

# IDE DECISION WORKSHEET



For Investigator-Initiated Clinical Investigations

Does Your Study Require an IDE Submittal to the FDA?

Note: The following worksheet is intended to help determine whether an IDE is required for FDA/UCSF CHR approval prior to initiating your Investigator-Initiated Clinical Study.

IDE REQUIREMENTS DECISION CRITERIA	YES	NO
1. Does the study involve a Medical Device that is being used in accordance with its labeling that has been approved / cleared by the FDA? <b>If NO, proceed to question #2</b> . If <b>YES</b> , then an FDA approved IDE is not required.		
2. Is the Medical Device a Diagnostic Device?		
3. If answer to question # 2 is NO, skip to question # 4. If YES and the study will involve a Diagnostic Device, it may be exempt from IDE regulations. According to 21 CFR § 812.2(b)(3), a Diagnostic Device may be considered exempt from IDE regulations if ALL of the following questions can be answered affirmatively:  (a) Does the Diagnostic Device comply with the labeling requirements of 21 CFR § 809.10(c)?  (b) Is the testing non-invasive?  (c) The testing does not require an invasive sampling procedure that presents Significant Risk?  (d) The testing does not by design or intention introduce energy into a subject?  (e) The testing is not used as a diagnostic procedure without confirmation of the diagnosis by another, medically established diagnostic product or procedure?		
4. Does the study involve an Investigational Device? If <b>YES</b> , proceed to # 5.		
5. (a) Is the Investigational Device a <b>Significant Risk (SR) Device</b> (per 21 CFR § 812.3(m) and 812.20(a) (1)? <b>Note: Answer Questions 5(b – e) if not certain:</b>		
5. (b) Is the investigational device intended as an implant and presents a potential for serious risk to the health, safety, or welfare of a subject?		
5. (c) Is the investigational device purported or represented to be for a use in supporting or sustaining human life and presents a potential for serious risk to the health, safety, or welfare of a subject?		
5. (d) Is the investigational device for a use of substantial importance in diagnosing, curing, mitigating, or treating disease, or otherwise preventing impairment of human health and presents a potential for serious risk to the health, safety, or welfare of a subject?		
5. (e) Does the investigational device otherwise present a potential for serious risk to the health, safety, or welfare of a subject?		
6. (a) Were any questions in # 5 answered <b>YES</b> ?		
6. (b) If # 6 (a) is answered YES, the study utilizes a Significant Risk Investigational Device and therefore does require an IDE Approval from the UCSF IRB and FDA prior to study initiation.		
7. If ALL # 5 questions were answered NO, then the Investigator / Sponsor will need to comply with the "Abbreviated IDE Requirements" per 21 CFR § 812.2(b) in addition to the Informed Consent and IRB regulations of 21 CFR § 50 and 56.		
Principal Investigator Signature Date		
For Regulatory Binder		
☐ IDE IRB & FDA Approval Required (SR Device)		
☐ ABBREVIATED IDE with IRB Approval Required (NSR Device)		
☐ IDE Exempt		

#### **Reference Notes:**

## Significant Risk Device [21 CFR § 812.3(m)]

# An investigational device that:

- (1) Is intended as an implant and presents a potential for serious risk to the health, safety, or welfare of a subject;
- (2) Is purported or represented to be for a use in supporting or sustaining human life and presents a potential for serious risk to the health, safety, or welfare of a subject;
- (3) Is for a use of substantial importance in diagnosing, curing, mitigating, or treating disease, or otherwise preventing impairment of human health and presents a potential for serious risk to the health, safety, or welfare of a subject; or
- (4) Otherwise presents a potential for serious risk to the health, safety, or welfare of a subject.

