

Ophthalmic Procedure Training During COVID-19: Virtual and In-Person Training of the Suprachoroidal Injection Procedure

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Disclosures: F (Financial Support); I (Personal Financial Interest); E (Employment); C (Consultant); P (Patent); R (Recipient)

Purpose

❖ The purpose of this analysis was to evaluate virtual and in-person training modalities in educating retinal specialists and other ophthalmology professionals on performing a suprachoroidal injection with the SCS Microinjector®. Significant travel and site visitation restrictions associated with the COVID-19 pandemic required alternative virtual methodologies be developed to continue training when traditionally utilized in-person wet lab instruction was not permitted.

Methods

❖ Trainees for the suprachoroidal injection procedure included retina physician investigators participating in clinical trials and non-physicians, including medical science liaisons and other ophthalmology professionals.

❖ Training modalities included review of a short film on the procedure, a slide review of key procedural steps, and practice injections with a custom-designed synthetic eye, moderated by a certified trainer providing live feedback. Virtual training was conducted via videoconference; both trainee and trainer connected via webcam with audio connection; all supplies were mailed prior to training.

❖ Following completion of training, a follow-up survey was sent to every trainee. Trainees were asked about training component preferences and confidence to perform the procedure on a 5-point Likert scale.

3. How confident do you feel to perform the procedure, after having received this training? (1 being not at all and 5 being completely confident)



Example question from Survey

Results

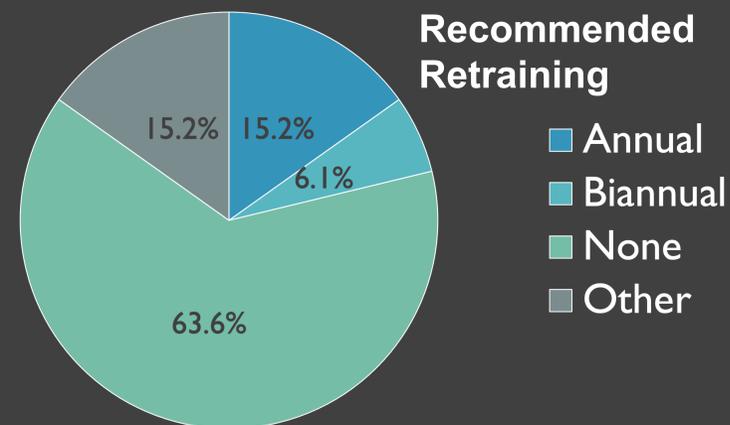
❖ A total of 33 trainees completed the survey following suprachoroidal injection training, including 23 physicians and 10 non-physicians. A total of 12 training sessions were completed virtually and 21 were completed in person. Physicians reported an average confidence to perform the procedure of 4.8 (range 4-5), while non-physicians reported an average of 4.2 (range 3-5), although non-physician trainees will never be performing the procedures in patients. There was a small increase in procedure confidence in physicians receiving in-person training versus virtual (4.9 vs. 4.0).

	Physicians			Non-Physicians		
	In Person	Virtual	Total	In Person	Virtual	Total
N	21	2	23	0	10	10
Mean	4.9	4.0	4.8	0	4.2	4.2

❖ Almost two-thirds of all trainees felt no retraining would need to occur, with less common recommendations suggesting either annual (15.2%) or biannual (6.1%) retraining. The majority of those selecting "Other" as a response on this topic indicated that a single refresher training just before the initial procedure was preferred.



Example Virtual Training Setup



❖ More than two-thirds (69.7%) of all trainees felt that the training was comprehensive and that no additional elements were required, with physicians expressing this sentiment more often (73.9% vs. 60.0%). All trainees, across all sessions, indicated that there were no unnecessary aspects of the training, as conducted.

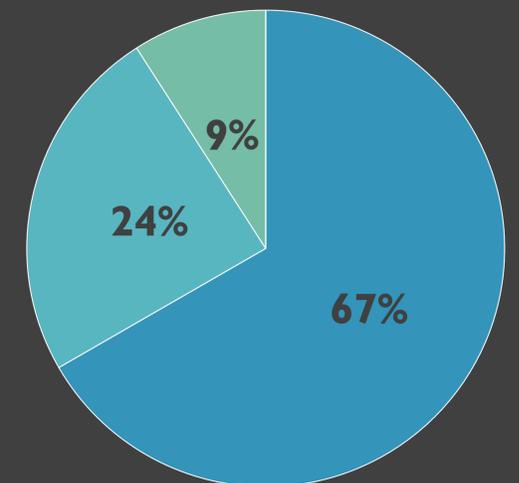
"It was great. [The] model made it easy."
 - Physician trained in person

"A more detailed step-by-step injection training video would be very helpful"
 - Non-physician trained virtually

"The training was excellent. [The trainer] did a fantastic job explaining the injectors and the procedure, as well as troubleshooting potential pitfalls."
 - Physician trained in person

Results

❖ Across all groups, the most useful component of training was identified as the hands-on wet lab with the synthetic eye model (67%) followed by the live trainer feedback and Q&A (24%). None of the trainees felt the powerpoint slide review to be the most important.



■ Hands-on Synthetic Eye Injections
 ■ Live Trainer Feedback/Q&A
 ■ Narrated Instructional Video Animation
 ■ Powerpoint Slide Review

Conclusions

❖ Among trainees who completed virtual or in-person training, physician trainees felt highly confident in their ability to perform the procedure in patients in the future.

❖ Practice injections with an eye model and live feedback should be incorporated into training curriculums, whether virtual or in-person.

❖ Retraining, if implemented, should be either annual or consist of a single refresher given just before the physician performs the procedure for the first time in patients.

❖ Larger sample sizes, especially of virtually trained physicians, could help further optimize training strategies.