

HE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL





ORIENTATION FOR NEW CLINICAL RESEARCH PERSONNEL MODULE 6

Presented by

NC TraCS Institute UNC Office of Clinical Trials UNC Network for Research Professionals

Online Logistics

- I will be monitoring the chat window for questions and will ask those questions to the presenter at the end of each talk, or during breaks in the conversation when the presenter invites questions.
- Slides will be emailed to everyone after the presentation, along with the evaluation link and any announcements.
- If you would like a certificate for ACRP/SOCRA credit, please complete the evaluation at the end of the presentation and send me an email – <u>marie_rape@med.unc.edu</u>
- Feel free to reach out to me either in the chat window or by email, I'm happy to help with anything you need.

Overall Agenda for Orientation

- Module 1: Introduction, NRP/ Education, and Office of Clinical Trials
- Module 2: IRB Processes, Conflict of Interest
- Module 3: GCP, Documentation, Informed Consent, Research Monitor Access
- Module 4: Contracts, Clinical Trial Agreements, Planning/Accounting of Funds, NIH Budgets, Billing Coverage Analysis
- Module 5: Recruitment, Study Start-up, Roles of Research Personnel, UNC Investigational Drug Services, UNC Device Policy
- Module 6: Introduction to RedCap, Investigator-Initiated Study Process, ClinicalTrials.gov, Documenting AEs & SAEs, IND and IDE studies



Week 6 Evaluation Link: https://go.unc.edu/orientwk6

OR



If you need a certificate of attendance, please email <u>marie_rape@med.unc.edu</u> after completing the evaluation survey.





THIMM CLASSROOM **REDCap Coordinator Overview**



Clarence W. Potter Clinical Data Manager cpotter@med.unc.edu

My Two Favorite Data Sayings ...

"TRY TO KEEP YOU FROM MESSING UP YOUR DATA"

"JUST SAY NO ..."





Easiest way I know to collect data "properly" ("gcp")

https://go.unc.edu/redcap-consent

https://go.unc.edu/redcap-multilingual

https://tracs.unc.edu/redcap

https://tracs.unc.edu/redcap-resources







REDCap ...

- YOU CAN DO IT designed for nonprogrammers
- Web-based data collection tool nothing to install
- Transfer to statistics package for analysis
- Secure, Consistent, Easy, CHEAP
- Encrypted during transmission
- Offline solutions MyCap and Mobile



FDA Studies – 21CFR11

- REDCap at UNC is NOT 21CFR11 compliant for use in FDA studies
- UNC does not support
- Another solution is in the works
 DocuSign



A favorite grumpy old man created of comedian Jeff Dunham



Want a Test Project?

- Put in a request for <u>new project</u> https://tracs.unc.edu/redcap-request
- Practice project fill out request, as that, with minimal info.
- Real (morph into real) project -- fill it out completely for the project
- Happy to help, but remember we charge for my time (suggest budget \$75 x 4 hours / year)



Service page: tracs.unc.edu/redcap

Forms	1 st Thur	10/8	9:30 - 11
Forms - Hands On	2 nd Wed	10/14	1 - 3:00
Functions	3 rd Tue	10/20	3 - 4:30
Open Session	4 th Wed	10/28	3 – 4:30
Forms	1 st Thur	11/5	9:30 - 11
Forms - Hands On	2 nd Wed	11/11	1 - 3:00
Functions	3 rd Tue	11/17	3 - 4:30
Open Session	4 th Wed	11/25	3 – 4:30

Data Management Class – Dec 2020. For those that are deeply involved in planning / execution of the data process





Online Designer



"soft"



Action Tags are the "magic" – set defaults, hide things



Branching logic

Action tags - set default



orm on this page. For an overview of the different field types available, you	may view the El Field Types video (4 min).	
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		Maximum:
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		- Sectoriology service -
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STODAY		Custom Alignment Right / Vertical (RV)

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		Identifier? No O Yes Cost the fails contain identifying information (in.g., name, 55%, address)?
		Custom Alignment Right / Vertical (RV)
		Field Note (optional)
	Statement and a state	Searl remarker text displayed undervicetly field
Calculation Equation How do (format the equation) Learn round([weight]*10000/[[height]*[height]],1)	iberrito ute 🖌 fpecial fun, ions	



Calculate BMI

Pick list



What 'field type' should I use?

- For each field (a place for every answer):
 - Fill in the blank? -> text field type
 - Validation (strict) date, integer, number, phone, zip code, MRN, email
 - Range of values (soft check) warning if out of range
 - Are there standard, generally acceptable answers?
 - Pick from a list?
 - Yes/No, True/False, list of symptoms?
 - Mutually exclusive -> radio / dropdown
 - Multiple selections -> checkbox
 - Calculate from existing data? -> calc
 - Upload an electronic file? -> file
 - Signature, slider, descriptive, header, yesno, truefalse, <u>SQL</u>





REDCap Survey

- Not just data collection forms, but REDCap also has surveys.
- Form = Research team enters data
- <u>Survey</u> = Subjects enter data
- Survey is a form first, and then you enable it as a survey.
- <u>Schedule</u> those to go out at certain times



Integrated Survey Tool

- <u>Generic</u> survey link (first form only)
- <u>Subject-specific</u> links to their existing data (any other survey)
- REDCap can send up to 5 <u>reminders</u>
- Surveys can be sent automatically.



Qualtrix vs REDCap

- Maybe for single survey
- Rich features
- Separate surveys
- Not linked together
- Multiple exports

- Mix of research and survey data
- Multiple integrated surveys
- Linked together
- Single export



Multilingual External Module

Field Type: Multiple Choice - Radio Buttons (Single Answ 🔻	Action Tags / Field Annotation (optional)
Question Number (actions)	@HIDDEN @p1000lang{"English":"What language are you most comfortable communicating and hearing?","Spanish":"¿En qué idioma se
Displayed only on the survey page	Variable Name (languages)
Field Label Use the Rich Text Editor ?	Overhears, numbers, Multilingual
English Spanish Toggle	How to use [9] Smar Questions
	Required?* Nt English What language are you most comfor
	Identifier? No Spanish ¿En qué idioma se siente más cómo
	Does the field contain ide Error/Validation Messages
	Custom Alighmer
Choices (one choice per line) Copy existing choices	
1, English	Field Note (optiona Spanish
2, Spanish	Small reminder text displ Answers
	English: 1 English
	English: 2 Spanish
	Spanish: 1 Inglés
	Spanish: 2 Español
	Field Note
	English
	English
	Spanish
	Other Action Tags
	THE NORTH CAROLINA
	TRANSLATIONAL & CLINICAL Sciences institute

Advanced REDCap

- DDP pull data from Epic
- Embed {field_other} right next to option for other. Use it to make tables.
- Smart Variables
 - [weight_kg][previous-eventname][weight_kg]
 - @DEFAULT="[previous-eventname][phone1]"





Editing existing Record ID 5						
Record ID 5 Record ID To rename the record, see the record action drop-down at top of the Record Home Page.						
Name	Age	Height (cm)	Weight (kg)	Comments		
joe	17	44	55	happy as can be		
sally	15	33	44	delightful		

More Info ...

- HELP -- tracs.unc.edu/redcap-request
- Service page -- tracs.unc.edu/redcap
 Classes, FAQ, Videos from classes
- Training materials tracs.unc.edu/redcap-resources
 - Slides for classes
 - REDCap Starter Guide
 - REDCap Survey Guide
 - Top 10 questions
- Working example of eConsent Survey
 - go.unc.edu/redcap-consent
 - Grab the zip file in the tool box on training page



Check out slides for all classes

Move to Production

- Your team: develop and test the project all the calculations and all the branching logic
- Click move to production We'll review and send recommendations
- Looking for
 - consistent coding
 - Validated fields and include numeric ranges
 - branching in place and appears to work
 - proper use of checkboxes and radio/dropdown



Next Steps

- Who ya gonna call??
- https://tracs.unc.edu/redcap-request to get your own project
- https://tracs.unc.edu/redcap to register for classes





tracs.unc.edu/redcap-request







Sponsor-Investigator Responsibilities

Valorie Buchholz

- Associate Director
- **Clinical Trial Quality Assurance Program**



RESPONSIBILITIES OF A PI - Office of Human Research Protection (OHRP)

- obtaining and documenting informed consent of subjects or subjects' legally authorized representatives prior to the subjects' participation in the research, unless these requirements have been waived by the IRB (<u>45 CFR 46.116</u>; <u>45 CFR 46.117</u>);
- obtaining prior approval from the IRB for any modifications of the previously approved research, including modifications to the informed consent process and document, except those necessary to eliminate apparent immediate hazards to subjects (<u>45 CFR</u> <u>46.103(b)(4)</u>); and
- ensuring that progress reports and requests for continuing review and approval are submitted to the IRB in accordance with the policies, procedures, and actions of the IRB as referenced in the institution's OHRP-approved Federalwide assurance (<u>45 CFR</u> <u>46.103(b)(4)</u>, <u>45 CFR 46.109(e)</u>, <u>45 CFR 46.115(a)(1)</u>). In certain circumstances, investigators also would be responsible for meeting the following additional regulatory requirements:
- providing to the IRB prompt reports of any unanticipated problems involving risks to subjects or others <u>45 CFR 46.103(b)(5)</u>;
- providing to the IRB prompt reports of serious or continuing noncompliance with the regulations or the requirements or determinations of the IRB (<u>45 CFR 46.103(b)(5)</u>); and
- keeping certain records as required by the HHS regulations for at least three years after completion of the study (<u>45 CFR 46.115(b)</u>).



RESPONSIBILITIES OF A PI - FDA

- Ensuring that a clinical investigation is conducted according to the signed investigator statement for clinical investigations of drugs, including biological products, or agreement for clinical investigations of medical devices, the investigational plan, and applicable regulations
- Protecting the rights, safety, and welfare of subjects under the investigator's care
- Controlling drugs, biological products, and devices under investigation (21 CFR 312.60, 21 CFR 812.100)



PI RESPONSIBILITIES – Good Clinical Practice (GCP)

- Compliance with Protocol
- Study Personnel Adequate Resource
- Medical Care of Trial Participants
- IRB Involvement
- Investigational Product(s)/Intervention
- Informed Consent of Participants

- Participant Recruitment
- Participant Informed Consent
- Records/Recording Data
- Essential Documents
- Progress Reports
- Safety Reporting

UNC has adopted GCP as the standard by which research with human subjects is conducted.

GCP is applicable to both biomedical and social/behavioral research.



INVESTIGATOR RESPONSIBILITIES



HUMAN SUBJECTS PROTECTION TRAINING RESEARCH STAFF IRB SUBMISSIONS/CONTINUING REVIEW **OBTAINING & MAINTAINING INFORMED CONSENT** STUDY CONDUCT/OVERSIGHT SUPERVISION OF STAFF TO WHOM TRIAL RELATED DUTIES ARE DELEGATED INVESTIGATIONAL PRODUCT ACCOUNTABILITY ASSESSMENT OF ADVERSE EVENTS **RECORD RETENTION**





WHAT HAPPENS WHEN THE

PRINCIPAL INVESTIGATOR IS

ALSO THE SPONSOR?



Who is a Sponsor- Investigator?

GCP

An individual who both <u>initiates</u> and <u>conducts</u>, alone or with others, a clinical trial, and under whose immediate direction the investigational product is administered to, dispensed to, or used by a subject. The term does not include any person other than an individual (e.g., it does not include a corporation or an agency). <u>The obligations of a sponsor-investigator include both those of a sponsor and those of an investigator</u>.

FDA

- An individual who both *initiates* and *conducts* an investigation, and under whose immediate direction the investigational product (IP) is administered or dispensed.
 - The term does not include any person other than an individual.
 - <u>The requirements applicable to a sponsor-investigator include both those applicable to an</u> investigator and a sponsor.

