BLENDED VISION OUTCOMES WITH A HYDROPHYLIC ACRYLIC UNIPLANAR BI-ASPHERIC IOL

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BLENDED VISION

- Began using the Softec HD April, 2010
- hydrophyllic acrylic uniplanar bi-aspheric IOL, 26% water
- 5.75mm optic, 12 mm length
- Square edges
- Lenstec, Inc. St. Petersburg, Florida

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METHODS

- Anectdotal evidence of “good near vision” from staff
- Prospective data collection
- Patients implanted between June 10 and October 14, 2010
- Eyes with ≤ 1.0 D cylinder
- Eyes had BCVA of 20/30 or better

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BLENDED VISION PROTOCOL

- 32 patients bilateral surgery 2 wks apart
- Follow up 1 month s/p 2nd eye
- Dominant eye targeted for 0.0 ± 0.25D
- Fellow eye targeted for -1.00 ± 0.25D
- BUCVA dist and near and pt preferred dist
- Near point of focus in near eye
- Unaided near Titmus stereopsis

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RESULTS

- BCVA distance 20/23(±6.6)
- Binocular UCVA distance 20/25 (±6.7)
- Binocular UCVA near 20/32(±14.8)
- Achieved SE vs targeted SE -0.01 (±0.58)
- Near eye SE -1.11D (±0.57)
- Residual Cylinder 0.4D (±0.34)

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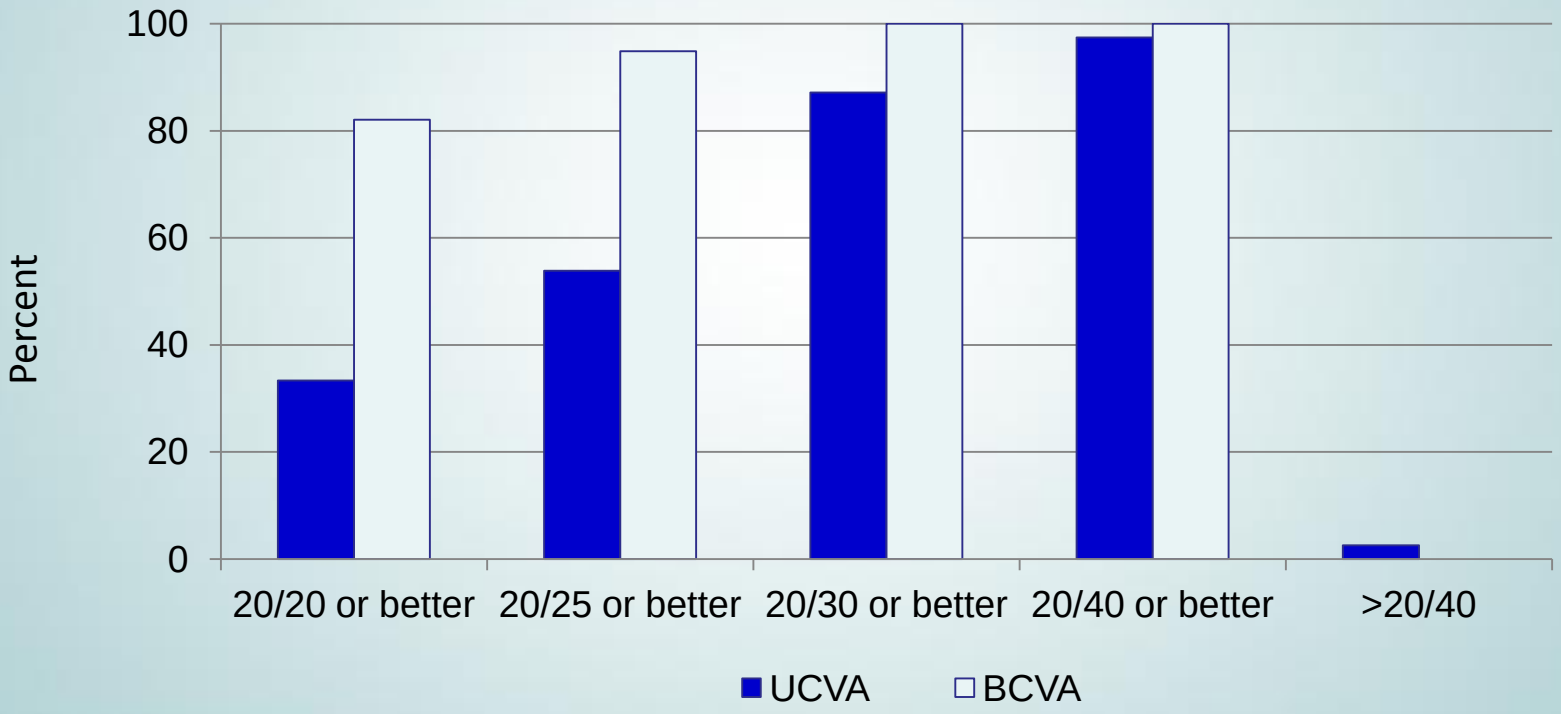
Cumulative Unilateral Distance VA



