Supplementary material 2 – Data extraction table

Authors	Study title	Design	Domain(s) of outcomes	Location	Study objectives	Study populations	Main results/conclusions
Bittner *et al*., 2018	Feasibility of telerehabilitation for low vision: satisfaction ratings by providers and patients	Experimental	Patient satisfaction and recommendations	USA	To develop, administer, refine and evaluate components required to deliver follow-up low vision telerehabilitation services.	10 participants with self-rated vision ranging from good to poor. 9 with AMD; 1 with DR. Average age 80 (range = 63-91) years.	Providers and participants rated video quality as excellent to good. Audio quality ratings were variable, generally related to signal strength or technical issues during some sessions. All participants agreed that they were satisfied and comfortable receiving telerehabilitation. Eight of 10 reported that their magnifier use improved. All except one reported that they were very interested in receiving telerehabilitation again. Positive feedback from both participants and providers in this pilot study supports the feasibility, acceptability, and potential value of low vision telerehabilitation.
Dogru-Huzmeli *et al*., 2021	Can diplopia complaint be reduced by telerehabilitation in multiple sclerosis patient during the pandemic? A case report	Case report	QoL and well-being	Turkey	To determine the effect of Cawthorne-Cooksey exercises applied via telerehabilitation on eye movements, vision, and quality of life in a multiple sclerosis patient with diplopia.	1 male participant with multiple sclerosis aged 39 years.	Following 4 months of telerehabilitation, the participant stated that his double vision complaints decreased, and his eyes could move more easily. When eye movements were evaluated, outward gaze restriction had improved. There was no change in visual acuity, anterior and posterior segment examinations, and OCT examination. It can be feasible to administer Cawthorne-Cooksey exercises using telerehabilitation to reduce diplopia.
Dunne *et al*., 2020	Maximizing telerehabilitation for patients with visual loss after stroke: interview and focus group study with stroke survivors, carers, and	Qualitative	Patient satisfaction and recommendations	UK	To identify barriers and facilitators using rehabilitation tools and elements of good practice in telerehabilitation among stroke survivors.	66 focus group participants. 32 stroke survivors with partial vision loss (18 men; aged 43-83 years, mean age 62.28 years), 10 carers (7 women; 41-75 years, mean age 54.70 years), and 24	Themes identified problems associated with poststroke health care from both patients' and occupational therapists' perspectives that need to be addressed to improve uptake of telerehabilitation. Themes included identifying additional materials or assistance to boost the impact of training packages. Perceptions of technology were considered a barrier

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	occupational therapists					occupational therapists (19 women; 22-45 years, mean age 31.13 years)	by some but a facilitator by others. In addition, 4 key features of telerehabilitation were identified: additional materials, the importance of goal setting, repetition, and feedback.
Ihrig, 2019	Travel cost savings and practicality for low vision telerehabilitation	Cost analysis	Cost-effectiveness	USA	To evaluate patient acceptance and practicality of low vision telerehabilitation.	419 veterans, average age 83 (range = 50-101) years. 406 were male. 208 had diagnosis that resulted in non-correctable or best corrected visual acuity in both eyes up to 20/150 (defined as not legally blind); 149 had non-correctable or best corrected visual acuity in both eyes of 20/200 or worse (defined as legal blindness); 22 had non-correctable peripheral visual field loss in one or both eyes >20 degrees (defined as not legally blind); and 40 had non-correctable peripheral visual field loss in both eyes <20 degrees (defined as legal blindness).	Of the 419 veterans seen since November 2012 (FY 13), the median saving of travel miles for rural patients was 122 miles per veteran (51,136 miles/419 veterans) and the median saving of travel time was 2.09 h per veteran (878 h/419 veterans). Overall, the median saving of the travel cost per rural individual (utilizing $0.535 per mile) was $65.29 per veteran ($27,357.76/419). Travel mileage and time saving resulted in an increase in access to low-vision rehabilitation (24% increase in partially sighted veterans evaluated in 5 years) by reducing the veteran's travel distance, time, and cost. Utilising low vision telerehabilitation increases early access and enables veterans who cannot travel to a specialty clinic the opportunity to prevent potential decline in functional ability over time.
Lancioni *et al.*, 2011	Enabling two women with blindness and additional disabilities to make phone calls independently via a	Case report	QoL and well-being	Italy	To assess whether two women with blindness and additional disabilities could make independent phone calls through a	Two female participants aged 30 and 41 years. One participant with retinopathy and congenital cataract leading to total blindness by age 28.	Both participants learnt to use the system and made phone calls independently to family members, friends and staff personnel. Neither participant made calls independently at baseline. During the first intervention phase, one participant had a mean cumulative conversation time per

