



**FWA #00002505**  
Human Research Protection Program  
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To: Divyesh Sejpal MD  
300 COMMUNITY DRIVE  
MANHASSET, NY 11030

From: Hallie Kassan, MS, CIP  
Director, Human Research Protection Program

Date: December 06, 2016

RE: **IRB #:** HS15-0674  
**Protocol Title:** PROSPECTIVE EVALUATION OF RESIDUAL BILE DUCT STONE  
DETECTION BY PERORAL CHOLANGIOSCOPY THAT IS MISSED  
WITH CONVENTIONAL ERCP  
**Approval Date:** December 06, 2016  
**Expiration Date:** December 05, 2017

Dear Dr. Sejpal:

This is to advise you that the Progress Report submission received December 06, 2016 for the above referenced study was reviewed by the Institutional Review Board on December 06, 2016 and the following determination was made:

**Expedited Approval** for the following:

1. Protocol ( Version date 11/14/16)
2. Informed Consent ( Version date 12/6/16) **Re-Consent is not required**
3. The appropriate documentation has been submitted for the removal of Peter Stein.
4. The appropriate documentation has been submitted to add Molly Stewart; she is not approved to obtain informed consent.
5. The following investigators are authorized to participate on this study and obtain informed consent: Divyesh Sejpal, Benley George, Larry Miller, Arvind Trindade, Calvin Lee, Sumant Inamdar, and Anil Vegesna.

This study qualifies for expedited review per: ***45 CFR 46.110(9) – Continuing review of research, not conducted under an IND application or IDE where categories 2-8 don't apply, but the IRB has determined and documented at a convened meeting that the research involves no greater than minimal risk and no additional risks have been identified.***

*All conditions of approval previously established by the IRB for this research project continue to apply. The Institutional Review Board - will be notified of this action.*

**NOTE: This approval is subject to recall if at any time the conditions and requirements as specified in the IRB Policies and Procedures are not followed:**

1. Using only IRB-approved consent forms, questionnaires, letters, advertisements, etc. in your research.
2. Submitting any modifications made to the study for IRB review prior to the initiation of changes except when necessary, to eliminate apparent, immediate hazards to the subject.
3. Reporting unanticipated problems involving risk to subjects or others.
4. Renewing the study at the interval set by the Institutional Review Board. You should submit a progress report to the Institutional Review Board at least two months prior to expiration of the study. Failure to receive notification that it is time to renew does not relieve you of your responsibility to provide the IRB with the Progress Report in time for the request to be processed and approved prior to your expiration date.
5. **Prior to implementation, any changes made to studies utilizing TAP must have COPP, as well as IRB approval.**

**IMPORTANT REMINDER:** The International Committee of Medical Journal Editors (ICMJE) requires registration of clinical research studies meeting specific guidelines prior to publication. Please see ICMJE requirements for registration of clinical trials at <http://www.icmje.org/>. Our organization account is in the name of Northwell Health. To register your trial: <http://prsinfo.clinicaltrials.gov/>. You must register your trial PRIOR TO ENROLLING SUBJECTS.

## RESEARCH PROTOCOL

Protocol Title:	PROSPECTIVE EVALUATION OF RESIDUAL BILE DUCT STONE DETECTION BY PERORAL CHOLANGIOSCOPY THAT IS MISSED WITH CONVENTIONAL ERCP
Principal Investigator:	Divyesh Sejjal, MD
Primary Contact Name:	George Benley
Primary Contact Phone:	516-562-3337
Primary Contact E-mail:	<a href="mailto:Bgeorge7@nshs.edu">Bgeorge7@nshs.edu</a>
Date Revised:	11/14/2016
IRB Number:	HS15-0674

### Guidelines for Preparing a Research Protocol

#### Instructions:

- You do not need to complete this document if you are submitting an *Application for Exemption* or *Application for a Chart Review*.
- Do not use this template if:
  - Your study involves an FDA regulated product. In this case, use the *Clinical Trial Protocol Template*.
  - Your study has a protocol from a sponsor or cooperative group. In this case, use the *Protocol Plus*.
  - Your study is a registry or repository for data and/or samples, In this case, use *Protocol Template – Registry Studies*.
- If a section of this protocol is not applicable, please indicate such.
- Do not delete any of the text contained within this document.
- Please make sure to keep an electronic copy of this document. You will need to use it, if you make modifications in the future.
- Start by entering study information into the table above, according to these rules:
  - Protocol Title: Include the full protocol title as listed on the application.
  - Investigator: include the principal investigator's name as listed on the application form
  - Date Revised: Indicate the date at which the protocol was last revised
  - IRB Number: Indicate the assigned IRB number, when known. At initial submission, this row will be left blank.
- Once the table information is entered, proceed to page 2 and complete the rest of the form.

