SAMPLE APPLICATION - RETROSPECTIVE RECORD REVIEW

The following includes sample language of an IRB Application for a Retrospective Record Review. *Thank you to Sibu Saha, MD, MBA, FACS, Department of Surgery for providing the bases for this sample which has been edited for educational purposes.* Please note, that this is not template language reviewed or endorsed by the IRB. There is no guarantee that use of the language or descriptions in this example will result in IRB approval. Each research proposal is unique with varying regulatory and ethical issues. Include only the descriptions that apply to your research and specify where italicized options are provided as examples. Do not include any described processes or procedures unless they apply and you are able with qualified staff, systems, or infrastructure to implement in the conduct of the study.

TITLE: A Retrospective Review of Extracorporeal membrane oxygenation (ECMO) after lung surgery at the University of Kentucky

RESEARCH DESCRIPTION

Background: Provide an introduction and background information. Describe past experimental and/or clinical findings leading to the formulation of your study. For research involving investigational drugs, describe the previously conducted animal and human studies. You may reference grant application/sponsor's relevant protocol pages and attach as an appendix in the E-IRB "Additional Information" section. For research that involves FDA approved drugs or devices, describe the FDA approved uses of this drug/device in relation to your protocol. Attach a copy of the approved labeling as a product package insert or from the Physician's Desk Reference in the applicable E-IRB "Study Drug" or "Study Device" section.

Extracorporeal membrane oxygenation (ECMO) is a life support measure that can provide cardiac or pulmonary support to patients with heart or lung failure. ECMO has been used in many patient groups over its history. ECMO saw most of its initial use in pediatric and neonatal patients. The average survival to discharge in neonatal ECMO patients is around 60%, but survival can be over 90% in conditions like meconium aspiration syndrome. ECMO has also been expanded to use in adult populations.

In adults, ECMO is routinely used for patients with many different conditions with the most prevalent being pre and post-operative lung transplant patients, cardiogenic shock and acute respiratory distress syndrome (ARDS). Though the survival rates may not be extremely high in all cases the ability to rescue patients from certain death has solidified the use of ECMO in adult populations.

A lot of research has been done dealing with the use of ECMO in many different patient populations but little has been done on patients receiving ECMO due to respiratory failure after lung surgery. ECMO in this patient population could increase survival but no study has been

done specifically looking at this group of patients. Many studies chose to combine these unique patients with the trauma patients or put them in another category. As a result, we would like to examine the University of Kentucky's experience with patients that have received ECMO after lung surgery.

Objectives: List your research objectives. You may reference grant application/sponsor's relevant protocol pages and attach as an appendix in the E-IRB "Additional Information" section.

The aim of this project is to review the University of Kentucky's experience with patients receiving ECMO after lung surgery from January 2012 to January 9, 2017 in relation to procedures, complications and outcomes.

Study Design: Describe the study design (e.g., single/double blind, parallel, crossover, etc.). Indicate whether or not the subjects will receive placebo medication at some point in the research procedures. Also, indicate whether or not the subjects will be randomized in this study. You may reference sponsor's protocol pages and attach as an appendix in the E-IRB "Additional Information" section. (Including the study design table from a sponsor's protocol is helpful to IRB members.)

Community-Based Participatory Research: If you are conducting community-based participatory research (CBPR), describe strategies for involvement of community members in the design and implementation of the study, and dissemination of results from the study.

Research Repositories: If the purpose of this submission is to establish a research repository describe the repository design and operating procedures. For relevant information to include, see question 22 of the UK IRB "Frequently Asked Questions (FAQs) on the Return of Research Results or Incidental Research Findings" [PDF].

This is a retrospective study of patients who underwent lung surgery and received ECMO from January 01, 2012 to January 9, 2017 at the University of Kentucky. Therefore, only records in existence at the time of IRB review and approval will be accessed for review.

