A photograph of a desk with a keyboard, a mouse, and a folder labeled 'CONFIDENTIAL'. The folder is yellow with a red stamp that says 'CONFIDENTIAL'. The keyboard is black and the mouse is black. The desk is dark wood.

Consent, Confidentiality, and Data Safety Monitoring

Research Education Series: January 2023:
Happy New Year!

Carilion Clinic Human Research Protections
Office

Learning objectives

Recognize

that consenting participants is a PROCESS that includes the consent form.

Identify

potential threats to confidentiality

Develop

a strategy for data safety monitoring for YOUR research

Apply

best practices when drafting your IRB application.

Polling Question:

Who in attendance has consented participants for research?

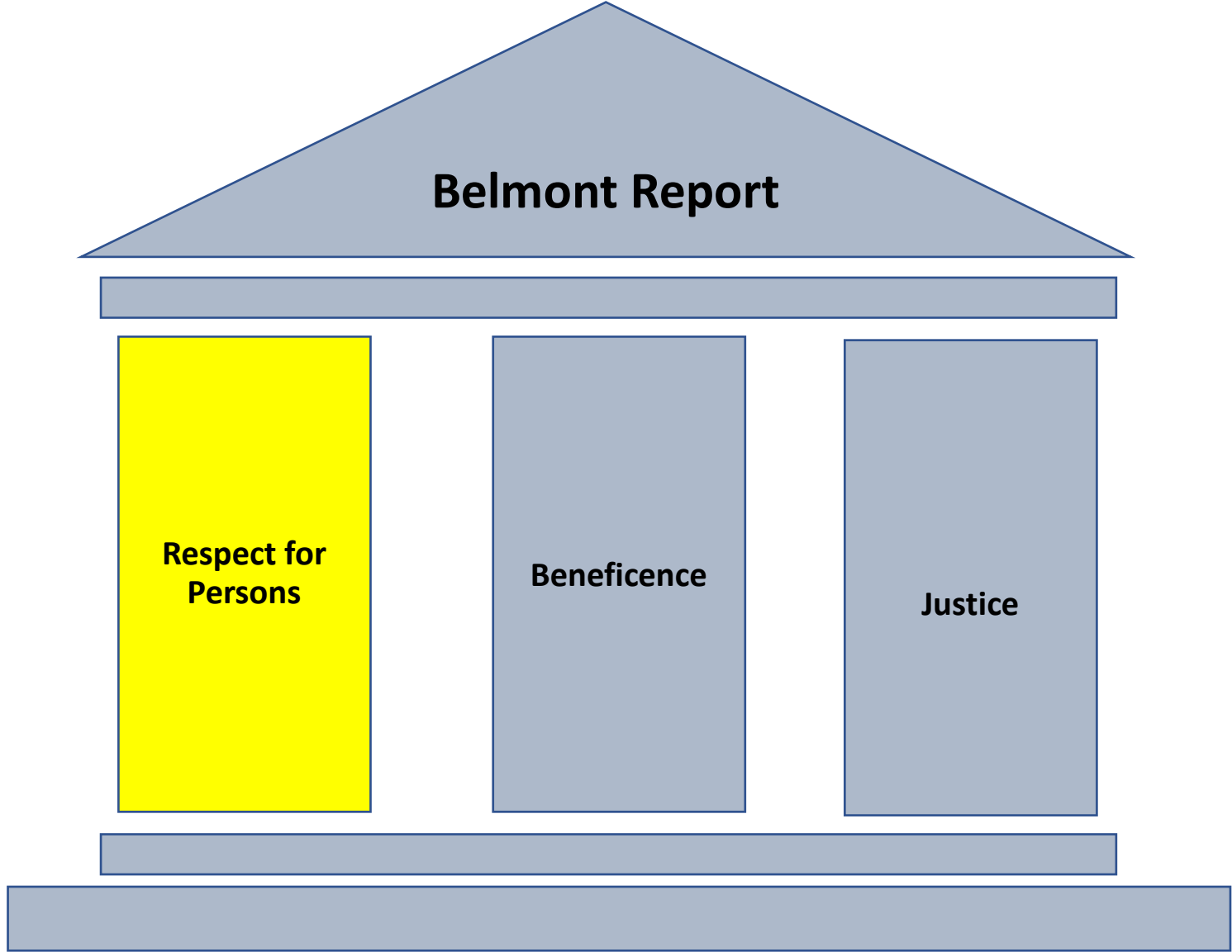
- Yes
- No



In the chat: Challenges in the process?

Informed consent process

- A process of reasoned decision making. It is not just the form nor a single episode.
- Authorization of an activity based on one's understanding of what the activity entails.
- A legal, regulatory, and ethical requirement in healthcare and in most research with human subjects.
- One aspect of conducting ethical clinical research.