↓ Continue to next page to begin entering information about this study ↓

## 1. PREVIOUS STUDY HISTORY

Has this study ever been reviewed and rejected/disapproved by another IRB prior to submission to this IRB?

☒ No ☐ Yes – if yes, please explain:

## 2. BRIEF SUMMARY OF RESEARCH

- *The summary should be written in language intelligible to a moderately educated, non-scientific layperson.*
- *It should contain a clear statement of the rationale and hypothesis of your study, a concise description of the methodology, with an emphasis on what will happen to the subjects, and a discussion of the results.*
- *This section should be ½ page*

Gallstone disease affects over 20 million Americans.<sup>1</sup> Among patients with gallbladder disease, the prevalence of choledocholithiasis (stones in the bile duct) is estimated to be 10-20%<sup>2, 3</sup> Endoscopic retrograde cholangiopancreatography (ERCP) is considered the standard of care for removing stones in the bile duct utilizing a variety of conventional methods including biliary sphincterotomy, sphincteroplasty, extraction balloon, retrieval basket, and mechanical lithotripsy. After removal of stones from the bile duct, an occlusion cholangiogram is usually performed to confirm complete bile duct clearance. However, cholangiogram can miss residual stones in 11- 30% of cases - especially in the setting of a dilated bile duct, large stones, severe pneumobilia, juxtapapillary diverticulum, primary sclerosing cholangitis, and after lithotripsy (mechanical, electrohydraulic, or laser).<sup>4-7</sup> The approach to patients with choledocholithiasis requires careful attention because missed bile duct stones can cause recurrent biliary symptoms, pancreatitis, cholangitis, and has significant cost implication with the need for repeat imaging and/or procedures.

## 3. INTRODUCTION/BACKGROUND MATERIAL/PRELIMINARY STUDIES AND SIGNIFICANCE

- *Describe and provide the results of previous work by yourself or others, including animal studies, laboratory studies, pilot studies, pre-clinical and/or clinical studies involving the compound or device to be studied.*
- *Include information as to why you are conducting the study and how the study differs from what has been previously researched, including what the knowledge gaps are.*
- *Describe the importance of the knowledge expected to result*

Peroral cholangioscopy (POC) provides direct visualization of the bile duct during ERCP and its benefits are well documented in numerous published studies. POC has been described for therapy of difficult to remove biliary stones utilizing electrohydraulic lithotripsy or laser lithotripsy with success rates of >90%.<sup>8-10</sup> POC has also been used for evaluation of indeterminate filling defects and to assess for residual stones missed with cholangiogram. In a multicenter study evaluating POC for a variety of indications, 11% (7/66) of patients had bile duct stones identified only by POC that were missed on ERCP.<sup>4</sup> In a study of patients with primary sclerosing cholangitis, 30% (7/23) of patients were found to have stones with POC that were missed with cholangiography.<sup>5</sup> Takao et al. assessed residual bile duct stones found with POC in comparison to balloon-cholangiography; they found that 24% (26/108) of patients had residual stones seen with POC that were missed with balloon-cholangiography.<sup>6</sup>

Although POC has been available for over thirty years, it has not become a widespread technique due to the fact that traditional cholangioscopes are fragile, cumbersome to use, and usually require two endoscopists to perform the procedure. A recent single operator semi-disposable cholangioscope, SpyGlass (Boston Scientific, Natick, Massachusetts), has addressed those concerns and has been shown in a studies to be a useful tool in visualizing the bile ducts and performing therapeutic maneuvers for biliary stones.<sup>4,11</sup>

#### 4. OBJECTIVE(S)/SPECIFIC AIMS AND HYPOTHESES

- *A concise statement of the goal(s) of the current study.*
- *The rationale for and specific objectives of the study.*
- *The goals and the hypothesis to be tested should be stated.*

This is Prospective, single center study (One IRB, Two hospitals: North Shore University Hospital [NSUH] and Long-Island Jewish Medical Center [LIJ])

The primary goal of the study is to assess if POC will enhance the diagnostic yield in the detection of residual biliary stones that are missed during conventional ERCP. Residual bile duct stones can especially be seen in the setting of bile duct dilation, history of recurrent abnormal liver function tests, and after lithotripsy (mechanical, electrohydraulic, or laser). Missed biliary stones can lead to recurrent biliary symptoms, pancreatitis, and cholangitis. POC after conventional ERCP can be a useful diagnostic tool to confirm complete extraction of bile duct stones, and thus lead to decreased morbidity and decreased cost by avoiding unnecessary tests and repeat procedures.

