

Table S2. Representative comments regarding institutional experiences with electronic health record (EHR) among leaders in informatics and ophthalmology at the University of California.

General Domains	Representative Comments
Time and Documentation Burden	<p>“Need to reduce the number of clicks and consolidate info on as few screens as possible.”</p> <p>“Way too much time spent charting.” “Too many button clicks, unclear billing guidance.”</p> <p>“The ability to draw in an EHR is less efficient.” “Time consuming to draw pictures, leading to minimal use of drawing.”</p>
Integration of Ophthalmology PACS	<p>“Having the imaging system and the EHR work together is one of the greatest challenges.”</p> <p>“[Key issue is] whether ophthalmic specific PACS interfaces and launches efficiently within EMR.”</p> <p>“Ophthalmology PACS has been problematic.”</p>
Workflow Development	<p>“Focus on workflow/investment upfront pays off dividends long term.”</p> <p>“It is much better to streamline office workflows before implementing an EHR, rather than adapting and incorporating poor workflows into the electronic system.”</p> <p>“Having strong engaged physician leaders was very important as part of the implementation.”</p> <p>“Provide multiple workflows to the provider and let them choose which one they want to make them feel empowered.”</p> <p>“[Faculty] are often unwilling to invest the time to customize their workflow.” “Ophthalmologists fear change.”</p> <p>“Institutional factors matter such as workflow for how call centers, administrators, surgical schedulers handle patient calls, scheduling, surgery requests, messages, etc.”</p> <p>“Tech support (quality and quantity), trainees (quality and quantity), optometry support (quality and quantity), [and] administrative support vary across the department and thus impact the EHR efficiency.”</p>
Customization	<p>“Templates need to be customizable down to the individual practitioner level. We are not all the same.”</p> <p>“It is very difficult or impossible to make changes to the template.”</p> <p>“Overall our HIT department has been very accommodating of different provider workflows, but maybe to the point that providers simply adopt their own ad hoc methods of using the system. This can make training and optimization difficult.”</p> <p>“The more you customize the EHR, the less likely that the institution can maintain memory of the system and provide adequate support and teaching.”</p> <p>“We had to do custom coding to meet the needs of the users. I would recommend not to create custom codes.”</p>
Training (Initial and Ongoing)	<p>“It would likely be useful to repeat training after implementation has occurred in order to emphasize learning points, but there is very little institutional support for repeat training.”</p> <p>“Multiple training sessions needed. First to become knowledgeable about the EHR in general then becoming knowledgeable on the EHR specific to their specialty. Also, robust training on how to use the PACS is needed.”</p> <p>“There is not enough time in our busy schedules to gain further education on how to optimize and increase efficiency. When we are available after hours to do that, all of the trainers are at home.”</p>
Institutional Investment	<p>“Lack of on-site support after the initial go-live period.”</p> <p>“Ambulatory and specifically ophthalmology builds are less of a priority to the medical center over the inpatient and OR environment.”</p> <p>“Difficulty in getting resources to implement ophthalmology specific functions.”</p> <p>“It's extremely important to identify and retain an individual [in health IT] committed to developing ophthalmology-specific expertise.”</p> <p>“Need ongoing investment in IT infrastructure to optimize implementation.”</p>