

SUPPORTING INFORMATION

Table S1.

Average UVC reflectance (R_a) (expressed as mean \pm SD; SD: standard deviation) of contact lenses new (zero time) and after 8, 24 and 168 hours of storage in the different lens care solutions.

		UVC R_a (%) (240-280 nm)					
	New		Renu	OptiFree	BioTrue	AOSept	p
Senofilcon A	13.55 \pm 3.28	8h	11.53 \pm 2.42	10.33 \pm 2.21	10.34 \pm 2.09	11.75 \pm 2.53	0.002
		24h	11.40 \pm 2.65	11.15 \pm 2.67	11.13 \pm 2.56	11.46 \pm 2.69	0.878
		168h	12.53 \pm 3.09	11.63 \pm 2.72	11.17 \pm 2.64	12.66 \pm 2.95	0.012
Lotrafilcon B	13.70 \pm 3.05	8h	13.81 \pm 2.67	13.31 \pm 3.08	12.70 \pm 2.73	13.10 \pm 2.92	0.137
		24h	11.71 \pm 2.36	12.10 \pm 2.54	11.63 \pm 2.40	12.04 \pm 2.60	0.603
		168h	12.41 \pm 2.27	12.75 \pm 2.46	12.98 \pm 2.67	12.94 \pm 2.36	0.671
Balafilcon A	13.67 \pm 3.06	8h	12.56 \pm 2.70	12.79 \pm 2.97	13.13 \pm 3.04	12.41 \pm 2.66	0.688
		24h	12.38 \pm 2.92	12.52 \pm 2.90	12.05 \pm 2.68	12.22 \pm 2.77	0.770
		168h	11.78 \pm 2.70	11.39 \pm 2.50	12.06 \pm 2.60	11.09 \pm 2.56	0.118
Comfilcon A	14.06 \pm 2.79	8h	12.05 \pm 2.24	13.64 \pm 2.87	11.70 \pm 2.29	10.71 \pm 2.08	0.006
		24h	12.84 \pm 2.58	12.46 \pm 2.49	12.12 \pm 2.39	11.84 \pm 2.44	0.148
		168h	13.64 \pm 2.87	12.83 \pm 2.82	13.10 \pm 2.51	12.17 \pm 2.45	0.020
Omafilcon A	14.57 \pm 3.08	8h	11.50 \pm 2.13	11.02 \pm 2.05	10.96 \pm 1.78	11.64 \pm 2.43	0.386
		24h	12.72 \pm 2.42	12.45 \pm 2.47	12.97 \pm 2.46	12.36 \pm 2.42	0.529
		168h	13.20 \pm 2.44	13.20 \pm 2.76	12.24 \pm 2.31	12.69 \pm 2.48	0.183

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S2.

Average UVB reflectance (R_a) (expressed as mean \pm SD; SD: standard deviation) of contact lenses new (zero time) and after 8, 24 and 168 hours of storage in the different lens care solutions.

		UVB R_a (%) (280-315 nm)					
	New		Renu	OptiFree	BioTrue	AOSept	p
Senofilcon A	8.40 \pm 3.28	8h	7.56 \pm 0.42	6.80 \pm 0.46	6.82 \pm 0.36	11.75 \pm 2.53	0.002
		24h	7.44 \pm 0.54	7.20 \pm 0.57	7.31 \pm 0.43	11.46 \pm 2.69	0.878
		168h	7.89 \pm 0.53	7.48 \pm 0.56	7.21 \pm 0.50	12.66 \pm 2.95	0.012
Lotrafilcon B	9.47 \pm 0.51	8h	9.54 \pm 0.58	8.95 \pm 0.43	8.52 \pm 0.51	9.07 \pm 0.48	<0.001
		24h	8.31 \pm 0.46	8.51 \pm 0.41	8.15 \pm 0.55	8.30 \pm 0.42	0.040
		168h	8.84 \pm 0.39	8.89 \pm 0.42	9.16 \pm 0.50	9.38 \pm 0.45	<0.001
Balafilcon A	9.06 \pm 0.63	8h	8.49 \pm 0.42	8.59 \pm 0.52	8.74 \pm 0.55	8.43 \pm 0.45	0.008
		24h	8.42 \pm 0.52	8.42 \pm 0.51	8.13 \pm 0.38	8.16 \pm 0.54	0.035
		168h	7.96 \pm 0.39	7.80 \pm 0.45	8.32 \pm 0.52	7.61 \pm 0.41	0.128
Comfilcon A	9.59 \pm 0.75	8h	8.50 \pm 0.43	8.16 \pm 0.37	8.23 \pm 0.43	7.76 \pm 0.42	<0.001
		24h	9.00 \pm 0.55	8.66 \pm 0.50	8.32 \pm 0.54	8.34 \pm 0.43	<0.001
		168h	9.45 \pm 0.45	8.72 \pm 0.41	8.96 \pm 0.47	8.50 \pm 0.46	<0.001
Omafilcon A	10.01 \pm 0.66	8h	8.29 \pm 0.40	7.89 \pm 0.34	7.81 \pm 0.42	8.12 \pm 0.39	<0.001
		24h	8.89 \pm 0.40	8.80 \pm 0.54	8.86 \pm 0.41	8.52 \pm 0.42	0.002
		168h	9.13 \pm 0.43	9.09 \pm 0.40	8.52 \pm 0.43	8.75 \pm 0.48	<0.001