# 21 CFR § 812 – Investigational Device Exemptions (Relevant Sections)

Subpart A General Provisions Sec. 812.2 Applicability

- (a) General. This part applies to all clinical investigations of devices to determine safety and effectiveness, except as provided in paragraph (c) of this section.
- (b) Abbreviated requirements. The following categories of investigations are considered to have approved applications for IDE's, unless FDA has notified a sponsor under 812.20(a) that approval of an application is required:
- (1) An investigation of a device other than a significant risk device, if the device is not a banned device and the sponsor:
  - (i) Labels the device in accordance with 812.5;
  - (ii) Obtains IRB approval of the investigation after presenting the reviewing IRB with a brief explanation of why the device is not a significant risk device, and maintains such approval;
  - (iii) Ensures that each investigator participating in an investigation of the device obtains from each subject under the investigator's care, informed consent under part 50 and documents it, unless documentation is waived by an IRB under 56.109(c).
  - (iv) Complies with the requirements of 812.46 with respect to monitoring investigations;
  - (v) Maintains the records required under 812.140(b) (4) and (5) and makes the reports required under 812.150(b) (1) through (3) and (5) through (10):
  - (vi) Ensures that participating investigators maintain the records required by 812.140(a)(3)(i) and make the reports required under 812.150(a) (1), (2), (5), and (7); and
  - (vii) Complies with the prohibitions in 812.7 against promotion and other practices.
- (2) An investigation of a device other than one subject to paragraph (e) of this section, if the investigation was begun on or before July 16, 1980, and to be completed, and is completed, on or before January 19, 1981.
- (c) Exempted investigations. This part, with the exception of 812.119, does not apply to investigations of the following categories of devices:
- (1) A device, other than a transitional device, in commercial distribution immediately before May 28, 1976, when used or investigated in accordance with the indications in labeling in effect at that time.

- (2) A device, other than a transitional device, introduced into commercial distribution on or after May 28, 1976, that FDA has determined to be substantially equivalent to a device in commercial distribution immediately before May 28, 1976, and that is used or investigated in accordance with the indications in the labeling FDA reviewed under subpart E of part 807 in determining substantial equivalence.
- (3) A diagnostic device, if the sponsor complies with applicable requirements in 809.10(c) and if the testing:
  - (i) Is noninvasive,
  - (ii) Does not require an invasive sampling procedure that presents significant risk,
  - (iii) Does not by design or intention introduce energy into a subject, and
  - (iv) Is not used as a diagnostic procedure without confirmation of the diagnosis by another, medically established diagnostic product or procedure.
- (4) A device undergoing consumer preference testing, testing of a modification, or testing of a combination of two or more devices in commercial distribution, if the testing is not for the purpose of determining safety or effectiveness and does not put subjects at risk.
- (5) A device intended solely for veterinary use.
- (6) A device shipped solely for research on or with laboratory animals and labeled in accordance with 812.5(c).
- (7) A custom device as defined in 812.3(b), unless the device is being used to determine safety or effectiveness for commercial distribution.
- (d) Limit on certain exemptions. In the case of class II or class III device described in paragraph (c)(1) or (2) of this section, this part applies beginning on the date stipulated in an FDA regulation or order that calls for the submission of premarket approval applications for an unapproved class III device, or establishes a performance standard for a class II device.
- (e) Investigations subject to IND's. A sponsor that, on July 16, 1980, has an effective investigational new drug application (IND) for an investigation of a device shall continue to comply with the requirements of part 312 until 90 days after that date. To continue the investigation after that date, a sponsor shall comply with paragraph (b)(1) of this section, if the device is not a significant risk device, or shall have obtained FDA approval under 812.30 of an IDE application for the investigation of the device.

[45 FR 3751, Jan. 18, 1980, as amended at 46 FR 8956, Jan. 27, 1981; 46 FR 14340, Feb. 27, 1981; 53 FR 11252, Apr. 6, 1988; 62 FR 4165, Jan, 29, 1997; 62 FR 12096, Mar. 14, 1997]

For more information please contact:

Marlene Berro, MS, RAC Regulatory Consultant CTSI Regulatory Knowledge and Support Services Marlene.berro@ucsf.edu 415-279-8547

# Significant Risk (SR) and Nonsignificant Risk (NSR) Medical Device Studies

(Per FDA Information Sheets October 1, 1995; This replaces Bluebook Memorandum: IDE Memorandum D86 (July 25, 1986) with the same title)

The Investigational Device Exemption (IDE) regulations [21 CFR § 812] describe two types of device studies; "Significant Risk" (SR) and "Nonsignificant Risk" (NSR).

