

Sedation, Analgesia and Delirium MANagement: an international audit of adult medical, surgical, trauma, and neuro-intensive care patients

Patient(e) {number}

Center Form

1. Hospital name:

2. City:

3. Country:

4. How would you best describe your hospital? University affiliated hospital Community/District hospital - Teaching Community/District hospital - Non-teaching Other

5. How many beds in total does your hospital have? ≤250 251-499 500-1000 >1000

6. What is the type of your ICU (predominantly)? If your ICU provides care for more than one type of patient, select 'Mixed ICU' Burns Unit Cardiac ICU Coronary ICU Medical ICU Mixed ICU Neurological/Neurosurgical ICU Surgical ICU Transplant ICU Trauma ICU Other

7. What is your ICU model of care? Closed ICU: patients are cared for by 1 team of intensivists Open ICU: any physician/surgeon can admit patients to the ICU Semi-closed: only intensivists have admitting privileges to the ICU but treat the patient in collaboration with other physicians Other

8. How many beds can be staffed in your ICU? (select one response only, relevant to the ICU participating in SAnDMAN) ≤10 11-19 20-29 ≥30

9. How many ventilators are available for invasive mechanical ventilation in your ICU? 1-5 6-10 11-20 ≥21

10. What is the number of annual admissions to your ICU? <300 301-500 501-1000 >1000

1. What is the average nurse to patient ratio in your ICU for MECHANICALLY VENTILATED patients? 1:1 1:2 1:3 1:4 Other
2. What is the average nurse to patient ratio in your ICU for NON-MECHANICALLY VENTILATED patients? 1:1 1:2 1:3 1:4 Other
3. What is the average intensivist to patient ratio in your ICU during day-time hours? 1:5 1:6-10 1:11-15 1:16-20 Other
4. Which of the following staff regularly work in your ICU? (select all that apply)
- Trainee physician (non-critical care trainee)
 - Critical care/Anesthesiology trainee
 - Advanced Nurse Practitioner
 - Specialist Critical Care Nurse
 - Senior physician (Attending/Consultant)
5. Who provides out-of-hours (nights and weekends) senior clinical coverage ON SITE? (select all that apply)
- Trainee physician (non-critical care trainee)
 - Critical care/Anesthesiology trainee physician
 - Advanced Nurse Practitioner
 - Specialist Critical Care Nurse
 - Senior physician (Attending/Consultant)
 - None of the above
 - Other
 - Unknown/Not available
6. What is the specialty of training of the intensivists who work in your ICU? (select all that apply)
- Anaesthesia
 - Critical Care/Intensive Care Medicine
 - Internal/General Medicine
 - Respiratory/Pulmonary medicine
 - Surgery
 - Family Medicine/General Practice
 - Emergency Medicine
 - Neurology
 - Other
7. Do you have respiratory therapists working in your ICU? No Yes Unknown/Not available
8. Does a dedicated pharmacist attend daily ICU rounds (at least daily on weekdays)? No Yes Unknown/Not available
9. Does your ICU have a dedicated physiotherapist (at least daily on weekdays)? No Yes Unknown/Not available
10. Does your ICU have a mobility team, whose primary role is to mobilize the patient? No Yes Unknown/Not available
11. Does your hospital have a music therapist? No Yes Unknown/Not available
12. Does your hospital provide pet therapy, or permit the patient's own pet(s) to visit? No Yes Unknown/Not available
13. How are patient rooms structured in your ICU? (select all that apply)
- Single patient rooms
 - 2 patients per room
 - More than 2 patients per room
 - Open plan ICU with cubicles/bed spaces
14. What is your ICU visitor policy?
- Open access 24 hours/day (other than brief periods for procedures, etc.)
 - Limited to specific times of the day
 - No visitors are permitted in the ICU
 - Other

1. Which of the following intravenous analgesics are available for use in your ICU? (select all that apply)

Acetaminophen/Paracetamol

Morphine

Hydromorphone

Fentanyl

Sufentanil

Remifentanil

Dezocine

Cannabinoids (e.g. Nabilone)

Other

2. Does your ICU routinely use a pain assessment scale?

No Yes Unknown/Not available

2.1. If you responded 'Yes', please select the scale(s) you use (select all that apply)

Behavioral Pain Scale (BPS)

Critical Care Pain Observation Tool (CPOT)

Faces Pain Scale

Nociception Coma Scale

Non-Verbal Pain Scale (NVPS)

Numeric Rating Scale (NRS)

Verbal Descriptor Scale (VDS)

Visual Analogue Scale (VAS)

Other

Unknown/Not available

3. Which of the following intravenous sedatives are available for use in your ICU? (select all that apply)

Midazolam

Lorazepam

Diazepam

Propofol

Dexmedetomidine

Clonidine

Ketamine

Thiopental

Pentobarbital

Other

4. Does your ICU routinely use a sedation assessment scale?

No Yes Unknown/Not available

4.1. If you responded 'Yes', please select the scale(s) you use (select all that apply)

Glasgow Coma Scale (GCS)

Motor activity assessment scale (MAAS)

Ramsay scale

Richmond Agitation-Sedation Scale (RASS)

Riker Sedation-Agitation Scale (SAS)

Other

Unknown/Not available

5. Does your ICU routinely use a delirium assessment scale?

No Yes Unknown/Not available

5.1. If you responded 'Yes',

4AT Assessment test for delirium & cognitive impairment

Confusion Assessment Method – ICU (CAM-ICU)