Study Population: Describe the characteristics of the subject population, such as anticipated number, age range, gender, ethnic background and health status. Identify the criteria for inclusion and exclusion. Explain the rationale for the use of special classes such as fetuses, pregnant women, children, institutionalized, adults with impaired consent capacity, prisoners or others who are likely to be vulnerable. If women or minorities are included, please address how the inclusion of women and members of minority groups and their subpopulations will help you meet your scientific objectives. Exclusion of these groups requires clear and compelling rationale that shows inclusion is inappropriate with respect to the health of the subjects or that inclusion is inappropriate for the purpose of the study. Cost is not an acceptable reason for exclusion except when the study would duplicate data from other sources. Women of childbearing potential should not be excluded routinely from participation in clinical research.

Male or female patients greater than 18 years of age who have been treated at the University of Kentucky for lung surgery and ECMO.

Subject Recruitment Methods & Privacy: Describe plans for the identification and recruitment of subjects, including how the population will be identified, and how initial contact will be made with potential subjects by those having legitimate access to the subjects' identity and the subjects' information. Describe the setting in which an individual will be interacting with an investigator. If applicable, describe proposed outreach programs for recruiting women and minorities as participants in clinical research.

Medical IRB Research Description

Please note: Based upon both legal and ethical concerns, the UK Medical Institutional Review Board (IRB) will not approve finder's fees for research studies.

Study personnel will obtain a list of medical record numbers for patients who have undergone past lung surgery procedures involving ECMO within the Cardiothoracic and Surgery database.

Advertising: Specify if any advertising will be performed. If yes, please see "Advertisements - Application Instructions" for instructions on attaching copies of the information to be used in flyers or advertisements. Advertisements must be reviewed and approved by the IRB prior to use. For additional details, see topic "Recruitment" or "Advertising" on ORI's IRB Survival Handbook web page for the PI Guide to Identification and Recruitment of Human Subjects for Research [D7.0000] document [PDF]. If you will be recruiting subjects via advertising at non-UK owned or operated sites, you should include a copy of written permission from that site to place the advertisement in their facilities.

N/A

Informed Consent Process: Describe the consent/assent procedures to be followed, the circumstances under which consent will be sought and obtained, the timing of obtaining informed consent, whether there is any waiting period between informing the prospective subject and obtaining consent, who will seek consent (Note: all individuals authorized to obtain informed consent should be designated as such in the E-IRB "Study Personnel" section of this application), steps taken to minimize the possibility of coercion or undue influence, the method used for documenting consent, and if applicable who is authorized to provide permission or consent on behalf of the subject. Describe, if applicable, use of specific instruments or techniques to assess and confirm potential subjects' understanding of the nature of the elements of informed consent (i.e., research involving adult subjects with impaired consent capacity) and/or a description of other written materials that will be provided to participants or legally authorized representatives. If you have a script, please prepare it using the informed consent template as a guide, and submit it on a separate page. For additional information, see the "Informed Consent Standard Operating Procedures (SOPs)" [PDF].

Informed Consent for Research Involving Emancipated Individuals
If you plan to enroll some or all prospective subjects as emancipated, consult with UK legal counsel **when preparing the IRB application and prior to submitting the application to the IRB**. Include legal counsel's recommendations (legal counsel's recommendations may be attached in the E-IRB "Additional Information" section as a separate document, if necessary). For a complete definition of emancipated minors, see the section on *Emancipated Individuals* in the Informed Consent SOP [PDF].

Informed Consent for Research Involving Non-English Speaking Subjects
If you are recruiting non-English speaking subjects, the method by which consent is obtained should be in language in which the subject is proficient. Describe the process for obtaining informed consent from prospective subjects in their respective language (or the legally authorized representative's respective language). In order to ensure that individuals are appropriately informed about the study when English is their second-language, describe a plan for evaluating the level of English comprehension, and the threshold for providing a translation, or explain why an evaluation would not be necessary. For additional information on inclusion of non-English speaking subjects, or subjects from a foreign culture, see Instructions for Recruiting Non-English Speaking Participants or Participants from a Foreign Culture.

