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Implementing and Monitoring At-Home Virtual Reality Oculo-kinetic Perimetry During COVID-19

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Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Abbreviations and Acronyms:

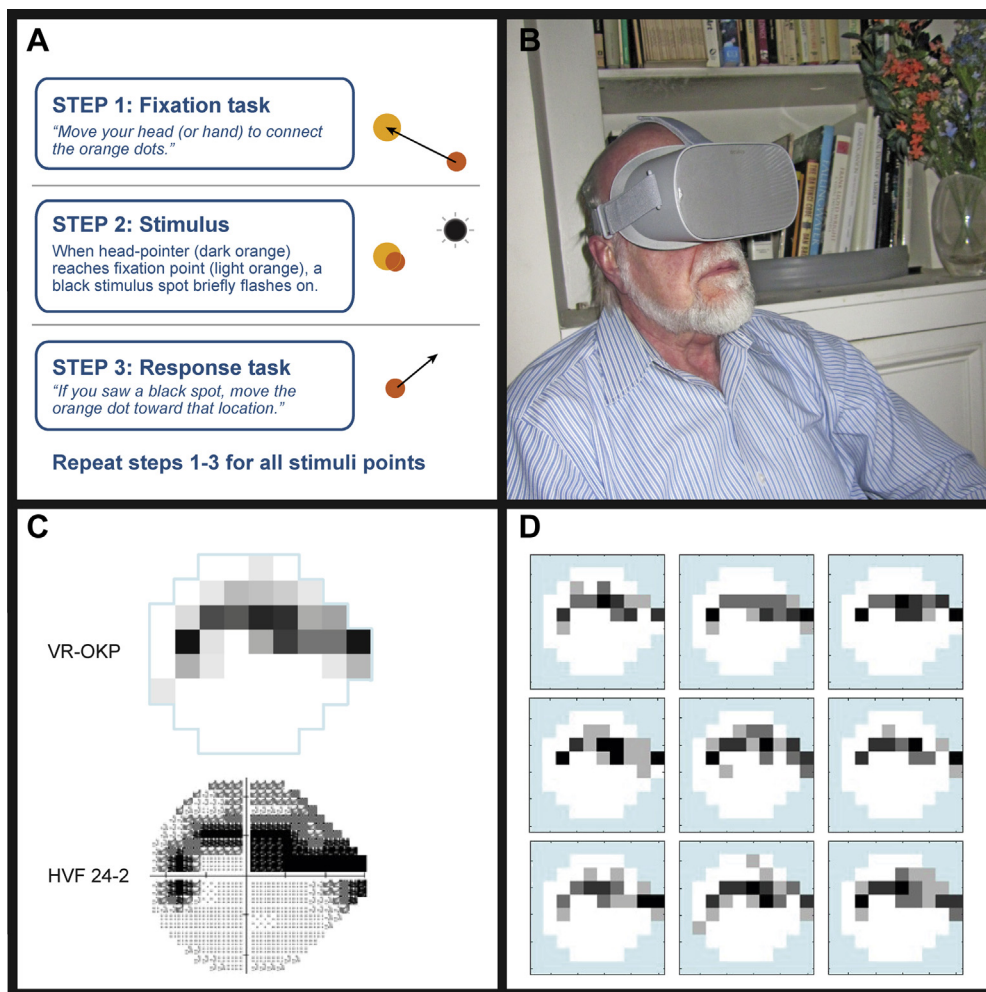
ACIOL = anterior chamber intraocular lens; **AV** = anterior vitrectomy; **BCVA** = best-corrected visual acuity; **CME** = cystoid macular edema; **FDA** = Food and Drug Administration; **IOL** = intraocular lens;

ISHF = intrascleral haptic fixation; **PCIOL** = posterior chamber intraocular lens; **PKP** = penetrating keratoplasty; **PPV** = pars plana vitrectomy.

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Pictures & Perspectives



Implementing and Monitoring At-Home Virtual Reality Oculo-kinetic Perimetry During COVID-19

COVID-19 has disrupted in-clinic perimetry, perhaps permanently. We have co-developed a visual field test (A) performed on inexpensive virtual reality headsets using an oculo-kinetic perimetry (VR-OKP) test strategy (see ARVO 2020 abstract: 4800-A0174). During COVID-19 shelter-in-place, we remotely installed VR-OKP onto a 72-year-old glaucoma patient's VR headset who then conducted at-home perimetry (B). VR-OKP matched Humphrey visual field 24-2 (C), giving repeatable results (D). Additional characterization is now underway to determine whether VR-OKP (also known as Vivid Vision Perimetry) will enable physicians to reliably monitor patients' visual fields remotely. (Magnified version of Fig A-D is available online at www.aaojournal.org).

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