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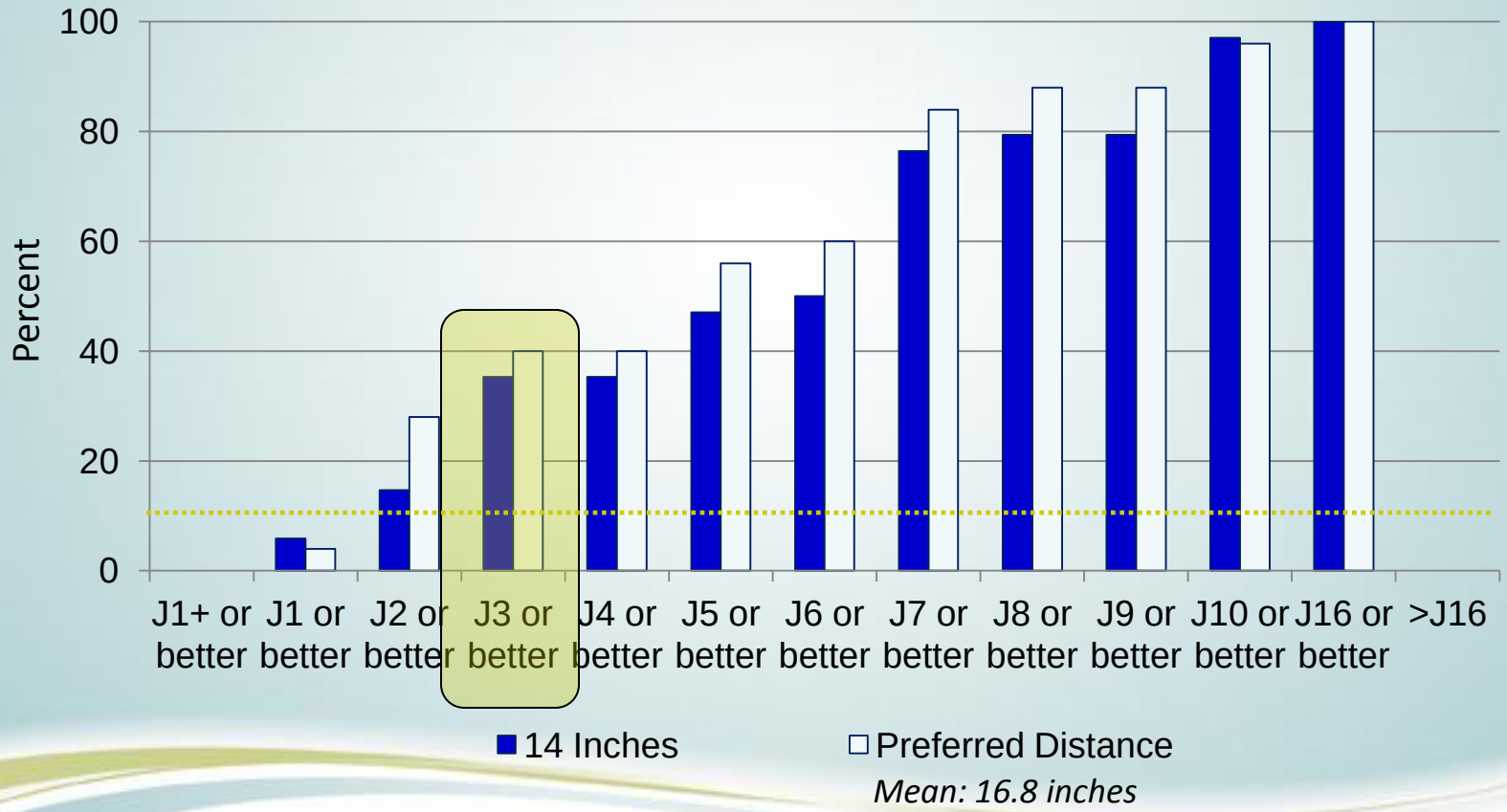
Unilateral Near Performance in Eyes Targeted for Distance