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S3.

Average UVA reflectance (R_a) (expressed as mean \pm SD; SD: standard deviation) of contact lenses new (zero time) and after 8, 24 and 168 hours of storage in the different lens care solutions.

	UVA R_a (%) (315-400 nm)						p
	New		Renu	OptiFree	BioTrue	AOSept	
Senofilcon A	6.49 \pm 1.11	8h	5.86 \pm 0.88	5.29 \pm 0.73	5.41 \pm 0.70	6.13 \pm 0.87	<0.001
		24h	5.69 \pm 0.89	5.53 \pm 0.90	5.68 \pm 0.87	5.58 \pm 0.99	0.103
		168h	5.96 \pm 1.10	5.60 \pm 0.92	5.58 \pm 0.84	6.24 \pm 1.10	<0.001
Lotrafilcon B	7.56 \pm 1.38	8h	7.43 \pm 1.47	6.91 \pm 1.38	6.59 \pm 1.29	7.03 \pm 1.34	<0.001
		24h	6.47 \pm 1.13	6.73 \pm 1.13	6.20 \pm 1.15	6.47 \pm 1.20	0.001
		168h	7.10 \pm 1.21	6.94 \pm 1.31	7.13 \pm 1.32	7.41 \pm 1.28	0.006
Balafilcon A	7.29 \pm 1.35	8h	6.90 \pm 1.26	6.86 \pm 1.25	6.97 \pm 1.32	6.87 \pm 1.19	0.746
		24h	6.62 \pm 1.20	6.68 \pm 1.19	6.57 \pm 1.20	6.68 \pm 1.09	0.744
		168h	6.60 \pm 1.07	6.28 \pm 1.06	6.68 \pm 1.17	6.07 \pm 1.03	<0.001
Comfilcon A	7.26 \pm 1.40	8h	6.58 \pm 1.13	6.39 \pm 1.10	6.29 \pm 1.12	6.09 \pm 1.01	0.018
		24h	6.81 \pm 1.36	6.66 \pm 1.21	6.38 \pm 1.20	6.51 \pm 1.20	<0.001
		168h	7.17 \pm 1.45	6.71 \pm 1.33	6.83 \pm 1.33	6.46 \pm 1.32	<0.001
Omafilcon A	7.72 \pm 1.50	8h	6.53 \pm 1.11	6.34 \pm 1.05	6.20 \pm 1.05	6.35 \pm 1.13	0.029
		24h	7.04 \pm 1.27	6.82 \pm 1.25	6.94 \pm 1.29	6.81 \pm 1.26	0.274
		168h	7.39 \pm 1.28	7.06 \pm 1.25	6.70 \pm 1.18	6.97 \pm 1.22	<0.001

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S4.