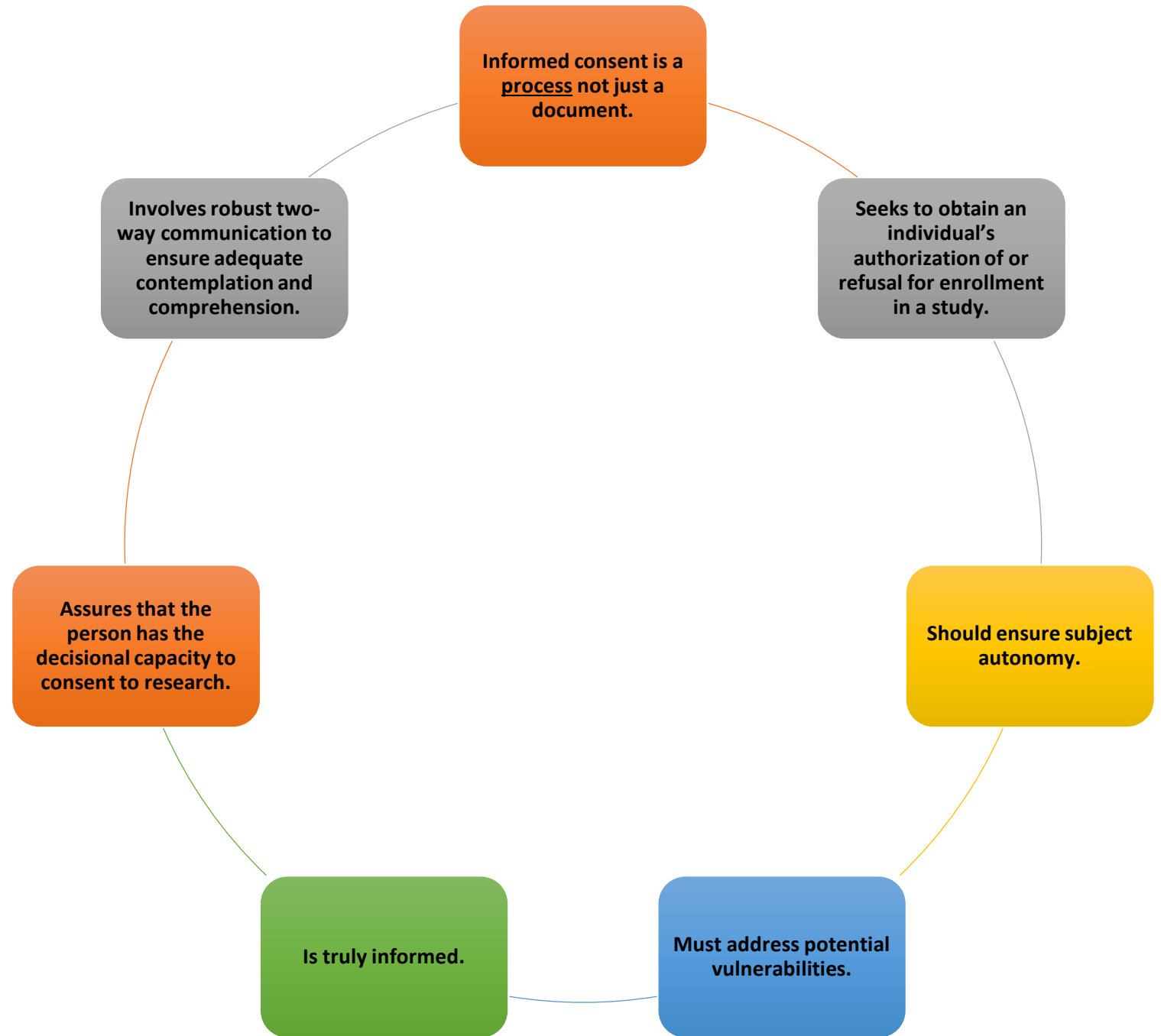
Belmont Report

**Respect for
Persons**

Beneficence

Justice

An autonomous process



Drafting the consent form

- Templates are located on the Carilion IRB website. Be sure to use the templates!
- The following slides outline requirements and considerations for consent form development.



Required elements of consent

*(45CFR46.116
and
21CFR50.25)*

- The study involves **Research**.
- The purpose of the research, expected duration of participation, description of procedures followed, and identification of any experimental procedures.
- Foreseeable risks or discomforts.
- Potential benefits to the subject or others.
- Appropriate alternatives.
- Extent of confidentiality.
- For more than minimal risk studies: will there be compensation, and/or medical treatments if injury occurs?
- Whom to contact to answer questions.
- A statement that participation is **voluntary**, and they can discontinue at any time without penalty or loss of benefits.

