Adverse Events- Love them, hate them, report them!

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Objectives

• Define and identify an Adverse Event
• Define and identify a Serious Adverse Event
• Samples of AE collection tools
• Questions/ participant samples of AE/SAE
What is an Adverse Event (AE)?

21CFR312.32 *Adverse event* means: “Any untoward medical occurrence associated with the use of a drug/device in humans, whether or not considered drug/device related.”

Elective hospitalizations for pre-existing conditions (e.g., elective cosmetic procedures) are not adverse events.
What is an Adverse Event (AE)?

Adverse Events may include, but are not limited to the following:

• Worsening of conditions present at the onset of the study i.e. Hypertension requiring an increase or addition of medications

• Concurrent illness i.e. new diagnosis of pneumonia
Why do I have to report AEs??????

• To Monitor the safety of the study
• To inform regulators, investigators and others of the risk(s) associated with certain events
• To make changes to the study if the risks to the subjects changes
• To inform the subjects of any new or additional risks
Why report AEs?

• Detect problem products, manufacturers, and ingredients

• Identify common injuries among product types

• Determine if warning statements are needed to prevent injuries or other action

• Discover common misuses of products
Black Box Warnings

- A black box warning, also known as a “black label warning” or “boxed warning,” is named for the black border surrounding the text of the warning that appears on the package insert, label, and other literature describing the medication (e.g., magazine advertising).
- It is the most serious medication warning required by the FDA.
Black Box Warning Medications

**Fluoroquinolone Antibiotics**
According to the FDA, people taking a fluoroquinolone antibiotic have an increased risk of tendinitis and tendon rupture, a serious injury that could cause permanent disability. The FDA warning includes Cipro (ciprofloxacin), Levaquin (levofloxacin), Avelox (moxifloxacin) and other medications containing fluoroquinolone. (Warning issued July 2008.)

**Diabetes Medications**
According to the FDA, people with diabetes taking Avandia (rosiglitazone) have an increased risk of heart failure or heart attack if they already have heart disease or are at high risk of suffering a heart attack. (Warning issued November 2007.)
Antidepressant Medications
According to the FDA, all antidepressant medications have an increased risk of suicidal thinking and behavior, known as suicidality, in young adults ages 18 to 24 during initial treatment (generally the first one to two months). The FDA warning includes Zoloft (sertraline), Paxil (paroxetine), Lexapro (escitalopram), and other antidepressant medication. (Warning issued May 2007)

More can be found at blackboxrx.com or http://www.fda.gov/drugs/drugsafety/informationbydrugclass
The FDA announced in March 2005 that two topical eczema drugs -- Elidel cream and Protopic ointment -- would get a "black box" warning about a possible cancer risk. The warning states that there have been rare reports of cancer (for example, skin and lymphoma) in patients who had been receiving the two drugs; however, the drugs haven't been proven to cause cancer.
Unanticipated Uses for Products or Drugs

• Proscar- originally marketed to treat benign prostatic hypertrophy. After 5 years of testing, an interesting side effect was discovered- hair growth! (1990s)

• Viagra- originally was to be used to treat hypertension, angina and other symptoms of heart disease. It did not work very well at treating those diseases but it did have an interesting side effect- erections!
Other commonly found terms
Expected Adverse Events

Those experiences that have been identified in nature, severity or frequency in the current investigator plan or protocol and in the current Informed Consent.

Examples:
Nausea following surgery
Pain following surgery
Dark colored stools (when taking iron supplements)
Unexpected Adverse Events

Any adverse event, the specificity or severity of which is not consistent with the current investigator brochure or with the risk information described in the investigational plan or Informed Consent.

Examples:

• Hepatic necrosis would be unexpected (by virtue of greater severity) if the investigator brochure referred only to elevated hepatic enzymes or hepatitis.

• Cerebral thromboembolism and cerebral vasculitis would be unexpected (by virtue of greater specificity) if the investigator brochure listed only cerebral vascular accidents.

Unanticipated Problems

• Unexpected in terms of nature, severity or frequency given (a) the research procedures that are described in the protocol related documents such as the research protocol, investigators brochure and the informed consent and (b) characteristics of the study population

• Related or possibly related to participation in the research. Possibly related means there is a reasonable possibility that the incident, experience or outcome may have been caused by the procedures involved in the research

• 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.

