

Supplementary Material 4 - Summary of distribution of secondary ordinal endpoints in ASCOT

Table 1: Distribution of breathlessness scale

Category	Low Dose (n = 115)	Intermediate Dose (n = 110)
Grade 0	40 (34.8%)	50 (45.5%)
Grade 1	47 (40.9%)	39 (35.5%)
Grade 2	12 (10.4%)	11 (10.0%)
Grade 3	14 (12.2%)	8 (7.3%)
Grade 4	2 (1.7%)	2 (1.8%)

Table 2: Distribution of WHO 8-point scale

Category	Low Dose (n = 597)	Intermediate Dose (n = 607)
1 - Not hospitalized, no limitations on activities	424 (71.0%)	445 (73.3%)
2 - Not hospitalized, limitations on activities	147 (24.6%)	142 (23.4%)
3 - Hospitalized, not requiring supplemental oxygen and no longer requiring ongoing medical care	2 (0.3%)	0 (0.0%)
4 - Hospitalized, not requiring supplemental oxygen but requiring ongoing medical care	3 (0.5%)	1 (0.2%)
5 - Hospitalized, requiring supplemental oxygen	2 (0.3%)	0 (0.0%)
6 - Hospitalized, on non-invasive ventilation or high flow oxygen devices	0 (0.0%)	2 (0.3%)
7 - Hospitalized, on invasive mechanical ventilation or ECMO	0 (0.0%)	2 (0.3%)
8 - Death	19 (3.2%)	15 (2.5%)

Table 3: Distribution of Days Alive and Free of Ventilation scale

Category	Low Dose (n = 599)	Intermediate Dose (n = 607)
0 (death)	19 (3.2%)	15 (2.5%)
1	0 (0.0%)	1 (0.2%)
2	0 (0.0%)	1 (0.2%)
3	0 (0.0%)	0 (0.0%)
4	0 (0.0%)	0 (0.0%)
5	0 (0.0%)	1 (0.2%)
6	0 (0.0%)	0 (0.0%)
7	0 (0.0%)	0 (0.0%)
8	0 (0.0%)	0 (0.0%)
9	1 (0.2%)	0 (0.0%)
10	1 (0.2%)	0 (0.0%)
11	0 (0.0%)	0 (0.0%)
12	2 (0.3%)	0 (0.0%)
13	0 (0.0%)	0 (0.0%)
14	0 (0.0%)	0 (0.0%)
15	0 (0.0%)	0 (0.0%)
16	0 (0.0%)	0 (0.0%)
17	0 (0.0%)	0 (0.0%)
18	0 (0.0%)	0 (0.0%)
19	1 (0.2%)	0 (0.0%)
20	1 (0.2%)	1 (0.2%)
21	0 (0.0%)	1 (0.2%)
22	0 (0.0%)	0 (0.0%)
23	1 (0.2%)	1 (0.2%)
24	2 (0.3%)	0 (0.0%)
25	1 (0.2%)	1 (0.2%)
26	3 (0.5%)	1 (0.2%)
27	2 (0.3%)	2 (0.3%)
28	565 (94.3%)	582 (95.6%)

Table 4: Distribution of Days Alive and Free of Hospitalisation scale

Category	Low Dose (n = 600)	Intermediate Dose (n = 609)
0 (death)	25 (4.2%)	20 (3.3%)
1	0 (0.0%)	0 (0.0%)
2	0 (0.0%)	0 (0.0%)
3	1 (0.2%)	0 (0.0%)
4	0 (0.0%)	1 (0.2%)
5	0 (0.0%)	0 (0.0%)
6	1 (0.2%)	1 (0.2%)
7	0 (0.0%)	1 (0.2%)
8	1 (0.2%)	1 (0.2%)
9	1 (0.2%)	1 (0.2%)
10	4 (0.7%)	1 (0.2%)
11	1 (0.2%)	0 (0.0%)
12	8 (1.3%)	0 (0.0%)
13	3 (0.5%)	1 (0.2%)
14	1 (0.2%)	1 (0.2%)
15	3 (0.5%)	1 (0.2%)
16	8 (1.3%)	8 (1.3%)
17	10 (1.7%)	5 (0.8%)
18	11 (1.8%)	10 (1.6%)
19	22 (3.7%)	14 (2.3%)
20	33 (5.5%)	38 (6.2%)
21	53 (8.8%)	59 (9.7%)
22	82 (13.7%)	94 (15.4%)
23	134 (22.3%)	143 (23.5%)
24	98 (16.3%)	96 (15.8%)
25	79 (13.2%)	84 (13.8%)
26	16 (2.7%)	28 (4.6%)
27	5 (0.8%)	1 (0.2%)
28	0 (0.0%)	0 (0.0%)

We present the remaining analyses from the case study below. Note: since no patient fell in the highest category for the outcome corresponding to number of hospital free days or days alive, a cut-point OR cannot be estimated and results from the remaining 27 cumulative logits are presented.