- please select the scale(s) you use (select all that apply)
- Delirium Motor Subtype Scale (DMSS)
 - Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-V) criteria
 - Intensive Care Delirium Screening Checklist (ICDSC)
 - Memorial Delirium Assessment Scale (MDAS)
 - Mini Mental State Examination (MMSE)
 - NEECHAM Confusion Scale
 - Nurses' Delirium Screening Checklist (NuDeSC)
 - Single Question in Delirium
 - Clinical Assessment only
 - Other
 - Unknown/Not available

6. Who evaluates patients for signs and symptoms of delirium in your ICU? (select all that apply)
- Consultant/Attending Intensivist
 - Trainee
 - Psychiatrist or Psychologist
 - ICU nurse
 - Other
 - Not Applicable – our ICU does not assess patients for delirium

7. Indicate if in your ICU you have any of the following protocols (select all that apply)
- Alcohol withdrawal
 - Pain management
 - Delirium/agitation prevention or treatment protocol
 - Mobilisation
 - Physical restraint
 - Sedation management
 - Use of paralytic drugs (neuromuscular blocking agents)
 - Ventilator weaning/spontaneous breathing trial
 - None of the above
 - Other
 - Unknown/Not applicable

8. Indicate if in your ICU you routinely... (select all that apply)
- Practice an analgesia-first (prior to sedation) strategy
 - Use daily sedation-analgesia interruption / spontaneous awakening trial (unless contraindicated)
 - Assess patients for iatrogenic opioid withdrawal
 - Wean opioids slowly to prevent opioid withdrawal
 - Perform daily spontaneous breathing trials (SBT)
 - Use a mobility assessment tool (i.e. SOMS, PFIT, CPAx, FSS-ICU)
 - Use physical restraints for agitated patients
 - Provide extra-corporeal supportive technologies (e.g. ECMO)
 - Use inhalation anaesthetic agents for sedation of critically ill patients (isoflurane, sevoflurane, desflurane, xenon, nitrous oxide, etc.)
 - None of the above
 - Other
 - Unknown/Not applicable

9. Indicate the start time of the ICU day, as recorded in official documents in your ICU.

For example, if your ICU counts the day from the morning at 8:00 AM, input 08:00. If your unit

counts the days
from midnight
(i.e. calendar
day), input
00:00.

1. Did you have any confirmed or suspected COVID-19 patients in your country? No Yes Unknown/Not available

1.1 Indicate the date when 50 confirmed or suspected COVID-19 patients were admitted to ICU

in your country.

If this information is not available/unknown input ND or NA instead of a date

2. Did your Government/Institution/Hospital/National Society issue a safety warning on sedative/analgesic/neuromuscular blocker drugs shortages during the COVID-19 pandemic? No Yes Unknown/Not available

2.1. When was the safety warning issued?

2.2. Did your institution change sedation practice/drugs of choice following the warning? No Yes Unknown/Not available

2.3. List the name of the drugs that were in short supply. (multiple choice possible)

- Propofol
- Dexmedetomidine
- Midazolam
- Lorazepam
- Ketamine
- Morphine
- Fentanyl
- Remifentanyl
- Hydromorphone
- Succinylcholine
- Rocuronium
- Cisatracurium
- Pancuronium
- Vecuronium

3. Did your unit admit any COVID-19 patients during the pandemic?

- Yes, we became a COVID-19 unit (admitted exclusively COVID-19 patients) during the pandemic surges, and did not expand our ICU bed capacity during the pandemic surges
- Yes, we became a COVID-19 unit (admitted exclusively COVID-19 patients) and expanded our ICU bed capacity during the pandemic surges
- Yes, we admitted both COVID-19 and non-COVID-19 patients during the pandemic surges
- No, we did not admit COVID-19 patients, because we did not have COVID-19 critically ill patients in our centre/country
- No, we did not admit COVID-19 patients, but we changed the type of patients admitted to our ICU (i.e., from specialist ICU to general ICU)
- No, we did not admit COVID-19 patients, as they were diverted to dedicated COVID-19 units in our centre/country
- Unknown
- Other

3.1. When was the first COVID-19 patient admitted to your unit?

3.2. What was the reason for admission? COVID-19 related respiratory symptoms Other diagnosis and incidental SARS-CoV2 positive finding Unknown/not available

4. Did your unit care for the same cohort of patients before and during the COVID-19 pandemic? No Yes Unknown/Not available

(i.e. you did NOT change the case-mix admitted to your ICU before and during the pandemic)

5. Do you agree with any of the statements below regarding COVID-19 patients (Select all that apply)

- This cohort required higher doses of sedative drugs
- This cohort required higher doses of analgesic drugs
- This cohort required lower doses of sedative drugs
- This cohort required lower doses of analgesic drugs

- This cohort required muscle paralysis more frequently than other ICU patients
- This cohort required muscle paralysis less frequently than other ICU patients
- This cohort demonstrated higher incidence of ICU delirium
- This cohort demonstrated lower incidence of ICU delirium

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Data validation

Validation by the investigator : I accept the responsibility and confirm that all the data entered in the present eCRF are exact, complete and are the actual replica of the patient's medical record on site.

Investigator's name : {name of investigator}

Validated on {date of validation}