##### **Primary Endpoint:**

The primary end point is to detect the presence of any stones seen during POC that were missed during conventional ERCP

### Secondary Endpoints:

- a. Identify the change in management after finding stone on POC e.g. balloon sweep, stent placement, etc.

Identify the recurrence of biliary obstructive symptoms and/or imaging suggestive of recurrent (missed) stones which will be assessed with phone call at 3 months after procedure.

## 5. RESOURCES AVAILABLE TO CONDUCT THE HUMAN RESEARCH

- *Explain the feasibility of meeting recruitment goals of this project and demonstrate a potential for recruiting the required number of suitable subjects within the agreed recruitment period*
  - *How many potential subjects do you have access to?*
- *Describe your process to ensure that all persons assisting with the trial are adequately informed about the protocol and their trial related duties and functions*

Every year more than 150 patients undergo ERCP procedure in NSUH and LIJMC. Most of these patients will be eligible for participation in this study.

All personnel involved in the study are going to be part of the study and must have completed the necessary trainings for participation. All involved personnel will be informed of any changes in the protocol either through email or in person by the co-coordinator or the PI.

## 6. RECRUITMENT METHODS

- *Describe the source of potential subjects*
- *Describe the methods that will be used to identify potential subjects*
- *Describe any materials that will be used to recruit subjects. A copy of any advertisements (flyers, radio scripts, etc.) should be submitted along with the protocol.*
- *If monetary compensation is to be offered, this should be indicated in the protocol*

All consecutive patients with suspected or documented bile duct stones who satisfy eligibility criteria and who consent for participation in the study will be included in the study.

The source of potential subjects is the endoscopy suites at NSUH and at LIJMC. Majority of patients who were scheduled for standard of care ERCP procedure already have either documented or suspected presence of bile duct stones. There are no advertisements for the recruitment as all the patients approached for consent are already scheduled for standard of care procedures. There is no monetary compensation for participation in the study.

## 7. ELIGIBILITY CRITERIA

- *Describe the characteristics of the subject population, including their anticipated number, age, ranges, sex, ethnic background, and health status. Identify the criteria for inclusion or exclusion of any subpopulation.*
- *Explain the rationale for the involvement of special classes of subjects, such as fetuses, pregnant women, children, prisoners or other institutionalized individuals, or others who are likely to be vulnerable. You cannot include these populations in your research, unless you indicate such in the protocol*
- *Similarly, detail exclusionary criteria: age limits, special populations (minors, pregnant women, decisionally impaired), use of concomitant medications, subjects with other diseases, severity of illness, etc.*

### **Inclusion Criteria**

1. Patients above the age of 18.
2. Patient receiving ERCP as standard of care for suspected or documented choledocholithiasis as assessed by one or more of the following:
  1. Abnormal imaging on ultrasound, endoscopic ultrasound (EUS), CT scan, or MRCP suggestive of choledocholithiasis
  2. Clinical signs and symptoms suggestive of choledocholithiasis such as jaundice, abdominal pain, pruritis, pancreatitis, and/or cholangitis
  3. Abnormal liver function tests suggestive of choledocholithiasis (eg: serum bilirubin > 1.5 and/or elevated alkaline phosphatase levels)
3. In addition to one or more of the above inclusion criteria, patient must also satisfy one or more of the following:
  1. Mechanical lithotripsy, electrohydraulic lithotripsy, or laser lithotripsy performed for therapy of bile duct stones.
  2. Bile duct > 12mm on prior tests (any portion of duct)
  3. History of recurrent abnormal LFTs with negative cholangiogram.
  4. Positive EUS or MRCP for biliary stones with a negative cholangiogram

### **Exclusion criteria**

1. Patients less than 18 years of age.
2. Patients not undergoing ERCP as their standard of care.
3. Patients who had the following surgeries - Billroth II surgery, Roux-en-Y Gastric bypass surgery, and Whipple's surgery.