45 CFR part 46
Relatedness of Drug/device to Product/procedure

- Not related - the adverse event is CLEARLY not related to the product/device
- Unlikely related - the adverse event is DOUBTFULLY related to the product/device
- Possibly related - the adverse event MAY be related to the product/device
Severity of Event

Mild: an experience that is usually transient and requires no special treatment or intervention

Moderate: an experience that is alleviated with simple therapeutic measures

Severe: an experience that requires therapeutic intervention
# Sample of AE Tracking Log for a Device Study

<table>
<thead>
<tr>
<th>Event #</th>
<th>Subject ID</th>
<th>Event Description</th>
<th>SAE (Y/N)</th>
<th>Start Date</th>
<th>End Date</th>
<th>Outcome:</th>
<th>Actions Taken:</th>
<th>Device Relationship</th>
<th>Procedure Relationship</th>
<th>Device Malfunction?</th>
<th>Date IRB Notified</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Continuing</td>
<td>0 = no action</td>
<td>Not related</td>
<td>Not related</td>
<td>Not related</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Resolved</td>
<td>1 = medication</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td>Unlikely</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unknown</td>
<td>2 = surgery/procedure</td>
<td>Possibly</td>
<td>Possibly</td>
<td>Possibly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Death</td>
<td>3 = hospital</td>
<td>Definitely</td>
<td>Definitely</td>
<td>Definitely</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 = other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Definition of an SAE

A serious adverse event (SAE) is defined as one that suggests a significant hazard or side effect, regardless of the investigator's opinion on the relationship to the investigation product or device.
Definition of an SAE

This includes, but may not be limited to, any event that:

- Is fatal
- Is life-threatening
- Requires or prolongs inpatient hospitalization
- Is a persistent or significant disability or incapacity
- Congenital Anomaly/Birth Defect
Definition of an SAE

• Is considered an important medical event.

Important medical events may be considered serious by the investigator although they may not be immediately life threatening or result in death or prolong hospitalization. Such important medical events are those that may jeopardize the patient, require intervention to prevent one of the outcomes listed above, or result in urgent investigation.
Examples include, but are not limited to:

- allergic bronchospasm
- convulsions
- blood dyscrasias
Serious Adverse Events

• Death - needs no further definition

• Life threatening: in the view of *either* the investigator or sponsor, its occurrence places the patient or subject at immediate risk of death. It does not include an adverse event or suspected adverse reaction that, had it occurred in a more severe form, might have caused death.
SAE Examples

- Mild bronchospasm treated with epinephrine with complete recovery of subject.
- Bleeding following removal of a femoral artery sheath that is quickly controlled.
Serious Adverse Events

- Inpatient hospitalization or prolongation of existing hospitalization. Example: Subject in hospital for pneumonia and has a heart attack. The heart attack causes the subject to stay in the hospital longer.

- Is a persistent or significant disability or incapacity. Example: Person has a renal stent placed that failed and person now on dialysis.
Serious Adverse Events

- Congenital Anomaly/Birth Defect.

Remember Thalidomide? Used in the late 1950s early 1960s to treat nausea in pregnant women with resultant limb malformations. The drug was approved in 1998 for the treatment of leprosy and multiple myeloma.

Accutane, a medication used to treat cystic acne was found to cause life threatening birth defects.
Serious Adverse Events

- Is considered an important medical event.

Examples of such medical events include allergic bronchospasm requiring intensive treatment in an emergency room or at home, blood dyscrasias or convulsions that do not result in inpatient hospitalization, or the development of drug dependency or drug abuse.

Source:
Unanticipated Adverse Device Effects

Any serious adverse effect on the health or safety caused by or associated with a device, if the event was not previously identified in nature, severity or degree of incidence in the investigational plan.

Any unanticipated serious problem associated with a device that relates to the rights, safety or welfare of subjects.
UADE Examples

• Stent fractures occurring at higher than anticipated numbers in an IDE study.

• Hepatic necrosis would be unexpected (by virtue of greater severity) if the investigator brochure only referred to elevated hepatic enzymes or hepatitis.
Unanticipated Adverse Device Effects

• Must report the event within 10 business days to the following:
  • FDA
  • Local IRB
  • Sponsor
  • Any other participating investigators
Reporting Adverse Events

Use the following form to report study related adverse events covered by the UW Human Subjects Assistance Plan, breach of confidentiality and inappropriate access of personal health information (PHI) to the Human Subjects Division **within 24 hours**.