An SR device study is defined [21 CFR 812.3(m)] as a study of a device that presents a potential for serious risk to the health, safety, or welfare of a subject 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 subject.

An NSR device investigation is one that does not meet the definition for a Significant Risk study. NSR device studies, however, should not be confused with the concept of "minimal risk," a term utilized in the Institutional Review Board (IRB) regulations [21 CFR § 56] to identify certain studies that may be approved through an "expedited review" procedure. For both SR and NSR device studies, IRB approval prior to conducting clinical trials and continuing review by the IRB are required. In addition, informed consent must be obtained for either type of study [21 CFR § 50].

# DISTINGUISHING BETWEEN SR AND NSR DEVICE STUDIES

The effect of the SR/NSR decision is very important to research sponsors and investigators. SR device studies are governed by the IDE regulations [21 CFR § 812]. NSR device studies have fewer regulatory controls than SR studies and are governed by the abbreviated requirements [21 CFR § 812.2(b)].

The major differences are in the approval process and in the record keeping and reporting requirements. The SR/NSR decision is also important to FDA because **the IRB serves**, **in a sense**, **as the Agency's surrogate with respect to review and approval of NSR studies**.

FDA is usually not apprised of the existence of approved NSR studies because sponsors and IRBs are not required to report NSR device study approvals to FDA. If an investigator or a sponsor proposes the initiation of a claimed NSR investigation to an IRB, and if the IRB agrees that the device study is NSR and approves the study, the investigation may begin at that institution immediately, without submission of an IDE application to FDA.

# SR/NSR STUDIES AND THE IRB: THE NSR/SR DECISION

The assessment of whether or not a device study presents a NSR is initially made by the sponsor. If the sponsor considers that a study is NSR, the sponsor provides the reviewing IRB an explanation of its determination and any other information that may assist the IRB in evaluating the risk of the study.

The sponsor should provide the IRB with a description of the device, reports of prior investigations with the device, the proposed investigational plan, a description of patient selection criteria and monitoring procedures, as well as any other information that the IRB deems necessary to make its decision. The sponsor should inform the IRB whether other IRBs have reviewed the proposed study and what determination was made. The sponsor must inform the IRB of the Agency's assessment of the device's risk if such an assessment has been made. The IRB may also consult with FDA for its opinion.

The IRB may agree or disagree with the sponsor's initial NSR assessment. If the IRB agrees with the sponsor's initial NSR assessment and approves the study, the study may begin without submission of an IDE application to FDA. If the IRB disagrees, the sponsor should notify FDA that an SR determination has been made. The study can be conducted as an SR investigation following FDA approval of an IDE application.

The risk determination should be based on the proposed use of a device in an investigation, and not on the device alone. In deciding if a study poses an SR, an IRB must consider the nature of the harm that may result from use of the device. Studies where the potential harm to subjects could be life-threatening, could result in permanent impairment of a body function or permanent damage to body structure, or could necessitate medical or surgical intervention to preclude permanent impairment of a body function or permanent damage

to body structure should be considered SR. Also, if the subject must undergo a procedure as part of the investigational study, e.g., a surgical procedure, the IRB must consider the potential harm that could be caused by the procedure in addition to the potential harm caused by the device. Two examples follow:

- The study of a pacemaker that is a modification of a commercially available pacemaker poses a SR because the use of any pacemaker presents a potential for serious harm to the subjects. This is true even though the modified pacemaker may pose less risk, or only slightly greater risk, in comparison to the commercially available model. The amount of potential reduced or increased risk associated with the investigational pacemaker should only be considered (in relation to possible decreased or increased benefits) when assessing whether the study can be approved.
- The study of an extended wear contact lens is considered SR because wearing the lens continuously overnight while sleeping presents a potential for injuries not normally seen with daily wear lenses, which are considered NSR.

FDA has the ultimate decision in determining if a device study is SR or NSR. If the FDA does not agree with an IRB's decision that a device study presents an NSR, an IDE application must be submitted to FDA. On the other hand, if a sponsor files an IDE with FDA because it is presumed to be an SR study, but FDA classifies the device study as NSR, the FDA will return the IDE application to the sponsor and the study would be presented to IRBs as an NSR investigation.

