# **Supplementary material**



## Figure e-1

This figure shows the HAF 10-2 fields (top) and R-R fields (bottom) for the patient who was excluded from the study (LE = left and RE = right eye). Clinically he had a right homonymous hemianopia (as judged by confrontation testing, here used as the 'gold-standard'), but struggled, due to poor attention, with the HP test. The shorter R-R test provided a more veridical representation of his visual fields. This demonstrates that some patients may be better suited to the R-R test than standard automated perimetry.

s1

## Figure e-2



This figure shows the HP pattern deviation fields (top) and R-R fields (bottom) for a patient with a relatively unusual homonymous scotoma involving right foveal/parafoveal vision that reduced her text reading speed. Her binocular Esterman field was normal and she was allowed to drive. This demonstrates that R-R can identify subtle homonymous field defects.

Subject	Age (years)	time since onset (years)	Cause	Gender	Impaired field	Degrees of sparing
1	32.74	2.93	AVM	F	RHH	0
2	53.04	1.11	H_St	М	LUQ	2
3	29.29	1.94	ні	М	LHH	0
4	37.5	11.94	AVM	М	RHH	0
5	68.61	3.95	I_St	М	RHH	2
6	71.16	10	I_St	М	RHH	0
7	46.01	3.96	AVM	F	LHH	0
8	66.93	0.43	I_St	М	RUQ	6
9	59.67	3.98	I_St	М	LUQ	0
10	74.67	1.07	I_St	F	LHH	0
11	59.11	4.46	Tumour	М	RHH	8
12	63.82	0.61	I_St	М	LLQ	2
13	47.35	14.98	H_St	F	LLQ	2
14	25.8	2.02	I_St	F	RUQ	6
15	62.68	2.04	I_St	М	RUQ	2
16	66.73	1.27	I_St	М	RHH	4
17	30.75	12.02	Tumour	М	RUQ	6
18	57.45	1.55	I_St	М	RLQ	4
19	79.66	2.74	Tumour	F	LHH	0
20	52.75	1.73	I_St	М	RHH	2
21	46.28	0.43	I_St	F	LLQ	2
22	55.12	1.52	I_St	F	RLQsc	2+

Demographics for the 22 participants. Cause: AVM = arteriovenous malformation (de novo or post intervention); HI = head injury; H\_St = heamorrhagic stroke; I\_St = ischaemic stroke. Impaired field for (L)eft and (R)ight: HH = homonymous hemianopia; LQ = lower quadranopia; LQsc = lower quadrant scotoma; UQ = upper quadranopia. Degrees of sparing in affected field; 2+ indicates normal vision beyond 2 degrees in the scotoma case.

	Kappa map (Affected side) H10 vs R-R							
Degrees	1	2.5	5	10				
Карра		0.567						
р		0.003						
Карра	0.545	0.636	0.727	1				
р	0.010	0.003	<0.001	<0.001				
Карра		0.468						
р		0.019						

Table e-2: Kappa values (dark grey) and associated p values (light grey) for the affected hemi-field. Each R-R point is represented spatially as in figure 1 (i.e.: middle row = points on the horizontal meridian).

		Sensitivity and specificity map H24 vs R-R						
		Unaf	fected side		Affected side			
Degrees	10	5	2.5	1	1	2.5	5	10
Sensitivity			1			0.5		
Specificity						0.88		
Sensitivity	0.95							1
Specificity								1
Sensitivity			1			0.55		
Specificity						0.91		

Table e-3: Sensitivities (dark grey) and specificities (light grey) for unaffected (left) and affected (right) hemi-fields. Each R-R point

(three in each hemi-field) is represented spatially as in figure 1 (i.e.: middle row = points on the horizontal meridian).

	Kappa map (Affected side) H24 vs R-R						
Degrees	1	2.5	5	10			
Карра		0.323					
р		0.079					
Карра				1			
р				<0.001			
Карра		0.468					
р		0.019					

Table e-4: Kappa values (dark grey) and associated p values (light grey) for the affected hemi-field. Each R-R point is represented spatially as in figure 1 (i.e.: middle row = points on the horizontal meridian).