Medical IRB Research Description

Research Repositories
If the purpose of this submission is to establish a research repository describe this in the informed consent process. For guidance regarding consent issues, process approaches, and sample language see the "University of Kentucky Issues to be Addressed and Sample Consent Language for Tissue/Specimen Repositories or Individual Studies Banking Material for Future Use" [PDF].

We are obtaining data from records in existence at the time of this submission. The study involves no prospectively collected data so there is no access to patients or opportunity to seek informed consent. A waiver of consent will be sought from the IRB as re-contacting this number of patients to obtain informed consent would be impracticable and would hinder our ability to conduct the study. The study is no greater than minimal risk and will have no direct impact on patient's rights, welfare, or clinical care. Measures described in the Confidentiality section below will be implemented to minimize risk of a breach of confidentiality during record review and data collection.

Research Procedures: Describe the research procedures that will be followed. Identify all procedures that will be carried out with each group of subjects. Differentiate between procedures that involve standard/routine clinical care and those that will be performed specifically for this research project.

This research involves no intervention, procedures or interaction with subjects.

Data Collection: List the data on the application or attach a list of the data to be collected about or from each subject (e.g. interview script, survey tool, data collection form for existing data).

If the research includes survey or interview procedures, the questionnaire, interview questions or assessment scales should be included in the application (use attachment button below).

The data collection instrument(s) can be submitted with your application in draft form with the understanding that the final copy will be submitted to the IRB for approval prior to use (submit final version to the IRB for review as a modification request if initial IRB approval was issued while the data collection instrument was in draft form)

A retrospective record review will be done by the principal investigator (PI) and study personnel to collect data regarding lung surgery and ECMO from January 2012 to January 9, 2017. This will include demographics, comorbidities, and past medical history as well as the indication for the procedure. Peri/post-operative data including type of surgery, operating room time, length of stay, re-hospitalization rates, and short/long term morbidity and mortality. A list of the exact data collected is provided below. Data will be analyzed and reported in a de-identified, aggregate form.

Full Name
Medical Record Number
Demographic data: age, race and gender
Past and recent medical and surgical history
Symptoms, co-morbidities, medications, and diagnostic studies
Indication for lung surgery and ECMO
Operation time and length of stay
Re-hospitalization rates

Medical IRB Research Description

Date of admissions/ discharge and operation procedures
Results of physical exams done by healthcare professionals
Complications including date of death
Postop visits and status at visits

Resources: Describe what resources/facilities are available to perform the research (i.e., staff, space, equipment). Such resources may include a) staffing and personnel, in terms of availability, number, expertise, and experience; b) psychological, social, or medical services, including counseling or social support services that may be required because of research participation; c) psychological, social, or medical monitoring, ancillary care, equipment needed to protect subjects; d) resources for subject communication, such as language translation services, and e) computer or other technological resources, mobile or otherwise, required or created during the conduct of the research. Please note: Some mobile apps may be considered mobile medical devices under FDA regulations (see FDA Guidance). Proximity or availability of other resources should also be taken into consideration, for example, the proximity of an emergency facility for care of subject injury, or availability of psychological support after participation.

Research activities conducted at performance sites that are not owned or operated by the University of Kentucky, at sites that are geographically separate from UK, or at sites that do not fall under the UK IRB's authority, are subject to special procedures for coordination of research review. Additional information is required (see ORI's Off-Site Research web page); supportive documentation can be attached in the E-IRB "Additional Information" section. Provide a written description of the role of the non-UK site(s) or non-UK personnel who will be participating in your research. The other site may need to complete its own IRB review, or a cooperative review arrangement may need to be established. Contact the Office of Research Integrity at (859) 257-9428 if you have questions about the participation of non-UK sites/personnel.

If the University of Kentucky is the lead site in a multi-site study, or the UK investigator is the lead investigator, describe the plan for managing the reporting of unanticipated problems, noncompliance and submission of protocol modifications and interim results from the non-UK sites.

