Version 2 – Supplementary File 3

Target-Controlled Infusion Sedation Flowsheet (V2)

Apply patient monitoring and secure suitable IV access
Connect patient to the TCI pump and commence supplemental O₂ at 4 L min⁻¹

INITIAL PHASE: Set $C_{PT}$ at 1.4 µg ml⁻¹ and Start TCI propofol (1%). Monitor $C_{ET}$ and assess sedation as $C_{ET}$ rises to 1.0 µg ml⁻¹, 1.2 µg ml⁻¹ and 1.4 µg ml⁻¹. The patient is likely to be under sedated in this initial phase but follow the algorithm below if they become adequately sedated or require no further sedation.

If the patient remains under sedated when $C_{PT}$ and $C_{ET}$ = 1.4 µg ml⁻¹ then proceed to the TITRATION PHASE.

Adequately Sedated

OAA/S 3 (Response only after name is called loudly and/or repeatedly)

Do not change the pump settings

Under sedated

OAA/S 5 (Responds readily to name spoken in normal tone) OR

OAA/S 4 (Lethargic response to name spoken in normal tone)

Requires no further sedation

OAA/S 2 (Response only after mild prodding or shaking) OR

OAA/S 1 (Response only after painful trapezius squeeze) OR

OAA/S 0 (No response after painful trapezius squeeze)

Stop infusion and DO NOT give alfentanil bolus

TITRATION PHASE: If the patient remains under sedated when $C_{PT}$ and $C_{ET}$ = 1.4 µg ml⁻¹ then increase the $C_{PT}$ by 0.2 µg ml⁻¹ every 2 minutes to a maximum of 4.0 µg ml⁻¹.

Asses the sedation level every 2 minutes. When $C_{PT}$ is 2.6 µg ml⁻¹ then a second healthcare professional should also assess the sedation level before proceeding further to a maximum of 4.0 µg ml⁻¹.

Administer Alfentanil Bolus

>70kg give 250 µg
50-70kg give 200 µg

If remains OAA/S 5 OR OAA/S 4 at $C_{PT}$ = 4 µg ml⁻¹ then STOP STUDY AT THIS POINT

COMMENCE REDUCTION

On completion of the reduction the infusion should be stopped and the patient observed until complete recovery

If an adverse event occurs, the TCI should be stopped immediately

Key

$C_{PT}$ - target plasma concentration

$C_{ET}$ - target effect site concentration

OAA/S – Observer’s Assessment of Alertness/Sedation Scale