Essential EHR Features

Not every EHR system is well suited to ophthalmology. If your practice is shopping for a new system or considering an upgrade, here are some features to expect and demand.

The chart, which was originally published in the *Ophthalmology*[1] article titled Special Requirements for Electronic Health Record (EHR) Systems, was developed by the Academy's Medical Information Technology Committee. In developing it, the committee considered the distinctive characteristics and requirements of ophthalmology practice with regard to both clinical workflow and data management and then ranked EHR features accordingly.

The committee considered 17 features to be "essential" for safe and effective patient care and characterized another six features as "desirable." Items are classified either as essential for current systems or as desirable for current systems (and essential for future systems).

PLEASE NOTE: Certification by the Office of the National Coordinator for "meaningful use" as an EHR system is a given essential.

GLOSSARY

DICOM : Digital Imaging and Communications in Medicine

EHR : Electronic Health Records

ICD : International Classification of Diseases

IHE : Integrating the Healthcare Enterprise

PACS : Picture Archiving and Communication System

SNOMED CT : Systematized Nomenclature of Medicine Clinical Terms

1 Chiang, M. F. et al. *Ophthalmology* 2011;118(8):1681–1687.

FUNCTION	ESSENTIAL	DESIRABLE
CLINICAL DOCUMENTATION		
Enable entry and storage of all ophthalmology-specific data required to support Academy *Preferred Practice Patterns*	X	
Organize ophthalmology-specific elements separately (e.g., past ocular history, ocular medications)	X	
Conform or map to vendor-neutral standard terminologies (e.g., SNOMED CT, ICD) to represent problem lists	X	
Conform or map to RxNorm to represent medications	X	
Conform or map to vendor-neutral standard terminologies (e.g., SNOMED CT) to represent: • Diagnoses and procedures • Allergies and clinical findings	X	X
Enable physicians and technicians to keep multiple records open simultaneously and securely in different rooms, with easy reauthentication	X	
Provide tools for incorporating color drawing, including ocular templates	X	
Analyze clinical workflow before and after EHR implementation	X	
Exchange full set of ophthalmic clinical data with EHRs from other vendors		X
Link clinical documentation to billing and charge capture and integrate with practice management		X
Allow physician to easily review patient information before entering room		X
OPHTHALMIC VITAL SIGNS AND LABORATORY STUDIES		
Record visual acuity and refractive discrete elements in accordance with DICOM Supplement 130	X	
Record IOP as a discrete data element	X	
Display and graph visual acuity and IOP over time	X	
MEDICAL AND SURGICAL MANAGEMENT		
Electronically associate all preoperative, operative and postoperative documents	X	
Support documentation of office-based and operating room procedures	X	
Allow physician to generate operative report at time of surgery		X
OPHTHALMIC MEASUREMENT AND IMAGING DEVICES		
Conform to vendor-neutral standards (e.g., DICOM) for receipt and representation of data from all ophthalmic instruments and devices	X	
Conform to vendor-neutral standards and profiles for ordering ophthalmic imaging and measurement studies (e.g., DICOM Modality Worklist and IHE Eye Care Workflow)	X	
Document completion and interpretation of ophthalmic imaging and measurement studies	X	
Request, retrieve, display and communicate all imaging and measurement data generated by ophthalmic instruments in a standard vendor-neutral format (e.g., DICOM)	X	
Manage all ophthalmic imaging data in vendor-neutral format (e.g., DICOM) or provide tight integration with external PACS in vendor-neutral format		X