	Visible R_a (%) (315-400 nm)						p
	New		Renu	OptiFree	BioTrue	AOSept	
Senofilcon A	4.10 \pm 0.45	8h	4.03 \pm 0.42	3.85 \pm 0.34	4.08 \pm 0.33	4.34 \pm 0.42	<0.001
		24h	3.81 \pm 0.37	3.58 \pm 0.40	3.73 \pm 0.38	3.43 \pm 0.37	<0.001
		168h	3.43 \pm 0.40	3.61 \pm 0.38	3.80 \pm 0.37	3.75 \pm 0.41	<0.001
Lotrafilcon B	4.28 \pm 0.43	8h	4.03 \pm 0.39	3.58 \pm 0.43	3.42 \pm 0.42	3.75 \pm 0.44	<0.001
		24h	3.63 \pm 0.41	3.88 \pm 0.39	3.27 \pm 0.39	3.42 \pm 0.43	<0.001
		168h	4.07 \pm 0.35	3.79 \pm 0.36	3.95 \pm 0.37	4.20 \pm 0.39	<0.001
Balafilcon A	4.24 \pm 0.30	8h	3.97 \pm 0.31	3.84 \pm 0.36	3.88 \pm 0.32	4.20 \pm 0.32	<0.001
		24h	3.78 \pm 0.30	3.90 \pm 0.32	3.78 \pm 0.29	4.05 \pm 0.33	<0.001
		168h	4.07 \pm 0.29	3.77 \pm 1.06	3.91 \pm 0.31	3.57 \pm 0.29	<0.001
Comfilcon A	4.08 \pm 0.29	8h	3.83 \pm 0.30	3.76 \pm 0.29	3.52 \pm 0.28	3.56 \pm 0.32	<0.001
		24h	3.65 \pm 0.33	3.76 \pm 0.33	3.52 \pm 0.28	3.68 \pm 0.28	<0.001
		168h	3.67 \pm 0.31	3.67 \pm 0.31	3.68 \pm 0.34	3.47 \pm 0.28	<0.001
Omafilcon A	4.05 \pm 0.43	8h	3.71 \pm 0.37	3.67 \pm 0.34	3.61 \pm 0.33	3.51 \pm 0.35	<0.001
		24h	3.84 \pm 0.43	3.79 \pm 0.35	3.87 \pm 0.33	3.86 \pm 0.34	<0.001

	168h	4.20±0.38	3.96±0.37	3.77±0.35	3.99±0.36	<0.001
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Average Visible reflectance (R_v) (expressed as mean \pm SD; SD: standard deviation) of contact lenses new (zero time) and after 8, 24 and 168 hours of storage in the different lens care solutions.

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S5.

Average UVC absorbance (A_u) (expressed as mean \pm SD; SD: standard deviation) of lens care solutions new (zero time) and after 8, 24 and 168 hours of storage with the different contact lenses.

		UVC A_u (%) (240-280 nm)						
	New	Senofilcon A	Lotrafilcon B	Balafilcon A	Comfilcon A	Omafilcon A	p	
Renu	0.78±0.94	8h 0.76±0.91	0.79±0.91	0.78±0.90	0.85±0.92	0.79±0.88	0.285	
		24h 0.78±0.92	0.81±0.92	0.80±0.92	0.82±0.91	0.82±0.90	0.602	
		168h 0.83±0.97	0.82±0.93	0.81±0.94	0.79±0.90	0.79±0.89	0.913	
OptiFree	0.52±0.75	8h 0.54±0.75	0.61±0.77	0.58±0.76	0.59±0.74	0.55±0.74	0.091	
		24h 0.58±0.76	0.60±0.76	0.58±0.76	0.58±0.76	0.60±0.77	0.597	
		168h 0.62±0.79	0.61±0.78	0.59±0.77	0.59±0.77	0.60±0.79	0.397	
BioTrue	0.29±0.32	8h 0.29±0.31	0.35±0.33	0.31±0.30	0.32±0.34	0.31±0.33	0.062	
		24h 0.34±0.33	0.36±0.34	0.33±0.32	0.34±0.33	0.32±0.33	0.523	
		168h 0.37±0.34	0.37±0.34	0.35±0.34	0.33±0.33	0.32±0.34	0.052	
AOSept	0.10±0.04	8h 0.09±0.04	0.11±0.06	0.11±0.05	0.10±0.06	0.11±0.04	<0.001	
		24h 0.09±0.04	0.11±0.05	0.12±0.05	0.09±0.04	0.18±0.03	<0.001	
		168h 0.11±0.05	0.16±0.06	0.18±0.06	0.17±0.06	0.12±0.04	<0.001	

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S6.

Average UVB absorbance (A_u) (expressed as mean \pm SD; SD: standard deviation) of lens care solutions new (zero time) and after 8, 24 and 168 hours of storage with the different contact lenses.

