Objective

To describe the procedures for Institutional Review Board (IRB) review of medical device clinical investigations including those exempt from, or subject to Investigational Device Exemption (IDE) regulations (i.e., Full IDE, Abbreviated IDE and Treatment IDE) and compassionate use of an investigational device.

GENERAL DESCRIPTION

The Food and Drug Administration (FDA) IDE regulation [21 CFR 312] describes three types of device studies: 1) exempt studies, 2) significant risk (SR) and 3) nonsignificant risk (NSR) studies. For studies that do not meet the criteria for exemption from IDE requirements, the sponsor and the IRB categorize the device investigation as either SR or NSR. The sponsor makes the initial determination of risk. The principal investigator (PI) submits the proposed study to a convened IRB for formal determination of the appropriate category.

Unless the study is exempt from IDE requirements, a SR device study must be conducted under an FDA approved IDE and a NSR device study may be conducted under an abbreviated IDE with the IRB acting as surrogate for the FDA. An exemption from the IDE requirement is not an exemption from the requirement for prospective IRB review or informed consent. In the event of any question regarding need for an IDE, the IRB may request that the PI consult FDA and provide documentation of FDA’s response. FDA is the final arbiter as to whether a device study is exempt, SR, or NSR.

PIs using investigational medical devices are responsible for controlling the devices received in accordance with regulatory requirements. PIs develop and submit to the IRB a plan for control, storage, and accountability of the device. During review of the research protocol, the IRB evaluates these plans and PI responsibilities to control investigational devices. The investigator is responsible for implementing the plan as approved by the IRB. Post IRB-approval monitoring to evaluate whether the investigator is meeting these responsibilities falls under the Quality Improvement Program (QIP). (See the Quality Improvement Program Directed On-Site Review SOP for details.)
FDA’s compassionate use provision allows access for patients who do not meet the requirements for inclusion in a clinical investigation but for whom the treating physician believes the device may provide a benefit in treating and/or diagnosing a serious disease or condition. The provision is typically approved for individual patients but may be approved to treat a small group of patients. For compassionate use the IRB Chair or designee documents concurrence with the use, ensures FDA concurrence, and receives and reviews reports of use.

FDA’s treatment use provision of the IDE facilitates availability of promising new devices to patients with life-threatening or serious diseases for whom no comparable or satisfactory alternative exists. Standard IDE regulations for conduct and review apply to the Treatment IDE as data are collected on the device’s safety and effectiveness. A treating physician who uses a device under a Treatment IDE is responsible for meeting all applicable IDE responsibilities.

FDA’s emergency use provisions are described in the Emergency Use SOP which outlines procedures for emergency use of a device in a life-threatening situation in which no standard acceptable treatment is available.

If a protocol involving a medical device is subject to review under more than one department or agency’s regulations, the protocol must meet the requirements of each set of regulations.

Definitions

A medical device is defined as any health care product that does not achieve its primary intended purposes by chemical action or by being metabolized.

An investigational device is a medical device which is the subject of a clinical study designed to evaluate the effectiveness and/or safety of the device. The device is still in the developmental stage and is not considered to be in commercial distribution.

An investigational use is a clinical evaluation of a legally marketed device for a new intended use or a new indication for use.

A subject, as defined in device regulations [21 CFR 312.3], is a human who participates in an investigation, either as an individual on whom or on whose specimen an investigational device is used or as a control. A subject may be in normal health or may have a medical condition or disease.

A significant risk device study is a study of a device that presents a potential for serious risk to the health, safety, or welfare of a participant and (1) is intended as an implant; or (2) is used in supporting or sustaining human life; or (3) is of substantial importance in diagnosing, curing, mitigating, or treating disease, or otherwise prevents impairment of human health; or (4) otherwise presents a potential for serious risk to the health, safety, or welfare of a participant.
A nonsignificant risk device study is one that does not meet the definition for an SR study.

An Investigational Device Exemption (IDE) permits a device, which 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. An approved IDE exempts a device from specific Food and Drug Administration (FDA) requirements as laid out under 21 CFR 812. An approved IDE means that the IRB (and FDA for SR devices) has approved the sponsor’s study application and that the study meets all the requirements under 21 CFR 812.

Compassionate use (single patient or small group) allows access to investigational devices for treatment of a serious disease or condition where no alternative exists and the patient(s) does not meet the criteria for participation in existing clinical investigations.

A Treatment IDE is approved for use in patients with a serious or immediately life-threatening disease or condition for whom no comparable or satisfactory alternative device or other therapy is available.

**RESPONSIBILITY**

Execution of SOP: IRB Members, Office of Research Integrity (ORI) Staff, FDA, Principal Investigator (PI)/Study Personnel, Study Sponsor

**PROCEDURES**

An investigator conducting research that involves collection of safety or efficacy data on a medical device completes the applicable device section of the IRB application and includes reference to FDA in informed consent documents. The IRB reviews the information and documentation provided by the investigator to verify whether the study is subject to, or exempt from IDE requirements.

**Studies Exempt from IDE Requirements**

1. The PI is responsible for consulting FDA guidance or contacting FDA to determine if the device meets specific criteria to be exempt from IDE requirements.

