Manual of operations for the INTOXICATE-PATIENTS questionnaire in Castor

Last update: 24JUN2022

The aim is to include patients and to collect patients' data. This questionnaire should be completed **once** for each patient included in the INTOXICATE-study.

Table 1: Table of contents

Table 2: Abbreviations

ABV	Alcohol By Volume	HHNC	Hyperglycemic Hyperosmolar Nonketotic Coma
ALS	Amyotrophic Laterial Sclerosis	HIV	Human Immunodeficiency Virus
AMI	Acute Myocardial Infarction	ICD	Implantable Cardioverter Defibrillator
APACHE	Acute Physiology And Chronic Health Evaluation	ICD	International Classification of Diseases
AV	Atrioventricular	ICU	Intensive Care Unit
BMI	Body Mass Index	ID	Identification
CABG	Coronary Artery Bypass Graft	INR	International Normalised Ratio
CGA	Albuminuria Category	IV	Intraventricular
CKD	Chronic Kidney Disease	KDIGO	Kidney Disease Improving Global Outcomes
CKD-EPI	Chronic Kidney Disease Epidemiology Collaboration	Lab	Laboratory
CO	Carbon Monoxide	LOS	Length of Stay
COPD	Chronic Obstructive Pulmonary Disease	MARS	Molecular Absorbents Recirculating System
CPR	Cardiopulmonary resuscitation	MPN	Myeloproliferative Neoplasms
DSA	Data Sharing Agreement	NICE	National Intensive Care Evaluation
DSM	Diagnostic and Statistical Manual of Mental Disorders	NYHA	New York Heart Association
ECG	Electro Cardio Graphy	PIC	Poisons Information Centre
eCRF	Electronic Case Report File	PSS	Poisoning Severity Score
ER	Emergency Room	RRT	Renal Replacement Therapy
FiO2	Fraction of Inspired Oxygen	SOFA	Sequential Organ Failure Assessment
GCS	Glasgow Coma Scale	SAPS	Simplified Acute Physiology Score
GFR	Glomerular Filtration Rate	TIA	Transient Ischemic Attack
GI	Gastrointestinal	WBC	White Blood cell Count
HDU	High Dependency Unit	WHO	World Health Organisation

Start

1) Introduction and inclusion criteria: information to read.

The inclusion criteria:

For the patient to be eligible for inclusion the patient must meet the following 4 criteria:

i) The patient was admitted to the ICU/HDU directly from an ambulance or from the ER, or was transferred from a medical or surgical ward to the ICU/HDU;

ii) Intoxication was the primary reason for ICU/HDU admission;
   - If the primary reason for ICU/HDU admission of the patient was not (possibly) a pathological consequence of the intoxication, for example: trauma after a car accident caused by intoxicated driving, the patient is not eligible for this study.

iii) The patient stayed for at least 4 hours at the ICU/HDU;
   - If the patient was discharged from the ICU/HDU within 4 hours the patient is not eligible for this study.

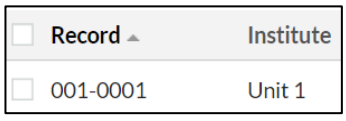
iv) The patient is at least 18 years old.

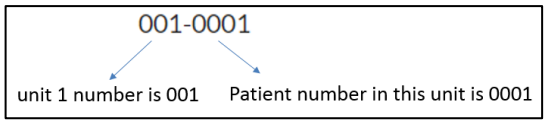
The INTOXICATE study includes acutely intoxicated patients. We define acute intoxications as intoxications for which the patient had to be brought by ambulance to the hospital and/or presented at the ER. However, we like to collect data of a broad intoxicated ICU patient population including patients with less acute intoxications e.g. a chronic paracetamol intoxication or an intoxication from chemotherapy.

If the patient meets these four criteria the patient is eligible for the INTOXICATE study, proceed by clicking the 'Next' button. In case of doubt, you can contact us at: contact@toxicstudy.org.

2) ID number & internal screening log: information to read

In the INTOXICATE-PATIENTS questionnaire, each time you include a new patient, you have to create a new 'record'. Each patient (and record) has a unique identification (ID) number. This ID number consists of three digits for your unit code (sent by the INTOXICATE coordinating center by email) and four digits for the patient code given automatically by Castor. Example: the record ID number of patient 1 of unit 1 is 001-0001:





Please, keep a screening log with all record ID numbers and the corresponding patient records at your unit to link back which record ID belongs to which patient. You can find a template for such a screening log on our website https://toxicstudy.org/documents page in the document called " Screening log template LOCAL use". This local screening log is for INTERNAL use at your unit only and is not to be shared the INTOXICATE coordinating team.

Dates and Times of Admission and Discharge

3. In-hospital location before ICU/HDU admission

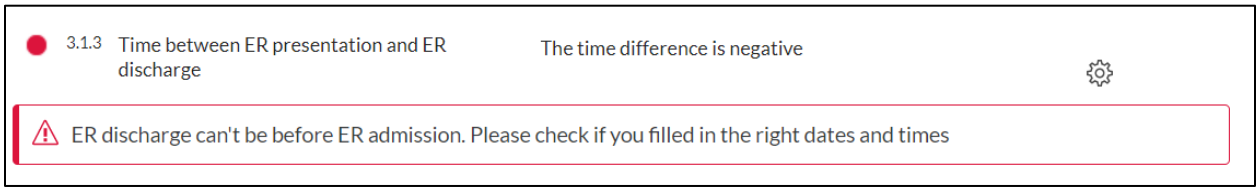
3.1 Was the patient directly admitted from the Emergency Room/ambulance, from a ward OR from another ICU? Select one of the three available options.

When 'The patient was admitted from the Emergency Room or an ambulance' was selected in question 3.1, a text will show asking to enter dates and times.

