Adverse Event Reporting Guideline for Decisions
for Manufacturers and their Representatives

This document has been created by the members of the Global Harmonization Task Force- Study Group 2 (Medical Device Vigilance/Post Market Surveillance). The terms used in this document should be interpreted as defined by current regulatory requirements and/or standards, unless otherwise specified.

The information and guidance contained herein represents a harmonized proposal, which may not reflect current regulatory requirements.

The following information is intended to provide guidance to the manufacturer in making a determination whether an adverse event is or is not reportable to the National Competent Authorities (NCAs). In order to facilitate this decision making process, the following documents have been consolidated:

- Reporting rules for manufacturers (GHTF-SG2 N15)
- Decision Tree for manufacturers (GHTF-SG2 N10 R8)
- Guidance for manufacturer reporting (GHTF-SG2 N10 R3)
- Examples of adverse events which illustrate the reporting rules (GHTF-SG2 N11)

Special Notes:
Any time there is an upward change in the trend of the non-reported Adverse Events (AEs), it should trigger the initiation of a report to the NCA, and the situation should be re-evaluated. This should be consistent with globally harmonized quality systems requirements.
SG2 recognizes the similarity of the FDA definition of “serious injury” and the EC MEDDEV Guideline on the Medical Device Vigilance System which are:

- “an injury or illness that is life-threatening; results in permanent impairment of a body function or permanent damage to a body structure; or necessitates medical or surgical intervention to prevent permanent impairment of a body function or permanent damage to a body structure.” [21CR §803.3(aa)]

Incidents which need to be reported are defined in the Directives as follows:

Those which led to a serious deterioration in the state of health of a patient, user or other person

A serious deterioration in state of health can include:

- life-threatening illness or injury
- permanent impairment of a body function or permanent damage to a body structure
- a condition necessitating medical or surgical intervention to prevent permanent impairment of a body function or permanent damage to a body structure

Note: The interpretation of the term serious is not easy, and should be made in consultation with a medical practitioner whenever possible. Many points may need consideration, for example:

- whether a risk was foreseeable and clinically acceptable in view of potential patient benefit
- whether the outcome was adversely affected by a pre-existing condition of the patient

In cases of doubt on this issue, it is suggested that there be a pre-disposition to report rather than not report.

[European Commission DG III, MEDDEV 2.12 2/98: 5.4.2]
General Comments and Clarifications:

The following guidance utilizes the Manufacturer’s Reporting Decision Tree diagram as described below.

The numbered paragraphs correspond to the questions posed by the numbered boxes of the diagram. The lettered paragraphs correspond to the resultant decisions as described in the lettered boxes of the diagram. To properly use the Decision Tree, one must consider all the factors as explained in the numbered and lettered paragraphs below.

In general, a “Don’t Know” answer to a question forces a decision toward reporting. The general principle all manufacturers should follow is to err on the side of reporting an adverse event, even when much information is unknown. Each NCA has a right to expect that the device manufacturers or their representatives will maintain their own level of product monitoring for problems that may affect the public health and that they (manufacturers or representatives) are responsible for making decisions to report adverse events.
Manufacturer Reporting Decision Tree

Resultant Decisions

A. No Report

1. Related to Device
   Yes or Don't Know

2. Death or Serious Injury Occur?
   No or Don't Know

3. Could Death or Serious Injury Occur?
   Y\textsubscript{S}

4. Was the Device Used?
   Y\textsubscript{S}

5. Were the Clinical Indications Right?
   No or Don't Know

6. Did the Device Perform as Intended?
   No or Don't Know

7. Did the Device Cause or Contribute?
   No or Don't Know

8. Is the Event Common and Foreseeable?

9. Was the Labeling Followed?
   No or Don't Know

10. Was the End of Life Reached?

11. Characterized by NCA?
    Yes

12. F. Report

13. G. Periodic Report

14. H. Exemp
Questions

1. The first question is whether or not the event was related to the device. This is not always a simple question when there are multiple devices or drugs involved. Bias should be given to the consideration that the device was involved in complex situations. If the answer is no, decision A is the result. If the answer is yes or don’t know, question two should be asked.

2. The second question is whether or not death or serious occurred. Please note the discussion on page 26 under special notes regarding serious injury. If the answer is yes, continue to question four. If the answer is no or don’t know, continue to question three.

3. In evaluating "could a death or serious injury occur if the same type of event were to recur again in the future under less fortuitous circumstances" consider that even if the possibility of a death or serious injury is remote, an appropriate answer to this question is "yes."

4. Why is the question posed: "Was the device being used?" SG2 considers this concept important in evaluating adverse events which may result in a serious injury to the user, but not the patient. Another intent of this question is to capture problems discovered in scientific/medical/technical evaluations of devices or out of failures that would not always be captured before a serious injury might occur.

