

**A gap existed between physicians' perceptions and performance of pain,
agitation-sedation and delirium assessments in Chinese intensive care units**

Kai Chen, Yan-Lin Yang, Hong-Liang Li, Dan Xiao, Yang Wang, Linlin Zhang, Jian-Xin Zhou

Additional file 1:

Case report form for cross-sectional investigation

**Sedation practice in brain-injured patients in the intensive care units in China:
a point prevalence study and a questionnaire survey**

Case Report Form

Investigation site	□□□□□□□□□□□□
Investigator	□□□□
Screen No.	□□□□
Recruitment No.	□□□
Medical record No.	□□□□□□
Abbreviation name	□□□□
Date	201□-□□-□□

Illustrations

- This is a multicenter one-day point prevalence study combined with questionnaire survey.
- The protocol was approved by the Institutional Review Board of Beijing Tiantan Hospital, Capital Medical University. Written informed consent was obtained from each patient or their next of kin. During the study period, no attempt was made to alter or affect the routine clinical practice of each participating ICU.
- All recorded data must be timely, accurate and complete.
- Every page and every item of the CRF must be completed.
- Fill “√” in the “□” to indicate selection. “NA” to indicate “cannot provide” or “not applicable”.
- Patient’s abbreviated name should be recorded in the form of left aligned acronym of Chinese phonetic alphabet. For example: Zhang Wei should be recorded as Z W, and Zhang Xiao-Wei should be recorded as Z X W.
- Numeric data should be recorded with decimals provided as □.□ in the form.
- If error(s) occurs in filling data, please use ONE strikethrough line and refill the correct data, and sign name of the corrector and date of correction.
 - Do not cover the original data.
 - Do not use the eraser or correction fluid.
 - Do not cross more than one strikethrough line.
- If investigators have any questions during the study, please contact Drs. Jian-Xin Zhou, Linlin Zhang:
 - **Dr. Jian-Xin Zhou: 010 59975098**
 - **Dr. Linlin Zhang: 010 59978451**

Case Report Form

- Inclusion criterion: All adult patients admitted to the participating ICUs during the on-site screening, regardless of the primary diagnosis.
- Exclusion criteria: please check the hospital records and examine the patient for exclusion:
 - Age < 18-years-old Yes No
 - Less than 24 hours of ICU stay before screening Yes No
 - Taking part in other studies Yes No
 - Refusing to participate Yes No

If there is no exclusion criterion, please go next page.

Case Report Form

Investigator recruitment

Data collection from hospital records

Sex	<input type="checkbox"/> male <input type="checkbox"/> female	
Age	<input type="checkbox"/> <input type="checkbox"/> years	
Height	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cm	
Weight	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> kg	
Date of admission to the hospital	201 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> MM/ <input type="checkbox"/> <input type="checkbox"/> DD	
Date of admission to the ICU	201 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> MM/ <input type="checkbox"/> <input type="checkbox"/> DD	
Primary diagnosis		
Brain injuries	<input type="checkbox"/> no <input type="checkbox"/> yes, if yes, please tick one box below	
Types of brain injuries	Traumatic brain injury	<input type="checkbox"/> yes <input type="checkbox"/> no
	Brain tumors	<input type="checkbox"/> yes <input type="checkbox"/> no
	Ischemic stroke	<input type="checkbox"/> yes <input type="checkbox"/> no
	Spontaneous intracerebral hemorrhage	<input type="checkbox"/> yes <input type="checkbox"/> no
	Subarachnoid hemorrhage	<input type="checkbox"/> yes <input type="checkbox"/> no
	Idiopathic epilepsy	<input type="checkbox"/> yes <input type="checkbox"/> no
	Intracranial infection	<input type="checkbox"/> yes <input type="checkbox"/> no
	Hypoxic-ischemic encephalopathy	<input type="checkbox"/> yes <input type="checkbox"/> no
	Others, please indicate _____	
Medical history	Hypertension	<input type="checkbox"/> yes <input type="checkbox"/> no
	Coronary artery disease	<input type="checkbox"/> yes <input type="checkbox"/> no
	Diabetes	<input type="checkbox"/> yes <input type="checkbox"/> no
	Chronic obstructive pulmonary diseases	<input type="checkbox"/> yes <input type="checkbox"/> no
	Chronic kidney diseases	<input type="checkbox"/> yes <input type="checkbox"/> no
	Ischemic stroke	<input type="checkbox"/> yes <input type="checkbox"/> no
	Alcohol abuse	<input type="checkbox"/> yes <input type="checkbox"/> no
	History of smoke	<input type="checkbox"/> yes <input type="checkbox"/> no
	Others, please indicate _____	
GCS at the ICU admission	<input type="checkbox"/> <input type="checkbox"/> points: E (eyes) <input type="checkbox"/> ; V (verbal) <input type="checkbox"/> ; M (motor) <input type="checkbox"/>	
APACHE II at the ICU admission	<input type="checkbox"/> <input type="checkbox"/> points	