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	computer-aided telephone system				computer-aided telephone system.	One congenitally blind participant due to gestational complications.	session of ~11 minutes. The mean length of the sessions was ~21 minutes. For the second participant, mean (cumulative) conversation time per session was ~10 minutes. The mean length of the sessions was ~17 minutes.
Lorenzini & Wittich, 2021	Personalised telerehabilitation for a head-mounted low vision aid: A randomized feasibility study	Randomised controlled trial	Patient satisfaction and recommendations	Canada	To determine the feasibility of telerehabilitation using eSight eyewear with low vision participants. Feasibility defined as achieving recruitment target, proportion of participants lost to follow up, and whether the intervention was accessible and acceptable.	57 participants; 58% male, average age 54.5 (range = 21-82) years. All were categorised as having an ocular disease, most common were optic nerve disease, AMD, RP, and retinopathy of prematurity.	Withdrawal rate was higher in the control group but did not differ significantly from the experimental group. High accessibility (93% of participants accessed the platform) and global acceptability (100% overall satisfaction) were reported among those who completed the telerehabilitation protocol. The therapist had no difficulty judging the participants' reading performances qualitatively while participants used their device to read their eSkills and VisExc guides. Most participants improved their daily activities, based on qualitative reports of the attained goals. Seventy-nine percent of individuals declined to participate, whereas 16% of participants decided not to use eSight Eyewear anymore. Positive feedback from the participants and the low vision therapist suggests the potential value of this modality for low vision services.
Lorenzini & Wittich, 2021	Head-mounted visual assistive technology–related quality of life changes after telerehabilitation	Randomised controlled trial	Patient satisfaction and recommendations / QoL and well-being	Canada	To explore the effect of telerehabilitation (eSight eyewear) on quality-of-life and functional vision in individuals with low vision using a head-mounted display.	57 participants; 58% male, average age 54.5 (range = 21-82) years. All were categorised as having an ocular disease, most common were optic nerve disease, AMD, RP, and retinopathy of prematurity.	Assistive technology–related quality of life was improved when measured by the satisfaction scale but not the psychosocial scale within the first 3 months, independently of training type. Overall, functional vision improvement was observed within the first 2 weeks of device use and maintained during the 6-month study, independently of group type. eSight Eyewear, either with telerehabilitation or with the manufacturer

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							self-training comparison, improved functional vision and increased users' quality of life within the initial 3 months of device training and practice.
Sabel & Gudlin, 2014	Vision restoration training for glaucoma: A randomized clinical trial	Randomised controlled trial	Vision training / QoL and well-being	Germany	To determine if behavioural activation of areas of residual vision using daily 1-hour vision restoration training for glaucoma for 3-months improves detection accuracy compared with placebo.	30 participants; 14 male; mean [SD] age 61.7 [10.1] years. 20 participants with primary open angle glaucoma; 5 with normal tension glaucoma; 4 with secondary glaucoma; 1 with angle-closure glaucoma. Mean [SD] visual acuity was 0.62 [0.34] (range 0.0-1.3 logMAR) in the right eye and 0.76 [0.40] (range 0.0-1.8 logMAR) in the left eye.	Vision restoration training for glaucoma led to significant detection accuracy gains in high-resolution perimetry (P = .007), which were not found with white-on-white or blue-on-yellow perimetry. Pre-post differences after vision restoration training for glaucoma were greater compared with placebo in all perimetry tests (P = .02 for high-resolution perimetry, P = .04 for white on white, and P = .04 for blue on yellow), and these results were independent of eye movements. Vision restoration training for glaucoma (but not placebo) also led to faster reaction time (P = .009). Vision-related quality of life was unaffected, but the health-related quality-of-life mental health domain increased in both groups.
Senjam *et al*., 2021	Tele-rehabilitation for visually challenged students during COVID-19 pandemic: Lesson learned	Case report	Managing symptoms	India	To report experiences of a telerehabilitation service available primarily for students with visual disabilities amidst the COVID-19 pandemic.	492 participants; male = 388. The majority of beneficiaries were between 11 and 30 years (82.3%). Around 96% of beneficiaries were visually disabled, and 16.5% had unknown visual status (waiting or applied for certificates).	The most common ocular complaints for which beneficiaries required advice were itching (N= 121; 36.1%); watering eyes (N = 54; 16.1%); painful eyes (N = 12; 3.6%), redness (N = 5; 1.5%). Telerehabilitation can offer a safe and efficient means of providing reliable information to visually impaired individuals.

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Tinelli *et al*., 2017	Development and implementation of a new telerehabilitation system for audio-visual stimulation training in hemianopia	Experimental	Vision training	Italy	To test the feasibility and efficacy of audio-visual telerehabilitation in three adult patients with chronic visual field defects.	Three participants with hemianopia. One male had cerebral stroke; one adult had drug-resistant epilepsy caused by a focal cortical dysplasia type 2a; one male had partial left homonymous hemianopia following surgery for a meningioma in the right hemisphere.	Results suggest audio-visual telerehabilitation is an effective treatment based on the stimulation of ocular movements and visual exploration functions through compensative strategies. Patients were instructed to use saccadic eye movements for the detection of visual targets and thus they showed, at the end of the treatment, an activation of the oculomotor system and a change in responsiveness toward visual stimuli, confirmed by behavioural data, mostly using the Unimodal Visual Test. The test allows patients to exercise independently in a familiar context, while under remote supervision. It may give the patient a sense of control and autonomy, which can contribute to a better therapy outcome, also reducing the need for one-to-one treatment time and home visits.

Supplementary material – Data extraction table. Data extraction table. **Key** - QoL: quality-of-life. AMD: age-related macular degeneration. DR: diabetic retinopathy. RP: retinitis pigmentosa. SD: standard deviation. logMAR: logarithm of the minimum angle of resolution. OCT: optical coherence tomography. FY: fiscal year.