

The Prevention Theorem: Time-Dependent Constraints on HIV PEP

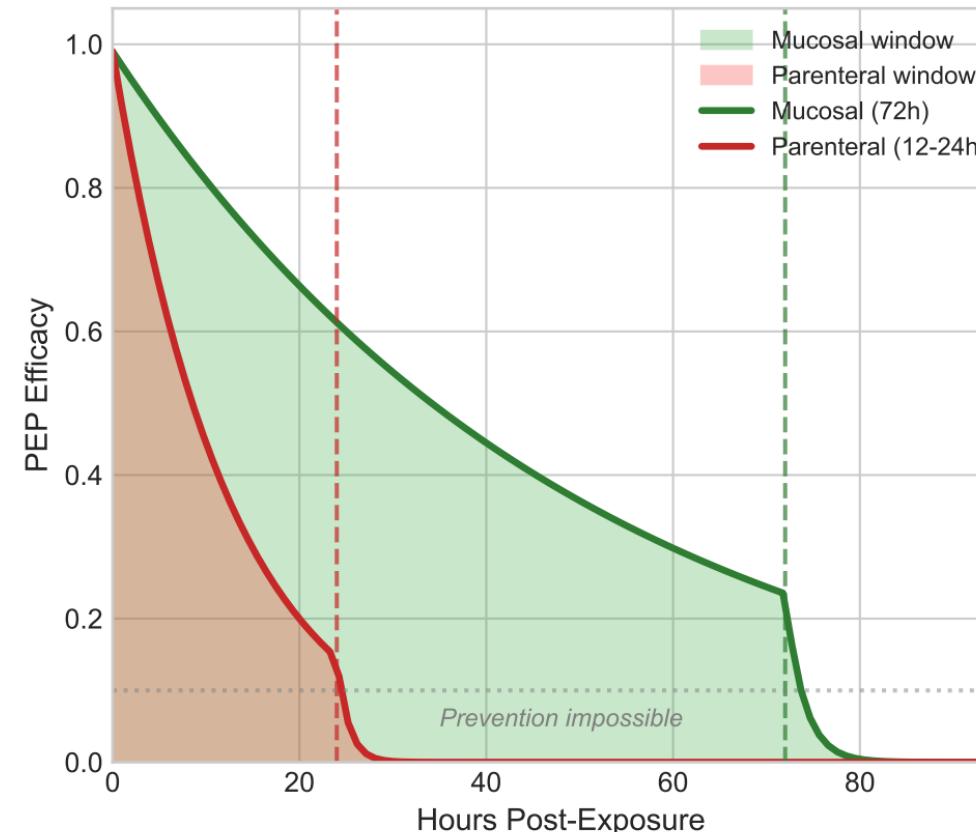
A. Prevention Condition

TRUE PREVENTION

$$R_0(e) = 0$$

Zero probability of productive infection

B. Time-Dependent Efficacy



C. Irreversible Transition

Pre-Integration

$$R_0(e) = 0 \text{ possible}$$

Proviral
Integration

Post-Integration

$$R_0(e) > 0 \text{ fixed}$$

Parenteral exposures compress the prevention window to 12-24h