Case Report Form

Data collection from nursing records during the 24 hours prior to enrollment

Status

SOFA within 24 hours prior to enrollment	<input type="checkbox"/> <input type="checkbox"/> points
Artificial airways	<input type="checkbox"/> oral <input type="checkbox"/> nasal <input type="checkbox"/> tracheostomy <input type="checkbox"/> others, please indicate: _____
Mechanical ventilation	<input type="checkbox"/> no <input type="checkbox"/> invasive <input type="checkbox"/> non-invasive if yes, please tick one box below
	Date of start: 201 <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> MM/ <input type="checkbox"/> <input type="checkbox"/> DD
	<input type="checkbox"/> PCV <input type="checkbox"/> P-A/C <input type="checkbox"/> VCV <input type="checkbox"/> V-A/C <input type="checkbox"/> IPPV <input type="checkbox"/> PRVC <input type="checkbox"/> BIPAP <input type="checkbox"/> APRV <input type="checkbox"/> P-SIMV <input type="checkbox"/> V-SIMV <input type="checkbox"/> PSV <input type="checkbox"/> CPAP <input type="checkbox"/> others, please indicate: _____
	PEEP: <input type="checkbox"/> <input type="checkbox"/> cmH ₂ O; FiO ₂ : <input type="checkbox"/> <input type="checkbox"/> % VT: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ml
Arterial lines	<input type="checkbox"/> yes <input type="checkbox"/> no
Central venous catheters	<input type="checkbox"/> yes <input type="checkbox"/> no
ICP monitor	<input type="checkbox"/> no <input type="checkbox"/> yes, please record: <input type="checkbox"/> <input type="checkbox"/> mmHg
Any types of drainage tubes and colostomy	<input type="checkbox"/> ventricle <input type="checkbox"/> lumbar <input type="checkbox"/> epidural <input type="checkbox"/> subdural <input type="checkbox"/> thoracic <input type="checkbox"/> intraperitoneal <input type="checkbox"/> pelvic <input type="checkbox"/> mediastinal <input type="checkbox"/> gastrostomy <input type="checkbox"/> intestinal colostomy <input type="checkbox"/> bladder colostomy <input type="checkbox"/> others, please indicate: _____
Physical restraints	<input type="checkbox"/> yes <input type="checkbox"/> no
Body temperature control	<input type="checkbox"/> no <input type="checkbox"/> physical cooling for hyperthermia <input type="checkbox"/> hypothermia therapy

Case Report Form

Data collection from nursing records during the 24 hours prior to on-site investigation

Assessments

Pain assessment	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> CPOT	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> VAS	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> FPS	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> NRS	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
Agitation and sedation assessments	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> RASS	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> SAS	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> Ramsay	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> <input type="checkbox"/> points	<input type="checkbox"/> <input type="checkbox"/> /d
Delirium assessment	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> CAM-ICU	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> ICDSC	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> <input type="checkbox"/> /d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> <input type="checkbox"/> /d

Case Report Form

Data collection from nursing records during the 24 hours prior to on-site investigation

Medications

Analgesics	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> Fentanyl	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> $\mu\text{g/d}$
	<input type="checkbox"/> Sufentanil	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> $\mu\text{g/d}$
	<input type="checkbox"/> Remifentanyl	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> $\mu\text{g/d}$
	<input type="checkbox"/> Morphine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Pethidine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Tramadol	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Dezocine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Butorphanol	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Flupiprofen ester	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Paracetamol oxycodone	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Acetaminophen	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
Sedatives	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> Midazolam	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Propofol	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Dexmedetomidine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> $\mu\text{g/d}$
	<input type="checkbox"/> Diazepam	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Lorazepam	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Estazolam	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
Muscle relaxants	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> Rocuronium	IV	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Vecuronium	IV	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Pancuronium	IV	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Cis-atracurium	IV	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> others, please indicate: _____	IV	<input type="text"/> <input type="text"/> mg/d
Anti-delirium	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate		
	<input type="checkbox"/> Haloperidol	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Chlorpromazine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Promethazine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Olanzapine	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
	<input type="checkbox"/> Risperidone	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d
<input type="checkbox"/> others, please indicate: _____	<input type="checkbox"/> IV <input type="checkbox"/> IM <input type="checkbox"/> PO	<input type="text"/> <input type="text"/> mg/d	

Case Report Form

Outcome measures

Type of follow-up (please fill “√” one)

- Discharge from the hospital
- Death in the ICU
- Death in the hospital
- At 60 days after enrollment

Please review the ICU and hospital records

During ICU stay after enrollment	Accidental removal of the catheter	<input type="checkbox"/> no <input type="checkbox"/> yes, please indicate: <input type="checkbox"/> <input type="checkbox"/> times
	Duration of mechanical ventilation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> days
	Hospital acquired infections	<input type="checkbox"/> Pneumonia <input type="checkbox"/> Urinary tract infection <input type="checkbox"/> Intracranial infection <input type="checkbox"/> Surgical site infection <input type="checkbox"/> Bacteremia <input type="checkbox"/> CRBSI <input type="checkbox"/> others, please indicate: _____
	Sepsis	<input type="checkbox"/> no <input type="checkbox"/> Sepsis <input type="checkbox"/> Septic shock
	Survival when discharge from ICU	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> have not discharge yet
	Date of discharge from ICU	If yes, please indicate :201 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> MM/ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> DD
	ICU length of stay (LOS)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> days
During hospital stay after enrollment	Survival when discharge from hospital	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> have not discharge yet
	Date of discharge from hospital	If yes, please indicate: 201 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> MM/ <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> DD
	Hospital LOS	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> days
	Hospital costs	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> RMB
	GOS	If brain-injured, please indicate: <input type="checkbox"/> points