Figure 1: Posterior median and 95% credible intervals of cut-point log-ORs for the 29-point number of ventilator free days and days alive in the Australasian COVID-19 Trial obtained under the five analysis methods

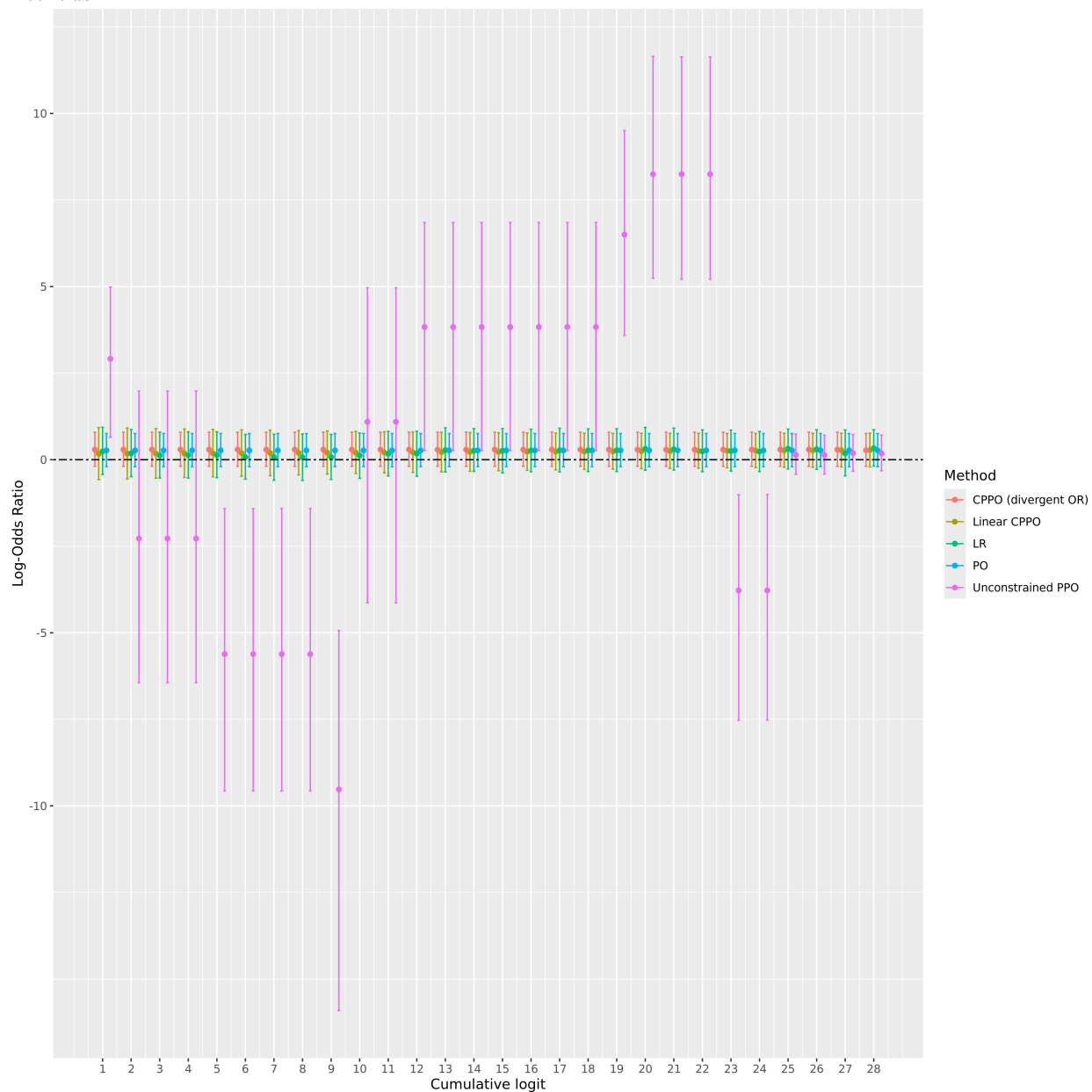
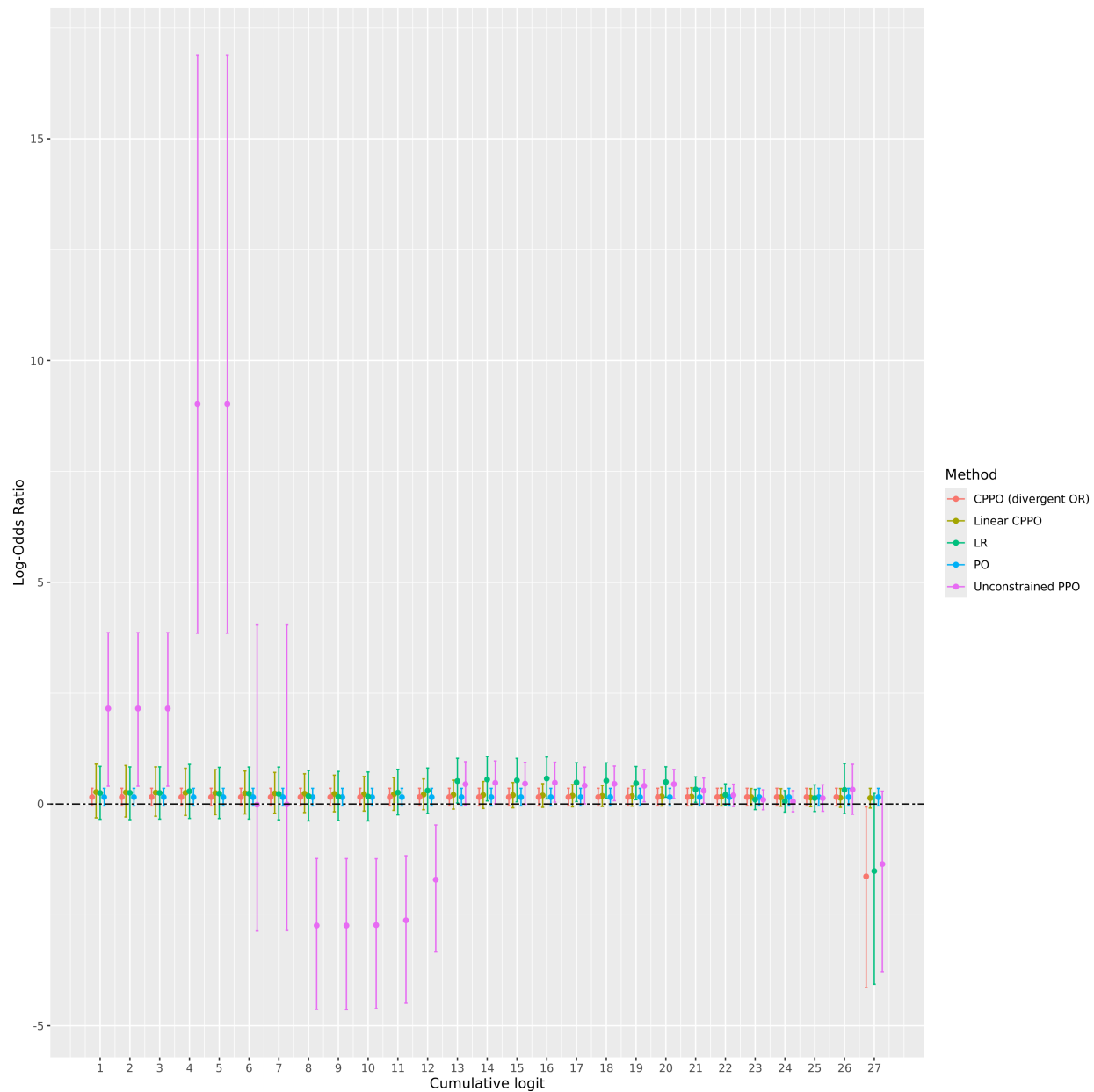


Figure 2: Posterior median and 95% credible intervals of cut-point log-ORs for the 29-point number of hospital free days and days alive in the Australasian COVID-19 Trial obtained under the five analysis methods



In this section, we combined ordinal outcome categories with sparse observations to evaluate the impact of category collapsing on treatment effect estimation.

