**Supplementary Table S1.** Equations used to calculate sildenafil exposure

|  |  |  |
| --- | --- | --- |
| Peak plasma sildenafil concentration | CmaxSS,SIL | $$Cmax\_{SIL}=\frac{ka\*Dose}{V\_{p}\*\left(ke\_{p}-ka\right)}\*\left(\left(\frac{e^{-ka\*Tmax\_{SIL}}}{1-e^{-ka\*}τ}\right)-\left(\frac{e^{-ke\_{p}\*Tmax\_{SIL}}}{1-e^{-ke\_{p}\*τ}}\right)\right)$$ |
| Time to peak sildenafil concentration | TmaxSIL | $$Tmax\_{SIL}=\left(\frac{1}{ka-ke\_{p}}\right)\*Ln\left(\frac{ka\*\left(1-e^{-ke\_{p}\*τ}\right)}{ke\_{p}\*\left(1-e^{-ka\*τ}\right)}\right)$$ |
| Area under the sildenafil concentration-time curve from 0 to 24 hours at steady-state | AUC24,SS,SIL | $$AUC\_{SIL}=Dose/CL\_{i}$$ |
| Area under the desmethylsildenafil concentration-time curve from 0 to 24 hours at steady-state | AUC24,SS,DMS | $AUC\_{DMS}=Dose/CL\_{mi}$. |

Where Vp is the apparent V, kep is the first-order elimination rate constant, ka is the first-order absorption rate constant, $τ$ is the interdose interval, and TmaxSIL is the time to peak sildenafil concentration.