[21 CFR 312.3 and 21 CFR 812.3]



RESPONSIBILITIES (Single Site)



MANAGE QUALITY THROUGHOUT THE TRIAL

SELECTING QUALIFIED MONITORS TO MONITOR THE INVESTIGATION

ENSURING THE TRIAL IS CONDUCTED ACCORDING TO THE PROTOCOL

REGISTERING TRIAL ON CLINICALTRIALS.GOV AND REPORTING RESULTS IF APPLICABLE



Key Responsibilities

- Monitoring of the clinical investigation
 - Risk based plan
 - Identify Critical Data Points and Processes
 - Informed Consent Obtained Properly
 - Eligibility and Protocol Compliance
 - Data Verification Related to Study End Points
 - IP Accountability (If Applicable)
- ClinicalTrials.gov
 - Timing for registration based on multiple factors see OCT website for additional information

FDA Guidance – Risk Based Monitoringhttps://www.fda.gov/downloads/Drugs/Guidances/UCM269919.pdf



Multi-Site Trials





RESPONSIBILITIES MULTI-SITE TRIALS



MAINTAINING A TRAIL MASTER FILE INCLUSIVE OF ESSENTIAL DOCUMENTS SELECTING QUALIFIED INVESTIGATORS PROVIDING INFORMATION TO INVESTIGATORS TO CONDUCT THE TRIAL PROPERLY MONITORING THE INVESTIGATORS MAINTAINING RECORDS SHOWING RECEIPT, SHIPMENT, DISPOSTION OF THE INVESTIGATIONAL PRODUCT INFORMING INVESTIGATORS OF SIGNIFICANT NEW ADVERSE EVENTS OR RISKS



Key Responsibilities

Collecting ******Essential Documents****** From Sites:

- CVs/Licenses
- IRB Approvals (inclusive of approved Informed Consent Documents)
- Signatures Pages inclusive of each amendment or version
 - (Protocol and Investigator Brochure/Device Manual if applicable)
- Lab Accreditations & Normal Ranges (if applicable)
- Trial Initiation Report
- Relevant Communications with Sites

** See ICH GCP E6(R2) Section 8 for a comprehensive listing of essential documents



Key Responsibilities

- Notification To Investigators of Any New Risks Identified or Safety Information
- Signed, Completed Case Report Forms
- Delegation/Signature Logs
- Shipping Records of Investigational Product
- Ensuring any additional sites are added to the ClinicalTrials.gov record


Studies Conducted Under an IND or IDE

- 1572s or Investigator Agreement
- Financial Disclosure Forms



As Well As.....

- Submission and maintenance of Regulatory Authority submissions (hint FDA ☺)
 - New protocols under the same IND/IDE
 - Annual progress reports
 - Significant protocol revisions
 - Adding additional sites
 - Change in PI FDA must be notified within 30 days
 - Safety reporting
 - Notify FDA of any unexpected fatal or life-threatening suspected adverse reactions within 7 calendar days
 - Notify FDA (and participating investigators) via an IND safety report of potential serious risks within 15 calendar days
 - Notify IRB per their reporting requirements (if using UNC IRB, see OHRE SOP 1401)

Resources offered through NC TraCS and ReGARDD.org



Risk factors for non-compliance

- Lack of knowledge (Protocol, Regulations, Processes)
- Insufficient Investigator supervision/involvement in study conduct
- Inadequate training of study staff
- Inappropriate delegation of study tasks to unqualified persons
- Overworked investigator and study staff (e.g., large number of subjects enrolled, complex study with large amount of data collection, too many concurrent studies)



Frequent Findings during CTQA Reviews

- Missing consent documents including HIPAA auths
- Missing essential documents
- Lack of training documentation
- Lack of correspondence
- Lack of database management and review





What non-compliance can lead to.....





Retraction Watch Database (http://retractiondatabase.org/RetractionSearch.aspx?)

55 Publications Associated with UNC Researchers Retracted or Withdrawn for Corrections since 2003 (4 in 2020!!)

Results Not ReproducibleConceFalsification/Fabrication of DataUnrelInvestigation by Company/InstitutionError

Concerns Issues About Data

Unreliable Results

Error in Analyses



Resources

- ICH GCP E6(R2) dated 9Novemer 2016: <u>https://www.ich.org/page/efficacy-guidelines</u>
- Office of Human Research Ethics- Links to internal and external resources (FDA, OHRP, NIH, Associations, Policies, etc.): <u>https://research.unc.edu/human-research-ethics/resources/</u>
- Office of Clinical Trials Links to Forms/Templates (DOA log, SAE log, Start-up Checklist, Training log, etc.): <u>https://research.unc.edu/clinical-trials/training/</u>
- NC TraCS Protocol development, data management, IND/IDE submissions maintenance: <u>https://tracs.unc.edu/</u>



THANK YOU!!



ClinicalTrials.gov Registration Overview

Monica Coudurier

Office of Clinical Trials

m_coudurier@unc.edu

(919) 843-2333

Overview

Which trials require registry on ClinicalTrials.gov? Results reporting?

When to: Register? Report results?

How to get started?

Record Upkeep/Maintenance requirements?

Documents Required?

Tips for Creating Outcome Measures



History of ClinicalTrials.gov (CT.gov)

What is ClinicalTrials.gov?



- Web-based registry
- Includes public and privately funded clinical trials
- Maintained by National Library of Medicine (NLM)
- Mandated by FDA Modernization Act (FDAMA) 1997
- Publicly available since Feb 2000
- Expanded by FDA Amendments Act (FDAAA) 2007
- Clarified/Expanded Final Rule 2017

Trial Registration

Which trials need to be registered?

Organizations Requiring Trial Registration

ICMJE	International Committee of Medical Journal Editors
NIH	National Institutes of Health
ACT	Food and Drug Administration: FDAAA Section 801 Final Rule
CMS	Centers for Medicare and Medicaid Services

Rules Driving CT.gov Registration?



Trial Registration Overview Chart

	Register WHEN?	Phase 1	Phases 2-4	Device	Other Interventional *	Observational	Post Results?
ICMJE	<u>Before</u> enrollment of 1 st subject	Yes	Yes	Yes	<mark>Yes</mark>	No	No
NIH	Within 21 days of 1st subject's enrollment	Yes	Yes	Yes	<mark>Yes</mark>	No	Yes
FDA	Within 21 days of 1st subject's enrollment	No	Yes	Yes	No	No	Yes
CMS	Prior to claims submission (for Qualifying Clinical Trials)	Yes	Yes	Yes	No	No	No

*Health-related or Behavioral Interventional Trials Patient-Centered Outcome Research Institute (PCORI) funding

International Committee of Medical Journal Editors

ICMJE

Overall

- Study must be registered <u>prior</u> to enrollment of 1st participant
- Signing Informed Consent = "Enrollment"
- NCT number assignment officially marks record registration
 - NCT assignment upon completion of CT.gov QC review process and public posting of registration record
 - Protect publication eligibility: enroll after NCT number received



JAMA The Journal of the American Medical Association







Majority of journals follow ICMJE rules

includes non-official members



ICMJE "Clinical Trial" Definition

"any research project that prospectively assigns people or a group of people to an intervention, with or without concurrent comparison or control groups, to study the cause-and-effect relationship between a <u>health-related</u> <u>intervention</u> and <u>a health outcome</u>."

Health-related interventions are those used to modify a biomedical or health-related outcome; examples include drugs, surgical procedures, devices, behavioral treatments, educational programs, dietary interventions, quality improvement interventions, and process-of-care changes.

Health outcomes are any biomedical or health-related measures obtained in patients or participants, including pharmacokinetic measures and adverse events.

ICMJE 'Clinical Trial' Definition vs. Observational Trials

Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator <u>or</u> the study protocol) will *not* require registration

- American Journal of Clinical Nutrition
- Urology
- *Some* pediatric journals



[De-Identified] Individual Participant Data (IPD) Sharing

• 2017 Editorial Annals of Internal Medicine

(https://annals.org/aim/fullarticle/2630766/data-sharing-statements-clinical-trials-requirement-international-committee-medicaljournal)

- Editors consider data sharing in making editorial decisions
- "No sharing" is considered a plan; however, may provoke consequences (i.e., not being published)

ICMJE

IPD Sharing (continued)

- <u>Manuscripts</u> must contain a data sharing statement (7/1/2018)
- CT.gov records have dedicated data sharing section
 - Trials enrolling on/after 01/01/2019 must include data sharing in trial's <u>CT.gov</u> registration
- Emphasis placed on the plan's presence upon registration

Data sharing plan changes after registration should be reflected in the statement submitted and published with the manuscript and updated in the registry record

ICMJE IPD Sharing Requirements

Data Sharing Statement must indicate:

- Will individual deidentified data will be shared? "Undecided" option exists--*invalid* choice
- What data will be shared?
- Which documents available (e.g., study protocol, statistical analysis plan)?
- <u>When</u> available and for <u>how long</u>?
- Criteria for obtaining the data?

ICMJE

IPD Sharing: UNC-recommended language

UNC has suggested language to adapt to this field:

"Deidentified individual data that supports the results will be shared beginning 9 to 36 months following publication provided the investigator who proposes to use the data has approval from an Institutional Review Board (IRB), Independent Ethics Committee (IEC), or Research Ethics Board (REB), as applicable, and executes a data use/sharing agreement with UNC."

ICMJE Data Sharing Statement Guidance - UNC Research

IPD Sharing: Example

IPD Sharing Statement

Plan to Share IPD: Yes

Deidentified individual data that supports the results will be shared beginning 9 to 36 months following publication provided the investigator who proposes to use the data has approval from an Institutional Review Board (IRB), Independent Ethics Committee (IEC), or Research Ethics Board (REB), as applicable, and executes a data use/sharing agreement with the University of North Carolina.

Supporting Information:

Time Frame: 9 to 36 months following publication

Access Criteria:

The investigator who proposes to use the data has IRB, IEC, or REB approval, as applicable, and an executed data use/sharing agreement with the University of North Carolina.

URL:

National Institutes of Health

NIH

Overview

Registration within 21 days of 1st participant enrollment

- Receive NIH funding of any type or amount (T-32, K awards [Research Career Development])
- Initiated on/after 1/18/2017
- Receive new funding (not disbursement from existing grant) on/after 1/18/2017
- Meet NIH "Clinical Trial" definition

See also: https://grants.nih.gov/policy/clinical-trials/definition.htm

Overview (continued)

NIH **requires** <u>**Registration**</u> and <u>**Results reporting**</u> of all trials funded either in whole or in part, meeting their 'clinical trial' definition, and started on/after 1/18/2017.

- Includes Phase 1 studies
- Independent of FDAAA requirements
- Applies to Extramural and Intramural award programs
- Funding applications submitted on/after 01/18/2017 requesting support for trials initiated after 01/18/2017 (not applicable to ongoing clinical trials in non-competing awards)

Clinical trials using NIH-supported infrastructure and not receiving NIH funds for conduct <u>not</u> subject to policy

NIH "Clinical Trial" Definition

- NOT-OD-15-015 released October 23, 2014
 - <u>https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-015.html</u>
- "Clinical trial" means "a research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other control) to evaluate the effects of those interventions on <u>health-related</u> <u>biomedical or behavioral outcomes</u>."

