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| --- | --- | --- | --- |
| **Parameter** | **Description** | **Prior point estimate** | **Prior** |
| **Viral kinetics model** | | | |
| *VLpeak* | Modal peak viral load (log10 RNA copies / ml) | 9.06 | Normal(9.06,1) |
| *tpeak* | Time from infection to peak viral load | 5.00 days | Fixed |
| *VLzero* | Initial log10 viral load | 0.00 | Fixed |
| *tshift* | Time from infection to initial viral growth | 0.00 days | Fixed |
| *tswitch* | Time from peak viral load to secondary waning phase | 7.60 days | Normal(7.60, 3) |
| *VLswitch* | Modal viral load at *a=tswitch* | 6.47 | Normal(6.47, 1) |
| *tLOD* | Time from *tswitch* until modal viral load is equal to the limit of detection | 29.6 days | Normal(29.6, 3) |
| *paddl* | Daily probability of detectability loss | 0.0777 | Beta(6.10, 72.5) |
| *VLLOD* | Limit of detection (log10 RNA copies / ml) | 3.00 | Fixed |
| *CtLOD* | Limit of detection (Ct) | 40.0 | Fixed |
| *σobs* | Scale parameter for the Gumbel distribution | 5.54 | Normal(5.54, 1) |
| **SEEIRR Model** | | | |
| *R0* | Basic reproductive number | Estimated (4 locations) | Uniform(0,25) |
| *t0* | Effective seed time | Estimated (4 locations) | Uniform(2020-02-01, 2020-05-11) |
| *I0* | Proportion infected at seed time | 0.0001 | Fixed |
| *1/σ* | Pre-detectable latent period | 2 | Normal(2, 1.5) |
| *1/α* | Pre-infectious incubation period | 2 | Normal(2, 1.5) |
| *1/γ* | Infectious period | 10 | Normal(10, 6) |
| *1/ω* | Post-infectious detectable period | 5 | Normal(5, 3) |