23.6 NEURO-PSYCHOLOGICAL SUPPORT

DESCRIPTION

ICU patients are treated with many interventions that may be distressing and uncomfortable. Pain, restlessness, agitation, and delirium may have untoward effects.

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23.6.1 PAIN MANAGEMENT

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DESCRIPTION

Prioritization of effective pain control is imperative for optimising the care of critically ill patients. Recognizing the impact of uncontrolled pain on anxiety and psychological distress also underscores the importance of a holistic approach to care. A comprehensive treatment approach for critically ill patients places a strong emphasis on timely and appropriate pain management, positively influences physiological stability and patient, reduces the incidence of complications, and improves overall quality of care. Current guidelines recommend that pain management should be guided by routine pain assessment. An example of a pain assessment tool is given in Table 23.1.

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Table 23.1 Behavioural Pain Scale

Item	Description	Score
Facial Expression	Relaxed	1
	Partially tightened e.g., brow lowering	2
	Fully tightened e.g. eyelid closing	3
	Grimacing	4
Upper limb movements	No movement	1
	Partially Bent	2
	Fully bent with finger flexion	3
	Permanently retracted	4
Compliance with mechanical ventilation	Tolerating movement	1
	Coughing but tolerating ventilation for most of the time	2
	Fighting ventilator	3
	Unable to control ventilation	4
BPS score ranges from 3 (no pain) to 12 (maximum pain)		

Taken From: Sessler CN, Gosnell MS, Grap MJ, Brophy GM, O'Neal PV, Keane KA, et al. The Richmond Agitation-Sedation Scale: validity and reliability in adult intensive care unit patients. Am J Respir Crit Care Med. 2002 Nov 15;166(10):1338–44.

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GENERAL MEASURES

» Pharmacological treatment includes opioid and non-opioid medicines.
» Pain should be treated before sedation is considered.
» Table 23.2 provides some important characteristics to be considered when prescribing commonly used analgesics in the ICU.

» Paracetamol and ketamine are recommended adjuncts to reduce opioid consumption.
» Non-pharmacological strategies such as positioning, music, massage and relaxation therapies may also be beneficial.
» See section 12.4: Perioperative analgesia for more details on pain management.

MEDICINE TREATMENT

Parenteral therapy

If paracetamol is required and patient is nil per mouth:

- Paracetamol, IV, 1 g 6 hourly for 24 hours (Specialist initiated).
  - If required beyond 24 hours prescription would need to be authorised by a specialist.

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Regional anaesthesia

» Local anaesthetic agents can be considered for regional analgesia e.g. epidural (see section 12.8: Epidural anaesthesia), para-vertebral, and peripheral nerve blocks where expertise is available and appropriate (see section 12.9: Peripheral nerve block or wound infiltration).

Table 23.2: Commonly used analgesics in the ICU

Drug	Category of Analgesic	Loading dose	Maintenance dose	Onset	Duration	Adverse effects
Paracetamol (PO/IV)	Simple analgesic	-	PO: 1g/6h IV: 1g/6h	PO:30 mins IV: 5 mins	4-6 h	Hepatotoxic Interacts with warfarin (↑INR) and CYP 450 inducers
Tramadol (PO/IV) Less potent (20% of morphine).	Weak opioid	-	PO/IV: 50-100 mg/6h	PO:30 mins IV: 15 mins	3-6 h	Less constipation and respiratory depression
Fentanyl (IV)	Strong opioid	20-100 mcg	50-100 mcg/h	1 min	0.5-1 h	Nausea, constipation Respiratory depression Muscle rigidity
Morphine (IV)		2-10 mg	2-5 mg/h	5 min	4 h	Nausea, constipation
Ketamine (IV)	Adjunctive analgesic	0.25-0.5 mg/kg	0.05-0.4 mg/kg/h *Very low dose (1-2 mcg/kg/h- opioid sparing)* Higher doses may be required in polytrauma and Traumatic Brain Injury	30 sec	10 mins	Sympathetic stimulation Hallucinations, Delirium Increased secretion Dissociative state Liver/renal dysfunction → active metabolite accumulation.

Guidance for prescribing: Combinations of medicines from different classes may be considered where needed. *LoE:Ivb*[xxxii]