NIH "clinical trial" definition is broader than the term Applicable Clinical Trial (ACT) defined by FDAAA in the Code of Federal Regulations

Deconstructing the NIH "Clinical Trial" Definition

Prospectively Assigned:

refers to a pre-defined process (e.g., randomization) specified in an approved protocol that stipulates the assignment of research subjects (individually or in clusters) to one or more arms (e.g., intervention, placebo, or other control) of a clinical trial

Deconstructing the NIH "Clinical Trial" Definition

Intervention:

a manipulation of the subject or subject's environment for the purpose of modifying one or more health-related biomedical or behavioral processes and/or endpoints. Examples include: drugs/small molecules/compounds; biologics; devices; procedures (e.g., surgical techniques); delivery systems (e.g., telemedicine, face-to-face interviews); strategies to change health-related behavior (e.g., diet, cognitive therapy, exercise, development of new habits); treatment strategies; prevention strategies; and diagnostic strategies

Deconstructing the NIH "Clinical Trial" Definition

Health-Related Biomedical or Behavioral Outcome:

pre-specified goal(s) or condition(s) that reflect the effect of one or more interventions on human subjects' biomedical or behavioral status or quality of life. Examples include: positive or negative changes to physiological or biological parameters (e.g., improvement of lung capacity, gene expression); positive or negative changes to psychological or neurodevelopmental parameters (e.g., mood management intervention for smokers; reading comprehension and /or information retention); positive or negative changes to disease processes; positive or negative changes to health-related behaviors; and positive or negative changes to quality of life

NIH "Clinical Trial" Definition

"Clinical trial" means "a research study in which one or more human subjects are <u>prospectively assigned</u> to one or more <u>interventions</u> (which may include placebo or other control) to evaluate the effects of those interventions on <u>health-related biomedical or behavioral</u> outcomes." NIH

Clinical Trial Decision Tree



NIH

Your study is considered to meet the NIH 'Clinical Trial' definition even if:

- Using only healthy participants, or excludes a comparison group (e.g., placebo or control)
- Solely designed to assess the pharmacokinetics, safety, and/or maximum tolerated dose of an investigational drug (Phase I)
- Utilizing a behavioral intervention
- Using an intervention for the purpose of understanding fundamental aspects of a phenomenon (See <u>guidance and FAQs</u> about <u>Basic Experimental Studies with</u> <u>Humans</u> (BESH)).
NIH

Your study is <u>NOT</u> considered to meet the NIH 'Clinical Trial' definition if:

- Solely intended to refine measures
- Focused on secondary research with biological specimens or health information

Applicable Clinical Trial

ACT

Applicable Clinical Trial (ACT)

<u>**Registration**</u> within 21 days of 1st participant enrollment and <u>**Results**</u> <u>**reporting**</u> within 1 year of "Actual" Primary Completion date for all ACTs

- Interventional
- Evaluating FDA-regulated drug, biologic, or device
- At least 1 facility-U.S. or U.S. territory
- IND or IDE (includes NSR [abbreviated IDE])
- Excludes Phase 1 and Device feasibility

All single & multi-arm/group studies with prespecified outcome measures considered "controlled"

Applicable Clinical Trial (ACT)

- Includes approved & <u>un</u>approved FDA-regulated products
- Excludes over-the-counter products
- ACTs require **<u>Registration</u>** and <u>**Results reporting**</u>
- All single & multi-arm/group studies with prespecified outcome measures considered "controlled"

ACT Checklist

APPLICABLE CLINICAL TRIAL (ACT)

Question		Yes	No
1.	Is the study interventional (a clinical trial)? Study Type data element is "Interventional"		
2.	. Do ANY of the following apply (is the answer "Yes" to <u>at least one</u> of the following sub-questions: 2a, 2b, OR 2c)?		
	 a. Is at least one study facility located in the United States or a U.S. territory? Facility Location – Country data element is "United States," "American Samoa," "Guam," "Northern Mariana Islands," "Puerto Rico," "U.S. Virgin Islands," or other U.S. territory. 		
	b. Is the study conducted under a U.S. FDA Investigational New Drug application (IND) or Investigational Device Exemption (IDE)?		
	 c. Does the study involve a drug, biological, or device product that is manufactured in and exported from the U.S. (or a U.S. territory) for study in another country? 		
	Product Manufactured in and Exported from the U.S. data element is "Yes."		
3.	Does the study evaluate at least one drug, biological, or device product regulated by the United States Food and Drug Administration (U.S. FDA)? Studies a U.S. FDA-regulated Device Product data element is "Yes" and/or Studies a U.S. FDA-regulated Drug Product data element is "Yes."		
4.	Is the study <u>other than</u> a Phase 1 trial of a drug and/or biological product or is the study <u>other than</u> a device feasibility study? For drug product trials, <i>Study Phase</i> data element is NOT "Phase 1" and for device product trials, <i>Primary Purpose</i> is NOT "Device Feasibility."		

If "Yes" is answered to all 4 questions, and the study was initiated on or after January 18, 2017, the trial would meet the definition of an ACT that is required to be registered under 42 CFR 11.22.

Centers for Medicare and Medicaid Services

CMS

centers for medicare and medicaid services (cms) Overview

NCT (National Clinical Trial) number required on all clinical trial-associated claims submitted to Medicare (01/01/2014)

-available only CT.gov
-must be entered into CRMS
-claims submitted without NCT = denied



ClinicalTrials.gov: aka Protocol Registration and Results Reporting System (PRS)

How to get started?



Getting Started

- Is Registration required?
- Is UNC "Responsible Party"?
- Submitted to UNC IRB?
 - 118-type approval (Approval in principle) does <u>not</u> meet requirement
- Final, formal study protocol?
- Request CT.gov User account for each person needing 'edit' privileges
 > User Accounts must <u>not</u> be shared between users

"Responsible Party" Defined

"Responsible Party" is the individual or entity required to submit clinical trial information for an Applicable Clinical trial (ACT)

Sponsor of the clinical trial as defined in 21 CFR §50.3 "Sponsor", "Sponsor-investigator" (*i.e.*, Principal Investigator [PI])

- is responsible for conducting the trial,
- has access to and control over the data from the clinical trial,
- has the right to publish the results of the trial,
- has the ability to meet all of the requirements under this subsection for the submission of [all] clinical trial information."

"Responsible Party" continued

Investigator-Initiated Studies (IITs)

UNC PI is Sponsor-Investigator

- ➢NIH funded
- >Internally funded
- >Foundation or other external funding type
- >Industry funded (UNC protocol, industry provides \$\$\$)

RECORD REGISTRATION

PRS System Entry Convention

"Sponsor/Collaborators"



<u>Responsible Party, by Official Title</u>*

Definition: An indication of whether the responsible party is the sponsor, the sponsor-investigator, or a principal investigator designated by the sponsor to be the responsible party. Select one.

- **Sponsor:** The entity (for example, corporation or agency) that initiates the study
- **Principal Investigator:** The individual designated as responsible party by the sponsor (see Note)
- Sponsor-Investigator: The individual who both initiates and conducts the study

RECORD REGISTRATION

Request CT.gov User Account

Oncology	Non-Oncology
Mary O'Dwyer	Monica Coudurier
mary_odwyer@med.unc.edu	m_coudurier@unc.edu
(919) 966-7829	(919) 843-2333

CT.gov Record Anatomy

Records consist of 3 parts:

- 1. Initial "Protocol" Registration
- 2. Results
- 3. Documents (Protocol + Statistical Analysis Plan [SAP])



Use Recent Examples for Guidance



www.clinicaltrials.gov

Use: Advanced Search

- Sort by "Newest First"
- Try limiting to "Studies with results"

PROTOCOL REGISTRATION AND RESULTS SYSTEM (PRS)

Where to Find Resources?

- Login to PRS
- Help Menu: "Protocol Data Entry"
 - Quick Start Guide (basic help)
 - PRS User's Guide (more detailed instructions)
 - Protocol Registration Data Element Definitions
- Enter Required Data Elements
- Preview and Submit



Record Creation/Release Process

No one outside UNC can see the record until released



Record Release Process

• "In Progress" means record is/will be edited

NH	ome Help 🕐	Record Summary
Re	ord Status	
	In Progress Entry Completed Approved Released PRS Review	
	Next Step: Confirm data entry complete Entry Complete 3	

Regulated QC Comment Response Time

Federal law requires all apparent errors, deficiencies, and/or inconsistencies identified during quality control review to be addressed and the record re-released to ClinicalTrials.gov

RECORD TYPE	REVIEW/RESPOND WITHIN
Registration	15 calendar days
Results	25 calendar days

NCT Number Assignment

Record officially registered!

NCT# provided upon completion of QC Review process

• Public posting



Ongoing Record Maintenance

- Minimally required yearly Always at least 1 change: **Record Verification Date**
- Certain Elements require **30-day** update Examples:
 - Study Start Date
 - Overall Recruitment Status
 - ➢Individual Site Status
 - Human Subjects Protection Review Board Status
 - Primary Completion Date
 - Study Completion Date
 - ➤Enrollment



BEYOND REGISTRATION

CT.gov Record Archives

- Every record update publicly posted by CT.gov
 - Registration records posted upon completion of QC review
 - Results record posted within 30 days of release to CT.gov
- All (time-stamped) versions publicly accessible archive
 - Readily comparably

Results Reporting

Results Reporting in CT.gov Required?

Results Reporting Req'd?	YES	NO
ICMJE only		\checkmark
NIH-funded "Clinical Trial"	\checkmark	
Applicable Clinical Trial (ACT)	\checkmark	
Centers for Medicare & Medicaid Services (CMS)		\checkmark



Results Reporting Req'd?

 Due by no later than 1 year of the "Actual" Primary Completion Date

> <u>Definition</u>: The date that the final participant was examined or received an intervention for the purposes of final collection of data for the primary outcome

Unrelated to grant funding period or time for data analysis

- Multiple 30-day reviews—allow 4-6 months
- ACTs post within 30 days of release to CT.gov
 Public disclaimer citing quality

Attaching Documents

What's needed? When?

Cover Page Requirement

Each document attached in CT.gov requires a cover sheet with:

- Official Study Title
- NCT number (include NCT-prefix)
- Document date

Required Document Attachments (1)

Formal Protocol

- At the time of results reporting
- Must be formal protocol (not IRB or grant application)
- Completion date on/after 01/18/2017
- Statistical Analysis Plan (SAP) if/when existing separately

Required Document Attachments (2)

Informed Consent document

Within 60 days after the last study visit, one IRB-approved informed consent document used to enroll subjects for trials

- (1) meeting the NIH 'Clinical Trial' definition, and
- (2) supported by a Common Rule (45 CFR 46) federal department or agency

must be posted on public federal website

There are currently 2 websites: Clinicaltrials.gov, regulations.gov

Monetary Penalties

What are the penalties for failing to comply with registration and/or results reporting requirements for an "Applicable Clinical Trial" or NIH-funded study?

- ACTs: Penalties for failure to register or providing false or misleading information in connection with ACTs may include civil monetary penalties (up to \$12,316/day)
- NIH-funded trials, the withholding or recovery of grant funds for the entire University until remedied.

Questions



Outcome Measures (OM)

Avoiding QC Comments

Outcome Measures (OM): CT.gov Perspective

OM in registration records eventually become labels for results reporting data tables

CT.gov reviews initial registration records with an eye toward this end regardless of actual results reporting requirement



What do the Rules Say? 42 CFR Part 11

Results must include all:

<u>Primary</u> and <u>Secondary</u> Outcome Measures (OM). No limit on number reported

• **<u>Primary</u>** Outcome Measure

The outcome measure(s) of greatest importance specified in the protocol

- Usually the one(s) used in the power calculation

• <u>Secondary</u> Outcome Measure

An outcome measure of lesser importance than a primary outcome measure, but is <u>part of a</u> <u>pre-specified analysis plan</u> for evaluating the intervention(s) effects and is <u>not specified as an</u> <u>exploratory or other measure</u>

- OMs included in SAP should clearly state level of overall importance

Impact of Statistical Clarity

- Decisions regarding OM rank--PI discretion
- OM Reporting requirements tied to Statistical Analysis Plan (SAP)
- Statistical Analysis Plan (SAP) should clearly state <u>level</u> of overall importance for each OM
 - OM discussed in SAP ≠ Primary and ≠ tertiary/exploratory, CT.gov assumes as Secondary and must be included and results reported (when already required)
- Protocol/SAP will be attached in registry, CT.gov—use to confirm this requirement met
 - Completion Date 01/18/2017

Outcome Measure (OM) Elements



- OM <u>Title</u>: WHAT?
- OM <u>Description</u>: HOW?
- OM <u>Time Frame</u>: WHEN?
Creating Outcome Measures (OM)

1 UNIT OF MEASURE PER OM

VERBS SHOULD <u>NOT</u> BE USED IN THE OM TITLE TO DETERMINE TO ASSESS TO SEEK

OM TITLE SHOULD NOT BE THE GOAL OR OBJECTIVE (E.G., FEASIBILITY, ADHERENCE, TOLERABILITY) BUT SHOULD RATHER REFLECT WHAT IS BEING MEASURED/REPORTED

1 TIME FRAME PER OM

EXCEPTIONS: "CHANGE FROM BASELINE IN SYSTOLIC BLOOD PRESSURE AT 6 MONTHS"

MULTIPLE TIMES OR MEASURED ITEMS ARE BEING AGGREGATED AND REPORTED AS A SINGLE VALUE

Example Outcome Measure (OM) Title Goal or Objective

Before

<u>OM Title</u>: Adherence <u>OM Description</u>: Evaluate adherence to MRSA eradication protocol

<u>After</u>

<u>OM Title</u>: Proportion of subjects with >80% compliance for study drug during the first 28 days <u>OM Description</u>: Compliance refers to the amount of prescribed medication consumed as verified by patient diaries and drug reconciliation records.