Additional elements of informed consent

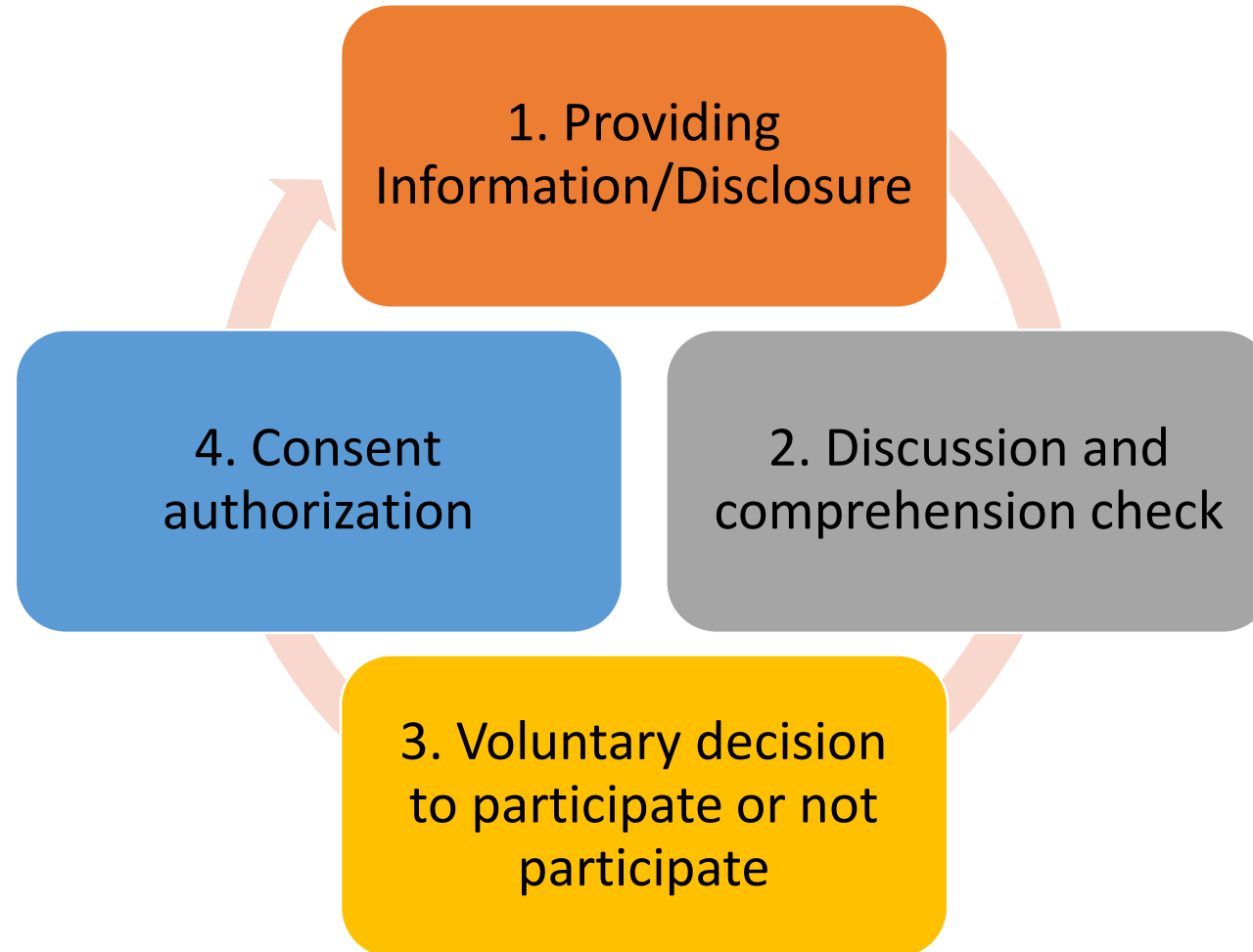
- Risks to the participant, embryo, or fetus if the participant is or may become pregnant.
- How/when a person's participation may be terminated without their consent.
- Additional costs.
- How participation can be terminated by the participant and possible consequences of early termination.
- How significant new findings will be shared.
- Number of subjects involved in the study.

eConsent

- Through the REDcap system
- Subjects “sign” consent electronically by:
 - Typing their name AND date
AND
 - Utilizing a signature field and a stylus, mouse, or finger to “write” their signature on the form.
- eConsent must be requested in the IRB application and approved by the IRB as part of the approval of consent process.
- You can consent participants remotely or in clinic via computer, cell phone, or tablet.
- The IRB application must include a plan for identity verification of the participant if remote consent is occurring.



Informed consent process



Process for presenting the consent from

- Be sensitive to where you are conducting the process. Make sure the participant/Legally Authorized Representative is/are in a private location.
- The consent process is the start of a relationship based on clear and open communication.
- Provide the participant with the written consent form.
- Give the participant as much time as possible to review the consent form before deciding whether to participate.
- Explain the research, take your time, allow for ample opportunities to ask questions or voice concerns.
- The person obtaining consent must review **each section** of the consent with the potential subject **in detail**.
- Answer questions but also ask questions to further the discussion and elicit questions from the participant.



Examples of questions for the consent process



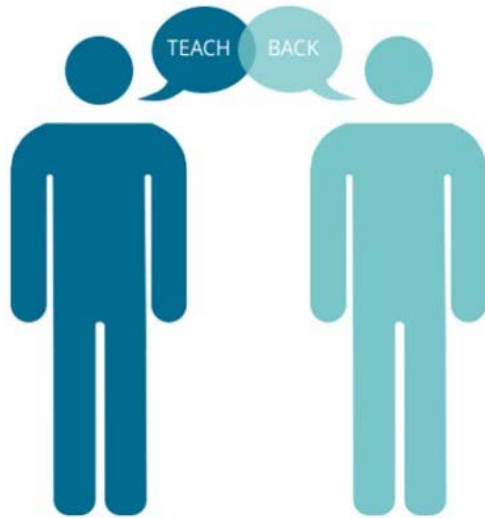
- Describe in your own words the purpose of the study.
- Would you explain to me what you will have to do if you are in the study?
- Can you tell me some other options for your care that you would have if you decide not to participate in this study?
- What else would you like to know about the study?
- What is a possible benefit to you if you participate in this study?
- What are the possible risks to you if you participate in this study?
- How long does participation in this study last?
- Where will the study take place?
- Will you receive the investigational drug/intervention if you are in this study?
- Whom should you contact if you have questions or experience side effects once this study begins?

