

## DICOM Correction Item

Correction Number	CP-647
Log Summary: Clarify presence of empty return keys in response identifier	
Type of Modification	Name of Standard
Clarification	PS 3.4 2006
Rationale for Correction All keys requested in a query Request Identifier are required to be present in the Response Identifier, except when they are Optional Keys that are not supported by the SCP.  It is not entirely clear that these keys should be present with zero length in the response if they are supported, but have no value.  For example, it is intended that the Required Keys Accession Number (0008,0050) and Study ID (0020,0010) be returned in the response, with zero length, if there are no values in the database for them.	
Sections of documents affected PS 3.4 C.2.2.1, C.4.1.1.3.2	
Correction Wording:	

### **C.2.2.1.1 Unique Keys**

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Unique Keys may be contained in the Identifier of a C-FIND request. Unique Keys shall be contained in the Identifier of C-MOVE and C-GET requests.

### **C.2.2.1.2 Required Keys**

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Required Keys may be contained in the Identifier of a C-FIND request. Required Keys shall not be contained in the Identifier of C-MOVE and C-GET requests.

### **C.2.2.1.3 Optional Keys**

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Optional Keys contained in the Identifier of a C-FIND request may have three different types of behavior depending on support for existence and/or matching by the C-FIND SCP. If the C-FIND SCP:

- does not support the existence of the Optional Key, then the Attribute shall not be returned in C-FIND responses
- supports the existence of the Optional Key but does not support matching on the Optional Key, then the Optional Key shall be processed in the same manner as a zero length Required Key. That is, the value specified to be matched for the Optional Key is ignored but a value may be returned by the SCP for this Optional Key.

- supports the existence and matching of the Optional Key, then the Optional Key shall be processed in the same manner as a Required Key.

- Notes:
1. C-FIND SCU may not assume an Optional Key with non-zero length will be processed in the same manner as a Required Key. The Conformance Statement of the C-FIND SCP shall list the Optional Keys which are supported.
  2. Optional Keys are differentiated from Required Keys in that Optional Keys may or may not be supported for existence and/or matching by C-FIND SCPs. Whereas, Required Keys must always be supported by C-FIND SCPs.

Optional Keys may be contained in the Identifier of a C-FIND request. Optional Keys shall not be contained in the Identifier of C-MOVE and C-GET requests.

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#### **C.4.1.1.3.2 Response Identifier Structure**

The C-FIND response shall not contain Attributes that were not in the request or specified in this section.

An Identifier in a C-FIND response shall contain:

- Key Attributes with values corresponding to Key Attributes contained in the Identifier of the request.

- Notes:**
- 1. All Required Keys in the Request Identifier, as well as all Optional Keys in the Request Identifier that are supported by the SCP, will therefore be present in the Response Identifier.**
  - 2. Required Keys and supported Optional Keys in the Response Identifier will have zero length if the SCP has no value to send; i.e., there is no requirement that the SCP have a value for these, or create a dummy value.**
  - 3. The requirement that unsupported Optional Keys present in the Request Identifier not be included in the Response Identifier is specified in C.2.2.1.3.**

- Query/Retrieve Level, element (0008,0052) which defines the level of the query. The Query/Retrieve level shall be equal to the level specified in the request.

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