Example Outcome Measure (OM) Goal or Objective



<u>OM Title</u>: Protective Immunity <u>OM Description</u>: Proportion of infants in each arm with protective immunity <u>OM Time Frame</u>: At 12 months of age

<u>After</u>

<u>OM Title</u>: Proportion of Infants with Protective Immunity
 <u>OM Description</u>: Protective Immunity is defined as quantitative HBsAb
 ≥ 10 mIU/mL
 <u>OM Time Frame</u>: At 12 months of age

Example Outcome Measure (OM) Goal or Objective

Before

OM Title: Safety of the Hepatitis B Birth Dose Vaccine **OM Description**: Proportion of infants with adverse reactions to the birth dose Hepatitis B Vaccine **OM Time Frame**: Within 2-3 days after birth

After

OM Title: Proportion of Infants with Adverse Reactions to the Birth Dose Hepatitis B Vaccine **OM Description**: Adverse reactions will include fever, fatigue and injection site soreness, as described in the Package Insert (Link). Infants will be monitored for adverse reactions for safety purposes during the time they spend with their mothers at the maternity center after birth (expected average stay of 2-3 days).

OM Time Frame: Within 2-3 days after birth

Scales and Questionnaires (OM Description)

- Full Scale Name (i.e., indicate what the scale measures if not clear from name alone).
- Include ALL scale ranges (i.e., min and max scores) required to interpret any values in the data table. For example, if a "total" score is being reported, the "total" range should be provided. If subscale scores are reported, the range for each subscale should be provided.
- **Directionality** indicate if the min or max range values reflect a better or worse outcome.

TIP: <u>OM Title</u> - Include the word 'score'

Outcome Measure (OM) <u>Description</u> Scale/Questionnaire



Ocular comfort was assessed on an 11-point <u>Visual Analog</u> <u>Scale (VAS) ranging from 0-10</u> where 0 = very uncomfortable and 10 = very comfortable. <u>Higher scores reflect</u> more comfort.

 Answers How?
 OM is being measured and reported
 Includes mandatory scale information (Scale name, range, directionality)

Outcome Measure (OM) <u>Description</u> Scale/Questionnaire

Title: Change in Hamilton Depression Rating Scale Score [from Baseline to V3]

Description:The Hamilton Depression Rating Scale (HAMD) determines a patient's level of depression. It
generally takes 15-20 minutes to complete the interview and score the results. Eight items are
scored on a 5-point scale, ranging from 0 = not present to 4 = severe. Nine items are scored
from 0-2. HAMD Scoring Instructions: 0-7 = Normal, 8-13 = Mild Depression, 14-18 = Moderate
Depression, 19-22 = Severe Depression, ≥ 23 = Very Severe Depression (i.e., Minimum 0 points
and maximum 50 points, the higher the score, the greater the likelihood of depression).

Time Frame: Baseline, Visit 3 (90 +/- 3 days after randomization)

Example Outcome Measure (OM) What? How? measured/reported?

Before

```
2. Salivary function
To determine whether salivary gland function is improved or restored with the administration of Cipro.
[Time Frame: 12 weeks]

Comments [1]
Major Issues:

1) The Outcome Measure Title and Description do not appear to provide sufficient information to understand what will be assessed.
The Outcome Measure Title does not explicitly include the MEASUREMENT TOOL used to assess the measure. Please specify the measurement tool (e.g., descriptive name of scale, physiological parameter, questionnaire, etc.) that will be used to assess this outcome measure.
```

Stimulated vs. Unstimulated

Weigh gauze, suctioning, spit into collection tubes

Example Outcome Measure (OM) cont.

• <u>After:</u>

Title:	Unstimulated Salivary Flow Rate at Week 4
Description:	After sitting at rest for 1 minute, participants collect drool using 50-mL conical tubes. The 5-minute unstimulated whole saliva flow rate recorded and collected. Salivary hypofunction is defined as unstimulated whole saliva flow rate ≤ 0.1 mL/min. Normal salivary function is defined as >0.1 mL/min.
Time Frame:	Week 4

BUNC SCHOOL OF MEDICINE North Carolina Translational and Clinical Sciences Institute

Adverse Event Collection, Documentation and Reporting

Marie Rape, RN, BSN, CCRC Associate Director, Regulatory Services

North Carolina Translational and Clinical Sciences (NC TraCS) Institute

Agenda

- What defines a safety / adverse event
- Why we monitor safety events
- Where to find study specific safety event details
- How to document & track events
- Who evaluates events
- What events are reportable
- When to report events

Terms & Definitions

Multiple clinical terms often used to convey an Adverse Event (AE):

• Side Effect, Toxicity, Complication, Acute or Late Effect, Important Medical event

Research Terms:

- Adverse Event or Adverse Effect (AE)
- Adverse Drug Reaction
- Serious Adverse Event (SAE)
- Suspected Unexpected Serious Adverse Reaction (SUSAR)
- Serious Adverse Drug Reaction (SADR)
- New Safety Information (NSI)
- Unanticipated Problem Involving Risk to Subjects or Others (UPIRSO)

Adverse Event Definition (AE)

- FDA: any untoward medical occurrence associated with the use of a drug in humans whether or not considered drug related.
- ICH E6 (R2):
 - Any untoward medical occurrence in a patient or clinical investigation subject administered a pharmaceutical product and which does not necessarily have a causal relationship with this treatment. An AE can therefore be any unfavorable and unintended sign ... abnormal laboratory finding, symptom, or disease
 - Temporally associated with the use of an investigational product, whether or not related to the investigational product

Serious Adverse Event (SAE)

An **SAE** is any untoward medical occurrence that:

- Results in Death
- Is Life-threatening reaction
- Requires Inpatient hospitalization (> 24 hours) or prolongation
- Results in Persistent or significant disability/incapacity
 - i.e., loss of speech, fatigue so great subject can't get out of bed, loss of memory, paralysis
- Is a Congenital anomaly/birth defect (in child born to participant)
- Important medical event that may jeopardize the participant and may require intervention to prevent outcomes 1-5
 - Hemorrhaging, internal bleeding with rapid drop in B/P
 - Loss of consciousness, convulsions
 - Allergic bronchospasm \rightarrow intensive treatment by paramedics

NSI and UPIRSO (per IRB SOP #1401)

New Safety Information (NSI) is information previously unknown to the IRB that <u>suggests</u> new or increased risk to subjects or others.

 <u>Examples</u>: adverse event, protocol deviation, non-compliance with protocol, breach of confidentiality.

Once NSI submitted, IRB determines whether event signifies an Unanticipated Problem Involving Risk to Subjects or Others (UPIRSO).

A **UPIRSO** is any incident, experience, or outcome that

- is unexpected (in nature, severity, or frequency)
- is related or possibly related to a participant's participation in the research; and
- is serious or suggests that the research places participants or others at a greater risk of harm (including physical, psychological, economic, or social harm) than was previously known or recognized.

TABLE 1, New Safety Information

Reporting Requirements for studies for which the UNC IRB has oversight responsibilities

Internal adverse events that are (1) unexpected, (2) related or possibly related to participation in the research, and (3) serious or suggest that there are new or increased risk(s) to subjects

External adverse events that are (1) unexpected, (2) related or possibly related to participation in the research, (3) serious or suggest that there are new or increased risk(s) to subjects, and (4) warrant a change to the protocol or consent or subject notification (See 3.3 for additional information)

Interim analysis, data and safety monitoring report, findings from other studies, findings from animal or in-vitro testing, or other finding(s) that indicate (1) there are new or increased risks to subjects or others, or (2) subjects are less likely to receive any direct benefits from the research

Unanticipated adverse device effect

Protocol deviation that harmed subject(s) or others or placed subject(s) or others at increased risk of harm. All other protocol deviations should be documented by the investigator in a deviation log. This log is subject to review by the IRB of other agency of the UNC-CH HRPP.

Protocol deviation that is made to eliminate an immediate hazard to a subject without IRB approval Intentional or unintentional failure to follow applicable federal human subject protection regulations, the requirements or determinations of the IRB, the IRB-approved study protocol, or University policies when that failure adversely affects the rights or welfare of participants, such as:

- Conducting human subjects research without an IRB-approved protocol or exemption
- Starting research prior to meeting the conditions required by the IRB and receiving an IRB notification of approval, or conducting research during a lapse in approval
- Failure to obtain informed consent
- Deviating from the informed consent or recruitment process approved by the IRB
- Failure to provide a participant with new information about study risks or procedures that may affect the participant's willingness to continue/participate in the study (i.e., by not reconsenting participants or by using an old version of a consent document to consent a new participant)
- Initiating changes to the protocol without IRB approval, including using unapproved materials (e.g., fact or information sheets, recruitment materials, questionnaires, focus group guides, scripts, or other materials provided to participants)
- Failure to complete IRB- or institutionally-required human subjects protection training prior to engaging in human subjects research
- Enrollment of participants beyond what has been approved by the IRB in a study that is greater than minimal risk

Breach or potential breach of subject confidentiality or privacy.

Complaint by or on behalf of a research subject that (1) indicates that the rights, welfare, or safety of the subject have been adversely affected, or (2) cannot be resolved by the investigator. Subject complaints about payment should be resolved by the study team.

Allegation of noncompliance

Audit, inspection, or inquiry by a federal agency

Written report from a federal agency (e.g., FDA Form 483)

State board action that (1) will affect the ability to conduct or complete the research as approved by the IRB or (2) increases risks to subjects or others (e.g., suspension of professional license)

Incarceration of a subject enrolled in a research study that is not approved to involve prisoners

Institution-, investigator-, or sponsor-initiated hold or early closure as a result of safety concerns

Reporting requirements for studies ceding IRB review and oversight to an external IRB

Unanticipated Problem Involving Risk to Subjects or Others (UPIRSO) or Serious Noncompliance or Continuing Noncompliance determinations by an external IRB to which UNC cedes IRB review and oversight when the event involved UNC subjects or researchers

Suspension or termination by an external IRB to which UNC cedes IRB review and oversight

Protocol Deviations

- Per IRB SOP, a **Deviation** is "a variance from the approved study protocol."
- In past, two terms used **violation** and **deviation**. Now, all variances from the protocol are referred to as deviations.
- There is a special carve out for "protocol deviation that harmed subject(s) or others or placed subject(s) or others at increased risk of harm" which must be promptly reported to the IRB.
 - Example: Subject unable to visit clinic for labs so misses a CBC (deviation from protocol). Later find subject had low blood count and continued medication despite meeting stopping rule (potential harm).

Why do we monitor adverse events?

Monitoring adverse events is critical to the safety of subjects, overall safety of a study. The purposes of AE surveillance include:

- Identify events that may have immediate effect on the safety of the subject → stop drug or intervention
- Inform regulators, investigators, and others of new and important information about events that occur in a study or trial, identifying trends → decide if study should stop or continue
- Provide a summary of adverse experiences in order to develop a drug, regimen or device toxicity profile → FDA approval
- Collect data on events to evaluate study outcomes, conduct analyses

<u>All events</u> should be tracked and monitored to identify safety issues and trends. Track events <u>even if</u> not reportable, not related or expected to occur!

Where to find adverse event monitoring Info?

The description of the trial should include "procedures for <u>eliciting reports</u> of and for <u>recording and reporting</u> adverse events and intercurrent illnesses" (ICH GCP).