# IRB AND SPONSOR RESPONSIBILITIES FOLLOWING SR/NSR DETERMINATION

# If IRB decides the study is Significant Risk:

- 1. IRB Responsibilities:
  - o Notify sponsor and investigator of SR decision
  - o After IDE obtained by sponsor, proceed to review study applying requisite criteria (21 CFR §56.111)
- 2. Sponsor Responsibilities:
  - o Submit IDE to FDA or, if electing not to proceed with study, notify FDA (CDRH Program Operations Staff 3015941190) of the SR determination;
  - o Study may not begin until FDA approves IDE and IRB approves the study.
  - o Sponsor and investigator(s) must comply with IDE regulations (21 CFR § 812), as well as informed consent and IRB regulations (21 CFR § 50 and 56).

# If the IRB decides the study is Nonsignificant Risk:

- 1. IRB proceeds to review study applying requisite criteria (21 CFR 56.111)
- 2. If the study is approved by the IRB, the sponsor and investigator must comply with "abbreviated IDE requirements" [21 CFR 812.2(b)], and the Informed Consent and IRB regulations (21 CFR Parts 50 and 56).

# THE DECISION TO APPROVE OR DISAPPROVE

Once the SR/NSR decision has been reached, the IRB should consider whether the study should be approved or not. The criteria for deciding if SR and NSR studies should be approved are the same as for any other FDA regulated study (21 CFR § 56.111). The IRB should assure that risks to subjects are minimized and are reasonable in relation to anticipated benefits and knowledge to be gained, subject selection is equitable, informed consent materials and procedures are adequate, and provisions for monitoring the study and protecting the privacy of subjects are acceptable. To assure that the risks to the subject are reasonable in relation to the anticipated benefits, the risks and benefits of the investigation should be compared to the risks and benefits of alternative devices or procedures. This differs from the judgment about whether a study poses a SR or NSR that is based solely upon the seriousness of the harm that may result from the use of the device. Minutes of IRB meetings must document the rationale for SR/NSR and subsequent approval or disapproval decisions for the clinical investigation.

FDA considers studies of all significant risk devices to present more than minimal risk; thus, full IRB review for all studies involving significant risk devices is necessary. Generally, IRB review at a convened meeting is also required when reviewing NSR studies. Some NSR studies, however, may qualify as minimal risk [21 CFR §56.102(i)] and the IRB may choose to review those studies under its expedited review procedures (21 CFR §56.110).

# **EXAMPLES OF NSR/SR DEVICES**

The following examples are provided to assist sponsors and IRBs in making SR/NSR determinations. The list includes many commonly used medical devices. Inclusion of a device in the NSR category should not be viewed as a conclusive determination, because the proposed use of a device in a study is the ultimate determinant of the potential risk to subjects. It is unlikely that a device included in the SR category could be deemed NSR due to the inherent risks associated with most such devices.

## **NONSIGNIFICANT RISK DEVICES**

- Low Power Lasers for treatment of pain (Note: an IDE is required when safety and effectiveness data are collected which will be submitted in support of a marketing application.)
- Caries Removal Solution
- Daily Wear Contact Lenses and Associated Lens Care Products not intended for use directly in the eye (e.g., cleaners; disinfecting, rinsing and storage solutions)
- Contact Lens Solutions intended for use directly in the eye (e.g., lubricating/rewetting solutions) using active
  ingredients or preservation systems with a history of prior ophthalmic/contact lens use or generally
  recognized as safe for ophthalmic use
- Conventional Gastroenterology and Urology Endoscopes and/or Accessories
- Conventional Laparoscopes, Culdoscopes, and Hysteroscopes
- Dental Filling Materials, Cushions or Pads made from traditional materials and designs
- Denture Repair Kits and Realigners
- Digital Mammography (Note: an IDE is required when safety and effectiveness data are collected which will be submitted in support of a marketing application.)
- Electroencephalography (e.g., new recording and analysis methods, enhanced diagnostic capabilities)
- Externally Worn Monitors for Insulin Reactions
- Functional Electrical Neuromuscular Stimulators
- General Biliary Catheters
- General Urological Catheters (e.g., Foley and diagnostic catheters)
- Jaundice Monitors for Infants
- Magnetic Resonance Imaging (MRI) Devices within FDA specified parameters
- Menstrual Pads (Cotton or Rayon only)
- Menstrual Tampons (Cotton or Rayon only)
- Nonimplantable Electrical Incontinence Devices
- Nonimplantable Male Reproductive Aids with no components that enter the vagina
- Ob/Gyn Diagnostic Ultrasound within FDA approved parameters
- Transcutaneous Electric Nerve Stimulation (TENS) Devices for treatment of pain
- Wound Dressings, excluding absorbable hemostatic devices and dressings (also excluding Interactive Wound and Burn Dressings)

