DICOM in Ophthalmology

P. Lloyd Hildebrand, MD
Dean McGee Eye Institute
University of Oklahoma
Oklahoma City, OK USA
Overview

- Ophthalmic imaging needs
- Historical Perspective
- Organizing the Effort
- Priorities
- State of DICOM in Eyecare
- Current Projects
Ophthalmic imaging

- Many devices, many applications
- Primary digital acquisition broadly used
- Generally no standardized way to exchange digital images
- Ophthalmic EMR vendors
Special considerations

- Clinic centric
- Image acquisition context
- Angiography
- Stereoscopic views
- Bilateral imaging for comparison
- Clinical trials
- Centralized or distributed services
Stereoscopic Display
Ophthalmic imaging examples

Retinal Imaging
- color photography
- red-free imaging
- angiography
- optical coherence tomography
Retinal imaging examples

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.
External photography
Slit lamp imaging
Specific Activities

- Working Group 9
- SNOMED terminology modeling
- New IOD work proposals
- IHE - multivendor demonstration, profile
IHE at the AAO Annual Meeting

Multi-vendor interoperability showcase

Patient data anytime, anywhere
...standards making it happen

Dean McGee Eye Institute

American Academy of Ophthalmology
The Eye M.D. Association
Participants in IHE Eye Care 2005
AAO Strategic Direction

• enhance existing standards
• membership education
• vendor coordination
• advocacy alignment
State of DICOM 2005

- Still in its infancy
- Device vendor interest is high
- Commitment is still needed
- EHR vendor interest is limited
- Support is strong at the AAO leadership level
State of DICOM 2005

- Secondary capture
- Visible light imaging
- Ophthalmic photography
- Ophthalmic Tomography IOD
- Workflow modifications?
- Extensions workgroups