## 8. NUMBER OF SUBJECTS

- *Indicate the total number of subjects to be accrued locally. If applicable, distinguish between the number of subjects who are expected to be pre-screened, enrolled (consent obtained), randomized and complete the research procedures.*
- *If your study includes different cohorts, include the total number of subjects in each cohort.*
- *If this is multisite study, include total number of subjects across all sites.*

Number of patients: 100 who undergo POC in NSUH and in LIJMC
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## 9. STUDY TIMELINES

- *Describe the duration of an individuals participation in the study*
- *Describe the duration anticipated to enroll all study subjects*
- *The estimated date of study completion*

The duration of the individual participation in the study is 3 months after their standard of care procedure for a phone follow-up.  
Proposed duration of study: 1 year (enrollment 9 months + follow-up phone call at 3 months post-procedure).  
Estimated date of study completion is December 2016.

## 10. ENDPOINTS

- *Describe the primary and secondary study endpoints*
- *Describe any primary or secondary safety endpoints*

### **Primary Endpoint:**

The primary end point is to detect the presence of any stones seen during POC that were missed during conventional ERCP

### **Secondary Endpoints:**

- b. Identify the change in management after finding stone on POC e.g. balloon sweep, stent placement, etc.
- c. Identify the recurrence of biliary obstructive symptoms and/or imaging suggestive of recurrent (missed) stones which will be assessed with phone call at 3 months after procedure.

## 11. RESEARCH PROCEDURES

- *Include a detailed description of all procedures to be performed on the research subject and the schedule for each procedure.*
- *Include any screening procedures for eligibility and/or baseline diagnostic tests*
- *Include procedures being performed to monitor subjects for safety or minimize risks*
- *Include information about drug washout periods*
- *If drugs or biologics are being administered provide information on dosing and route of administration*
- *Clearly indicate which procedures are only being conducted for research purposes.*
- *If any specimens will be used for this research, explain whether they are being collected specifically for research purposes.*
- *Describe any source records that will be used to collect data about subjects*
- *Indicate the data to be collected, including long term follow-up*

All consecutive patients with suspected or documented choledocholithiasis who satisfy recruitment criteria outlined in Section 4 above and who consent for participation in the study will be included in the study.

**Clinically indicated standard of care procedure/s:**

ERCP will be performed with cannulation of the bile duct and cholangiogram to identify any biliary stones. If stones are identified, they will be removed with conventional methods including sphincterotomy, sphincteroplasty, balloon extraction, basket retrieval, and/or lithotripsy. An occlusion cholangiogram will be performed to confirm duct clearance (usually performed by inflating the catheter balloon at the proximal common hepatic duct near the hilum and then pulling the balloon through the bile duct and into the duodenum. Then, based on clinical decision and inclusion criteria, the cholangioscope (Spyglass) will be inserted through the channel of the endoscope and into the bile duct. Any residual stones will be documented followed by further treatment as indicated e.g. stone extraction, lithotripsy, stent placement, etc.

All patients with suspected choledocholithiasis potentially meeting the Inclusion criteria will be enrolled in the study. This is the reason for taking the consent before hand when the patient is not sedated. However if on clinical judgment during the procedure, the physician decides not to perform the POC then the subject will be deemed as screen failure and will not be counted towards the final results of the study.

**Research procedures:**

1. Document the number of subjects who did and did not have any missed stones as identified by SpyGlass.
2. Document the number of stones missed if there were any.
3. Document clinical management after finding a stone.(eg: balloon sweep, lithotripsy, stent placement, etc.)
4. Follow-up contact with the participant  $\approx$ 3 months after the ERCP procedure if he/she is enrolled and had undergone cholangioscopy with Spyglass to document any recurrent stones/procedures/interventions.
5. Medical history will be obtained either directly from the patient or from the patient medical records which may also include questions about prior problems with medications used for sedation or other unusual medication reactions.
6. De-identified ERCP, endoscopic, EUS and SpyGlass images and/or video recordings may be collected for review, analysis, presentations and publications.

## 12. STATISTICAL ANALYSIS

- *Describe how your data will be used to test the hypotheses.*
- *State clearly what variables will be tested and what statistical tests will be used.*
- *Include sample size calculations.*
- *If this is a pilot study, state which variables will be examined for hypothesis generation in later studies.*

### **Statistical Considerations:**

#### **Specific Aims:**

1. To estimate the proportion of subjects with missed stones on conventional ERCP.
2. To identify changes in management after finding a stone on POC.

#### **Endpoint Variables:**

1. Missed stones: Patients will be considered to have missed stones on conventional ERCP, if, after ERCP, one or more stones are seen with POC.
2. Change in management: any maneuver or combination of maneuvers performed after a missed stone (e.g. balloon extraction of stone, lithotripsy of stone, stent placement, etc.)
3. Recurrent stones within 3 months after POC, and documentation of cholecystectomy as applicable.