Figure 3: Posterior median and 95% credible intervals of cut-point log-ORs for the 8-point WHO Clinical Progression Scale in the Australasian COVID-19 Trial obtained under the five analysis methods

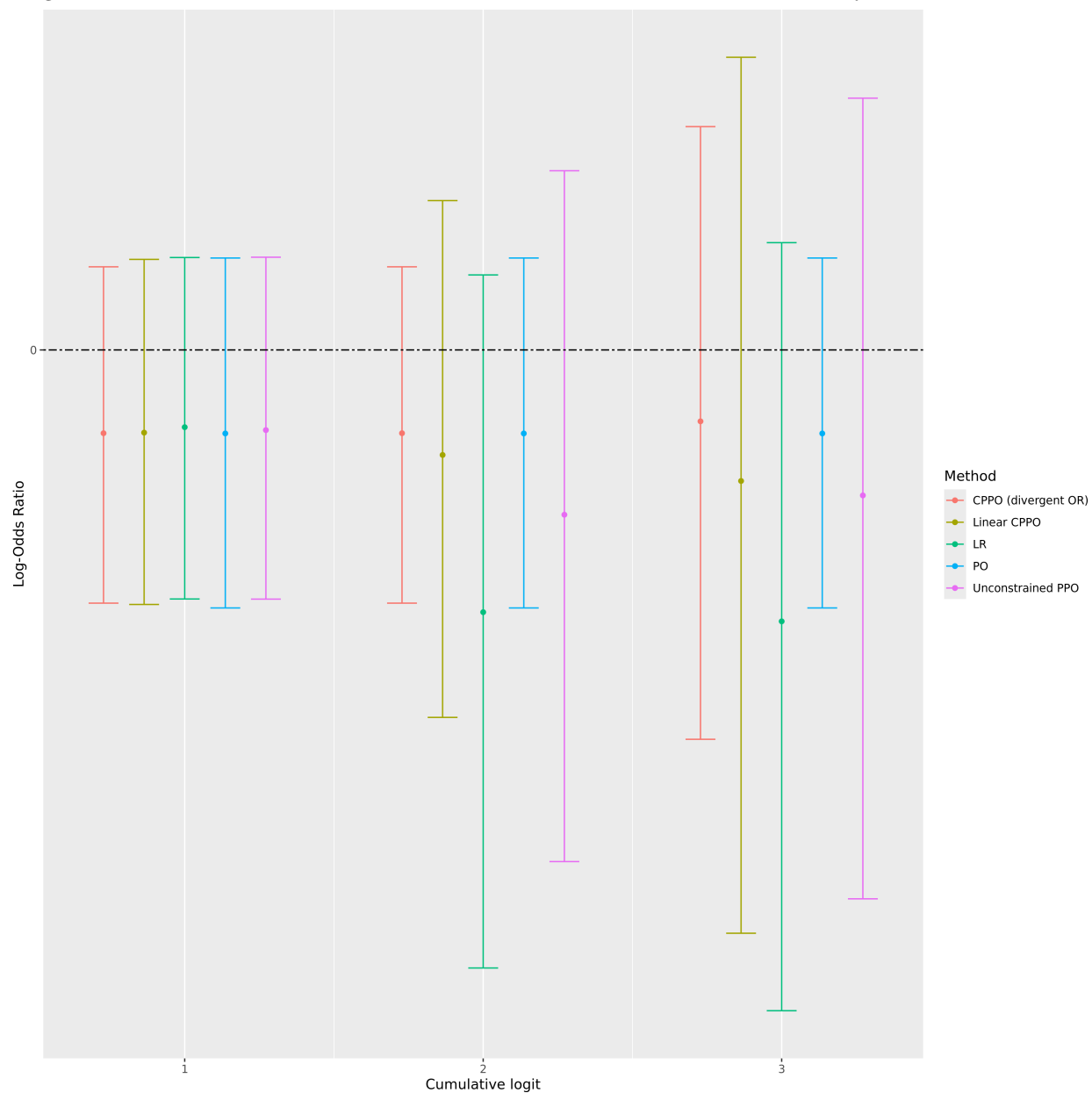


Figure 4: Posterior median and 95% credible intervals of cut-point log-ORs for the 29-point number of ventilator free days and days alive in the Australasian COVID-19 Trial obtained under the five analysis methods