2. If the PI considers the device study to be exempt from IDE requirements, he/she references the exemption category being claimed and provides to the IRB documentation from FDA or sufficient justification to support the exemption category (e.g., in-vitro diagnostic device that meets the exemption criteria in 21 CFR 812.2 (c)(3)).
Studies Subject to Full or Abbreviated IDE Requirements: Significant vs. Nonsignificant Risk Determination

1. If the study is being conducted under a valid IDE, the PI includes in the IRB application the IDE number, name of IDE holder/sponsor, and sponsor protocol imprinted with number or written communication from FDA or the sponsor documenting the IDE number.

2. If the study is not being conducted under a valid IDE at time of IRB submission, the PI includes in the IRB application the sponsor’s initial assessment of the device study risk (SR or NSR), and the rationale used in making the risk determination. The PI includes FDA correspondence or documentation if available.

3. The convened IRB makes its own determination of the risk category (SR or NSR). The convened IRB may review reports of prior investigations conducted with the device, the proposed investigational plan, a description of subject selection criteria, monitoring procedures, and any other information the IRB deems necessary to make its decision.

4. The IRB may request that the PI consult with the FDA as appropriate. If FDA provides a determination, it is considered final and the IRB does not duplicate the effort.

5. If the IRB determines that a protocol submitted for approval involves a SR device, which has been deemed NSR by the sponsor, the IRB notifies the investigator and where appropriate, the sponsor (i.e., investigator is sponsor).

6. If the IRB determines that a study involves the use of a SR device, the PI must obtain an IDE and IRB approval before the study begins and must conduct the study in accordance with Full IDE requirements.

7. If the IRB determines that the study is NSR, there is no requirement for submission of an IDE application to the FDA. The PI conducts the study in accordance with FDA abbreviated IDE requirements.

8. After making the risk determination, the IRB conducts the review of the study using the same criteria it would use in considering approval of any full review application. (See Initial Full Review SOP.) The IRB considers the risks and benefits of the medical device compared to the risks and benefits of alternate devices or procedures as listed in the IRB application.

9. The IRB may approve or disapprove the proposed research based on local context and its responsibilities to protect human subjects in research.
10. ORI staff document the SR/NSR determination in the meeting minutes and include the SR/NSR determination in correspondence sent to the PI. (See Minutes of IRB Meetings SOP.)

11. In a study of an investigational device in which an unanticipated problem/adverse event to subjects or others occurs, the investigator submits to the sponsor and to the IRB a report of the problem or adverse event occurring during the investigation. (See Unanticipated/Anticipated Problem/Adverse Event Reporting SOP.)

**IRB Evaluation of PI’s Plan to Control Device**

1. During review of the research proposal, the IRB evaluates the information provided by the PI that describes qualifications or training required to use or administer the device (if applicable) and plans for control of the investigational device(s) including policies and procedures for storage, control, dispensing, and accountability.

2. If the IRB determines the PI’s plans are inadequate, the IRB may request changes and/or additional information.

3. The QIP Coordinator is responsible for conducting periodic reviews of protocols involving use of an investigational device.

4. The QIP Coordinator provides the IRB with a follow-up evaluation regarding whether the PI is meeting investigator responsibilities for control, storage, and accountability of the device. (See the QIP Directed On-Site Review SOP for details.)

**Compassionate Use of an Investigational Device (single patient or small group)**

1. Before using the device, the PI or treating physician submits the following information to ORI:
   - a completed device section of the IRB application and checkmark that the study is being conducted with a treatment or compassionate use IDE under the FDA’s early expanded access program.
   - documentation of sponsor’s authorization and FDA’s concurrence with use (e.g., compassionate use IDE supplement approval letter from FDA);
   - brief description of patient(s) situation, treatment, and monitoring plan;
   - independent assessment from uninvolved physician if available; and
   - copy of the informed consent form.

2. ORI staff screen the IRB submission and verify the submission includes authorization from the sponsor and approval from FDA.
3. ORI staff forward the materials to the IRB Chair, Vice Chair, or appropriate physician member of the IRB.

4. The IRB Chair or his/her designee reviews the submission for concurrence with the compassionate use.

5. The PI or treating physician obtains informed consent from the patient or legally authorized representative.

6. At the conclusion of treatment, the physician or PI reports any safety related information or problems encountered with use of the device, to the IRB and IDE sponsor or FDA (as applicable).

_Treatment Use of an Investigational Device_

1. If the study is being conducted under a Treatment IDE, the PI completes the applicable device section of the IRB application, including the Treatment IDE number, name of Treatment IDE holder/sponsor, and sponsor protocol imprinted with number or written communication from FDA or the sponsor documenting the Treatment IDE number.

2. ORI staff screen the IRB submission following procedures described in the Initial Full Review SOP.

3. The full IRB reviews the protocol using the same procedures as outlined above for a Full IDE.

**REFERENCES**

21 CFR 812
21 CFR 56
21 CFR 50
21 CFR 812.66
21 CFR 56.108(a)(1)
21 CFR 812.2(b)
21 CFR 812.2(c)(3)
21 CFR 812.36

_Quality Improvement Program Directed On-Site Review SOP_