:

1. Open your study in IRBe. Click on the study 'Documents' tab and select the most recent version of the protocol. Save it to your files.
2. Open the saved document and activate "Track Changes".
3. Revise the protocol template to reflect the modification points, save the template to your files
4. Create an IRBe Modification for the study and upload the revised protocol template.

General Study Information

Principal Investigator: Vinay Chandrasekhara, M.D.

Study Title: Prospective Evaluation of Biliary Tissue Sampling With ERCP

Protocol version number and date: Number: 1 Date: 4/22/2020

Research Question and Aims

Hypothesis: A number of biliary tissue sampling techniques, such as single operator cholangioscopy (SOC), transpapillary biliary biopsies (TPBx) and brush cytologies are available to help diagnose malignancy in indeterminate biliary strictures. We hypothesize that understanding our practice and efficacy of biliary sampling will improve our detection of malignancy moving forward.

Aims, purpose, or objectives: The purpose of this study is to assess the performance characteristics of a combination of SOC- directed biopsies, TPBx and more traditional sampling techniques [Routine brush cytology (Bc), and fluorescent in situ hybridization (FISH)] in patients undergoing routine testing for indeterminate biliary strictures. The overall objective is to obtain preliminary data for a randomized clinical trial comparing the sampling techniques in order to improve clinical practice.

Background (Include relevant experience, gaps in current knowledge, preliminary data, etc.): Patients presenting with indeterminate biliary strictures, specifically those with primary sclerosing cholangitis (PSC), are at an increased risk of developing cholangiocarcinoma (CCA). These patients often undergo multiple endoscopic-retrograde cholangiopancreatography (ERCP) procedures to screen for CCA. However, routine



brush cytology and FISH has shown a combined sensitivity of 55% - 69% in most studies while preserving a specificity of 82%. Retrospective studies have shown that SOC and TPBx may improve the diagnostic yield but with very limited data. There are no large prospective studies characterizing the performance characteristics of all sampling techniques.

Study Design and Methods

Methods: *Describe in lay terms, completely detailing the research activities that will be conducted by Mayo Clinic staff under this protocol.*

Patients who are undergoing ERCP with tissue sampling for an indeterminate biliary stricture will be identified at the time of their scheduled procedure. We will record the procedural details and results of the ERCP sampling into an internal REDCap database. Adverse outcomes within 30 days of the procedure will be recorded, including pancreatitis, bleeding, perforation and procedure related hospitalizations as per standard clinical care. Patients will continue with their routine clinical care, and will not be contacted by the research staff for research activities. We will abstract prior imaging, laboratory results and procedures as available in Epic to describe the patient population. We will then determine the sensitivity, specificity, positive predictive value, negative predictive value of each combination of sampling techniques, and identify factors that are associated with a higher yield of achieving a diagnosis, such as the absence of a PSC co-diagnosis, stricture thickness, and procedural technique(s)

Subject Information

Target accrual is the proposed total number of subjects to be included in this study at Mayo Clinic. A "Subject" may include medical records, images, or specimens generated at Mayo Clinic and/or received from external sources.

Target accrual: 500

Subject population (children, adults, groups): Adults 18 years of age or older

Inclusion Criteria: Adults ≥ 18 years with indeterminate biliary strictures undergoing ERCP with tissue sampling.

Exclusion Criteria: Adults < 18 years, Children

Biospecimens

Collection of blood samples. No blood samples will be collected for research purposes as part of this research study



Prospective collection of biological specimens other than blood: No biological specimens will be collected for research activities

Review of medical records, images, specimens

Check all that apply (data includes medical records, images, specimens).

☐ Only data that exists before the IRB submission date will be collected.

Date Range for Specimens and/or Review of Medical Records:

Examples: *01/01/1999 through 12/31/2015*, or all records through *mm/dd/yyyy*.

Note: The Date Range must include the period for collection of baseline data, as well as follow-up data, if applicable.

☒ The study involves data that exist at the time of IRB submission **and** data that will be generated after IRB submission. Include this activity in the Methods section.

☐ The study will use data that have been collected under another IRB protocol. Include in the Methods section and enter the IRB number from which the research material will be obtained. *When appropriate, note when subjects have provided consent for future use of their data and/or specimens as described in this protocol.*

Enter one IRB number per line, add more lines as needed

☐ Data ☐ Specimens ☐ Data & Specimens _____

☐ Data ☐ Specimens ☐ Data & Specimens _____

☐ Data ☐ Specimens ☐ Data & Specimens _____

Data Analysis

Power analyses may not be appropriate if this is a feasibility or pilot study, but end-point analysis plans are always appropriate even if only exploratory. Provide all information requested below, or provide justification if not including all of the information.

Power Statement: This study will determine the efficacy of each diagnostic approach in improving histopathological yield in biliary strictures and will not allow for a substantial power analysis but will serve as the preliminary data for a multicenter randomized clinical trial randomizing biliary sampling techniques.



Data Analysis Plan: Access and analysis of data will be limited to the primary investigators. Wilcoxon Rank-Sum and Fisher's exact test will be performed for continuous and categorical variables, respectively, using two-tailed $\alpha = 0.05$ threshold for statistical significance. Data management for these and subsequent analyses will be performed using STATA. A Mayo Clinic statistician may be hired to assist with the statistical component of this project; should this occur, identifying patient information will be removed from data sets provided to the statistician.

Endpoints

Primary: Performance characteristics (sensitivity, specificity, positive predicted value and negative predictive value) of histopathology from SOC-directed biopsies, transpapillary directed biopsies, brush cytology (Bc), and fluorescent in situ hybridization (FISH) testing, for indeterminate biliary strictures

Secondary: Evaluating the hospitalization days and adverse effects after each ERCP procedure