

# INDs, IDEs and Medical Devices

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## Objectives

- Investigational New Drug (IND)
  - What is an IND
  - When is an IND needed
  - Which regulations pertain to an IND
  - Types of INDs
- Investigational Device Exemption (IDE) & Medical Devices
  - What is an IDE
  - When is an IDE needed
  - Which regulations pertain to an IDE
  - Types of IDEs

## What if.....

New Drug

Completed all preclinical studies

- Works in animals
- Pharmacology studies complete

Seems promising

Want to study safety and effectiveness in humans

## Investigational New Drug (21CFR312)

Investigational New Drug

- “Request for Food and Drug Administration (FDA) authorization to administer an investigational drug to humans.” \*
- Method of collecting data from humans to support a new drug application
- Exemption from Federal Law requiring label approved by FDA to send drug across state lines

\*CDER Information for Sponsor-Investigators Submitting Investigational New Drug Applications (INDs)

## Investigational Use of Approved Product

May require an IND if :

1. Support new indication
2. Change the advertising of the product
3. Change the route of administration, dosage, subject population or significantly increase risk

## IND – Where to start?

### Sponsor / Investigator

- Submits form 1571 – Notice of claimed investigational exemption for a new drug
- Table of contents
- Introductory statement
- General investigation plan
- Investigator's brochure

## IND – Where to start? (cont.)

- Protocols
  - Study protocol
  - Investigator data
  - Facilities data
  - Institutional Review Board data
- Chemistry, manufacturing, control data
- Pharmacology and toxicology data
- Previous human experience
- Additional data

## FDA Response

Letter - immediate

- Date received
- IND #

Will review all the data within 30 days and respond

- Hold
- Need additional information
- nothing

## When can I start the study?

- Respond to any additional information requests from FDA
- Wait 30 days
- If no additional information is requested, proceed.
  
- With IND #, submit to IRB for approval

## IND - FDA Regulations

### Sponsor/Investigator

- 21CFR 312 – Investigational New Drug Application
  - Changes reported to FDA
  - Adverse events
  - Annual Report
- All human subject protection, IRB regulations

## Types of IND

- Investigator/ Sponsor IND
- Emergency Use IND
- Open Label Protocol or Open Protocol IND
- Treatment IND
- Group C Treatment IND
- Parallel Track

## Emergency Use IND

When to request an Emergency Use IND

- Patient whose condition is life threatening, and
- No other standard acceptable treatment

Review IRB requirements for Emergency Use IND

\*\*\*Make sure manufacturer is willing to supply drug if approved (IND) by FDA\*\*\*

## Emergency Use IND, (cont.)

Investigator submits to FDA:

- Request for one time use
- Clinical history of patient
- Proposed treatment plan
- Drug supply reference statement
- Informed consent and IRB approval
- Investigator qualifications
- Form 1571
- Contract # and fax number

## Emergency Use IND, (cont.)

FDA will send, if approved, the IND#

Send IND to drug supplier to ship drug

Reminder:

Review IRB requirements for Emergency Use IND

Per 21CFR56.104 Investigator must file a report  
within 5 days.

## Expanded Access of Investigational Drugs

### Open Label Protocol or Open Protocol IND

- Controlled trial has ended
- Treatment continued for subject to continue to receive benefits of investigational drug
- Used to collect additional safety data
- Require prospective IRB approval

## Expanded Access of Investigational Drugs

### Treatment IND

- Sufficient data that drug may be effective
- Does not have unreasonable risks

### Four Requirements

1. Drug to treat used to treat a serious or immediately life threatening disease
2. No satisfactory alternative
3. Drug under investigation or trials have been completed
4. Sponsor actively pursuing marketing approval

Requires IRB prospective approval and informed consent

## Expanded Access of Investigational Drugs

### Group C Treatment IND

- Agreement between FDA and NCI
- Distribution of investigational drugs to oncologists for use outside clinical trial
- Phase III study drugs
- Distributed by NCI under NIC protocols
- Safety and effectiveness data collected
- May require local IRB review – FDA waived IRB review requirements