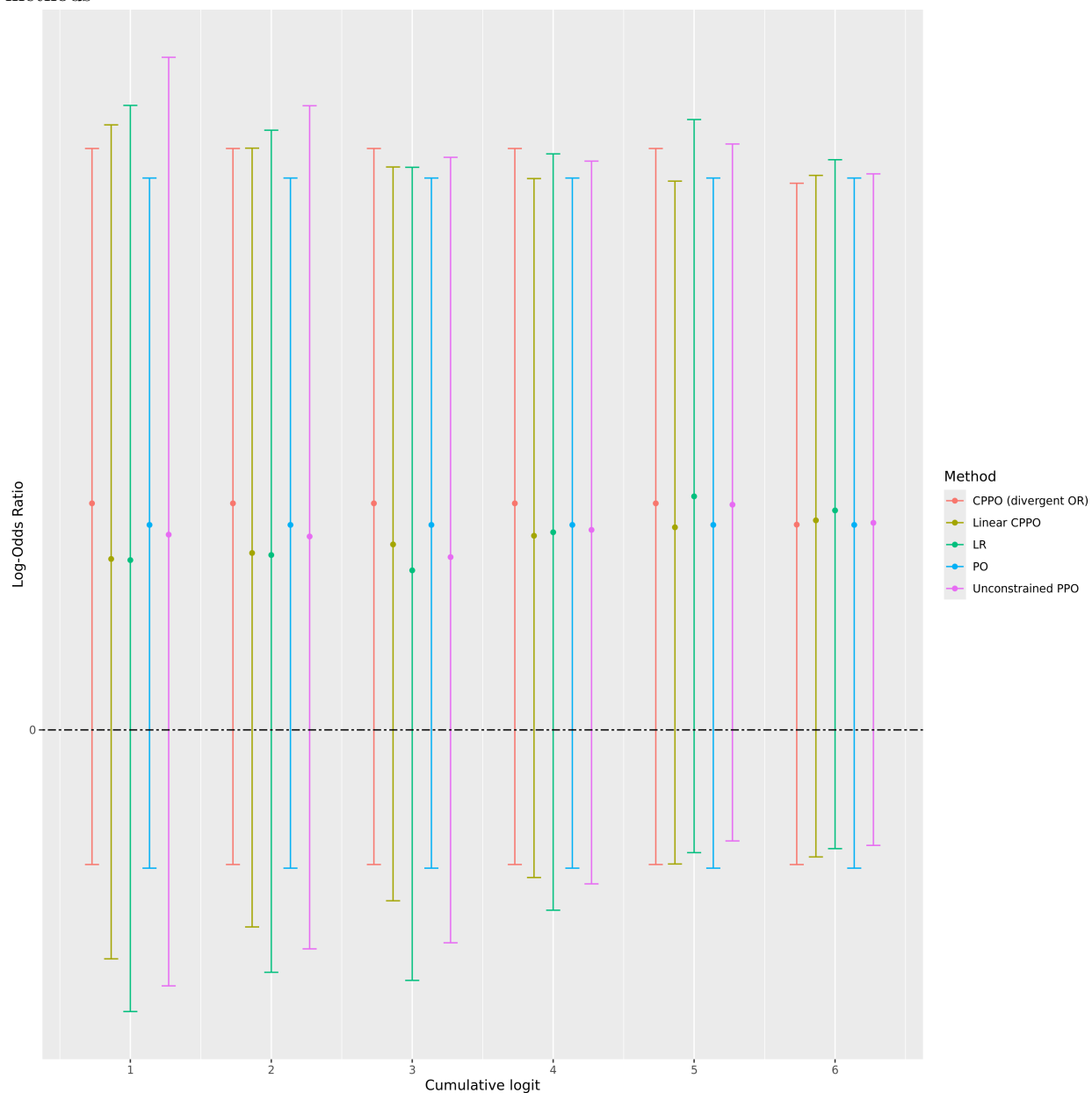


Figure 5: Posterior median and 95% credible intervals of cut-point log-ORs for the 29-point number of hospital free days and days alive in the Australasian COVID-19 Trial obtained under the five analysis methods