The Protocol or IRB Application should include a

- Plan on how events will be assessed and reported
- Severity scale to evaluate severity of adverse events
- To whom events are reported (PI, Sponsor, FDA, IRB, DSMB)
- Reporting timelines
- Events of special importance (outcomes)
- Events that lead to stopping the intervention or entire study

How to elicit AE Information from Subjects

- During consent process, encourage subjects to tell you everything that happens to them once in the study (e.g., car accident, catch flu, have a headache, as well as expected side effects).
- Ideally, AEs should be spontaneously reported or elicited from the subject, but you may have to help them to tell you.
 - Open ended questions: Have you had any physical or health problems since we last spoke? Have you cut down on the things you usually do because of not feeling physically able since your last visit?
 - During an exam or evaluation: identify medical concerns and ask questions ("I see your throat is red, has it been bothering you?")
 - Visits or telephone calls: remind them to report to you any new medical problems or concerns
 - New medications: ask why taking (e.g., on antibiotic for what?)
- To prevent bias, many studies don't ask subjects about specific events that might be anticipated in the study

Document Events Fully

- Document in **progress notes** or point to **Epic** (e.g., clinic visit or ED notes) for full details
- What to include in notes:
 - Date event began (time if relevant e.g., infusion reaction)
 - Date you became aware of event
 - Any treatment for event
 - Actions taken with study drug dose reduced, stopped, re-challenge
 - What happened, symptoms
 - How often or when it occurs (after eating?)
 - Interference with daily activities
 - If resolved, continuing, worsening
- Be consistent with terminology and descriptions
- Provide enough detail that PI can assign severity grade and determine relatedness
- Amend report if new information becomes available later or after PI/clinician speaks with subject

Template for Progress Notes

PROGRESS NOTE	S
Study Title:	
Subject ID#:	
Signatura	
SignatureD	ate
Carolina Translational and Clinical Sciences Institute	

scноос North

UN

Telephone Contact Log

Study II)	Subje	ect ID
Date/Time	Incoming/ Outgoing	Message/ Conversation	Comment
	Incoming Outgoing	Message Conversation	

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Protocol Deviation Tracking Log

IRB Study #					Site Name/	Number:			
Protocol Title (Abbreviated):				Protocol ID,	Protocol ID/Number:				
Principal Investigator:				Page number [1]:					
Ref No.	Subject ID	Date of Deviation	Date Identified	Deviation Description	Dev. Type [2]	Resulted in AE?	Did Subject Continue in Study?	Meets IRB Reporting Req. (I.e. NSI) (Yes/No)	IRB Reporting Date
1									
2									
3									
4									
5									
6									
Investigator Signature: Date:									
NC SCHOOL OF MEDICINE North Carolina Translational and Clinical Sciences Institute									

When does AE Collection Period Begin?

- Collection of AE info begins
 - at initiation of study intervention in drug/device study
 - may start at placebo lead-in period or other observational period to establish a baseline for the patient if taken off usual meds
 - for studies without a drug / device, collection of
 AE data begins when subject first signs consent

Follow-up of Adverse Events

- Follow AEs to resolution or stabilization
 - Follow up required for AEs that cause interruption or discontinuation of study drug
 - If event worsens or improves in severity, collect additional details
 - Follow up events present at end of study treatment
 - Resolution does not always mean event is completely resolved (e.g. permanent disability) but is not likely to change



Determinations - Severity & Attribution

- <u>Severity</u>: use of a classification scale to assess severity of event (different from a SAE)
- <u>Attribution</u>: determining if an event is related to participation in the study

Only PI or Sponsor can make determinations of severity and relatedness (or attribution)

- Medical monitor, clinician or DSMB can help the PI make the determination
- Study Coordinator can complete part of AE/SAE report with guidance of PI and submit to IRB

Evaluating Severity of AEs

When it comes to evaluating adverse events, you should have a scale to grade the **severity**, a **classification scale**.

- Mild-Moderate-Severe Scale
- CTCAE scale (5 levels of severity)
- DAIDS AE Grading Table
- Other Specific Scale

The classification scale should be described in the protocol and used consistently for all subjects and by all investigators.



Relatedness / Attribution

- The attribution of the event (relatedness to the research intervention) is determined by PI with input from research team
 - Is there an obvious cause of the event (explanation for why occurred)?
 - Is it a result of an underlying medical condition?
 - What do we already know about effects of the therapy?
 - What is the temporal relationship to admin of study therapy?
 - Does the AE improve or disappear when the therapy is stopped?

It is important to identify what the AE is related to and NOT merely say it is not related

ADVERSE EVENT LOG

Protocol: Subject Initials:	PI Subject ID #:				-				
ADVERSE EVENT Make a separate entry for: All new adverse events All AEs with increased severity All AEs with changes in study drug relationship All medical conditions present at study drug initiation which have worsened	√ if AE meets definition of serious*	Grade / Intensity Asympto matic Mild Moderate Severe	Start Date	End Date	Relationship to study intervention Related Possibly Not Likely Not Related	Was Action Taken? (Circle One)	Action(s) Taken:	Outcome: Recovered Not Recovered Recovered w/Sequelae Fatal Unknown	PI Initials / Date
nave worseneu						Yes / No Yes / No			
						Yes / No			
						Yes / No			
						Yes / No Yes / No			
						Yes / No			

UNC OCT Website: https://research.unc.edu/clinical-trials/training/forms/

Tips on AE Terms for Log

- Enter separate AE on log for each event
- Make separate entry for AEs with increased severity
- Group multiple symptoms into one event
 Running nose, cough, fever → Flu or Cold
- Separate events into 2 or more, if appropriate

 Loss of consciousness/fall → ED visit
 CT scan after ED visit → diagnosed with brain tumor
- Document medical conditions present at study
- initiation that have worsened
- Talk to sponsor about how they want AEs documented

Baseline Medical Problem vs. Adverse Event

Consider

- Does the subject have baseline symptoms or a pre-existing conditions that are ongoing during the clinical trial?
 - Hypertension
 - Diabetes
- Has the subjects baseline symptoms worsened? If so, may be an AE and needs to be documented
- Is subject on new meds to treat a condition or were they started prior to participation in the trial?
 - Anticoagulants to prevent thrombosis
 - Steroids for autoimmune condition

Is Event Expected or Unexpected

- An Event is considered "unexpected" if the <u>nature</u>, <u>severity</u> or <u>frequency</u> is not consistent with
 - procedures/risks described in the IRB approved application and protocol-related documents (consent form, IB)
 - characteristics of the participant population being studied <u>Example</u>: drug information indicates it may cause elevated LFTs; subject developed liver failure (increased severity)
- Certain events may be **expected** outcomes of the disease process or endpoints in the study (check your protocol).
- May still need to track these events or report to DSMB/Sponsor.

Example: Death in a severely burned patient enrolled in burn study

Who Needs to Hear About Adverse Events?

- UNC IRB: required to report Unanticipated Problems involving risks to subjects or others.
- Funding Agency, Sponsor: have their own reporting requirements for AEs/SAEs.
- **FDA:** if study FDA regulated, there are special reporting requirements
- Investigators: if PI-initiated, required to notify other investigators (locally & other sites)
- Data and Safety Monitoring Board: have special requirements for when and what to report, possibly stopping rules



Reporting Timeframes Vary by Group

FDA Reporting Requirements

- Unexpected fatal or life-threatening suspected adverse reactions –no later than 7 calendar days following sponsor's initial receipt of the information.
- Unexpected serious suspected adverse reactions suggesting significant risk to human subjects no later than 15 calendar days following sponsor's initial receipt of the information.

Reporting New Safety Information to the UNC IRB

- Information previously unknown to the IRB that suggests new or increased risk to subjects or others – report to OHRE within 7 calendar days of investigator becoming aware of the information.
- Other Unanticipated Problems should be reported to OHRE within two (2) weeks of investigator becoming aware of the problem.
Develop a Standard Operating Procedure (SOP)

- Describe AE processes in an SOP. Include:
 - how study team will be trained on AE / SAE process
 - how team will elicit AE information from subjects and forms used to collect data
 - forms used to document AEs and SAEs (source or progress note and AE tracking forms)
 - who will evaluate events and make determinations
 - reporting requirements (point to UNC IRB SOPs, FDA, sponsor or refer to protocol)



Questions/Discussion

Thank you!

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References

- Guidance for Industry: Investigator Responsibilities Protecting the Rights, Safety, and Welfare of Study Subjects
- Code of Regulations Title, 21CFR50, 21CFR312, 45CFR46
- International Conference on Harmonisation Good Clinical Practice E6 -<u>https://www.ich.org/page/efficacy-guidelines</u>
- http://www.fda.gov
- NRP website: <u>https://nrp.tracs.unc.edu/index.php/education/new-</u> coordinator-orientation
- UNC IRB SOPs on NSI / Safety events <u>http://ohresop.web.unc.edu/</u>
- Presentation on Documenting, Recording, and Reporting of Adverse Events and Unanticipated Problems (Sponsored by Center for Cancer Research NCI)
- UNC Office of Clinical Trials <u>https://research.unc.edu/clinical-trials/forms/</u>



Investigational New Drug (IND) and Investigational Device Exemption (IDE) Submissions and Best Practices

Amanda Wood, B.S., RAC, CCRP IND/IDE Program Coordinator North Carolina Translation and Clinical Sciences Institute (NC TraCS) <u>http://www.tracs.unc.edu/</u><u>amandawood@RTI.org</u>

Outline

- Investigational New Drug (IND) Submission
 - Exempt Studies
 - IND submission and maintenance
- Investigational Device Exemption Submission
 - Exempt and Abbreviated IDE studies
 - IDE submission and maintenance



A drug is anything that meets the definition of a drug per the FD&C Act (201(g)(1))...

- ". . .articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals. . ."
- "...a substance (other than food) intended to affect the structure or any function of the body "
- "...compounds administered to blunt or provoke a physiological response or to study the mechanism of action or metabolism of a drug."



What is an **Investigational Drug?**

- An article that is not approved for marketing in the US as a drug
- Approved drug that is not used according to the approved label (or used in a new combination of approved drugs)

"For the purposes [of IND regulations], an experiment is any use of a drug [whether approved or unapproved] except for the use of a *marketed drug* in the course of medical practice." - 21 CFR 312.2(b)



Dietary Supplements: Drugs?

- A dietary supplement is not considered a drug if the intended use for which it is marketed is only to affect the structure or any function of the body (i.e., not intended to be used for a therapeutic purpose).
- However, if the clinical investigation is intended to evaluate the dietary supplement's ability to diagnose, cure, mitigate, treat, or prevent a disease, an IND is required



An Investigational New Drug (IND) application is a request to the FDA to *provide authorization to administer*:

- an investigational drug (or biologic) to humans (always requires an IND application)
- OR a previously marketed drug in a new indication and/or patient population – i.e. Not according to approved labeling. (may be exempt from IND requirements)



FIRST – The study must be the "investigation of a drug product that is **lawfully marketed in the United States**" 21 CFR 312.2(b)(1)

• If it is not marketed in the US, but approved in other countries, you will still need an IND



Criteria for IND Exempt Studies

There are 5 criteria that allow a study to be exempt from requiring an IND.

All 5 criteria must be met!

- The study is not designed to support approval of a new indication or a change in label
- 2. The study is not intended to support a significant change in the advertising for the product



Criteria for IND Exempt Studies

- If the study does not involve a route of administration, dosage level, or patient population that significantly increases the risks (or decreases the acceptability of the risks) associated with the use of the drug
- 4. The study is conducted in compliance with the IRB and informed consent regulations
- 5. The investigation is not intended to promote or commercialize the drug product.

21 CFR 312.2(b)



Who determines if the study is IND Exempt?

The Investigator:

• Because the assessment of risks involved in a therapeutic procedure is an everyday part of the practice of medicine, the individual investigator should usually be able to determine the applicability of the exemption."

- FDA guidance

The IRB:

• When filling out the application in IRBIS, download the IND-Exemption checklist here: <u>http://research.unc.edu/files/2013/04/CCM3_039765.docx</u> you will need to justify that you meet all 5 of the exemption requirements.

The FDA:

• Submit either a Request for IND Exemption, or a full IND Submission with a statement in the cover letter requesting a determination on IND exemption. There are advantages/disadvantages to both types of submissions.

THE NORTH CAROLINA TRANSLATIONAL & CLINICAL SCIENCES INSTITUTE

Preparing and Submitting an IND



Regulatory Guidance for Academic Research of Drugs and Devices IND Submission Template can be found at <u>www.ReGARDD.org</u>



Reasons for IND submissions

- Investigator-Initiated IND research driven, with publication as the main goal
- Expanded Access IND For single patients, including emergency settings; intermediate or large sized populations with the intent to treat, not to obtain safety information.
- **Commercial IND** submitted with the intent to bring to market or change current labeling



IND Submission Format and Content

- 1. Form 1571 (cover sheet), Form 3674
- 2. Table of Contents
- 3. Introductory Statement
- 4. General Investigational Plan
- 5. Investigator's Brochure
- 6. Proposed Clinical Research (Includes forms 1572, 3454, 3455)
- 7. Chemistry, Manufacturing and Control Data (CMC)
- 8. Pharmacology and Toxicology Data
- 9. Previous Human Experience
- 10. Additional Information
- 11. Relevant Informations



IND Submission Format and Content - FORMS

- 1. Form 1571 (cover sheet), Form 3674
- 2. Table of Contents
- 3. Introductory Statement
- 4. General Investigational Plan
- 5. Investigator's Brochure
- 6. Proposed Clinical Research (Includes forms 1572, 3454, 3455)
- 7. Chemistry, Manufacturing and Control Data (CMC)
- 8. Pharmacology and Toxicology Data
- 9. Previous Human Experience
- 10. Additional Information
- 11. Relevant Informations



FDA form 1571 - 1) to obtain agreement from the sponsor (or sponsor-investigator) to conduct research according to all appropriate FDA regulations; and 2) to serve as a cover sheet for all submissions to the FDA on behalf of a particular IND.