## Expanded Access of Investigational Drugs

### Parallel Track (57FR13250)

- Allows wider access to AIDS/HIV promising new drugs
- Parallel clinical trials
- Require prospective IRB review and informed consent

## Medical Devices

Medical devices must be registered/approved to market the device

Medical devices fall into three classes based on level of regulations:

I – General Controls

includes elastic bandages, gloves

II – General Controls plus additional rules to assure safety

includes devices in class I with improvements

III – Insufficient data to determine if safe and effective

## Medical Devices , cont.

How to market a device:

- Premarket Approval (PMA) – normal way
- Premarket Notification (510K) – device equivalent to existing device
- Exempt from 510K Premarket – FDA maintains a list

## Investigational Device Exemption (IDE)

IDE allows device to be used in a clinical study to collect data for PMA or 510K

IDE would include modifications to approved/marketed devices

## Significant vs Nonsignificant Risk

- Per 21CFR812 Significant Risk is defined:
  - Is intended as implant and presents a potential for serious risk to the health, safety or welfare of a subject
  - 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;
  - 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;
  - Otherwise present a potential for serious risk to the health, safety, or welfare of a subject.

## IDE Process

For a device study with significant risk, the sponsor must:

- Submit a complete IDE application to the FDA
- Submit the investigation plan and prior studies to all IRBs
- Select qualified investigators

## IDE Application

To include:

1. Name and address of sponsor
2. Report of prior investigations
3. Investigational plan
4. Description of the methods for making, packing, storing and installation of device.
5. Investigator's agreement

## IDE Application, cont

6. List of all investigators and certification that investigator agreements have been signed.
7. Listing of all IRBs
8. Name and addresses of other institutions to be used
9. Amount to be charged for device and why

## IDE Application, cont

10. Copies of all labeling for device
11. Copies of informed consents and other materials for subjects
12. All other relevant information

## IDE Process, cont

Letter - immediate

- Date received
- IDE #

Is considered approved 30 days after receipt unless notified

- Approved
- Approved with conditions
- Disapproved

FDA will indicate if device is Category A (not reimbursed by Medicare) or Category B (May be covered if considered reasonable and necessary – check with Medicare carrier)

## IDE Process

For a device study with non-significant risk, the sponsor must:

- Not required to submit a complete IDE application to the FDA
- Only requires IRB approval
- If IRB disagrees with minimal risk assessment, FDA should be notified within 5 working days
- IDE approved when IRB concurs with non-significant risk determination

## IDE – when to begin studies

Significant risk:

FDA approval

IRB approval

Non-significant risk:

IRB approval

## IDE Sponsor Responsibilities

- 21CFR 812 – Investigational Device Exemptions
  - Selecting qualified investigators
  - Changes reported to FDA
  - Adverse events
  - Annual Report
- All human subject, IRB regulations

## IDE – Emergency Use

### Situation:

- May use the device in manner not currently being studied
- Physician may not be part of clinical study

### And Patient is:

- Life-threatening or serious disease
- No alternative
- No time for FDA approval

## IDE – Emergency Use

### Investigator must report within 5 days:

- Summary of patient's condition
- Why emergency use needed
- Protection measures used
- Outcomes
- Report to sponsor and IRB

## IDE – Compassionate Use

- FDA approval required via IDE supplement
  - Patient’s condition and circumstances
  - Why alternatives not acceptable
  - Deviations to protocol
  - Patient protections to be used
  - Procedures for monitoring patient(s)
- May not begin until approved by FDA
- Provide follow-up summary to FDA

## IDE – Treatment Use (21CFR812.36)

- Promising device
- Maximum number of patients and sites
- Life threatening or serious disease
- No viable alternative
- Application must include:
  - Name address and telephone number of the sponsor
  - Intended use of device
  - Criteria for patient selection

## IDE – Treatment Use, cont

- Protocol
- Rationale for use of device
- Clinical procedures to minimize risk
- Monitoring plan
- Instructions for use of the device and labeling
- Sponsor’s commitment
- Investigators agreement
- If device is to be sold, rationale
- FDA to respond within 30 days
- IRB approval