Discussion/Comprehension Check

- What are factors that might impact participant understanding?
- How will understanding be assessed?
- How much do potential participants understand? How much should they understand?
- What happens or should happen when participants don't understand?



Teach Back Method to Assess Capacity



- Ask the potential participant to explain the study back to you, using their own words.
- Use non-shaming, open-ended questions.
- Avoid asking closed-ended, yes/no questions.
- Emphasize that the responsibility to explain is on you the researcher not on them the potential participant.
- If they are not able to teach back correctly, explain again and re-check.

Barriers to understanding



- The relationship between the person conducting the consent process and the patient.
- Age
- Cognitive capacity
- Health literacy
- Familiarity with research
- Level of education/ability to read
- Social/cultural values
- Language
- Environment/timing of discussion
- Anxiety/fear
- Pain
- Influence of medications
- Quality of information that is disclosed about the study
- Readability of the informed consent
- Embarrassment around asking questions or for clarification

Challenges



The complexity of research studies



Overall health literacy and capacity



Measuring understanding. How do we know when someone doesn't understand?



Different kinds of misunderstandings

Misconceptions

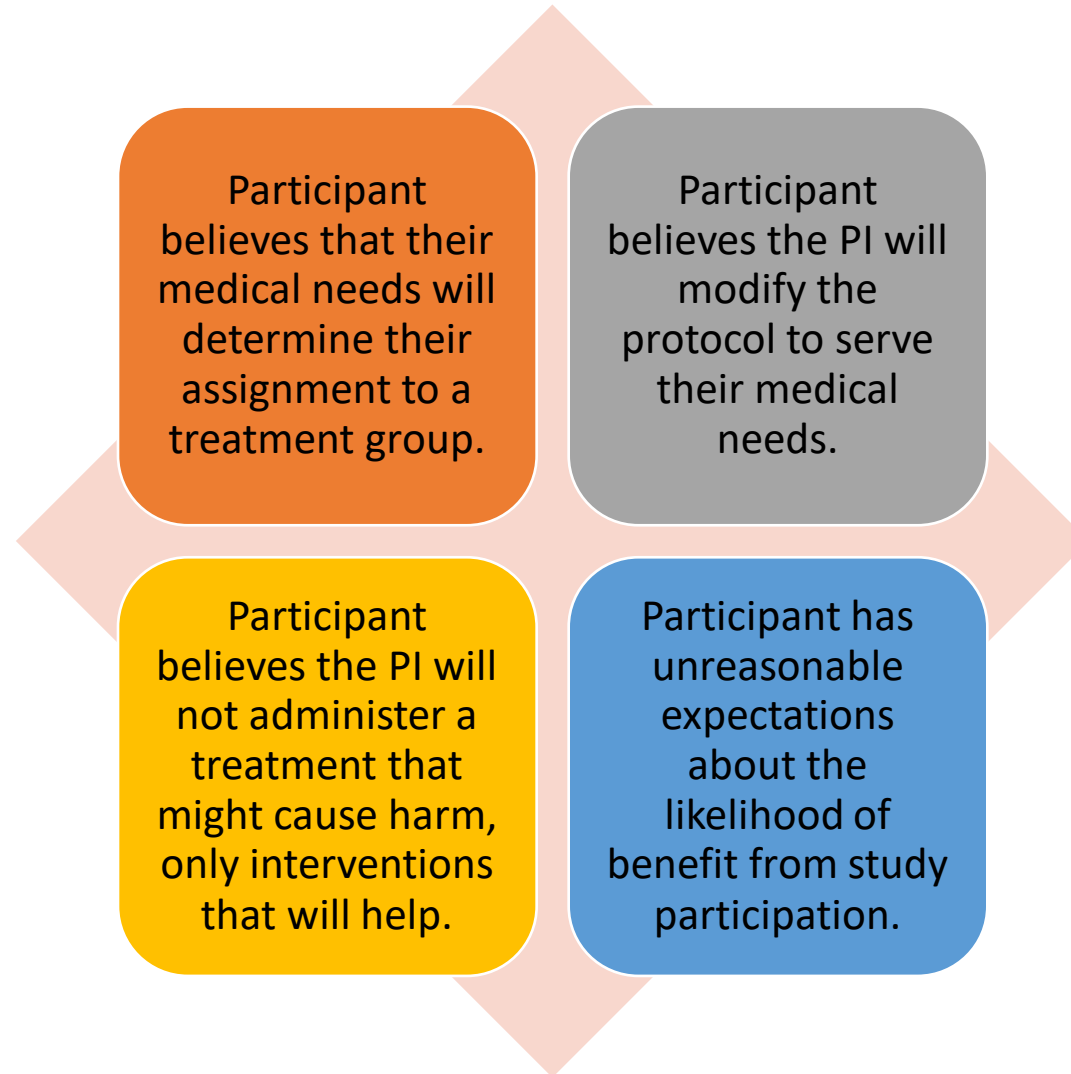
Mis-estimations

Optimism



Knowledge vs. appreciation

Therapeutic misconceptions



Polling question:

Which of the following populations are considered to be vulnerable by the federal government?