Medical records will be reviewed by Cardiothoracic Surgery study personnel at the University of Kentucky Medical Center Cardiothoracic Surgery Offices and data will be analyzed by the PI. Both paper and electronic medical records will be reviewed; but, collected data will only be stored electronically (*in REDCap/in an encrypted database/spreadsheet)*.

Potential Risks: If applicable, describe any potential risks--physical, psychological, social, legal or other.

The only risk is the breach of confidentiality. This will be avoided by the procedures described in the Confidentiality section.

Research Materials, Records and Privacy: Identify the sources of research material obtained from individually identifiable living human subjects. Indicate what information (specimens, records, data, genetic information, etc.) will be recorded and whether use will be made of existing specimens, records or data. Explain why this information is needed to conduct the study.

Return of Research Results or Incidental Findings (if applicable):
If research has the potential to identify individual results or discover incidental findings that could affect the health of a subject, describe plans to assess, manage, and if applicable disclose findings with individual subjects or provide

justification for not disclosing. For IRB expectations, refer to the UK IRB "Frequently Asked Questions (FAQs) on the Return of Research Results or Incidental Research Findings" [PDF].

> Investigational records from this study will be maintained in a confidential manner (*in REDCap/in an encrypted database/spreadsheet)*. Subjects' names or identifiers will not be associated with any published results. Consistent with IRB procedures, the study records will be maintained for six years after completion of study. Thereafter, paper and electronic records will be destroyed or erased using data overwriting software and confidential methods (shredding/confidential recycling) per University policy. The study is not subject to record retention or inspection requirements of any other regulatory agencies.

Safety Precautions: Describe the procedures for protecting against or minimizing any potential risks, *including risks of breach of confidentiality or invasion of privacy*. Where appropriate, discuss provisions for ensuring necessary medical or professional intervention in the event of adverse events, or unanticipated problems involving subjects. Also, where appropriate, describe the provisions for monitoring the data collected to ensure the safety of subjects. If vulnerable populations other than adults with impaired consent capacity are to be recruited, describe additional safeguards for protecting the subjects' rights and welfare.

> Provisions to guard against potential risk of harm resulting from a confidentiality breach are detailed in the Confidentiality section.

Benefit vs. Risk: Describe potential benefits to the subject(s); include potential benefits to society and/or general knowledge to be gained. Describe why the risks to subjects are reasonable in relation to the anticipated benefit(s) to subjects and in relation to the importance of the knowledge that may reasonably be expected to result. If you are using vulnerable subjects (e.g., impaired consent capacity, pregnant women, etc…), justify their inclusion by describing the potential benefits of the research in comparison to the subjects' vulnerability and the risks to them. For information about inclusion of certain vulnerable populations, see the IRB/ORI Standard Operating Procedure for Protection of Vulnerable Subjects [C3.0100] [PDF].

> There are no direct benefits for the patients enrolled in this study. Rather, future patients requiring lung surgery and ECMO may benefit from knowledge gained from this review.

Available Alternative Treatment(s): Describe, if applicable, alternative treatments and procedures that might be advantageous to the subjects, should they choose not to participate in the study. This should include a discussion of the current standard of care treatment(s).

> N/A

Research Materials, Records and Privacy: Identify the sources of research material obtained from individually identifiable living human subjects. Indicate what information (specimens, records, data, genetic information, etc.) will be recorded and whether use will be made of existing specimens, records or data. Explain why this information is needed to conduct the study.

Return of Research Results or Incidental Findings (if applicable):
If research has the potential to identify individual results or discover incidental findings that could affect the health of a subject, describe plans to assess, manage, and if applicable disclose findings with individual subjects or provide justification for not disclosing. For IRB expectations, refer to the UK IRB "Frequently Asked Questions (FAQs) on the Return of Research Results or Incidental Research Findings" [PDF].