5. In asking if the device "was used for the clinical indications which the manufacturer has identified in the device labeling and or instructions for use" consider the uses stated by the manufacturer, including explicit labeling and marketing or promotional materials. Information in the device master record / technical file (or other device files which contain information about (1) device specifications, (2) production process specifications, (3) quality assurance procedures and specifications, and (4) packaging and labeling methods.


and specifications) should be used as evidence for addressing this (and similar) questions. This question is NOT intended to handle users not following instructions. Rather, it is intended to handle situations when clinicians intentionally choose to use a device other than as intended by the manufacturer because of the clinical situation facing them and they judge the device to have a potential benefit that outweighs the risks. The question also addresses unintentional uses not intended by the user, for example, using a device on a pediatric patient where this is contraindicated but the user is not aware of the contraindication.

6. To determine "if the device performed as it was intended" evaluation must be based on the product information and labeling provided by the manufacturer. Again, the device master record/technical file should be the definitive source of information about intended performance. The manufacturer should determine if the device did what it was designed and intended to do. Many factors should be considered, such as, fail-safe features and maintenance of the device.

7. Consider if there were any patient conditions, pre-existing or occurring during device use, which can be determined to be the sole cause of the reported adverse event. If the device has any role in causing or contributing to the adverse event, the answer to this question is "yes or don't know." One approach addressing this question calls for the manufacturer to have information where a person who is qualified to make a medical judgment would reach a reasonable conclusion that the device did not cause or contribute to death or serious injury or that an adverse event (or a malfunction) would not be likely to cause or contribute to a death or serious injury if it were to recur. Another manner in which this determination can be answered "no" is to have clear and supportable evidence the device or its use did not cause or contribute to the adverse event.
If the device did not perform as intended and the benefit of the treatment is lost resulting in a serious deterioration of health, then the event is reportable.

8. "Commonly known to occur" and "well known in the medical/scientific/technologic field" is considered foreseeable, or predictable. In other words, this is not uncommon, and is well recognized in the medical or scientific or technologic community. Documentation for this should be available in the device master record/technical file prior to the occurrence of incidents: manufacturers cannot conclude in the face of events that they are foreseeable unless there is prior supporting evidence. One approach to allowing "no reports" in these cases is that the manufacturer specifies in the labeling for the device that the adverse event occurs with a certain degree of predictability (on a frequency basis or under certain specified use conditions).

9. Labeling includes instructions for use and maintenance of the device. This information is an integral part of the device. If the labeling was followed, or if it is unknown whether or not the labeling was followed, a report should be submitted.

10. The expected life is determined by the device manufacturer, and is defined as: the time or usage that a device is expected to remain functional after it is manufactured, placed into use, and maintained as specified. The device master record/technical file should specify how this judgment will be made in the face of device failure. The manufacturer should recognize unusual failure modes and report these events even in situations where device life has been exceeded.
11. Ultimately it is the hope of SG2 that NCAs will develop a list of well-characterized clinical/device situations that do not require timely and individual reporting to the NCA, or any reporting at all. This is a decision for the NCAs. Such circumstances may then be handled as either (a) periodic reports in a summary fashion to the NCA or (b) exempted from reporting. This might include, for example, a situation, well known (by literature or by common standards of medical practice) to both the manufacturing and medical communities in which the medical device is routinely used beyond the labeled intended clinical population(s), beyond the labeled intended clinical indications, beyond the labeled intended conditions for clinical or technical use and/or beyond the labeled intended device tolerances. This situation may represent emerging medical technology, or may represent common medical or technical practices. Another example may be common usage errors that have been dealt with to the NCA's satisfaction and appear to be unavoidable or non-preventable aspects of recognized risks of the use of the product.

SG2 guidelines rely on quality systems requirements incorporated in international standards that require manufacturers maintain complaint files in order to monitor and look for product problems and to address their responsibility for constantly improving the product as well as minimizing risk to patients or users.

Resultant Decisions

A. No report necessary if information or complaint is proven to not be related to the manufacturer's device. The manufacturer should, in the interest of public health, inform the actual manufacturer if known, or the NCA if the manufacturer is unknown and death or serious injury has occurred.

B. No report necessary if there has been no death or serious injury AND death, or serious injury could not occur even if the event occurred again, including out of box failures that will always be detected before the device
put into use. If the manufacturer does not have information that reasonably suggests the device caused or contributed to an adverse event, no report is necessary. The investigation by the manufacturer may not yet be complete.

C. No report necessary if the device did not cause or contribute to this adverse event in the particular situation. This reflects a judgment based on clinical information that attributes the sole cause of the event to the patient's condition or to a condition of use that does not implicate the device.

D. Report necessary if death or serious injury did or could occur, regardless if the device used or performed as intended, and the device did or may have caused or contributed to the adverse event, and the user followed labeling or instructions for use including specified maintenance of the device.

E. No report necessary if the only cause for the adverse event was that the device exceeded its specified life.

F. Report necessary if death or serious injury did or could occur, device caused or contributed to the adverse event, end of life does not completely explain the adverse event, and event is not characterized by the NCA as eligible for periodic or exempt reporting.

G. Periodic report necessary if death or serious injury did or could occur, device caused or contributed to the adverse event, end of life does not completely explain the adverse event, and event is characterized by the NCA as eligible for periodic reporting.

H. No report necessary if death or serious injury did or could occur, device caused or contributed to the adverse event, end of life does not completely explain the adverse event, and event is characterized by the NCA as exempt reporting.