- A. Children
- B. Prisoners
- C. Pregnant women, human fetuses, and neonates
- D. People with diminished mental capacity
- E. All of the above
- F. None of the above

Vulnerable populations

The IRB must approve enrollment of vulnerable populations AND special protections may be needed:

- Children
- Cognitively Impaired/Limited Decision-Making Capacity
- Pregnant Women, Neonates, and Fetuses
- Prisoners

Special Protections may be needed:

- Non-English Speakers
- Students
- Employees
- Educationally or Economically Disadvantaged



Additional safeguards for vulnerable populations

- When some or all of the participants are likely to be vulnerable to coercion or undue influence, additional safeguards must be included in the study to protect the rights and welfare of these participants (U.S. Department of Health and Human Services, 2018, 46.111[b])
- The vagueness of “additional safeguards” places a heavy burden on researchers and IRBs. If you have questions consult with us! We are always happy to provide help and guidance.



Additional vulnerabilities

Consider this: potential participants may be vulnerable even if they are not identified as vulnerable by the federal regulations. A few examples include:

- Substance use disorders: active withdrawal, actively using/under the influence, comorbid psychiatric disorders.
- Highly distressed, frightened, or overwhelmed.
- Fluctuating capacity.
- Language barriers.
- The intervention/treatment is the last possible option for treatment.
- Deference to an authority figure in the case of abuse, spousal relationships, doctor/patient relationships.
- The promise of payment for participation or receipt of free healthcare services leading to economic vulnerabilities.
- Social vulnerabilities such as distrust for an organization and or experiences of discrimination which may cause people to refuse to participate.

Education Development and Research (2017). Vulnerable Populations.





Non-English-Speaking participants

- Informed consent must be presented in language understandable to the subject, and in most situations should be documented in writing (45 CFR §46.116 and § 46.117).
- Potential subjects who do not speak English should be presented with a consent document written in a language understandable to them.
- For the occasional and unanticipated non-English speaking subject an alternative short form method is allowed. 45 CFR §46.117(b)(2) permits oral presentation of informed consent in conjunction with a short form written consent document. The process includes the following:
 - All elements of consent are presented orally.
 - There is a written summary of what was presented orally. The IRB approved English language informed consent document may serve as the summary.
 - A witness to the oral presentation is required. The witness should be fluent in both English and the language of the subject.
 - The subject must be given copies of the short form document and the summary.

Required signatures for consent for non-English speakers



- At the time of consent
 - All Documents must be approved by the IRB prior to consent.
 - Per Carilion IRB you should have the English Language Informed Consent Document. Ideally, this document should be translated into the language understood by the participant or their LAR.
 - IF you are using a short form, you must have one in English and one the language understood by the participant or their LAR
 - The short form document should be signed by the subject or the subject's Legally Authorized Representative.
 - The summary (i.e. English Language informed consent document) should be signed by the person obtaining consent as authorized under the protocol.
 - The short form document and the summary should be signed by an impartial witness.
 - When the person obtaining consent is assisted by a translator, the translator may serve as a witness.

Decision Making Capacity for Research



Participants should have

1. **Understanding** of the information relevant to the decision such as the nature and purpose of the study and potential risks and benefits.
2. **Appreciation** of the risks and benefits as they apply to one's own situation and condition.
3. **Reasoning** to incorporate information with personal priorities, values, potential consequences, and alternatives.
4. **Decision-making capacity** to express a choice in a consistent fashion.

Legally Authorized Representatives

Obtaining permission/consent from an LAR, first, requires IRB approval

An individual, judicial, or other body authorized under applicable law to consent on behalf of a prospective subject. [§46.116](#)

Virginia has specific laws regarding who may serve as a LAR. [12VAC35-115-146](#).

The LAR evaluates whether participation is consistent with the participant's wishes and values



Voluntary decision

- Participants must be capable of making a voluntary choice.
- There must be no coercion or undue influence
- If there is an LAR
 - Is their decision an accurate reflection of the wishes of the participant?
 - Is the LAR the person whom the participant wishes to make this decision for them?
 - What stressors/burdens is the LAR dealing with that can impact their decision- making capacity?

Documenting the consent process

- Make sure you are using the **most recently approved consent form** (date at the bottom of the form) and that it is signed and dated on the same day by all parties. This can be found in the submission history tab in PRIS3M. The file will read “approved.”
- Document the consent process in either the research and/or medical record, describing the consent process including documentation that the participant received a signed copy of the consent form. Develop a template for ease of documentation.
- The Carilion Human Research Protections Office has helpful guidance under the Help button in PRIS3M “Consent Process Checklist for Research.”

Know the study for which you are consenting!

- Assure that you are using the correct consent form: Most recently approved, IRB approval date on the bottom. Can locate under the *Approved* tab in PRIS3M.

