

This presentation will review the ultrasound mini-picture archive and communication system (miniPACS) implementation in Mayo Clinic-Rochester. The ultrasound practice generates about 45,000 examinations per year. Imaging and interpretation occurs at four different campus locations, in both clinic and hospital environments, and in fixed-room and portable modes. Also, imaging equipment is transported by van to one regional location, and examinations are acquired and transmitted via T1 line back to the Rochester campus for interpretation. A miniPAC system has been installed to serve all the image management requirements of the practice, including image capture, transmission, softcopy interpretation, and archiving. The miniPACS is interfaced to a departmental Radiology Information System (RIS) to make order entry more efficient and assure data integrity. Images are also transmitted out of the miniPACS to an institutional system providing image and report distribution and display for clinical physicians. The configuration, operation, and data flow through this integrated information management system will be described in detail. Our experience with irreversible compression of the ultrasound image data will also be reviewed. Finally, the practical impact (both positive and negative) of this system on the radiology practice will be discussed from the perspectives of the sonographer, radiologist, physicist, and clinical engineer.

Educational Objectives:

1. Understand how one particular ultrasound practice implemented a miniPACS and interfaces to other information systems.
2. Learn how the electronic systems have impacted the radiology practice from the perspectives of the sonographer, radiologist, physicist, and clinical engineer.