#### **Statistical Methods:**

1. The proportion of subjects with missed stones will be estimated, along with the associated exact 95% binomial confidence interval.
2. Change in management will be described by calculating frequencies and percentages for each maneuver performed. This analysis will be restricted to subjects with missed stones.
3. The proportion of subjects with recurrent stones will be estimated, along with the associated exact 95% binomial confidence interval.

#### **Sample Size Justification:**

The proposed sample size is based on feasibility and availability of resources. The proposed enrollment period for this study will be one year, and it is estimated that approximately 140 subjects meeting the qualification criteria will be seen during the enrollment period at the participating sites. It is expected that nearly all of these patients will consent to participate. Due to the screen failure rate of approximately 30% till date we want to enroll a total of 140 subjects to account for the screen failures.

<b>Total Number of Subjects in Study</b>	<b>Number of Subjects with stone seen on POC</b>	<b>Percent of Subjects with stone seen on POC</b>	<b>95% Exact Binomial Confidence Interval</b>
100	10	10.0%	4.9% - 17.6%
	20	20.0%	12.7% - 29.2%
	30	30.0%	21.2% - 40.0%

Based on literature cited earlier, it is estimated that between 11% and 30% of these patients will have stones identified on POC that were missed by conventional ECRP. The following table gives the 95% exact binomial confidence intervals for the proposed sample size of 100 subjects, if the percent with missed stones is 10%, 20% and 30%. (For example, if 20 subjects have missed stones, the estimated percent with missed stones is 20% and the associated 95% exact binomial confidence interval is 12.7% to 29.2%).

### 13. SPECIMEN BANKING

- *If specimens will be banked for future research, describe where the specimens will be stored, how long they will be stored, how they will be accessed and who will have access to the specimens*
- *List the information that will be stored with each specimen, including how specimens are labeled/coded*
- *Describe the procedures to release the specimens, including: the process to request release, approvals required for release, who can obtain the specimens, and the information to be provided with the specimens.*

N/A
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### 14. DATA MANAGEMENT AND CONFIDENTIALITY

- *Describe the data and specimens to be sent out or received. As applicable, describe:*
  - *What information will be included in that data or associated with the specimens?*
  - *Where and how data and specimens will be stored?*
  - *How long the data will be stored?*
  - *Who will have access to the data?*
  - *Who is responsible for receipt or transmission of data and specimens?*
- *Describe the steps that will be taken to secure the data during storage, use and transmission.*

The principal investigator will be responsible for the management of the protocol. All efforts will be made to ensure patient confidentiality and assurance of HIPAA compliance. Immediately after obtaining any images, subjects will be assigned a protocol specific unique code that will be used for all further data management. A list matching the patient medical record number to the protocol specific unique code will be kept in a locked cabinet in office of the PI. The names of the patient will not be released to any outside organizations or to persons not involved with the study. They will not be revealed in written reports or publications detailing the research findings. However the information may be released to regulatory authorities such as IRB, FDA etc.
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### 15. DATA AND SAFETY MONITORING PLAN

*A specific data and safety monitoring plan is only required for greater than minimal risk research. For guidance on creating this plan, please see the [Guidance Document](#) on the HRPP website.*

*Part I – this part should be completed for all studies that require a DSMP.  
Part II – This part should be completed when your study needs a Data and Safety Monitoring Board or Committee (DSMB/C) as part of your Data and Safety Monitoring Plan.*

## Part I: Elements of the Data and Safety Monitoring Plan

- *Indicate who will perform the data and safety monitoring for this study.*
- *Justify your choice of monitor, in terms of assessed risk to the research subject's health and well being. In studies where the monitor is independent of the study staff, indicate the individual's credentials, relationship to the PI, and rationale for selection*
- *List the specific items that will be monitored for safety (e.g. adverse events, protocol compliance, etc)*
- *Indicate the frequency at which accumulated safety and data information (items listed in # above) will be reviewed by the monitor (s) or the DSMB/C.*
- *Where applicable, describe rules which will guide interruption or alteration of the study design.*
- *Where applicable, indicate dose selection procedures that will be used to minimize toxicity.*
- *Should a temporary or permanent suspension of your study occur, in addition to the IRB, indicate to whom will you report the occurrence.*

N/A

## Part II: Data and Safety Monitoring Board or Committee

- *When appropriate, attach a description of the DSMB.*
- *Provide the number of members and area of professional expertise.*
- *Provide confirmation that the members of the board are all independent of the study.*

N/A

## 16. WITHDRAWAL OF SUBJECTS

- *Describe anticipated circumstances under which subjects will be withdrawn from the research without their consent*
- *Describe procedures for orderly termination*
- *Describe procedures that will be followed when subjects withdraw from the research, including partial withdrawal from procedures with continued data collection.*

Consented patients will be withdrawn from participation and their data will not be used if the standard of care procedures described in the protocol cannot be performed for any clinical reason such as inaccessibility of bile duct, early termination of procedure due to complications etc. The 3 month follow-up phone call will not be made if the standards of care procedures are not completed and data not collected.

