

**HEALTH ABC  
FRACTURE ADJUDICATION PROTOCOL  
(REVISED NOVEMBER 2005)**

**I. Definitions**

Fragility fracture. Preoperative radiographic evidence of an acute, new or healing fracture

- a) non-spine. Any non-vertebral bone excluding ribs, chest/sterum, skull/face, fingers, toes, and cervical vertebra or neck.
- b) spine or vertebral. Thoracic or lumbar spine vertebral body fracture. May be “wedge, compression, or biconcave.”

“Uncertain” fractures. These occur under three circumstances

- 1) If there is no radiologist’s report available
- 2) The x-ray was not read by a physician (exception: Podiatrists may interpret foot x-rays.)
- 3) The initial radiologist’s report does not definitively state that a fracture is present or absent. Often this determination includes wording such as “uncertain,” “possible,” or “cannot rule out.” These fractures are considered “uncertain” unless follow-up x-rays or a bone scan report is available and unambiguously states a fracture is or is not present.

Excessive trauma fracture Fractures that result from trauma of sufficient force that even young health individuals would have suffered a fracture. Most MVAs, falls from a height greater than 20”, and assaults will be considered excessive trauma.

Pathologic fracture. Fractures resulting from anatomic compromise due to bone tumors, Paget’s disease, bone and joint prostheses, or surgical manipulation. Confirmation is usually obtained from the preoperative radiograph and the operative report.

Stress fractures. In the setting of repetitive trauma, if the x-ray report indicates a stress fracture or the x-ray is negative but a bone scan is positive.

Multiple fractures Multiple fractures that result from a single traumatic event may be recorded on one Event Form. If more than five fractures occurred, list the five most significant, such as those of the hip, pelvis, upper arm, lower leg and wrist).

**II. Ascertainment of Fractures during Surveillance**

Study participants may report fractures during any of the following contacts:

- 1) Semi annual telephone interview

- 2) Annual clinic visit
- 3) Scheduling of annual clinic visits
- 4) Proxy, spouse, relative, or friends contact field center to report hospitalization
- 5) Hospital medical records from later event indicate a fracture event occurred.
- 6) HCFA tape review
- 7) Obituary or during investigation of death

If a participant reports a fracture at any of these times, it is important to determine the details of the fracture and to obtain the information necessary for requesting documentation needed for fracture adjudication.

Fractures can also be reported by proxy respondents and other informants, by contacts with health care professionals and others when attempting to trace participants who have missed regular follow-up contacts, and from hospital discharge records and death certificates of participants who have died. Documentation and adjudication of these fractures should proceed as outlined below, to the extent possible.

### **III. Health ABC Data Collection Forms to be Completed by Examiners and Events Coordinators (or their designates) at the Field Centers**

- 1) Data collection forms required for all eligible fractures (excludes ribs, chest/sternum, skull/face, fingers, toes, and cervical vertebra or neck)
  - a. Health ABC Event Form
  - b. Fracture Adjudication Report
- 2) If fracture diagnosis made during a hospitalization, also complete
  - a. Discharge Abstract Form
  - b. Local Adjudication Report
- 3) If fracture diagnosis resulted in death or was discovered at autopsy, also complete:
  - a. Report of Death
  - b. Final Death Adjudication Report (at central adjudication)
  - c. Decedent Proxy Interview
  - d. Informant Interview for Out-of-Hospital Deaths (if appropriate)

### **IV. Documentation to be Requested for Fractures by Events Coordinator (or their designates)**

Obtain the participant's written consent to request medical records, if not previously obtained. In some areas, a blanket consent good for an indefinite or a fixed period of

time can be obtained during clinic visits. In others, a new consent may have to be obtained for each fracture.

Send a written request for documentation of the reported fracture. It may be most efficient to first call or write the facility where the x-ray was taken to find out where a copy of the x-ray report can be obtained.

- Non-spine fractures, obtain a copy of the radiologist's report establishing the initial diagnosis of fracture for all fractures and possible fractures treated during the encounter with the patient. If multiple skeletal sites were x-rayed at one visit, these will usually be included in a single report by the radiologist.
- For vertebral fractures, obtain a radiologist's report that documents the fracture. Ask specifically for reports of any lateral spine x-rays that were taken for this vertebral fracture. However, sometimes the only films available are chest x-rays or plain abdomen films (KUB), which may indicate that the vertebral fracture was diagnosed incidentally from an x-ray taken for another purpose.

If a radiologist's report is not available from the recipient of the written request, ask for the address of the provider where a copy of the radiologist's report can be obtained. If the provider says that they did not treat the participant for a possible fracture during the period in question, recontact the participant and clarify the dates, physician, and facility that treated the reported fracture.

## V. Procedures

Once a fracture is identified in a Health ABC participant, the following protocol should be followed:

- 1) An Event Form is completed by examiner or Event Coordinator at the local field center once notified of the fracture. Check the appropriate box under "Section II: Cancer, Fracture, and Pneumonia." Record the specific bone that was fractured. If multiple bones were fractured during the same traumatic event, record up to 5 of the most significant fractures.
- 2) Indicate if the fractures resulted from excessive trauma as defined above.
- 3) The completed Event Form scanned into data system.
- 4) A copy of the Event Form is forwarded to the Event Coordinator at the local field center.
- 5) The Event Coordinator enters tracking information into the web-based D and D tracking system.
- 6) Event Coordinator requests:
  - a. radiology reports
  - b. fracture-specific documentation (refer to Section IV.5 above)
- 7) The Event Coordinator notes first request for documentation in the D and D tracking system.
- 8) If necessary, the Event Coordinator makes second request for documentation.

- 9) The Event Coordinator notes second (and all additional) requests for documentation in the D and D tracking system.
- 10) All documentation received is noted in the D and D tracking system.
- 11) If hospitalized, complete Discharge Abstract Form and Local Adjudication Report.
- 12) Once all documentation is received, the Fracture Adjudication Report is completed.
- 13) Event Coordinator notes the date the event packet is completed (documentation received and all appropriate data collection forms filled out) in the D and D tracking system.

## **VI. Completing the Fracture Adjudication Report**

Question #1: Record the Health ABC Event Form reference number from the lower left-hand corner of the Event Form.

Question #2: Record the date that the fracture occurred. Typically, this will be the date of known trauma. If no known event resulted in the fracture, use the date of the x-ray. If diagnosis made at autopsy, the date of death is used. Note that these dates may simply be the best guess of the person reporting the event.

Question #3: Record if the needed reports are attached, and if not, indicate if other records are attached.

Question #4: Mark one fracture site per form. Multiple fractures may require up to five forms. If more than five fractures occurred from a single traumatic event, pick the five most significant (e.g., hip, arm, leg, pelvis, spine, etc.)

Question #5: Indicate the side of the fracture if applicable.

Question #6: After review of the supporting documents, indicate the fracture is confirmed, not confirmed, or uncertain.

Question #7: Indicated the type of fracture according to the definitions above. Excessive trauma will be noted on the Event Form.

Question #8: Mark the one box that best describes the criteria used to adjudicate the fracture.

## **VII. Decision rules**

- 1) MRI or CT reports are acceptable alternatives to x-ray reports. Abnormal bone scans reports are not sufficient to document fracture.
- 2) All radiographic vertebral fractures should be considered new unless the x-ray report states that comparison films are available and no new fracture is present.

3) All fractures in patients with multiple myeloma are considered “pathologic.”