Mean: 16.8 inches

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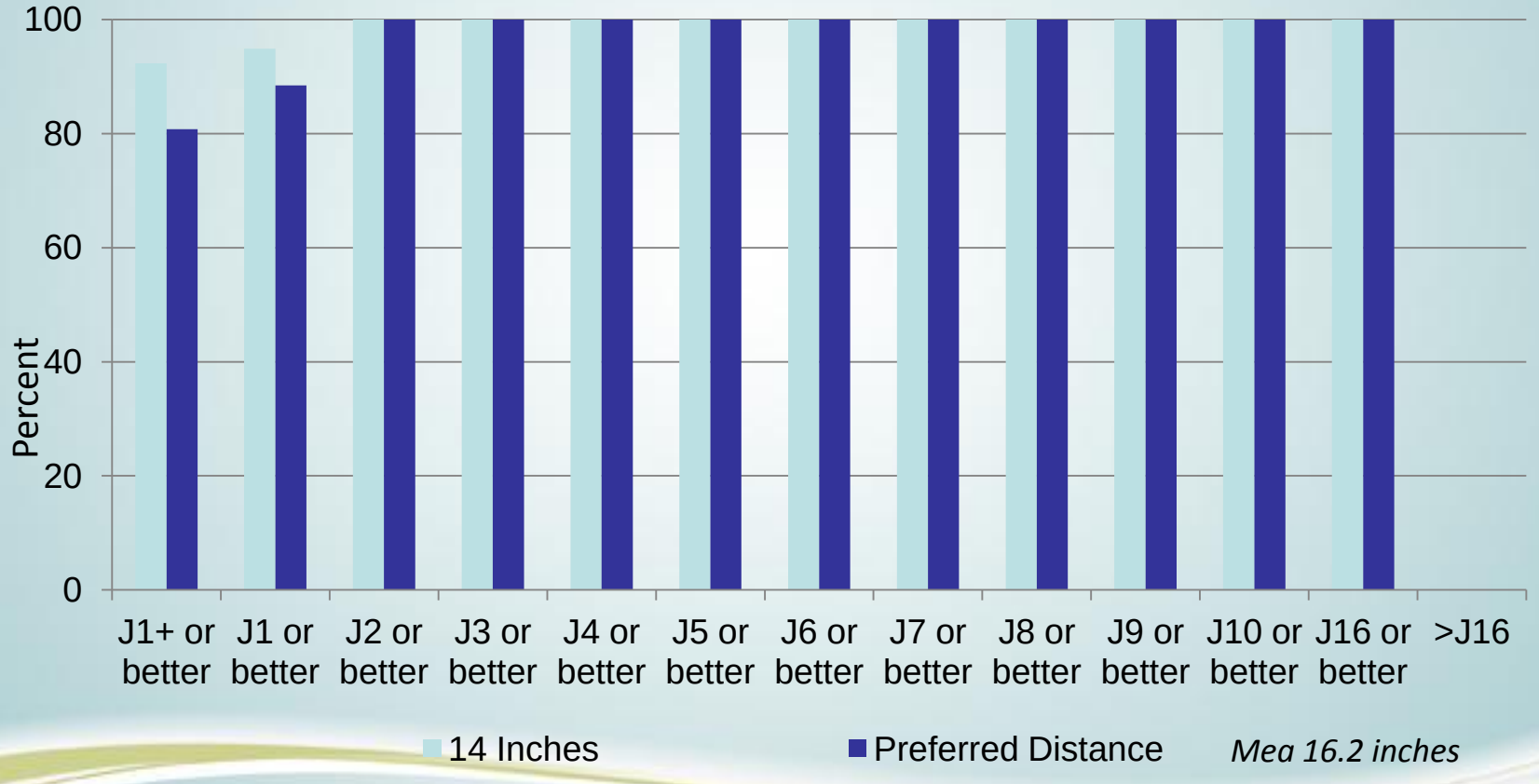
Unilateral Best Corrected Near VA for Both Eyes - Mean Add of 2.17D(±.22)



Mea 16.2 inches

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UNCORRECTED BINOCULAR NEAR RESULTS

- Mean near VA 20/32(±14.8)
- 90% read J3 or better
- Unaided stereopsis 71 arc seconds
- Near SE -1.11D
- Near eye near POF 38.14cm (15 inches)

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UNCORRECTED BINOCULAR NEAR RESULTS

- To focus at 38 cm requires 2.63D
- This sample of patients is seeing at that distance with 1.1D of planned myopia
- Suggests there is ~1.5D extended ROF
- Also unexplained by Sturm's interval with only 0.4D residual toricity

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WHAT DOES THIS MEAN?

- 95% Quite or extremely happy
- 50% are spectacle free 100% time
- 50% spectacle use 38% of the day
  - Near tasks
  - Prescription Sunglasses

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WHAT DOES THIS MEAN?

- With a lens that provides additional ROF a smaller amount of animesetropia is required to achieve good functional intermediate vision
- Patients without a Hx of monovision are candidates
- Little interruption in binocular acuity and stereoposis

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WHAT DOES THIS MEAN?

- Low risk of contrast loss
- Little neuroadaption
- Reduced need for spectacles

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