# SIGNIFICANT RISK DEVICES

## GENERAL MEDICAL USE

- · Catheters:
  - o Urology urologic with antiinfective coatings
  - o General Hospital-longterm percutaneous, implanted, subcutaneous and intravascular
  - o Neurological-cerebrovascular, occlusion balloon
  - o Cardiology-transluminal coronary angioplasty, intraaortic balloon with control system
- Collagen Implant Material for use in ear, nose and throat, orthopedics, plastic surgery, urological and dental applications
- Surgical Lasers for use in various medical specialties

• Tissue Adhesives for use in neurosurgery, gastroenterology, ophthalmology, general and plastic surgery, and cardiology

#### ANESTHESIOLOGY

- · Breathing Gas Mixers
- Bronchial Tubes
- · Electroanesthesia Apparatus

# SIGNIFICANT RISK DEVICES (con't)

- Epidural and Spinal Catheters
- Epidural and Spinal Needles
- · Esophageal Obturators
- · Gas Machines for anesthesia or analgesia
- High Frequency Jet Ventilators greater than 150 BPM
- Rebreathing Devices
- Respiratory Ventilators
- Tracheal Tubes

# **CARDIOVASCULAR**

- · Aortic and Mitral Valvuplasty Catheters
- Arterial Embolization Devices
- Cardiac Assist Devices: artificial heart (permanent implant and short term use), cardiomyoplasty devices, intraaortic balloon pumps, ventricular assist devices
- Cardiac Bypass Devices: oxygenators, cardiopulmonary nonroller blood pumps, closed chest devices
- Cardiac Pacemaker/Pulse Generators: antitachycardia, esophageal, external transcutaneous, implantable
- Cardiopulmonary Resuscitation (CPR) Devices
- Cardiovascular/Intravascular Filters
- · Coronary Artery Retroperfusion Systems
- · Coronary Occluders for ductus arteriosus, atrial and septal defects
- Coronary and Peripheral Arthrectomy Devices
- Extracorporeal Membrane Oxygenators (ECMO)
- Implantable Cardioverters/Defibrillators
- Laser Coronary and Peripheral Angioplasty Devices
- · Myoplasty Laser Catheters
- Organ Storage/Transport Units
- Pacing Leads
- Percutaneous Conduction Tissue Ablation Electrodes
- Peripheral, Coronary, Pulmonary, Renal, Vena Caval and Peripheral Stints
- · Replacement Heart Valves
- · RF Catheter Ablation and Mapping Systems
- · Ultrasonic Angioplasty Catheters
- Vascular and Arterial Graft Prostheses
- · Vascular Hemostasis Devices

#### **DENTAL**

- Absorbable Materials to aid in the healing of periodontal defects and other maxillofacial applications
- Bone Morphogenic Proteins with and without bone, e.g., Hydroxyapatite (HA)
- Dental Lasers for hard tissue applications
- Endosseous Implants and associated bone filling and augmentation materials used in conjunction with the implants
- Subperiosteal Implants
- Temporomandibular Joint (TMJ) Prostheses

# EAR, NOSE AND THROAT

- Auditory Brainstem Implants
- Cochlear Implants
- · Laryngeal Implants

Total Ossicular Prosthesis Replacements

#### GASTROENTEROLOGY AND UROLOGY

- Anastomosis Devices
- Balloon Dilation Catheters for benign prostatic hyperplasia (BPH)
- · Biliary Stints
- Components of Water Treatment Systems for Hemodialysis
- · Dialysis Delivery Systems
- Electrical Stimulation Devices for sperm collection
- Embolization Devices for general urological use
- Extracorporeal Circulation Systems

