Background: Ocular emergencies account for up to 3% of Emergency Department (ED) visits in the US, requiring emergency physicians (EPs) to have the skills and confidence to identify and manage ocular pathology. Due to insufficient ophthalmic training during residency—and infrequent use in clinical practice—EPs report a lack of confidence in performing a slit lamp exam.

Objectives: To design an evidenced-based, simulation-based mastery learning (SBML) curriculum to empower EPs to perform a structured slit lamp exam.

Methods: EPs at a tertiary academic institution were enrolled in an SBML curriculum and evaluated using pre- and post-test assessment, and follow-up skill utilization. Ophthalmology and ED faculty created the curriculum and a 20-item checklist based on targeted needs assessment. Participants first completed an in-person baseline slit lamp exam at Wills Eye Hospital (WEH), then received a learning packet, instructional video, and an independent readiness assessment (IRAT). Passing the IRAT (>90%) permits the EP to schedule in-person SBML deliberate practice and final exam at WEH. Participants must score above 90% on the final checklist and complete a 3-month follow-up survey on provider confidence and knowledge dissemination to graduate.

Results: 17 EPs enrolled, with only 17% feeling confident in performing a comprehensive slit lamp exam for ocular complaints at the start of the study. All EPs successfully completed the final exam in one attempt. There was a significant increase between pre-curriculum (11.0, 2.78) and post-curriculum (19.22, 0.78) scores; with an average increase of 8.22, p < 0.001.

Conclusions: This is the first interdisciplinary SBML pilot curriculum between the Dept. of Ophthalmology and EM that demonstrated a significant improvement in clinician skillset. Further analysis will evaluate knowledge dissemination and physician attitude in regards to ED SLIT lamp with goals of dissemination and replication by other EM programs.