Medical IRB Research Description

Research Materials, Records, and Privacy: Investigational records from this study will be maintained in a confidential manner. Consistent with IRB retention requirements, the study records will be maintained for six years after completion of study. Thereafter, paper and electronic records will be destroyed or erased using data overwriting software per University policy and confidential methods. Subsequent analyzed aggregate data will be maintained to enable retrieval if requested during consideration for publication

Confidentiality: Specify where the data will be stored and how the researcher will protect the data with respect to privacy and confidentiality. Provide a time table for destroying the data and identify how they will be destroyed, or provide rationale for perpetual maintenance [Note: The investigator is responsible for retaining the signed consent and assent documents and IRB research records for at least six years after study closure as outlined in the Study Closure SOP [PDF]. If the research falls under the authority of FDA or other regulatory agency, the investigator is responsible for retaining the signed documents and IRB records for the period specified if longer than six years after completion of the study]. For multi-site studies, the PI consults the study sponsor regarding retention requirements, but must maintain records for a minimum of six years after study closure. If the retention requirements specified in other statutes or external agency's regulations are longer, the agency requirements will apply.].

Also, specify who will access the identified data, and why they need access. If applicable, describe what measures will be taken to ensure that subject identifiers are not given to the investigator. If applicable, describe procedures for sharing data with entities not affiliated with UK.

***Please note**:* The IRB expects researchers to access the minimal amount of identifiers to conduct the study and comply with applicable HIPAA and Family Educational Rights and Privacy Act (FERPA) requirements. If data are going to be collected, transmitted, and/or stored electronically, for appropriate procedures please refer to the guidance document "Confidentiality and Data Security Guidelines for Electronic Data" [PDF].

Also please note that storage of data on cloud services may not be appropriate and is subject to applicable university policies regarding the use of cloud services. If deemed too sensitive or inappropriate to be stored or collected using cloud services, the IRB may require an alternate method of data storage in accordance with applicable university policies and the electronic data security guidance document referenced above.

If a research protocol involves the creation and/or use of a computer program or application, mobile or otherwise, please specify whether the program/application is being developed by a commercial software developer or the research team and provide any relevant information regarding the security and encryption standards used, how data is stored and/or transmitted to the research team, what information about the subjects the program/application will collect, etc. The IRB may require software programs created or used for research purposes be examined by a consultant with appropriate Internet technology expertise to ensure subject privacy and data are appropriate protected.

Confidentiality: Every effort will be made to maintain the confidentiality of study records. Information collected during the study will be identified by a unique study number. A cross-walk table will be developed which links the unique study number to the medical record number. Information from the medical record will be recorded (*in REDCap, on a pass-word protected spreadsheet on an encrypted file)*. The cross-walk table containing the key to the coded spreadsheet will be stored in separate password-protected file on the investigator's identity authenticated, secure firewall protected, personal computer at UK Healthcare. Data will be analyzed and reported in a de-identified, aggregate form.

Medical IRB Research Description

Does your research involve Non-English Speaking Subjects or Subjects from a Foreign Culture? Yes or No

Payment: Describe the incentives (e.g., inducements) being offered to subjects for their time during participation in the research study. If monetary compensation is offered, indicate how much the subjects will be paid and describe the terms and schedule of payment. (It is IRB policy that provision should be made for providing partial payment to subjects who withdraw before the completion of the research. Monetary payments should be prorated or paid in full.)

N/A

Costs to Subjects: Describe any costs for care associated with research (including a breakdown of standard of care procedures versus research procedures), costs of test drugs or devices, and research procedure costs that are the subject's responsibility as a consequence of participating in the research. Describe any offer for reimbursement of costs by the sponsor for research related injury care.

N/A

Data and Safety Monitoring: The IRB requires review and approval of data and safety monitoring plans for greater than minimal risk research, clinical research, or NIH-funded/FDA-regulated clinical investigations.

If you are conducting greater than minimal risk research, clinical research, or your clinical investigation is NIH-funded/FDA-regulated, describe your Data and Safety Monitoring Plan (DSMP). Click here for additional guidance on developing a Data and Safety Monitoring Plan.

If this is a *non-sponsored investigator-initiated* protocol considered greater than minimal risk research, clinical research, or your clinical investigation is FDA-regulated, *and* if you are planning on using a Data and Safety Monitoring Board (DSMB) as part of your DSMP, click here for additional guidance for information to include with your IRB application.

