

Table S1: Measures of association between net treatments and mortality for susceptible *An. gambiae* Kisumu in cone bioassays

Reference LLIN	Candidate LLIN	AOR (95% CI)	p-Value
Untreated 0x	Untreated 20x	0.29 (0.09 – 0.89)	0.031
Untreated 0x	IG2 36m	20.89 (7.72 – 56.50)	<0.001
Untreated 0x	Unused IG2 20x	11.91 (4.59 – 30.87)	<0.001
Untreated 0x	Unused IG2 0x	9.96 (3.88 – 25.62)	<0.001
Untreated 0x	Unused Olyset Plus 0x	59.69 (18.52 – 192.32)	<0.001
Untreated 0x	Unused Olyset Plus 20x	5.28 (2.08 – 13.36)	<0.001
Untreated 0x	Olyset Plus 36 months	5.28 (2.08 – 13.36)	<0.001
Untreated 20x	IG2 36m	71.83 (27.71 – 186.20)	<0.001
Untreated 20x	Unused IG2 20x	40.94 (16.51 – 101.52)	<0.001
Untreated 20x	Unused IG2 0x	34.26 (13.94 – 84.22)	<0.001
Untreated 20x	Unused Olyset Plus 0x	205.26 (66.03 – 638.04)	<0.001
Untreated 20x	Unused Olyset Plus 20x	18.14 (7.50 – 43.89)	<0.001
Untreated 20x	Olyset Plus 36 months	18.14 (7.50 – 43.89)	<0.001
IG2 36m	Unused IG2 20x	0.57 (0.27 – 1.20)	0.138
IG2 36m	Unused IG2 0x	0.48 (0.23 – 0.99)	0.048
IG2 36m	Unused Olyset Plus 0x	2.86 (1.05 – 7.81)	0.041
IG2 36m	Unused Olyset Plus 20x	0.25 (0.12 – 0.52)	<0.001
IG2 36m	Olyset Plus 36 months	0.25 (0.12 – 0.52)	<0.001
Unused IG2 20x	Unused IG2 0x	0.84 (0.43 – 1.65)	0.606
Unused IG2 20x	Unused Olyset Plus 0x	5.01 (1.91 – 13.15)	0.001
Unused IG2 20x	Unused Olyset Plus 20x	0.44 (0.23 – 0.85)	0.015
Unused IG2 20x	Olyset Plus 36 months	0.44 (0.23 – 0.85)	0.015
Unused IG2 0x	Unused Olyset Plus 0x	5.99 (2.30 – 15.59)	<0.001
Unused IG2 0x	Unused Olyset Plus 20x	0.52 (0.28 – 1.01)	0.053
Unused IG2 0x	Olyset Plus 36 months	0.52 (0.28 – 1.01)	0.053
Unused Olyset Plus 0x	Unused Olyset Plus 20x	0.09 (0.03 – 0.23)	<0.001
Unused Olyset Plus 0x	Olyset Plus 36 months	0.09 (0.03 – 0.23)	<0.001
Unused Olyset Plus 20x	Olyset Plus 36 months	1.00 (0.54 – 1.87)	1.000

Table S2: Measures of association between net treatments and mortality for pyrethroid resistant *An. gambiae* Muleba-kis in cone bioassays

Reference LLIN	Candidate LLIN	AOR (95% CI)	p-Value
Untreated 0x	Untreated 20x	0.37 (0.11 – 1.28)	0.116
Untreated 0x	IG2 36m	1.62 (0.54 – 4.83)	0.389
Untreated 0x	Unused IG2 20x	1.49 (0.49 – 4.48)	0.480
Untreated 0x	Unused IG2 0x	5.49 (1.94 – 15.52)	0.001
Untreated 0x	Unused Olyset Plus 0x	279.84 (51.54 – 1519.49)	<0.001
Untreated 0x	Unused Olyset Plus 20x	1.00 (0.32 – 3.16)	1.000
Untreated 0x	Olyset Plus 36 months	12.50 (4.39 – 35.56)	<0.001
Untreated 20x	IG2 36m	4.40 (1.63 – 11.92)	0.004
Untreated 20x	Unused IG2 20x	4.05 (1.48 – 11.04)	0.006
Untreated 20x	Unused IG2 0x	14.95 (5.87 – 38.06)	<0.001
Untreated 20x	Unused Olyset Plus 0x	761.26 (149.08 – 3887.37)	<0.001
Untreated 20x	Unused Olyset Plus 20x	2.72 (0.95 – 7.82)	0.063
Untreated 20x	Olyset Plus 36 months	33.99 (13.24 – 87.28)	<0.001
IG2 36m	Unused IG2 20x	0.92 (0.41 – 2.06)	0.837
IG2 36m	Unused IG2 0x	3.40 (1.66 – 6.95)	0.001
IG2 36m	Unused Olyset Plus 0x	172.91 (37.99 – 787.06)	<0.001
IG2 36m	Unused Olyset Plus 20x	0.62 (0.26 – 1.48)	0.278
IG2 36m	Olyset Plus 36 months	7.72 (3.73 – 15.98)	<0.001
Unused IG2 20x	Unused IG2 0x	3.69 (1.78 – 7.66)	<0.001
Unused IG2 20x	Unused Olyset Plus 0x	188.18 (41.10 – 861.57)	<0.001
Unused IG2 20x	Unused Olyset Plus 20x	0.67 (0.28 – 1.62)	0.377
Unused IG2 20x	Olyset Plus 36 months	8.40 (4.01 – 17.60)	<0.001
Unused IG2 0x	Unused Olyset Plus 0x	50.93 (11.67 – 222.34)	<0.001
Unused IG2 0x	Unused Olyset Plus 20x	0.18 (0.08 – 0.40)	<0.001
Unused IG2 0x	Olyset Plus 36 months	2.27 (1.20 – 4.30)	0.012
Unused Olyset Plus 0x	Unused Olyset Plus 20x	0.00 (0.00 – 0.02)	<0.001
Unused Olyset Plus 0x	Olyset Plus 36 months	0.04 (0.01 – 0.20)	<0.001
Unused Olyset Plus 20x	Olyset Plus 36 months	12.50 (5.57 – 28.04)	<0.001

Table S3: Fabric strength results for the unwashed and washed Interceptor G2 and Olyset Plus LLINs

Fabric Strength Test		Net Type						Relative Expand. Uncertainty (K=2)
		Interceptor G2			Olyset Plus			
		New Unwashed	New Washed at Laboratory 20 Times	36 Months Old, Washed Several Times	New Unwashed	New Washed at Laboratory 20 Times	36 Months Old, Washed Several Times	
Mean bursting strength (kPa)		430	390	376	330	340	337	15%
Mean fabric weight (g/m ²)		47.2	45.8	48.2	38.7	44.3	49.4	3.2%
Modified, Grab method , with hooks: Mean tensile strengt h (N)	Length	19	21	18	19	25	18	N/A
	Width	24	26	21	21	30	23	
Grab method , Mean tensile strengt h (N)	Length	224	210	196	184	182	160	16%
	Width	148	132	95.4	92.4	87.6	90.8	
Mean mesh size (holes/cm ²)		31	29	30	16	21	22	N/A
Tear strengt h, (N)	Length	17	13.8	14.1	9.9	13.6	7.5	12%
	Width	15	19	6.9	5.0	21.4	10	

Values given represent a mean of five tests (from 5 samples) per net. N = Newton (standard unit of force)