Use the form to report other study related problems no later than **10 business days** after becoming aware of the issue.
Problem Reporting Form

University of Washington
Human Subjects Division

REPORT: Problems

For HSD Office Use Only
- Full IRB Review
- Expedited Review

Date Received:

Checklist:
- STUDY-RELATED ADVERSE EVENTS COVERED BY THE UW HUMAN SUBJECTS ASSISTANCE PLAN
- BREACH OF CONFIDENTIALITY, AND INAPPROPRIATE ACCESS OF PERSONAL HEALTH INFORMATION (PHI) MUST BE REPORTED TO HSD WITHIN 24 HOURS
- OTHER STUDY-RELATED PROBLEMS MUST BE REPORTED NO LATER THAN 10 BUSINESS DAYS AFTER BECOMING AWARE OF THE ISSUE

Instructions:
- Reports should be submitted via email to hsdinfo@uw.edu.
- The email subject line must contain the words PROBLEM REPORT.
- A copy of the unsigned study consent form(s) should accompany the report unless consent has been waived or you are instructed otherwise on this form.

1. Research Study & Contact Information

   Full Application Title:

   IRB Application Number (if known):
   IRB Committee (if known):

   Lead Researcher Name:
   Lead Researcher Phone:
   Lead Researcher Email:

   Contact Name:
   Contact Phone:
   Contact Email:

2. Problem Description

2.1. Type of Report:
- Initial report of event or information
- Follow-up for problem or event reported to the IRB on this date
- Report of federal audit, inspection, or inquiry (The remainder of this form will be hidden)

2.2. Relationship between problem and research activities:
- Not related, STOP - problems that are clearly unrelated to the research do not need to be reported to HSD (The remainder of this form will be hidden)

Click to reveal all blanking and guidance.
## Problem Reporting Form

**Possibly related**: This means it is more likely than not that the incident, experience, or outcome was caused by the procedures involved in the research, or that it is associated with the use of any drug, biologic, or medical device that is part of the research.

### 2.2. If the problem is related or possibly related to the research, provide your rationale:


### 2.3. Was the problem or event unexpected? "Unexpected" means that harm or (potential harm) is inconsistent with risk information previously reviewed by the IRB in terms of nature, severity, or treatability as well as the characteristics of the subject population.

- [ ] YES
- [ ] NO

### 2.4. Was the problem within the control of the research team? Note: Inconsistency with IRB approved procedures that is the results of a study participant’s non-adherence to the protocol and research instructions is not considered to be within the control of the research team.

- [ ] YES
- [ ] NO

### 2.5. a. The problem did or could have (check all that apply):

- [ ] Increased risk to, or jeopardized the safety, welfare, and/or rights of one or more participants or others.
- [ ] Decreased potential benefits of the research (this includes the scientific integrity of the research).

### 2.5. b. If either of the above were checked, explain whether this was a significant increase in risk or decrease in benefits:


### 2.6. The problem resulted in (check all that apply):

- [ ] Death
- [ ] A life-threatening situation
- [ ] Inpatient hospitalization or prolongation of existing hospitalization
- [ ] A persistent or significant disability/incapacity
- [ ] A congenital anomaly or birth defect
- [ ] Risk to the subject’s health that may require medical or surgical intervention to prevent one or the outcomes above
- [ ] A breach of confidentiality concerning readily identifies information that is highly sensitive or can be easily used for identity theft

### 2.7. Date, Time, and Location

#### 2.7. a. Date(s) and time(s) of occurrence:


#### 2.7. b. Date when researcher became aware of the problem:


#### 2.7. a. Location where the problem occurred:


### 2.8. Additional Details
Problem Reporting Form

2.8.a. Has the kind of problem occurred before in connection with this study (at this site or another study site)?
- YES
- NO

2.8.b. Did the problem happen to a subject in the study?
- YES
- NO

2.8.c. Did the problem happen to someone other than a subject in the study?
- YES
- NO

2.9. Description of the nature, circumstances, and consequences of the problem:

END PART TWO

3. Problem Resolution

3.1. Is the problem resolved?
- YES
- NO

3.2. Explain how you will prevent this problem from happening in the future:

3.3. Explain whether enrolled subjects need to be informed about the problem:

3.4. Do the research procedures need to be modified?
- YES
- NO

3.5. Do the consent documents or consent process need to be modified?
- YES
- NO

END PART THREE

4. Federal Audit, Inspection, or Inquiry

4.1. Complete this section ONLY if reporting an audit, inspection, compliance-related inquiry, or safety related inquiry from a federal agency.

4.1.a. Name of federal agency:

4.1.b. Reason for audit, inspection or inquiry:

4.1.e. Copy of agency report attached.

END PART FOUR

5. Problems Covered by Human Subjects Assistance Plan
Problem Reporting Form

5.1. Complete this section ONLY if reporting an adverse physical or psychological event AND the study is covered by the UW Human Subjects Assistance Plan.