## 17. RISKS TO SUBJECTS

- *Describe any potential risks and discomforts to the subject (physical, psychological, social, legal, or other) and assess their likelihood and seriousness and whether side*

*effects are reversible. Where appropriate, describe alternative treatments and procedures that might be advantageous to the subjects.*

- *Include risks to others , like sexual partners (if appropriate)*
- *Discuss why the risks to subjects are reasonable in relation to the anticipated benefits and in relation to the importance of the knowledge that may reasonably be expected to result.*
- *Describe the procedures for protecting against or minimizing any potential risks, including risks to confidentiality, and assess their likely effectiveness.*

<p>There is no additional health risk for the participants of the study due to their participation in the study. However their medically required standards of care procedures have risks associated with them. If any of the risks arise due to their standard of care procedures they will be documented in the CRF for the purpose of data analysis.</p>
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## 18. RESEARCH RELATED HARM/INJURY

- *Describe the availability of medical or psychological resources that subjects might need as a result of anticipated problems that may be known to be associated with the research.*
- *If the research is greater than minimal risk, explain any medical treatments that are available if research-related injury occurs, who will provide it, what will be provided, and who will pay for it.*

There is no direct research related harm or injury to the patient. All the procedures performed in the study are clinically indicated procedures. The research part is the collection of data during those procedures.

## 19. POTENTIAL BENEFIT TO SUBJECTS

- *Explain what benefits might be derived from participation in the study, noting in particular the benefit over standard treatment (e.g. a once-a-day administration instead of four times a day, an oral formulation over an IV administration).*
- *Also state if there are no known benefits to subjects, but detail the value of knowledge to be gained*

There is no direct benefit to the patient due to participation in the study. The study increasing the knowledge about residual stones which may help in planning and delivery of care for other patients with similar conditions in the future.

## 20. PROVISIONS TO PROTECT PRIVACY INTERESTS OF SUBJECTS

- *Describe the methods used to identify potential research subjects, obtain consent and gather information about subjects to ensure that their privacy is not invaded.*
- *In addition consider privacy protections that may be needed due to communications with subjects (such as phone messages or mail).*

The principal investigator will be responsible for the management of the protocol. All efforts will be made to ensure patient confidentiality and assurance of HIPAA compliance. Immediately after obtaining any images, subjects will be assigned a protocol specific unique code that will be used for all further data management. A list matching the patient medical record number to the protocol specific unique code will be kept in a locked cabinet in office of the PI. The names of the patient will not be released to any outside organizations or to persons not involved with the study. They will not be revealed in written reports or publications detailing the research findings. However the information may be released to regulatory authorities such as IRB, FDA etc.



## 21. COSTS TO SUBJECTS

- *Describe any foreseeable costs that subjects may incur through participation in the research*
- *Indicate whether research procedures will be billed to insurance or paid for by the research study.*

There are no additional costs to the patients due to their participation in the research study.
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## 22. PAYMENT TO SUBJECTS

- *Describe the amount of payment to subjects, in what form payment will be received and the timing of the payments.*

There is no payment to the participants for their participation in this research study.
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## 23. CONSENT PROCESS

*If obtaining consent for this study, describe:*

- *Who will be obtaining consent*
- *Where consent will be obtained*
- *Any waiting period available between informing the prospective participant and obtaining consent*
- *Steps that will be taken to assure the participants' understanding*
- *Any tools that will be utilized during the consent process*
- *Information about how the consent will be documented in writing. If using a standard consent form, indicate such.*
- *Procedures for maintaining informed consent.*

Only IRB approved personnel will be obtaining the consent.
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Consent will be obtained in the endoscopy pre procedure waiting/preparation room.
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After explaining the research the patients will be given time to go through the research and the consenting process and then consent will be taken.
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A copy of the consent form will be given to the patient and another copy will be placed in the patient health records. The original signed consent form will be retained with the study team.
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*In the state of NY, any participants under the age of 18 are considered children. If your study involves children, additional information should be provided to describe:*