		UVB A_u (%) (200-280 nm)						
	New	Senofilcon A	Lotrafilcon B	Balafilcon A	Comfilcon A	Omafilcon A	p	
Renu	0.01±0.00	8h 0.02±0.00	0.03±0.01	0.04±0.01	0.07±0.01	0.04±0.01	<0.001	
		24h 0.03±0.01	0.04±0.01	0.04±0.01	0.05±0.01	0.04±0.01	<0.001	
		168h 0.04±0.01	0.04±0.01	0.03±0.01	0.04±0.01	0.04±0.01	0.001	
OptiFree	0.01±0.00	8h 0.02±0.00	0.04±0.01	0.04±0.01	0.06±0.01	0.03±0.01	<0.001	
		24h 0.04±0.01	0.04±0.01	0.04±0.01	0.04±0.01	0.05±0.01	<0.001	
		168h 0.06±0.01	0.06±0.01	0.04±0.01	0.04±0.01	0.04±0.01	<0.001	
BioTrue	0.02±0.00	8h 0.03±0.01	0.05±0.01	0.05±0.01	0.04±0.01	0.04±0.01	<0.001	
		24h 0.06±0.01	0.05±0.01	0.06±0.01	0.05±0.01	0.05±0.01	<0.001	
		168h 0.07±0.01	0.05±0.01	0.06±0.01	0.05±0.01	0.04±0.01	<0.001	
AOSept	0.03±0.01	8h 0.01±0.01	0.03±0.01	0.03±0.01	0.02±0.01	0.03±0.01	<0.001	
		24h 0.02±0.01	0.03±0.01	0.03±0.01	0.02±0.01	0.06±0.03	<0.001	
		168h 0.03±0.01	0.03±0.01	0.03±0.01	0.03±0.01	0.02±0.01	<0.001	

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S7.

Average UVA absorbance (A_a) (expressed as mean \pm SD; SD: standard deviation) of lens care solutions new (zero time) and after 8, 24 and 168 hours of storage with the different contact lenses.

		UVA A_a (%) (315-400 nm)						
	New	Senofilcon A	Lotrafilcon B	Balafilcon A	Comfilcon A	Omafilcon A	p	
Renu	0.00 \pm 0.00	8h 0.01 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.01	<0.001	
		24h 0.01 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	<0.001	
		168h 0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	<0.001	
OptiFree	0.00 \pm 0.00	8h 0.01 \pm 0.00	0.02 \pm 0.01	0.02 \pm 0.01	0.03 \pm 0.01	0.01 \pm 0.01	<0.001	
		24h 0.02 \pm 0.01	0.02 \pm 0.01	0.02 \pm 0.00	0.02 \pm 0.00	0.03 \pm 0.01	<0.001	
		168h 0.03 \pm 0.01	0.03 \pm 0.01	0.03 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.01	<0.001	
BioTrue	0.01 \pm 0.00	8h 0.01 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.01	<0.001	
		24h 0.03 \pm 0.01	0.02 \pm 0.00	0.03 \pm 0.00	0.03 \pm 0.01	0.02 \pm 0.00	<0.001	
		168h 0.04 \pm 0.01	0.03 \pm 0.01	0.03 \pm 0.00	0.03 \pm 0.01	0.02 \pm 0.00	<0.001	
AOSept	0.01 \pm 0.00	8h 0.00 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	<0.001	
		24h 0.01 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	0.00 \pm 0.00	0.01 \pm 0.00	<0.001	
		168h 0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.00 \pm 0.00	0.01 \pm 0.00	<0.001	

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).

Table S8.

Average visible absorbance (A_a) (expressed as mean \pm SD; SD: standard deviation) of lens care solutions new (zero time) and after 8, 24 and 168 hours of storage with the different contact lenses.

		Visible A_a (%) (400-700 nm)						
	New	Senofilcon A	Lotrafilcon B	Balafilcon A	Comfilcon A	Omafilcon A	p	
Renu	0.00 \pm 0.00	8h 0.00 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.03 \pm 0.00	0.01 \pm 0.00	<0.001	
		24h 0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	<0.001	
		168h 0.01 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	<0.001	
OptiFree	0.00 \pm 0.00	8h 0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	0.01 \pm 0.00	<0.001	
		24h 0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	<0.001	
		168h 0.02 \pm 0.00	0.02 \pm 0.00	0.02 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	<0.001	
BioTrue	0.00 \pm 0.01	8h 0.00 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	<0.001	
		24h 0.02 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	0.01 \pm 0.00	0.02 \pm 0.00	<0.001	
		168h 0.02 \pm 0.00	0.02 \pm 0.00	0.03 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	<0.001	
AOSept	0.01 \pm 0.00	8h 0.00 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	<0.001	
		24h 0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.00 \pm 0.00	0.01 \pm 0.00	<0.001	
		168h 0.01 \pm 0.00	0.01 \pm 0.00	0.01 \pm 0.00	0.00 \pm 0.00	0.00 \pm 0.00	<0.001	

Statistically significant differences between the groups are presented in bold ($p \leq 0.05$).