Next Page	Export	t Data	Import	Data	Reset Form		
DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration INVESTIGATIONAL NEW DRUG APPLICATION (IND) (Tritle 21, Code of Federal Regulations (CFR) Part 312)				Form Approved: OMB No. 0910-0014 Expiration Date: February 28, 2019 See PRA Statement on page 3.			
				NOTE: No drug/t clinical investigat investigation is in	NOTE: No drug/biologic may be shipped or clinical investigation begun until an IND for that investigation is in effect (21 CFR 312.40)		
. Name of Sponsor					2. Date of	Submission (mm/dd/yyyy)	
Sponsor Address					4 Telephone Nu	mber (include country code if	
Address 1 (Street address, P.O. box, company	y name c/o)				applicable and	l area code)	
Address 2 (Apartment, suite, unit, building, flo	or, etc.)				_		
City	State/Provi	nce/Regio	n		6A. IND Numbe	(If previously assigned)	
Country	_	ZIP or Po	stal Code		6B. Select One:	Commercial	
Name of Drug (Include all available names: T	iade Generic	Chemica	Lor Code)		Research		
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'A. (Proposed) Indication for Use	ls	this indica	tion for a rare	disease (pr	evalence <200,000 i	n U.S.)? 🔲 Yes 🗌 No	
	Do Or ind	pes this pro phan Desi dication?	oduct have an ignation for thi	FDA s No	If yes, provide the C Designation number indication:	Prphan r for this Page for #7	
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Subsequent submissions should be number	ed consecutive	ely in the o	order in which	they are si	ubmitted		
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New Protocol PMR/PMC	Chemistr	v/Microbio	loav	Meeting	1	Initial Written Report	
Change in Protocol Protocol	Pharmac	ology/Toxid	cology		, tarv Name Review	Follow-up to a Written	
New Investigator Human Factors Protocol	Clinical/S	afety	Statistics	Special	Protocol Assessmer	nt Report	
2. For Originals, is the product a combination product (21 CFR 3.2(e))?	Yes 🗌 No	Com	bination Produ	ict ons)	Request for Des (RFD) Number	signation	
3. Select the following only if applicable. (Justif Refer to the cited CER section for further int	ication statem	ent must l	be submitted v	ith applica	tion for any items se	lected below.	
Emergency Research Exception From In	formed Conse	ent	🔲 Individua	<i>Expand</i> e I Patient, N	ed Access Use, 21 C Ion-	FR 312.300 ermediate Size Patient	
Requirements, 21 CFR 312.23 (f) Charge Request, 21 CFR 312.8			Emergency 21 CFR 31		Population, 21 CFR 312.315 rergency Treatment IND or Protocol, 21 CFR 312.320		
			ZTUFR	512.310(0)	21	UFR 312.320	
		For FDA	Use Only		Division		
DE RECEIPT Stamp	DUK KECE	apr Stamp			Division Assignment		
					IND Number	Assigned	
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	Previous Page Next Page				
4.	Contents of Application - This application con	tains the follow	wing item	ns (Select all that apply)	
5.	Contents of Application – This application con	tains the follow (a)(3)) 12.23(a)(3)) 12.23(a)(3)) 3(a)(6)(iii)(b)) or ((b)(iii)(b)) or ((c)(iii)(b)) or ((c)(iii)(b)	wing item completed ct resear- ract resear- of the cc of the cc	ss (Select all that apply)	ntlinued) titional Review Board data (21 CFR 312.23(a)(6)(iii completed Form FDA 1572 nanufacturing, and control data 223(a)(7)) tast223(a)(7)(n/(6)) 3y and toxicology data (21 CFR 312.23(a)(8)) man experience (21 CFR 312.23(a)(9)) formation (21 CFR 312.23(a)(10)) Jser Fee Cover Sheet (Form FDA 3702) ats Certification of Compliance (Form FDA 3674) Yes No Yes No Toton, Page for #15
6.	Name and Title of the person responsible for	monitoring the	conduct	t and progress of the clir	lical investigations
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FDA form 3674 - Signed statement from the sponsor/investigator that they will comply with

clinicaltrials.gov requirements concerning their investigation.

See OMB	3 Statement on Reverse. Form Approved: OMB No. 0910-0616, E	xpiration Date: 2-28-201			
DEPARTMENT OF HEAL Food and Dru	TH AND HUMAN SERVICES				
Certification of Compliance, under 42 U.S.C. § 282(j)(5)(B), with Requirements of ClinicalTrials.gov Data Bank (42 U.S.C. § 282(j))					
(For submission with an application/submission, including amendments, sup Federal Food, Drug, and Cosmetic Act or § 351 of the Public Health Service	pplements, and resubmissions, under §§ 505, 515, 520(n e Act.)	n), or 510(k) of the			
SPONSOR / APPLICANT /	SUBMITTER INFORMATION				
1. NAME OF SPONSOR/APPLICANT/SUBMITTER	2. DATE OF THE APPLICATION WHICH THIS CERTIFICATION 10/24/2016	ACCOMPANIES			
3. ADDRESS (Number, Street, State, and ZIP Code)	 TELEPHONE AND FAX NUMI (Include Area Code) 	BERS			
	(Tel.)				
DDODUGT I					
(Attach extra pages as necessary)					
APPLICATION / SUBM 5. TYPE OF APPLICATION/SUBMISSION WHICH THIS CERTIFICATION ACC	MISSION INFORMATION COMPANIES				
IND NDA ANDA BLA PMA INCLUDE IND/NDA/ANDA/BLA/PMA/HDE/510(K)/PDP/OTHER NUMBER (# 127,535	HDE 510(k) PDP f number previously assigned)	Other			
8. SERIAL NUMBER ASSIGNED TO APPLICATION/SUBMISSION WHICH TH 0002	IIS CERTIFICATION ACCOMPANIES				
CERTIFICATION STAT	EMENT / INFORMATION				
 Check Okt To With the requirements of 42 U.S.C. § 282(1), Section 42 110-85, do not apply because the application/submission which B. I certify that the requirements of 42 U.S.C. § 282(1), Section 40 110-85, do not apply to any clinical trial referenced in the application 42 U.S.C. § 282(1), Section 40 110-85, apply to any clinical trial referenced those requirements have been met. 	automation and expansion) (20) of the Public Health Service Act, enacted by 121 S this certification accompanies does not reference any cli 12(1) of the Public Health Service Act, enacted by 121 S ation/submission which this certification accompanies. 32(j) of the Public Health Service Act, enacted by 121 S in the application/submission which this certification accompany.	at. 823, Public Law iical trial. iat. 823, Public Law at. 823, Public Law companies and that			
 IF YOU CHECKED BOX C, IN NUMBER 9, PROVIDE THE NATIONAL CLIN UNDER 42 U.S.C. § 282()(1)(A)(), SECTION 402()(1)(A)() OF THE SUBMISSION WHICH THIS CERTIFICATION ACCOMPANIES (Attach extre NCT Number(s): 	NICAL TRIAL (NCT) NUMBER(S) FOR ANY "APPLICABLE (PUBLIC HEALTH SERVICE ACT, REFERENCED IN a pages as necessary)	CLINICAL TRIAL(S)," THE APPLICATION/			
The undersigned declares, to the best of her/his knowledge, that this is an a lailure to submit the certification required by 42 U.S.C. § 282(1)(5)(8), sector of a false certification under such section are prohibited acts under 21 U.S.C. Warning: A willfully and knowing by false statement is a criminal offense, U.S. 11. SIGNATURE OF SPONSORAPPLICANT/SUBMITTER OR AN AUTHORIZED REPRESENTATIVE (Sign)	accurate, true, and complete submission of information. I n 402(i)(5)(B) of the Public Health Service Act, and the I § 331, section 301 of the Federal Food, Drug, and Cosr 3 Code, title 18, section 1001 12. NAME AND TITLE OF THE PERSON WHO SIGNED (Name) (Title)	understand that the knowing submission netic Act. IN NO. 11			
	()				
 ADDRESS (Number, Street, State, and ZIP Code) (of person identified in Nos. 11 and 12) 	14. TELEPHONE AND FAX NUMBERS (include Area Code) (Tel.) (Fax)	15. DATE OF CERTIFICATIO			

UNC THE NORTH CAROLINA TRANSLATIONAL & CLINICAL SCIENCES INSTITUTE

FDA form 1572 - Agreement from the Investigator that research will be compliant with FDA regulations. Contains

clinical site and investigator info to assure the FDA that all investigators have the experience/background needed to conduct the trial.

DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION			Form Approved: OMB No. 0910-0014 Expiration Date: February 28, 2019 See OMB Statement on Reverse.			
STATEMENT OF INVESTIGATOR (TITLE 21, CODE OF FEDERAL REGULATIONS (CFR) (See instructions on reverse side.)		PART 312) NOTE: No invest investigation until a completed, sign FDA 1572 (21 CF		gator may participate in an he/she provides the sponsor with ed Statement of Investigator, Form R 312.53(c)).		
1. NAME AND ADDRESS OF INVESTIG	GATOR		2			
Name of Clinical Investigator						
Address 1		Address 2				
City State/Province/Region		Country	ZIP or Postal Code			
2. EDUCATION, TRAINING, AND EXPE THE DRUG FOR THE USE UNDER	: RIENCE THAT QUALIFY THE INV INVESTIGATION. ONE OF THE FO	ESTIGATOR AS AN EXP DLLOWING IS PROVIDE	PERT IN THE CLINIC	CAL INVESTIGATION OF following.)		
Cu	rriculum Vitae	Other Statement of Qualifications				
3. NAME AND ADDRESS OF ANY MED WHERE THE CLINICAL INVESTIGA	DICAL SCHOOL, HOSPITAL, OR O TION(S) WILL BE CONDUCTED	THER RESEARCH FAC	ILITY	CONTINUATION PAGE for item 3		
Name of Medical School, Hospital, or Ot	her Research Facility					
Address 1		Address 2				
City	State/Province/Region	Country		ZIP or Postal Code		
4. NAME AND ADDRESS OF ANY CLIN	IICAL LABORATORY FACILITIES	TO BE USED IN THE ST	UDY	CONTINUATION PAGE for Item 4		
Name of Clinical Laboratory Facility						
Address 1		Address 2				
City	State/Province/Region	Country		ZIP or Postal Code		
5. NAME AND ADDRESS OF THE INSTITUTIONAL REVIEW BOARD (IRB REVIEW AND APPROVAL OF THE STUDY(IES)) THAT IS RESPONSIBI	LE FOR	CONTINUATION PAGE for Item 5		
Name of IRB						
Address 1		Address 2				
City	State/Province/Region	Country		ZIP or Postal Code		
6. NAMES OF SUBINVESTIGATORS (f not applicable, enter "None")			L.		
			CONTI	NUATION PAGE - for Item 6		
7. NAME AND CODE NUMBER, IF ANY	, OF THE PROTOCOL(S) IN THE I	ND FOR THE STUDY(IE	S) TO BE CONDUC	TED BY THE INVESTIGATOR		
FORM FDA 1572 (2/16)	PREVIOUS EDITI	ON IS OBSOLETE.		Page 1 of		
,				PSC Publicition Services (201) 641-6740		