- *How parental permission will be obtained*
- *From how many parents will parental permission be obtained*
- *Whether permission will be obtained from individuals other than parents, and if so, who will be allowed to provide permission. The process used to determine these individual's authority to consent for the child should be provided*
- *Whether or not assent will be obtained from the child*
- *How will assent be documented*
- *Whether child subjects may be expected to attain legal age to consent to the procedures for research prior to the completion of their participation in the research. If so, describe the process that will be used to obtain their legal consent to continue participation in the study. Indicate what will occur if consent is not obtained from the now-adult subjects.*

No Children will be enrolled in this study.
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*If the study involves cognitively impaired adults, additional information should be provided to describe:*

- *The process to determine whether an individual is capable of consent*
- *Indicate who will make this assessment*
- *The plan should indicate that documentation of the determination and assessment will be placed in the medical record, when applicable, in addition to the research record.*
- *If permission of a legally authorized representative will be obtained,*
  - *list the individuals from who permission will be obtained in order of priority*
  - *Describe the process for assent of subjects; indicate whether assent will be required of all, some or none of the subjects. If some, which subjects will be required to assent and which will not.*
  - *If assent will not be obtained from some or all subjects, provide an explanation as to why not*
  - *Describe whether assent will be documented and the process to document assent*
  - *Indicate if the subject could regain capacity and at what point you would obtain their consent for continued participation in the study*

N/A
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*If the study will enroll non-English speaking subjects:*

- *Indicate what language(s) other than English are understood by prospective subjects or representatives*
- *Indicate whether or not consent forms will be translated into a language other than English*
- *Describe the process to ensure that the oral and written information provided to those subjects will be in that language*
- *If non-English speaking subjects will be excluded, provide a justification for doing so*

N/A
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**24. WAIVER OR ALTERATION OF THE CONSENT PROCESS** ☒ N/A

*Complete this section if you are seeking an alteration or complete waiver of the consent process.*

- *Describe the possible risks of harm to the subjects involved in this study and explain why the study involves no more than minimal risk to the subject:*

- *Explain why the waiver/ alteration will not adversely affect the rights and welfare of subjects*
- *Explain why it is impracticable to conduct this research if informed consent is required*
- *If appropriate, explain how the subjects will be provided with additional pertinent information after participation. If not appropriate to do so, explain why.*

***Complete this section if you are obtaining informed consent but you are requesting a waiver of the documentation of consent (i.e., verbal consent will be obtained). To proceed with a waiver based on these criteria, each subject must be asked whether they wish to have documentation linking them to this study. Only complete subsection 1 OR subsection 2.***

#### **SUBSECTION 1**

- *Explain how the only record linking the subject to the research would be the consent document.*
- *Explain how the principal risk of this study would be the potential harm resulting from a breach in the confidentiality*
- *Indicate whether or not subjects will be provided with a written statement regarding the research.*

#### **SUBSECTION 2**

- *Describe the possible risks of harm to the subjects involved in this study and explain why the study involves no more than minimal risk.*
- *Confirm that the research only involves procedure for which consent is not normally required outside the research context.*
- *Indicate whether or not subjects will be provided with a written statement regarding the research.*

### **25. WAIVER OF HIPAA AUTHORIZATION**

☒ N/A

***Complete this section if you seek to obtain a full waiver of HIPAA authorization to use and/or disclose protected health information.***

- *Describe the risks to privacy involved in this study and explain why the study involves no more than minimal risk to privacy:*
- *Describe your plan to protect identifiers from improper use or disclosure and to destroy them at the earliest time.*
- *Indicate why it is not possible to seek subjects' authorization for use or disclosure of PHI.*

- *Indicate why it is not possible to conduct this research without use or disclosure of the PHI.*
- *Indicate if PHI will be disclosed outside NSLIJ Health System, and if so, to whom. Note: PHI disclosed outside NSLIJ Health System, without HIPAA authorization needs to be tracked. Please see guidance at [www.nslj.com/irb](http://www.nslj.com/irb) for information about tracking disclosures.*

***Complete this section if you seek to obtain a partial waiver of the patient's authorization for screening/recruitment purposes (i.e., the researcher does not have access to patient records as s/he is not part of the covered entity)***

*Note: Information collected through a partial waiver for recruitment cannot be shared or disclosed to any other person or entity.*