Compare document versions Add/Revise Consent Archive Selected Document(s)

All **Approved** Void Archive

1 result(s) found...

	View History	Edit/View	Title Category	Version	Language	UnApproved Consent	Approved Consent	Consent Outcome	Approval Date	Expiration Date	Checked Out By	Hide
<input type="checkbox"/>			Consent Form 2.0 <i>*Revision modified by the Carilion Clinic IRB</i>	2.2 11/22/2021	English			Approved	11/22/2021			

- Shadow someone experienced with the consent process or asked to be observed while you consent potential participants.
- Make sure you have plenty of time to conduct the consent process.
- Make sure you are in a private location that assures participant privacy and confidentiality
- Read/review the consent form in its entirety.
- Assess understanding
 - What is the purpose of this research?
 - What are the risks of being in this study?
 - What are the benefits of being in this study?
 - How is being in this study different from ordinary treatment?
 - How long will you be in this study?
- Be sensitive to discomfort or anxiety and be ready to stop the process if necessary.



Additional tips

- Never pressure anyone to participate (remember the therapeutic misconceptions).
- Leave your personal thoughts/beliefs out of it. Do not coerce nor persuade someone to participate in a study.
- Consider adding another IRB approved team member into the consent process to avoid possible undue influence.
 - PI can go over the study consent in detail and then supporting role can answer final questions and obtain signatures.
- If you require assistance, reach out to the HRPO, attend a training, and ask for feedback on the process.





How do I keep
participants
and their data
safe?



Polling Question

How much information do I have to give the IRB in my data safety monitoring plan?

- A. **Just enough** to get the job done
- B. **A reasonable amount**, but I'm sure not every question applies to my study
- C. **All of the information**, being mindful of providing a response to every prompt



Data Safety Monitoring Plan

- 45 CFR § 46.111: For IRB approval the following must be addressed:
 - (1)(2) Risks to subjects are minimized and are reasonable in relation to anticipated benefits
 - (6) The research plan makes adequate provisions for monitoring the data collected to ensure safety of subjects
 - (7) when appropriate there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data

When should you create a DSMP?

All research involving human subjects requires data and safety monitoring calibrated to the anticipated risks associated with the research

For studies with no more than minimal risk it is helpful to create a plan. However, the IRB office may require the submission of a full DSMP and/or clarification of specific elements for study approval

When the research has a high expected rate of morbidity or mortality in the study population

When the research involves the use of an experimental device that has the potential for mortality or major morbidity

When the research involves the administration of an experimental agent that has the potential for mortality or major morbidity

When there are multiple study sites

When there is a reasonable likelihood that the study may be terminated early due to safety concerns, futility, or a lack of efficacy

When the study participants represent a vulnerable population such as children, the elderly, pregnant women, the terminally ill, or those of diminished mental capacity

When the IRB determines that a DSMP is necessary to provide for the safety of the subjects.

There is a large study population and the duration of the study is long

When
should you
create a
DSMP
(cont.)

DSMPs should specify the following

- Who will perform the monitoring and their affiliation with the sponsor or investigator,
- The safety information that will be collected and monitored, including serious adverse events and unanticipated problems.
- The frequency or periodicity of review of safety data.
- The procedures for analysis and interpretation of the data.
- The procedures for review of scientific literature and data from other sources that may inform the safety or conduct of the study.
- The conditions that trigger a suspension or termination of the research (i.e., stopping rules) if applicable.
- The procedures for reporting to the IRB, including a summary description of what information, or the types of information that will be provided.

Who provides the appropriate level of monitoring for the DSMP?

THE PRIMARY INVESTIGATOR WILL MONITOR (MINIMUM REQUIREMENT)



AN INTERNAL DATA SAFETY MONITORING BOARD WILL BE CONVENED TO MONITOR

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AN EXTERNAL INDEPENDENT BOARD WILL BE CONVENED TO MONITOR

A light grey arrow points downwards from the right side of the red box to the top right corner of this grey box.



Preparing the DSMP

Subject safety



Include parameters to monitor participant safety



Indicate the frequency of subject safety observations



Identify who is responsible for safety monitoring



Outline subject stopping rules- including when a subject will be removed and who will make that decision



Outline study stopping rules- when will a study be modified or stopped and who will make that decision



Outline reporting mechanisms for deviations, adverse events, and Unanticipated problems involving risk to subjects or others (UPIRTSOs)



Examples of monitoring activities for subject safety

- Specific parameters
 - Vital signs, weight, safety blood tests, cardiac status, anxiety, depression
- Frequency of observations
 - Weekly telephone follow-up, monthly appointments, observations of subject while in the clinical setting
- Individual(s) responsible for monitoring
 - Principal investigator, study coordinator, safety monitor, independent monitor, data safety monitoring board
- Subject stopping rules
 - Exclusion criteria that includes adverse responses to study procedures, pregnancy, stroke, cardiac irregularity, non-compliance with medication. Include the procedures for analysis and interpretation of data to include total subject size requirements for statistical significance.
- Study stopping rules
 - Unanticipated problems involving risks to subjects or others, unexplained adverse outcomes, life threatening adverse events.
- Reporting mechanisms
 - Plans for reporting deviations, adverse events, etc. to the IRB, FDA, Sponsor, participating sites, data/safety monitoring board, study team, participants

For more information on adverse events and the reporting of adverse events please see the Adverse Events and Reporting training module

Data integrity



What specific data elements will be reviewed?