5.1.a. Provide the name of the health facility where care was provided and patient medical record number at this facility:

5.1.b. Subject's name: 5.1.c. Subject's age:

5.1.d. Subject's address:

END PART FIVE

Submit by Email

Last Updated 04/04/2014
Version 1.10
IND Safety Reporting

Sponsor must submit an IND safety report if the event is:

• A suspected adverse reaction
• Serious AND
• Unexpected

• Report must be filed with the FDA within 15 calendar days of notification

• If the AE is fatal or life threatening, a report must be filed with the FDA within 7 days of notification
Relatedness of drug/device to product/procedure

- Probably related - the adverse event *is LIKELY related* to the product/device

- Definitely related - the adverse event *is CLEARLY RELATED* to the product/device
Adverse Events forms

- Date of onset
- Description of event – Death is not an event but an outcome
- Relatedness
- Action taken
- Severity (and/or Grade)
- Outcome
- Stop date
Mandatory Medical Device Reporting:
The Medical Device Reporting (MDR) regulation (21 CFR 803) contains mandatory requirements for manufacturers, importers, and device user facilities to report certain device-related adverse events and product problems to the FDA. The FDA published a final rule on Feb. 14, 2014, requiring manufacturers and importers to submit MDRs to the FDA in an electronic format that the FDA can process, review, and archive. This rule will be effective as of Aug. 14, 2015.

Information on the requirements for each mandatory reporting group follows:

**Manufacturers:** Manufacturers are required to report to the FDA when they learn that any of their devices may have caused or contributed to a death or serious injury. (Key terms are defined in 21 CFR 803.3.) Instructions are available for completing the required 3500A form. Manufacturers must also report to the FDA when they become aware that their device has malfunctioned and would be likely to cause or contribute to a death or serious injury if the malfunction were to recur. For more information please see the draft guidance for manufacturers on medical device reporting.
ADVICE ABOUT VOLUNTARY REPORTING

Report adverse events, product problems or product use errors with:
- Medications (drugs or biological)
- Medical devices (including in vitro diagnostics)
- Combination products (medication & medical device)
- Human cells, tissues, and cellular and tissue-based products
- Special nutritional products (dietary supplements, medical foods, select formulae)
- Cosmetics
- Food (including beverages and ingredients added to foods)

Report product problems - quality, performance or safety concerns such as:
- Suspected counterfeit product
- Suspected contamination
- Questionable stability
- Defective components
- Poor packaging or labeling
- Therapeutic failures (product didn't work)

Report SERIOUS adverse events. An event is serious when the patient outcome is:
- Death
- Life-threatening
- Hospitalization - initial or prolonged
- Disability or permanent damage
- Congenital anomaly/birth defect
- Required intervention to prevent permanent impairment or damage (devices)
- Other serious (important medical events)

Other methods of reporting:
- 1-800-FDA-2175 - To FAX report
- 1-800-FDA-1088 - To report by phone
- www.fda.gov/medwatchreport.htm - To report online

If your report involves a serious adverse event with a device and it occurred in a facility outside a doctor's office, that facility may be legally required to report to FDA and/or the manufacturer. Please notify the person in that facility who would handle such reporting.

Confidentiality: The patient's identity is held in strict confidence by FDA and protected to the fullest extent of the law. FDA will not disclose the reporter's identity in response to a request from the public, pursuant to the Freedom of Information Act. The reporter's identity, including the identity of a walk-in reporter, may be shared with the manufacturer unless requested otherwise.

The information in this box applies only to requirements of the Paperwork Reduction Act of 1980.

The burden rate for this collection of information has been estimated at an average of 16 minutes per response, including the time to review instructions, search existing data sources, gather and maintain the data needed, and complete and return the collection of information. Send comments regarding the burden rate estimate or any other aspect of this collection of information, including suggestions for reducing the burden to:

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration
Office of Chief Information Officer
Department of Health and Human Services
5600 Fishers Lane
Rockville, MD 20857

Please DO NOT return this form to the FDA Staff e-mail in the box:
PPIa_staff@fda.hhs.gov

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Food and Drug Administration
Rockville, MD 20857

Official Business
Penalty for Private Use $100

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 415 ROCKVILLE MD
POSTAGE WILL BE PAID BY FOOD AND DRUG ADMINISTRATION

MEDWATCH
The FDA Safety Information and Adverse Event Reporting Program
Food and Drug Administration
5600 Fishers Lane
Rockville, MD 20852-0787
Conclusion

Any questions?

Thank you!