## **Supplementary Table 1.** Baseline characteristics of the high outliers, non-outliers and low outliers classified by the funnel plot before the COVID-19 pandemic.

	Overall	High outliers	Non-outliers	Low outliers
No. of ophthalmologists	45	5	37	3
No. of eyes	1825	142	1393	290
-	25.0	13.0	25.0	118.0
No. of eyes per ophthalmologist	[9.0, 60.0]	[10.0, 46.0]	[8.0, 45.0]	[86.0, 118.0]
Male	628 (39%)	36 (29%)	477 (39%)	115 (46%)
Age, years	80.5 (8.5)	82.8 (7.6)	80.9 (8.0)	77.3 (10.0)
Visual acuity				
Letters	60.6 (18.2)	57.6 (20.1)	61.5 (17.4)	57.9 (20.9)
<=35 letters	197 (11%)	20 (14%)	127 (9.1%)	50 (17%)
>=70 letters	739 (40%)	52 (37%)	561 (40%)	126 (43%)
Type of initial injection				
Aflibercept	874 (48%)	40 (28%)	657 (47%)	177 (61%)
Bevacizumab	118 (6.5%)	7 (4.9%)	107 (7.7%)	4 (1.4%)
Ranibizumab	833 (46%)	95 (67%)	629 (45%)	109 (38%)

Values are presented as mean (standard deviation), median [interquartile range] or N (%).

**Supplementary Table 2.** Treatments delivered and the proportion of visits when CNV was active during 12 months for the high outliers, non-outliers and low outliers classified by the funnel plot before the COVID-19 pandemic.

		Non-outliers		High outliers vs. non-outliers		Non-outliers vs. low outliers		High outliers vs. low outliers	
	High outliers		Low outliers	Difference (95% CI)	Р	Difference (95% CI)	Р	Difference (95% Cl)	Р
No. of ophthalmologists	5	37	3	-	-	-	-	-	-
No. of eyes	142	1393	290	-	-	-	-	-	-
VA change, letters	9.7 (16.0)	5.0 (14.2)	1.1 (17.0)	_	-	_	_	_	_
Treatments delivered									
Injections, n	8.2 (2.6)	8.3 (2.2)	7.8 (1.7)	-0.1 (-0.5 to 0.4)	0.88	-0.5 (-0.8 to -0.1)	0.003	0.4 (-0.2 to 0.9)	0.23
Last injection interval , weeks	9.2 (4.8)	9.7 (5.7)	10.3 (7.0)	-0.5 (-1.7 to 0.7)	0.63	0.7 (-0.2 to 1.5)	0.18	-1.1 (-2.5 to 0.3)	0.14
Visits, n	8.6 (2.1)	8.7 (2.3)	8.0 (1.7)	-0.1 (-0.6 to 0.4)	0.86	-0.8 (-1.1 to -0.4)	<0.001	0.7 (0.1 to 1.2)	0.009
Proportion of Treatment visits	95% (15%)	95% (11%)	98% (5.7%)	0.03% (-2.2% to 2.3%)	>0.99	3.4% (1.7% to 5.1%)	<0.001	-3.3% (-6% to -0.7%)	0.009
Other outcomes									
Proportion of visits when CNV was active	44% (27%)	52% (30%)	81% (28%)	-8.1% (-14% to -2%)	0.005	29% (24% to 33%)	<0.001	-37% (-44% to -29%)	<0.001
Achievement of inactivation at least once within 12 months	133 (94%)	1222 (88%)	129 (44%)	5.9% (-1.4% to 13%)	0.14	-43% (-49% to -38%)	<0.001	49% (41% to 58%)	<0.001
Time to initial inactivation, weeks <sup>a</sup>	7 [5 to 8]	9 [8.9 to 10]	55 [53 to NA]	· · · ·	<0.001	· · · · ·	<0.001	· · ·	<0.001

Values represent n (%) or mean (standard deviation) except that time to initial inactivation is represented as median time [95% CI]. Multiplicity adjustments were performed using the Tukey method except for time to initial inactivation.

<sup>a</sup> P values are based on the comparison of survival curves (Supplementary Figure 3). Multiplicity adjustments were performed using the Benjamini-Hochberg method. Note that log-rank tests do not calculate 95% confidence intervals.

CVN = choroidal neovascularization; CI = confidence interval; SRF = subretinal fluid; VA = visual acuity.



## Supplementary Figure 1. Cumulative incidence curves of initial lesion inactivation.

Cumulative incidences of initial lesion inactivation are shown by the groups. The logrank tests showed that the curve for the low outliers was significantly different from those for the high outliers (P < 0.001) and non-outliers (P < 0.001), whereas there was no significant difference between the curves for the high outliers and nonoutliers (P = 0.62). **Supplementary Figure 2.** Funnel plots with the indicator of the change in visual acuity at 12 months using the data before COVID-19 pandemic.



Each dot represents one ophthalmologist (orange, high outliers; grey, non-outliers; blue, low outliers). The x-axis represents the expected number of eyes adjusted by the case-mix factors at baseline such as age, gender, visual acuity the initial type of vascular endothelial growth factor inhibitors. The y-axis represents the difference between the observed and expected values. The central dot lines represent the reference standard. The 95% limits are constructed by the non-parametric method.

## Reference:

Kuhrij L, Van Zwet E, Van Den Berg-Vos R, et al. Enhancing feedback on performance measures: the difference in outlier detection using a binary versus continuous outcome funnel plot and implications for quality improvement. BMJ Qual Saf 2021;30:38–45.



**Supplementary Figure 3.** Cumulative incidence curves of initial inactivation using the data before COVID-19 pandemic.

Cumulative incidences of initial lesion inactivation when data was restricted to before COVID-19 pandemic are shown by the groups . The log-rank tests showed that the curve for the low outliers was significantly different from those for the high outliers (P < 0.001) and non-outliers (P < 0.001), whereas there was no significant difference between the curves for the high outliers and non-outliers (P = 0.14).