How often will these elements be reviewed?



Who will review these elements?

Examples of monitoring activities to assure data integrity



Specific elements to be reviewed

Is the subject inclusion criteria being met, has the data been completely and accurately transcribed, units of measure are accurate, calculations are standardized and performed accurately



Frequency of monitoring data;

Specific points in time or after a specific number of subjects have moved through all or part of the protocol. Monthly, quarterly, annually, after the first several participants, after 50% of participants




Person responsible for monitoring this data

PI, study coordinator, safety monitor, independent monitor

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Examples of monitoring activities to ensure subject privacy

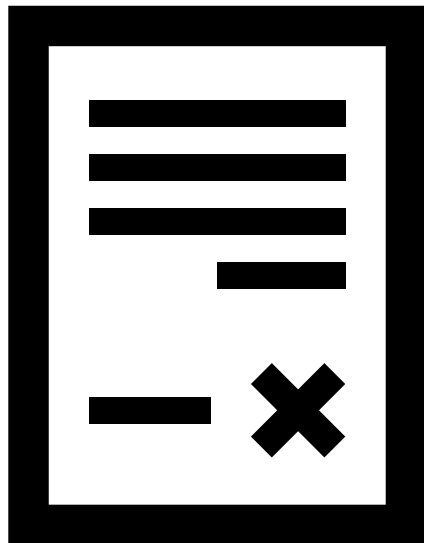
- Under what conditions will a subject be screened, recruited, consented, interviewed, and/or contacted?
 - Who will observe the consenting process, interview process, or clinical visits? How often will these observations take place?
- 
- A decorative yellow dashed line in the bottom right corner, consisting of several curved segments.



Data confidentiality

- What conditions will protect the confidentiality of the data?





Do you need a Certificate of confidentiality (CoC)

- Are you collecting any information that may put some at risk for civil or criminal liability or be damaging to their financial standing, employability, educational advancements or reputation?
- A formal confidentiality protection authorized under the Public Health Service Act (PHSA) to protect the privacy of human research participants enrolled in biomedical, behavioral, clinical, and other forms of sensitive research.
- Researchers may NOT be compelled in any Federal, State, or local civil, criminal, administrative, legislative, or other proceedings to identify participants.
- Public Service Act section 301(d) (42 U.S.C § 241(d)).

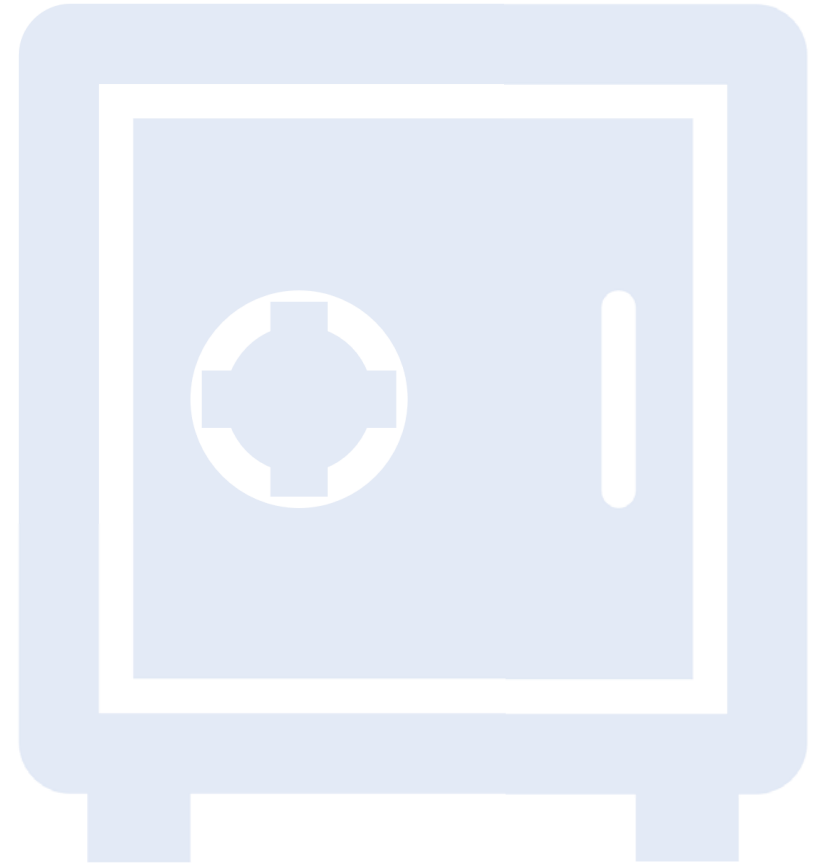
CoC consent language in the Carilion IRB consent template

This research is covered by a Certificate of Confidentiality from the National Institutes of Health. The researchers with this Certificate may not disclose or use information, documents, or biospecimens that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other action, suit, or proceeding, or be used as evidence, for example, if there is a court subpoena, unless you have consented for this use. Information, documents, or biospecimens protected by this Certificate cannot be disclosed to anyone else who is not connected with the research. One exception is if you agree that we can give out research information with your name on it. Other exceptions are information about child abuse or neglect and harm to yourself or others.