N/A

Subject Complaints: Describe procedures (other than information provided in consent document) for handling subject complaints or requests for information about the research. The procedures should offer a safe, confidential, and reliable channel for current, prospective, or past research subjects (or their designated representative) permitting them to discuss problems, concerns and questions, or obtain information.

N/A

Research Involving Non-English Speaking Subjects or Subjects from a Foreign Culture:

N/A

Does your study involve **HIV/AIDS research and/or screening for other reportable diseases (e.g., Hepatitis C, etc…)**?

Medical IRB Research Description

N/A

PI-Sponsored FDA-Regulated Research

Is this an investigator-initiated study that:

1) involves testing a Nonsignificant Risk (NSR) Device, or
2) is being conducted under an investigator-held Investigational New Drug (IND) or Investigational Device Exemption (IDE)?

N/A

INFORMED CONSENT/ASSENT PROCESS/WAIVER

You must check the box for at least one of the consent items and attach the corresponding document(s) **as a PDF, and/or check mark one of the waivers.**

- ☐ Informed Consent Form (and/or Parental Permission Form)
- ☐ Assent Form
- ☐ Cover Letter (for survey/questionnaire research)
- ☐ Phone Script (and/or Assent Script)
- ☐ Informed Consent/HIPAA Combined Form
- ☐ Debriefing and/or Permission to Use Data Form
- ☐ Sponsor's sample consent form for Dept. of Health and Human Services (DHHS)-approved protocol

☑ Request for Waiver of Informed Consent Process

If you are requesting IRB approval for waiver of the requirement for the informed consent process, or alteration of some or all of the elements of informed consent (i.e. medical record review, deception research, or collection of biological specimens), complete Section 1 and Section 2 below.

Note: The IRB does not approve waiver or alteration of the consent process for research that is subject to FDA regulations, except for planned emergency/acute care research as provided

under FDA regulations. Contact ORI for regulations that apply to single emergency use waiver or acute care research waiver (859-257-9428)

SECTION 1.

Check the appropriate item:

☑ I am requesting waiver of the requirement for the informed consent process.

☐ I am requesting alteration of the informed consent process.

If you checked the box for this item, describe which elements of consent will be altered, and/or omitted, and justify the alteration.

SECTION 2.

The IRB may consider your request provided that **all** of the following conditions apply to your research and are appropriately justified. Explain in the space provided for each condition how it applies to your research.

a) The research involves no more than minimal risk to the subject.

This study retrospectively reviews medical records of patients who have undergone a specific procedure for clinical purposes. No component is greater than minimal risk.

b) The rights and welfare of subjects will not be adversely affected.

To protect confidentiality, data will be recorded (*in REDCap, on a pass-word protected spreadsheet on an encrypted file),* in which the medical record number has been replaced with a unique study number. Data will be analyzed and reported in a de-identified, aggregate form. Study records will be stored on the investigator's identity authenticated, secure firewall protected, personal computer at

c) The research could not practicably be carried out without the waiver or alteration.

It would not be practicable to perform the research if consent were required, given the number of records necessary to obtain valid data and meet the protocol objectives. The study personnel do not interact or have contact with patients whose records may be eligible for inclusion in the review. Therefore, there is no opportunity to obtain written consent or verbal consent with a waiver of documentation.

d) Whenever possible, the subject will be provided with additional pertinent information after they have participated in the study.

Not applicable, as no interaction between study personnel and subjects.

HIPAA

Is HIPAA applicable? (•) Yes ( ) No

(Visit ORI's Health Insurance Portability and Accountability Act (HIPAA) web page to determine if your research falls under the HIPAA Privacy Regulation.)

If yes, check below all that apply and attach the applicable document(s):

- [ ] HIPAA De-identification Certification Form
- [ ] Informed Consent/HIPAA Combined Form
- [x] HIPAA Waiver of Authorization

Attachments