A PROVIDE THE FOLLOWING CL	INICAL PROTOCOL INFORMATION. (Select one of the foll	llowing.)
For Phase 1 investigatio maximum number of sub	ns, a general outline of the planned investigation includin ojects that will be involved.	ing the estimated duration of the study and the
For Phase 2 or 3 investig treated with the drug and of subjects by age, sex, duration of the study; and	jations, an outline of the study protocol including an app 5 the number to be employed as controls, if any, the clini and condition; the kind of clinical observations and labor d copies or a description of case report forms to be used	proximation of the number of subjects to be ical uses to be investigated; characteristics ratory tests to be conducted; the estimated d.
. COMMITMENTS		
i agree to conduct the study notifying the sponsor, except	(les) in accordance with the relevant, current protocol(s) twhen necessary to protect the safety, rights, or welfare	and will only make changes in a protocol after of subjects.
I agree to personally conduc	t or supervise the described investigation(s).	
I agree to inform any patient ensure that the requirements and approval in 21 CFR Part	s, or any persons used as controls, that the drugs are be s relating to obtaining informed consent in 21 CFR Part 5 t 56 are met.	eing used for investigational purposes and I will 50 and institutional review board (IRB) review
I agree to report to the spons 312.64. I have read and und drug.	sor adverse experiences that occur in the course of the i erstand the information in the investigator's brochure, in	investigation(s) in accordance with 21 CFR including the potential risks and side effects of the
I agree to ensure that all ass obligations in meeting the ab	ociates, colleagues, and employees assisting in the con xove commitments.	nduct of the study(ies) are informed about their
I agree to maintain adequate inspection in accordance wit	and accurate records in accordance with 21 CFR 312.6 In 21 CFR 312.68.	62 and to make those records available for
I will ensure that an IRB that review and approval of the c unanticipated problems invo IRB approval, except where	complies with the requirements of 21 CFR Part 56 will the limical investigation. I also agree to promptly report to the living risks to human subjects or others. Additionally, I will necessary to eliminate apparent immediate hazards to 1	be responsible for the initial and continuing e IRB all changes in the research activity and all Ill not make any changes in the research without human subjects.
I agree to comply with all oth 21 CFR Part 312.	er requirements regarding the obligations of clinical inve	estigators and all other pertinent requirements in
	INSTRUCTIONS FOR COMPLETING FOR STATEMENT OF INVESTIGATO	M FDA 1572 R
1. Complete all sections. Pr	ovide a separate page if additional space is needed.	
2. Provide curriculum vitae	or other statement of qualifications as described in Secti	ion 2.
3. Provide protocol outline a	s described in Section 8.	
4. Sign and date below.		
 FORWARD THE COMPL incorporate this information SHOULD NOT SEND TH 	ETED FORM AND OTHER DOCUMENTS BEING PRO on along with other technical data into an investigational IS FORM DIRECTLY TO THE FOOD AND DRUG ADM/	VIDED TO THE SPONSOR. The sponsor will I New Drug Application (IND). INVESTIGATORS INISTRATION.
0. DATE (mm/dd/yyyy)	11. SIGNATURE OF INVESTIGATOR Sign	
WARNING: A willfully false stat	ement is a criminal offense. U.S.C. Title 18, Sec. 100	01.)
The information below applies on	y to requirements of the Paperwork Reduction Act of 199	95.
	of information is estimated to average 100 hours per	Department of Health and Human Caprican
The burden time for this collection response, including the time to rev and maintain the data needed and comments regarding this burden est including suggestions for reducing th	view instructions, search existing data sources, gather complete and review the collection of information. Send imate or any other aspect of this information collection, is burden to the address to the right:	Pepalment on realit and numan services Food and Drug Administration Office of Operations Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hbs.gov

Form 3454 and 3455 Certification and Disclosure of Financial Interests

DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration	Form Approved: OMB No. 0910-0396 Expiration Date: March 31, 2019	DEPARTMENT OF HEALTH / Food and Drug A	AND HUMAN SERVICES	Form Approved: OMB No. 0910-0396 Expiration Date: March 31, 2019
CERTIFICATION: FINANCIAL INTERESTS A ARRANGEMENTS OF CLINICAL INVESTIGAT	ND ORS	DISCLOSURE: FINANC ARRANGEMENTS OF CLI	IAL INTERESTS AND NICAL INVESTIGATORS	
TO BE COMPLETED BY API	PLICANT		TO BE COMPLETED BY APPLICANT	
With respect to all covered clinical studies (or specific clinical s support of this application, I certify to one of the statement certification is made in compliance with 21 CFR part 54 and the investigator includes the spouse and each dependent child of the	studies listed below (if appropriate)) submitted in s below as appropriate. I understand that this nat for the purposes of this statement, a clinical se investigator as defined in 21 CFR 54 2(d).	The following information concerr as a clinical investigator in the su	hing	, who participated
			is submitted in accord	ance with 21 CFR part 54. The
Please mark the applicable of	check box.	clinical study		
(1) As the sponsor of the submitted studies, I certify that I with the listed clinical investigators (enter names of clinical investigators) (enter names of clinical investigators).	have not entered into any financial arrangement cal investigators below or attach list of names to	named individual has participate required to be disclosed as follow	ed in financial arrangements or /s:	holds financial interests that are
study as defined in 21 CFR 54.2(a). I also certify that ea	ich listed clinical investigator required to disclose		Please mark the applicable check boxes.	
to the sponsor whether the investigator had a proprietar the sponsor as defined in 21 CFR 54.2(b) did not disc listed investigator was the recipient of significant payme	y interest in this product or a significant equity in lose any such interests. I further certify that no nts of other sorts as defined in 21 CFR 54.2(f).	any financial arrangement er investigator involved in the c to the clinical investigator for study:	ntered into between the sponsor of conduct of the covered study, when or conducting the study could be	f the covered study and the clinical reby the value of the compensation influenced by the outcome of the
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Clinical for estig		 any significant payments of the covered study, such as equipment, retainer for ongo 	other sorts made on or after Feb s a grant to fund ongoing resea ing consultation, or honoraria;	ruary 2, 1999, from the sponsor of rch, compensation in the form of
(2) As the applicant who is submitting a study or studie applicant, I certify that based on information obtained investigators, the listed clinical investigators (attach list financial arrangement with the sponsor of a covered s investigator for conducting the study could be affected CFR 54.2(a)); had no proprietary interest in this produ the covered study (as defined in 21 CER 54.2(b)); and	s sponsored by a firm or party other than the I from the sponsor or from participating clinical of names to this form) did not participate in any tudy whereby the value of compensation to the by the outcome of the study (as defined in 21 ct or significant equity interest in the sponsor of was not the recipient of significant payments of	 any proprietary interest in investigator; any significant equity interes the sponsor of the covered s 	the product tested in the cov st, as defined in 21 CFR 54.2(b), study.	vered study held by the clinical held by the clinical investigator in
other sorts (as defined in 21 CFR 242(f)), and other sorts (as defined in 21 CFR 242(f)).	was not the recipient of agrinoant payments of	Details of the individual's disclos description of steps taken to n	able financial arrangements and in ninimize the potential bias of cli	nterests are attached, along with a nical study results by any of the
(3) As the applicant who is submitting a study or studie applicant. I certify that I have acted with due diligence	e to obtain from the listed clinical investigators	disclosed arrangements or intere	sts.	
(attach list of names) or from the sponsor the information do so. The reason why this information could not be obt	on required under 54.4 and it was not possible to ained is attached.	NAME	TITLE	
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This section applies only to the requirements of the Paperwork Reduction A An agency may not conduct or sponsor, and a person is not required to respond to, a information unless it displays a currently valid QMB control number. Public reporting b cellection of information is estimated to average 1 hour per response, including time instructions, searching existing data sources, gathering and maintaining the necess completing and reviewing the collection of information. Such comments regarding this b	t of 1995. Do NOT send your completed form to the PRA Staff email address below. Uppartment of Health and Human Services for reviewing ry data, and Office of Operations PRASaff(Jakuhs.gov	An agency may not conduct or sponsor, and a puint information unless it displays a currently valid Oc collection of information is estimated to average instructions, seenching existing data sources, ga completing and reviewing the collection of information or any other aspect of this collection of information or any other aspect of this collection of information.	ns or use P apervoirs required to respend to, a collection of BE control number. Public reporting burden for this B control number. Public reporting burden for this 5 hours per response, including time for reviewing theiring and maintaining the necessary data, and thion. Send comments regarding this burden estimate to the address to the right:	b rot sona your completed form to the PRA Staff email address below. 5 Department of Health and Human Services Food and Drug Administration Office of Operations 5 PRAStaffelda kinsgov
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IND Submission Format and Content

- Can refer to drug labeling Form 1571 (cover sheet), Form 3674 1. or to letter of authorization Table of Contents 2 (cross reference letter) for these sections 3. Introductory Statement General Investigational Plan 4. **Investigator's Brochure** 5. Proposed Clinical Research (Includes forms 1572, 3454, 3455) 6. **Chemistry, Manufacturing and Control Data (CMC)** 7. Pharmacology and Toxicology Data 8. **Previous Human Experience** 9. 10. Additional Information
- 11. Relevant Informations



Approved Labeling vs. Letter of Authorization

Approved Labeling: Use when investigating an approved, marketed drug.

- Contains all pertinent info on safety, manufacturing, and previous human experience that the FDA needs to consider. <u>http://dailymed.nlm.nih.gov/dailymed/about.cfm</u>
- Include a copy of the labeling in your submission

Letter of Authorization: Use when investigating a new drug that has an existing IND elsewhere.

- This is a letter from a sponsor (company) providing their permission to the FDA to reference the named materials in support of your IND submission. Don't re-invent the wheel!
- Include a copy of the letter in your submission



5 – Investigator's Brochure

- Investigator's brochures are not mandatory for investigator initiated trials, but are very useful for multi-center studies.
- If not including an IB, you may state the following "In accordance with 21 CFR Part 312.55(a), an Investigator's Brochure is not required for a sponsorinvestigator IND."

OR

• Refer to the approved drug labeling (Often included as an appendix at the end of the submission)



6 – Proposed Clinical Research

- Includes the complete study protocol. We highly encourage using the <u>NIH-FDA Protocol Template</u>.
- Can include the informed consent document, although this is not required. The FDA may request to see the informed consent document if not included, however.
- FDA form 1572, Sponsor-Investigator CV, Medical License, and Financial Disclosure forms (FDA Forms 3454 and 3455). Sub-investigator documents do not need to be submitted, but must be kept current in the regulatory binder.



7 – Chemistry, Manufacturing, and Control

- If the investigational drug has been marketed, this section may be covered by referring to the product labeling. Alternatively, it might be appropriate to refer to a 'Letter of Authorization' if using a drug provided by a commercial company.
- If you are manufacturing your own compound, highly detailed information regarding the chemical characteristics and processing must be included here, highlighting adherence to Good Manufacturing Practices (GMP)



8 – Pharmacology and Toxicology

- Similar to section 7, if the investigational drug has been marketed, this section may be covered by referring to the product labeling. Alternatively, it might be appropriate to refer to a 'Letter of Authorization' if using a drug provided by a commercial company.
- If you are manufacturing your own compound, include information about pharmacological and toxicological (laboratory animals or in vitro) studies on the basis of which the sponsor of the IND application has concluded that it is reasonably safe to conduct the proposed clinical investigations



9 – Previous Human Experience

- Similar to section 7 and 8, if the investigational drug has been marketed, this section may be covered by referring to the product labeling. Alternatively, it might be appropriate to refer to a 'Letter of Authorization' if using a drug provided by a commercial company.
- It is also beneficial to include summaries (if known) of prior clinical research experience for the drug.



Appendices

- Appendices may help to organize the submission, and include information that the FDA may use as a reference when reviewing the presented information.
- Package inserts, LOAs, <u>reprints of publications</u>, investigator CVs, etc







- Submission should be in <u>12 point Times New Roman</u>
- Include a brief cover letter signed by Sponsor
- Three copies (original and 2 exact copies) must be sent to the FDA at the address below:

Food and Drug Administration

Center for Drug Evaluation and Research Central Document Room 5901-B Ammendale Rd. Beltsville, Md. 20705-1266

(use this address for drugs)

Food and Drug Administration

Center for Biologics Evaluation and Research Document Control Center 10903 New Hampshire Avenue Silver Spring, MD 20993-0002

(use this address for biologics (i.e. vaccines, blood components, etc.)



- A "courtesy e-copy" may be sent as well. The e-copy should be an exact copy of the original, in PDF format. If use of multimedia is necessary for the submission (i.e. large detailed images, or videos), then the submission cover letter should indicate the additional information contained on the e-copy. The e-copy is submitted on a CD, DVD, or thumb drive. Make sure that the information is not encrypted (especially common on thumb drives).
- The paper submissions should be bound individually in 3hole punch ACCO-style folders. The original submission should be in a gray folder. The other two copies may be in different colors. Submissions that are inadequately bound will not be reviewed.



