

Third-Party Coverage for Aphakic Contact Lenses for Children

Stacey J. Kruger¹, Deborah K. Vanderveen², Sharon F. Freedman³, Erick Bothun⁴, Carolyn D. Drews-Botsch⁵, and Scott R. Lambert⁶; for the Infant Aphakia Study Group

¹ Department of Ophthalmology, Northwell Health, Great Neck, NY, USA

² Division of Ophthalmology, Boston Children's Hospital, Boston, MA, USA

³ Department of Ophthalmology, Duke University, Durham, NC, USA

⁴ Department of Ophthalmology, Mayo Clinic, Rochester, MN, USA

⁵ Department of Epidemiology, Emory University, Atlanta, GA, USA

⁶ Ophthalmology, Stanford University School of Medicine, Palo Alto, CA, USA

Correspondence: Stacey J. Kruger, Department of Ophthalmology, Northwell Health, 600 Northern Blvd Ste 220, Great Neck, NY 11021, USA. e-mail: skruger1@northwell.edu

We read with the interest the article by Cao et al.¹ reporting spectacle wear adherence in aphakic children after bilateral cataract surgery. In their series, spectacle adherence was only 31% during the first year of life. Poor spectacle adherence during these formative years when central visual pathways are developing puts these children at risk for life-long visual disability. In contrast, contact lens adherence was much higher during the first year of life among participants in the Infant Aphakia Treatment Study (IATS) a multicenter, longitudinal, randomized clinical trial in the United States, which randomized infants after unilateral cataract surgery to primary intraocular lens (IOL) implantation or aphakia.^{2,3} While spectacle adherence did improve in their series to 78% during the second year of life and 87% during the third year of life, contact lens wear remained higher in the IATS during these same ages. Only three of 57 (6%) of the children randomized to the contact lens arm of the IATS discontinued contact lens wear before age 5 years. We also demonstrated a positive correlation between good contact lens adherence and better visual acuity at 4.5 years. However, the IATS differed from usual clinical practice in that contact lenses were provided to parents free of charge. In addition, each child was given a spare lens to use as a backup in case their lens was lost. The average number of lenses dispensed to a child in the IATS was: 10 in year 1, nine in year 2, seven in year 3, and five in years 4 and 5.⁴ High success rates with contact lens wear following congenital cataract surgery also have been reported in countries with socialized health systems that provide contact lenses at no or reduced cost to parents.⁵ In most parts of the world, the major

barrier to contact lens wear among aphakic children is cost, particularly since parents often have to pay for the full cost of contact lenses. We recommend that there be a national policy in the United States that would require coverage of aphakic contact lenses by all third-party payers. These lenses are medically necessary, and in fact, function as a medical prosthesis, since they replace the function of a missing natural body part (the lens). One model program is the Child Health Plan for the Northern and Southern California Kaiser Permanente region that provides up to six aphakic contact lenses per eye each year for children until the age of 8 years.⁶ We believe that this is a reasonable approach to ensure that children with the disability of a cataract who have early and complex surgeries have the best chance of rehabilitating their eye(s) so that they can achieve their best visual potential.

With data obtained during the IATS, we are able to compare the average percent of waking hours spent wearing glasses among pseudophakic patients to the percent of waking hours spent wearing a contact lens among aphakic patients in the first 12 months of life for patients with at least three adherence assessments during this period. The results showed that patients wore contact lenses a greater proportion of their waking hours than glasses. Summarized in the [Table](#) below, our data indicated that glasses were worn approximately half the amount of time that a contact lens was worn.

While we acknowledge that our study examined the treatment of unilateral cataracts, contact lenses are considered to be the standard-of-care for infants after bilateral cataract surgery in the United States

Table. Comparison of Contact Lens and Spectacle Adherence in the Infant Aphakia Treatment Study to 12 Months of Age

	Mean \pm SD, %	Median, %	IQR, %	t-Test	P
Contact lens	84.6 \pm 17.1	89.2	(76.6, 98.1)		
Spectacles	46.4 \pm 29.5	45.3	(20.6, 72.6)		
Difference	38.2	95% CI = (−47.6, −28.9)		−8.15	<0.01

CI, confidence interval.

and we speculate that adherence would be similar to what we found in the IATS if they were provided as a benefit of medical insurance.

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