

Additional file 1

CVVH POSTDILUTION

Estimated urea clearance (K_{CALC}):

$$K_{CALC} = Q_{uf}$$

Delivered urea clearance (K_{DEL}):

$$K_{DEL} = C_{uf} * Q_{uf} / C_{bi}$$

Where, C_{uf} = ultrafiltrate urea level (mg/dl).

Q_{uf} = ultrafiltration rate (ml/min).

C_{bi} = prefilter urea level (mg/dl).

CVVH PREDILUTION

Estimated urea clearance (K_{CALC}):

$$K_{CALC} = Q_{uf} / [1 + (Q_r / Q_b)]$$

Delivered urea clearance (K_{DEL}):

$$K_{DEL} = C_{uf} * Q_{uf} / C_{bi}$$

Where, Q_r = predilution fluid replacement rate (ml/min).

Q_b = blood flow rate (ml/min).

CVVHD

Estimated urea clearance (K_{CALC}):

$$K_{CALC} = Q_{do}$$

Delivered urea clearance (K_{DEL}):

$$K_{DEL} = C_{do} * Q_{do} / C_{bi}$$

Where, C_{do} = dialysate outflow urea nitrogen level (ml/min).

Q_{do} = dialysate outflow rate (ml/min).

C_{bi} = prefilter urea level (mg/dl).

CVVHDF POSTDILUTION

Estimated urea clearance (K_{CALC}):

$$K_{CALC} = Q_{uf} + Q_{do}$$

Delivered urea clearance (K_{DEL}):

$$K_{DEL} = C_{uf-do} * (Q_{uf} + Q_{do}) / C_{bi}$$

Where, C_{uf-do} = ultrafiltrate outflow urea level (mg/dl).

UREA VOLUME OF DISTRIBUTION

V (L): patient's body weight (Kg) * 0.6

FRACTIONAL CLEARANCE:

$SpKt/V_{CALC}$: K_{CALC} (ml/min)*prescribed treatment time (min)/V (ml)

$SpKt/V_{DEL}$: K_{DEL} (ml/min)*operative treatment time (min)/V (ml)