- *Describe how data will be collected and used:*
- *Indicate why you need the PHI (e.g. PHI is required to determine eligibility, identifiers are necessary to contact the individual to discuss participation, other)*
- *Indicate why the research cannot practicably be conducted without the partial waiver (e.g. no access to medical records or contact information of the targeted population, no treating clinician to assist in recruitment of the study population, other)*

## **26. VULNERABLE POPULATIONS:**

Indicate whether you will include any of these vulnerable populations. If indicated, submit the appropriate appendix to the IRB for review:

- ☐ *Children or viable neonate*
- ☐ *Cognitively impaired*
- ☐ *Pregnant Women, Fetuses or neonates of uncertain viability or nonviable*
- ☐ *Prisoners*
- ☐ *NSLIJ Employees, residents, fellows, etc*
- ☐ *poor/uninsured*
- ☐ *Students*
- ☐ *Minorities*
- ☐ *Elderly*
- ☐ *Healthy Controls*

*If any of these populations are included in the study, describe additional safeguards that will be used to protect their rights and welfare.*

Some of the patients who were scheduled for their standard of care procedures may belong to one or more of the above checked categories. We will not be specifically

targeting any specific vulnerable populations for the purpose of research. All participants will be approached for consenting if they meet the eligibility criteria. All the participants in the study will be given a unique code and none of the PHI will be used to individually identify the participants. For all data analysis only the given codes will be used.

## 27. MULTI-SITE HUMAN RESEARCH (COORDINATING CENTER)

*If this is a multi-site study where you are the lead investigator, describe the management of information (e.g. results, new information, unanticipated problems involving risks to subjects or others, or protocol modifications) among sites to protect subjects.*

N/A

## 28. REFERENCES/BIBIOGRAPHY

*Provide a reasonable list of references directly related to the study. Any diagrams for new medical devices or brief reprints from journals might also prove useful.*

1. Everhart JE, Khare M, Hill M, Maurer KR. Prevalence and ethnic differences in gallbladder disease in the United States. *Gastroenterology* 1999; 117:632.
2. Neuhaus H, Feussner H, Ungeheuer A, et al. Prospective evaluation of the use of endoscopic retrograde cholangiography prior to laparoscopic cholecystectomy. *Endoscopy* 1992;24:745-9.
3. Lacaine F, Corlette M, Bismuth H. Preoperative evaluation of the risk of common bile duct stones. *Arch Surg* 1980;115:1114-6.
4. Chen YK, Parsi MA, Binmoeller KF, Hawes RH, Pleskow DK, Slivka A, Haluszka O, Petersen BT, Sherman S, Devière J, Meisner S, Stevens PD, Costamagna G, Ponchon T, Peetermans JA, Neuhaus H. Single-operator cholangioscopy in patients requiring evaluation of bile duct disease or therapy of biliary stones. *Gastrointest Endosc.* 2011; 74(4):805-14.
5. Awadallah NS, Chen YK, Piraka C, Antillon MR, Shah RJ. Is there a role for cholangioscopy in patients with primary sclerosing cholangitis? *Am J Gastroenterol.* 2006; 101(2):284-91.
6. Itoi T, Sofuni A, Itokawa F, Shinohara Y, Moriyasu F, Tsuchida A. Evaluation of residual bile duct stones by peroral cholangioscopy in comparison with balloon-cholangiography. *Dig Endosc.* 2010; 22:S85-9.
7. Maple JT, Ben-Manachem T, Anderson MA, et al. The role of endoscopy in the evaluation of suspected choledocholithiasis. *Gastrointest Endosc.* 2010; 71(1):1-8

8. Piraka C, Shah RJ, Awadallah NS, Langer DA, Chen YK. Transpapillary cholangioscopy-directed lithotripsy in patients with difficult bile duct stones. *Clin Gastroenterol Hepatol* 2007;5:1333-8.
9. Arya N, Nelles SE, Haber GB, Kim YI, Kortan PK. Electrohydraulic lithotripsy in 111 patients: a safe and effective therapy for difficult bile duct stones. *Am J Gastroenterol* 2004;99:2330-4
10. Farrell JJ, Bounds BC, Al-Shalabi S, Jacobson BC, Brugge WR, Schapiro RH, Kelsey PB. Single-operator duodenoscope-assisted cholangioscopy is an effective alternative in the management of choledocholithiasis not removed by conventional methods, including mechanical lithotripsy. *Endoscopy* 2005;37:542-7
11. Chen YK, Pleskow DK. Spyglass single-operator peroral cholangiopancreatography system for the diagnosis and therapy of bile-duct disorders: a clinical feasibility study. *Gastrointest Endosc* 2007; 65:832–841.