Examples of monitoring activities to ensure data confidentiality

- What are the conditions that will protect the confidentiality of the data?
 - Is information stored in locked filing cabinets, how are electronic records secured, where is PHI stored, how is data being transferred between partner sites, and among multiple sites

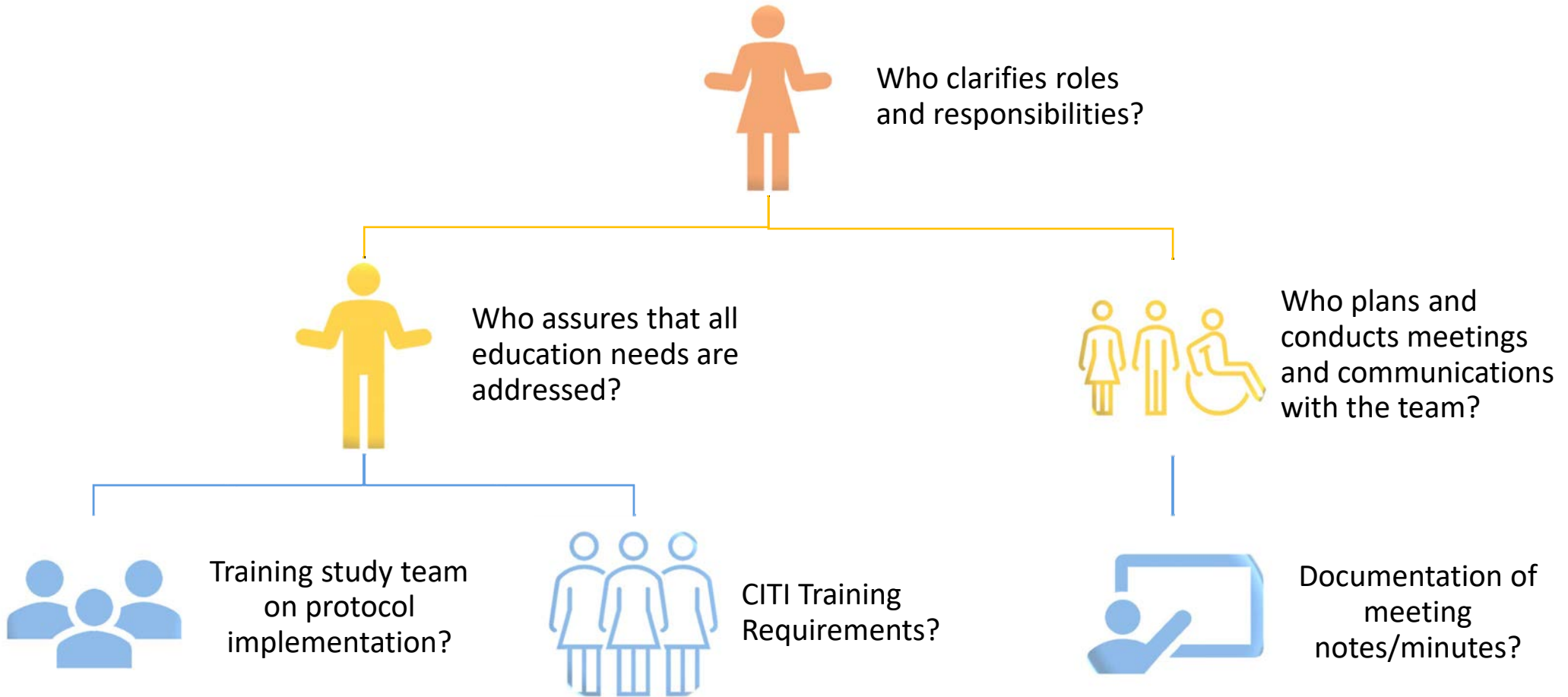


Study documentation

- Who manages study files
- Are there checklists and/or guidelines for monitoring documentation?
- Will the PI sample study files quarterly, annually, after a certain number of participants have completed the trial?



Protocol Implementation



Additional things to consider



The Carilion IRB application includes a data safety monitoring section. This is not optional. All full-board studies require the PI to outline a plan for data safety monitoring.



The IRB team needs to understand how patient safety will be monitored, how data safety will be assured, whether the study is viable, and how data will be handled such as statistical analysis procedures and who will have access to both identified and deidentified data.



If you have questions, contact the IRB to discuss the DSMP





Human Research Protections Office (HRPO) Staff

- Meredith Talmadge, Director (Study Development Consult, Facilitate Full Board reviews, Request to Rely submissions) mttalmadge@carilionclinic.org 540-224-5878
- Brooke Blevins (Minimal risk studies and Not Human Subjects Research determinations) bblevins@carilionclinic.org, 540-224-5882
- Trish Winter, Human Subjects Research and Ethics Education Manager (Training, Consultations) pjwinter@carilionclinic.org 540-521-5890
- Tanner Harmon (PRISM Support, Personnel changes, Conclusion, Admin Consult) tharmon@carilionclinic.org 540-224-5883

