Current Status of DICOM RT Extension

Hans Sethi
Elekta Oncology Systems
Fleming Way, Crawley, West Sussex UK

The paper will outline preliminary steps required to implement and test a DICOM interface to a medical application system. It will outline current implementation of the DICOM RT Objects: RT Image, RT Dose, RT Structure Set, RT Plan, RT Beam Treatment Record, RT Brachy Treatment Record and RT Treatment Summary Record by different vendors together with their future DICOM implementation plans. Experience gained by vendors during their DICOM implementation will be described.

Experience gained by using a DICOM based system will be described. It will be indicated that communication between modalities has resulted in reduced error in the data communication from one equipment to another due to either user error and/or volume of information transfer. The electronic communication protocols have enabled the information to be more readily available when and where it is required.

Availability of the DICOM interface in the radiology and radiotherapy modalities has provided hospitals with options to choose multi-vendor equipment providing cost and efficiency benefits. Interoperability between different equipments has resulted in better workflow flow management in a hospital and has also provided clinical benefits.