• A label should be attached to the front of each folder. The e-copy should also have a label.

INITIAL IND APPLICATION Serial No. 0000

<Sponsor Name>
<Date of Submission>
Original Copy (or Duplicate Copy 1 of 2)



What Next?

- Upon receipt of an IND application, FDA will notify the sponsor of the date it receives the application through an <u>IND acknowledgment letter</u>. The acknowledgment letter will also contain the IND number, the FDA review division assigned to review the IND, and the FDA point of contact.
- The study may proceed 30 days after FDA receives the IND, unless FDA notifies the sponsor that the investigations described in the IND are subject to a clinical hold. In the absence of hearing from FDA, the sponsor is encouraged to contact FDA to ensure the study may proceed.



Clinical Hold ?!

If an IND has been placed on clinical hold, the study may not be initiated until the Agency has contacted you telling you that the study may proceed.

- Complete Clinical Hold: A delay or suspension of all clinical work requested under an IND.
- **Partial Clinical Hold:** A delay or suspension of only part of the clinical work requested under the IND (e.g., a specific protocol or part of a protocol is not allowed to proceed; however, other protocols or parts of the protocol are allowed to proceed under the IND).


Maintaining an IND



Regulatory Guidance for Academic Research of Drugs and Devices IND Templates can be found at <u>www.ReGARDD.org</u>



Annual Reporting

- IND application sponsors are expected to submit brief reports of the progress of the investigations conducted under their respective IND application within 60 days of the anniversary date that the application went into effect.
- Information in report should include: Summary Information, Protocol Updates, Update to General Investigational plan, etc. (refer to template for guidance)
- Submit in triplicate, and include signed Form 1571



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Protocol Amendments

- New Protocol Amendment: INDs can include multiple protocols that study the same drug and indication. Include a brief summary and rationale of the new study, and a complete protocol.
- **Change in Protocol**: include a brief summary of the differences between revised protocol and previous protocol(s), rationale for the proposed change, a copy of the revised/updated protocol, and a track-changes version of the protocol.
- New Investigator/New Site: FDA must be notified within 30 days. Include new 1572 and CV/Med License
- Information Amendment: Anything that doesn't fall under the above topics, or safety reporting. Usually for manufacturing or toxicology updates, or for study closure.



IND application sponsors are required to notify FDA (and all participating investigators) in a written safety report of any adverse experience (AE) associated with the use of the drug that is both <u>serious</u> and <u>unexpected</u>.



Safety Reporting

There are two kinds of Safety Report submissions:

- Initial Written Report IND sponsor must report any adverse reaction or suspected adverse reaction to study treatment that is both serious and unexpected to FDA as soon as possible but no later than <u>7 calendar days</u> following the sponsor's initial receipt of the information
- Follow-Up to the Written Report Any relevant additional information obtained by the sponsor during investigation of the AE that pertains to a previously submitted IND safety report must be submitted as a Follow-up IND Safety Report. Such reports should be submitted without delay, as soon as the information is available but no later than <u>15 calendar days</u> after the sponsor receives the information



Safety Report Submission Format

- Form FDA 3500A (Mandatory MedWatch)
 - For clinical trial safety reports, for use by IND reporters, manufacturers, distributors, importers, user facilities personnel
 - Do not use: Form FDA 3500 (Voluntary MedWatch), which is used by healthcare professionals, consumers, and patients



Investigational Device Exemptions (IDEs)



What is a Medical Device?

Its an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar or related article or component part or accessory which:

- is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease
- is intended to affect the structure or any function of the body
- achieve its primary intended purposes through physical action and NOT chemical or metabolic action



What Is A Medical Device?













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Devices don't need to be applied to or implanted in someone to be considered a device.

Novel blood tests, diagnostic algorithms, and software can all be classified as a device if they meet the federal definition: "Is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease"



Section 201(h) of the FD&C Act

In Vitro Diagnostics and Software as Devices.

- <u>IVDs</u> are those reagents, instruments, and systems intended for use in diagnosis of disease or other conditions. Such products are intended for use in the collection, preparation, and examination of specimens taken from the human body.
- <u>Apps and software</u> intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease can be classified as devices. However, the FDA is selective in regulating software and apps. (21st Century Cures Act)



FDA's new focus on APPS

"Intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease"





FDA's new focus on APPS

"Intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease"



reSET® : a prescription digital therapeutic to be used in conjunction with standard outpatient treatment for substance use disorder (SUD)



FDA's new focus on APPS

"Intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease"



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Investigational Device Exemption (IDE)?

- An IDE is a regulatory submission that permits clinical investigation of devices to determine safety and effectiveness.
- An FDA-approved Investigational Device Exemption Application (IDE) permits a device that otherwise would be required to comply with a performance standard or to have premarket approval to be shipped lawfully for the purpose of conducting investigations of that device

(21 CFR 812.1).



What Studies are IDE-Exempt?

- If the objective of the study is not to test the safety or effectiveness of the device, then the study would not fall within the scope of IDE Regulations. (Devices used as "tools")
- A <u>diagnostic device</u> that is noninvasive, non-significant risk, does not introduce energy, and is confirmed by another established procedure.
- A device undergoing a consumer preference testing, or testing that is not for the purpose of determining safety or effectiveness.
- A legally marketed device when used in accordance with its labeling. (Comparative effectiveness)



Abbreviated IDE vs IDE Requirements

In order to decide which type of IDE is needed, an <u>SR/NSR determination is required</u>. That determination can be made by the IRB or the FDA

- A non-significant risk (NSR) study requires an <u>Abbreviated IDE</u> and is solely overseen by an IRB.
- A significant risk (SR) study requires an <u>IDE</u> that is reviewed by the FDA.



Abbreviated IDE Regulations

- Investigator and IRB determine that the study is non-significant risk. Oversight is provided by the IRB. FDA does not have direct oversight.
- When filling out the application in IRBIS, download the Investigational Device Worksheet here:

https://research.unc.edu/files/2016/04/Investiga tional-Device-Worksheet-ver.10-05-2016.pdf you will need to justify that you meet all of the exemption or abbreviated IDE requirements.



Significant Risk Investigations = IDE submission.

- A **significant risk** device is one that:
 - Is intended as an implant and presents a potential for serious risk to the health, safety, and welfare of a subject.
 - Is used to support or sustain human life.
 - Is of substantial importance in diagnosing, curing, mitigating, or treating disease and/or otherwise preventing impairment of human health.
 - Otherwise presents a potential for serious risk to the health, safety, or welfare of a subject.
- The study risk determination is based on the proposed use of a device in an investigation, and not on the device alone.



Preparing and Submitting an IDE



Regulatory Guidance for Academic Research of Drugs and Devices IDE Submission Template can be found at <u>www.ReGARDD.org</u>



IDE Submission

- 1. Cover Sheet
- 2. Name and Address of the Sponsor
- 3. Report of Prior Investigations
- 4. Investigational Plan
- 5. Manufacturing Information
- 6. Investigators Agreement
- 7. Investigators Certification
- 8. IRB Information
- 9. Name and Address of Investigators Institution
- 10. Financial Claims
- 11. Environmental Assessment
- 12. Labeling
- 13. Informed Consent
- 14. Additional Information

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II

Includes several sections:

- Description of the purpose of the device and the objectives of the study
- Study Protocol Again, the <u>NIH-FDA template</u> is recommended.
- Risk Analysis
- Description of Device
- Monitoring Procedures



5 – Manufacturing Information

If you are using a marketed device, then it is appropriate to **refer to the product label** and provide copy or a URL to the most current product label. If any modifications have been made, provide details on all changes.

If you have a Letter of Authorization (LoA) from another sponsor referencing their FDA submission (IND, NDA, BLA, IDE, DMF, etc), **include the LoA** in this section.

If you are manufacturing the device, include a description of the methods, facilities, and controls used for the manufacture, processing, packing, storage, and, where appropriate, installation of the device.



6 – Investigator's Agreement

The investigators agreement must include:

- The investigator's CV;
- If the investigator was involved in an investigation or other research that was terminated, an explanation of the circumstances that led to termination;
- Investigator's commitment to provide sufficient and accurate financial disclosure information.
- A statement of the investigator's commitment to:
 - Conduct the investigation in accordance with the agreement, the investigational plan, Part 812 and other applicable FDA regulations, and conditions of approval imposed by the reviewing IRB and FDA;
 - Supervise all testing of the device involving human subjects;
 - Ensure that the requirements for obtaining informed consent are met



IDE Formatting and Submission

Preface with a cover letter and include **three Copies:**

- One original hard copy in ACCO-like grey report cover, and
- Two electronic copies with a single cover letter that contains a signature and an adequate eCopy statement "the eCopy is an exact duplicate of the paper copy" Or, "the eCopy is an exact duplicate of the paper copy, with the exception of..."



An electronic copy (eCopy) is a PDF version of your medical device submission stored on a CD, DVD, or a flash drive. Make sure they are not 'mastered' or encrypted.

A submission with an eCopy that does not meet the technical standards outlined in the eCopy guidance will be placed on eCopy hold until a valid eCopy is received. <u>E-Copy Guidance</u>



Shipping Information

For devices regulated by the Center for Devices and Radiological Health (CDRH):

U.S. Food and Drug Administration Center for Devices and Radiological Health Document Mail Center - WO66-G609 10903 New Hampshire Avenue Silver Spring, Maryland 20993-0002

For devices regulated by the Center for Biologics Evaluation and Research (CBER):

U.S. Food and Drug Administration Center for Biologics Evaluation and Research Document Control Center - WO71-G112 10903 New Hampshire Avenue Silver Spring, MD 20993-0002



Once the initial IDE submission has been sent to the FDA, a team of staff reviews the IDE and provides one of several standard responses within 30 days of receipt.

- Acknowledgement
- Approval
- Approval with Conditions (Sponsor must reply)
- Disapproval (Sponsor must reply)



Maintaining an IDE



Regulatory Guidance for Academic Research of Drugs and Devices IDE Templates can be found at <u>www.ReGARDD.org</u>



Supplements / Reports / Amendments

- Supplement A written response from the sponsorinvestigator while IDE is under review or approved (trial is ongoing) regarding changes to the protocol or the device. Supplements are intended to seek FDA's approval for something new or different.
- **Report** A written response from the sponsor-investigator while IDE is in effect regarding study progress and unanticipated events. Reports are intended to provide notification or updates for FDA's routine monitoring of a clinical investigation.
- Amendment A written response from the sponsorinvestigator in response to the FDA's request for more information regarding a previous submission.



Supplements – Prior Approval

Changes requiring prior approval - most of the time, changes that are made in the Investigational Plan, need to be pre-approved by FDA. Examples of these changes are:

- Changes in the Investigational Plan or Protocol
 - Affecting the validity of data/information,
 - Patient risk to benefit relationship,
 - Scientific soundness of investigational plan,
 - Right, safety or welfare of subjects.
- Developmental Changes in the device (including manufacturing changes) that present a significant change in design or basic principle of operation



Supplements – 5 Day Notice

Changes requiring 5-day notice - these changes do not require prior approval, but notice must be provided to FDA within 5 working days of making the change:

- Changes Effected for Emergency Use: changes in the investigational plan to protect the life or well-being of the subject in the case of emergency. However, these changes must be reported to the FDA within 5 working days.
- Non-significant changes in design or manufacturing should also be reported to the FDA within 5 working days.
- Other changes to protocol that do not fit the criteria for prior approval such as:
 - Modification to inclusion/exclusion criteria to better define the target patient population, increasing the frequency at which data or information is gathered, modifying secondary endpoints



Reports

Annual Progress Report

- Template available on <u>www.ReGARDD.org</u>
- Current Investigators list
 - Report every 6 months.
- Unanticipated Adverse Device Effects:
 - Any serious adverse effect on health or safety or any life-threatening problem or death caused by, or associated with, a device if that effect, problem or death was not previously identified in nature, severity, or degree of incidence in the investigational plan or application (21 CFR 812.3 (s)). Report to the FDA within 10 working days.
- Deviation from the investigational plan
 - The investigator must notify the sponsor and the reviewing IRB of any deviation from the investigational plan to protect the life or physical well-being of a subject in an emergency. Report to the FDA within 5 working days.



Questions?



