

Purpose: The radiologists at our institution prefer to read bone surveys in a specific order. The specific order allows them to read studies more quickly, and easily perform comparisons between contralateral body parts (e.g. right and left humerus). However, we have four generations of DR equipment from a particular manufacturer, and the DICOM header information for DX objects is inconsistent amongst the systems. Therefore, a hanging protocol was developed to facilitate the hanging of bone survey images in the proper order.

Materials and methods: Our PACS system (iSite, Stentor) allows the use of hanging protocols. These protocols use matching series rules to establish hanging orders. Matching series rules were used where DICOM header information was present (i.e. not in a hidden/private field) and consistent. Also, technologists were provided with a schematic detailing the order in which specific images had to be acquired to result in the correct hanging order where matching series rules could not be used.

Results: A successful hanging protocol was created using a combination of PACS tools and technologist instruction. The resulting protocol maximized patient comfort, minimized patient movement between table and wall detectors, and was simple enough to ensure a high rate of compliance from technologists. In addition, we provided tools to technologists and supervisors to view their studies in the order it would hang when opened for reading, and to correct studies (via presentation states) where patient safety or comfort required an exception to be made or where a mistake was made by the technologist. Hanging protocols for CR objects were also created.

Conclusions: Creation of useful hanging protocols is still possible even when limitations are presented by DICOM header structure and content.