## SIGNIFICANT RISK DEVICES (con't)

- Extracorporeal Hyperthermia Systems
- Extracorporeal Photopheresis Systems
- Femoral, Jugular and Subclavian Catheters
- Hemodialyzers
- Hemofilters
- Implantable Electrical Urinary Incontinence Systems
- Implantable Penile Prostheses
- Injectable Bulking Agents for incontinence
- Lithotripters (e.g., electrohydraulic extracorporeal shockwave, laser, powered mechanical, ultrasonic)
- Mechanical/Hydraulic Urinary Incontinence Devices
- Penetrating External Penile Rigidity Devices with components that enter the vagina
- Peritoneal Dialysis Devices
- Peritoneal Shunt
- Plasmapheresis Systems
- Prostatic Hyperthermia Devices
- Urethral Occlusion Devices
- Urethral Sphincter Prostheses
- Urological Stints (e.g., ureteral, prostate)

# GENERAL AND PLASTIC SURGERY

- Absorbable Adhesion Barrier Devices
- Absorbable Hemostatic Agents
- · Artificial Skin and Interactive Wound and Burn Dressings
- · Injectable Collagen
- Implantable Craniofacial Prostheses
- Repeat Access Devices for surgical procedures
- Sutures

# GENERAL HOSPITAL

- Implantable Vascular Access Devices
- Infusion Pumps (implantable and closedloop depending on the infused drug)

## **NEUROLOGICAL**

- Electroconvulsive Therapy (ECT) Devices
- Hydrocephalus Shunts
- Implanted Intracerebral/Subcortical Stimulators
- Implanted Intracranial Pressure Monitors
- Implanted Spinal Cord and Nerve Stimulators and Electrodes

# **OBSTETRICS AND GYNECOLOGY**

- Antepartum Home Monitors for NonStress Tests
- Antepartum Home Uterine Activity Monitors
- Catheters for Chorionic Villus Sampling (CVS)
- Catheters Introduced into the Fallopian Tubes
- Cervical Dilation Devices

- · Contraceptive Devices:
- o Cervical Caps
- o Condoms (for men) made from new materials (e.g., polyurethane)
- o Contraceptive In Vitro Diagnostics (IVDs)
- o Diaphragms
- o Female Condoms
- o Intrauterine Devices (IUDs)
- o New Electrosurgical Instruments for Tubal Coagulation
- o New Devices for Occlusion of the Vas Deferens
- o Sponges
- o Tubal Occlusion Devices (Bands or Clips)
- Devices to Prevent Postop Pelvic Adhesions
- · Embryoscopes and Devices intended for fetal surgery

SIGNIFICANT RISK DEVICES (con't)

- Falloposcopes and Falloposcopic Delivery Systems
- Intrapartum Fetal Monitors using new physiological markers
- New Devices to Facilitate Assisted Vaginal Delivery
- Thermal Systems for Endometrial Ablation

# **OPHTHALMICS**

- · Class III Ophthalmic Lasers
- Contact Lens Solutions intended for direct instillation (e.g., lubrication/rewetting solutions) in the eye using new active agents or preservatives with no history of prior ophthalmic/contact lens use or not generally recognized as safe for ophthalmic use
- Corneal Implants
- · Corneal Storage Media
- Epikeratophakia Lenticulas
- Extended Wear Contact Lens
- Eye Valve Implants (glaucoma implant)
- Intraocular Lenses (IOLs) [21 CFR § 813]
- Keratoprostheses
- Retinal Reattachment Systems: fluids, gases, perfluorocarbons, perfluorpropane, silicone oil, sulfur hexafluoride, tacks
- Viscosurgical Fluids

# ORTHOPEDICS AND RESTORATIVE

- · Bone Growth Stimulators
- Calcium TriPhosphate Hydroxyapatite Ceramics
- Collagen and Bone Morphogenic Protein Meniscus Replacements
- Implantable Prostheses (ligament, tendon, hip, knee, finger)

# **RADIOLOGY**

- Boron Neutron Capture Therapy
- Hyperthermia Systems and Applicators
- Image Guided Surgery