3.1.1 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ER presentation.

3.1.2 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ER discharge.

3.1.3 The time elapsed between ER presentation and ER discharge is automatically computed. Nothing to do, except if such a warning appears:



Such a warning means that you have probably entered dates and times that do not match a logical chronological order. Please check the date and times you have entered and correct them if necessary.

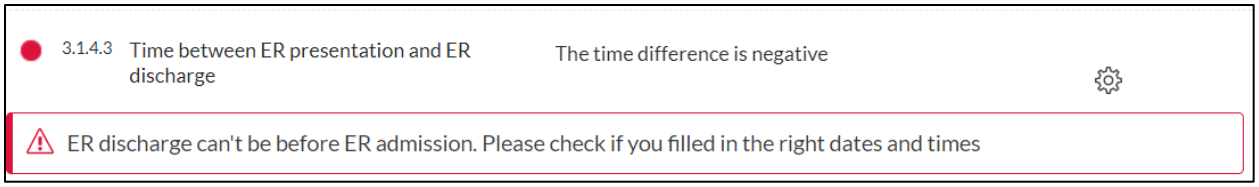
If you selected 'The patient was transferred from a ward' in Q 3.1, a text will show asking:

3.1.4 Where did the intoxication take place: select one of the two available options. If you selected "Before hospital admission" in Q 3.1.4, a text will show asking:

3.1.4.1 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ER presentation.

3.1.4.2 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ER discharge.

3.1.4.3 The time elapsed between ER presentation and ER discharge is automatically computed. Nothing to do, except if such a warning appears:



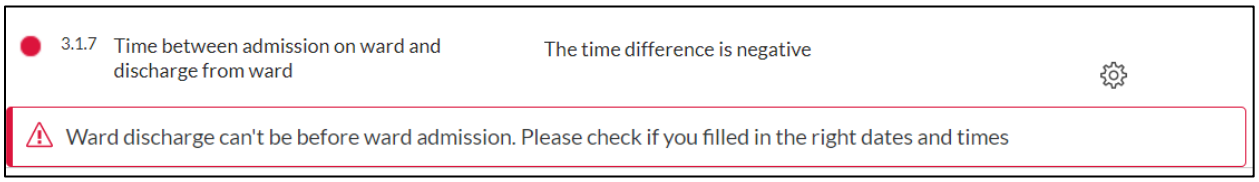
Such a warning means that you have entered dates and times that don't match a logical chronological order. Please check the date and times you have entered and correct them if necessary.

If "During hospital stay" is selected in Q 3.1.4, a text will show asking:

3.1.5 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ward admission.

3.1.6 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ward discharge.

3.1.7 The time elapsed between ward admission and ward discharge is automatically computed. Nothing to do, except if such a warning appears:



Such a warning means that you have entered dates and times that don't match a logical chronological order. Please check the date and times you have entered and correct them if necessary.

If you selected 'The patient was transferred from another ICU' in Q 3.1 this text will appear:

This information provides you with the email address of the INTOXICATE coordinating center that you can contact to ask for the list of questions at least to be answered for patients that were transferred from another ICU.

3.2 Optional remark
Select "Delay in patient's admission due to the COVID-19 pandemy" if applicable.
Select "Other" to enter any remark you want in the free text field that appears in field 3.2.1.
The INTOXICATE study includes acutely intoxicated patients. We define acute intoxications as intoxications for which the patient had to be brought by ambulance to the hospital and/or presented at the ER. However, we like to collect data of a broad intoxicated ICU patient population including patients with less acute intoxications e.g. a chronic paracetamol intoxication or an intoxication from chemotherapy. You can enter the information that the patient has a chronic intoxication by selecting "Other" at question 3.2 and enter it manually in field 3.2.1.
Select "Re-admission" if the patient is admitted for an intoxication for the second time.

4 Intensive Care or High Dependency Unit

4.1 Enter date in *'dd-mm-yyyy'* and time in *'hh:mm'* of ICU/HDU admission.

4.3 Automatic calculation of the time elapsed between ER discharge and ICU/HDU admission. Nothing to do except if a warning appears (same as in Q 3.1.3); then you have to check the dates and times you entered.

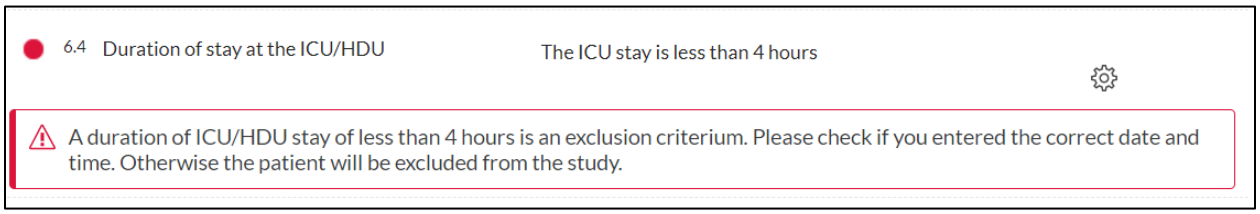
4.4 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of ICU/HDU discharge.
4.5 Automatic calculation of the time elapsed between ICU/HDU admission and ICU/HDU discharge based on the entered dates and times. Nothing to do except if a warning appears; then you have to check the dates and times you entered (same as in Q 3.1.3).

5 Hospital discharge

5.1 Enter date in '*dd-mm-yyyy*' and time in *'hh:mm'* of hospital discharge.
5.2 Automatic calculation of the time elapsed between ICU/HDU discharge and hospital discharge based on the entered dates and times. Nothing to do except if a warning appears; then you have to check the dates and times you entered (same as in Q 3.1.3).

6 Duration computations

Q 6.1 up to Q 6.4: automatically calculated durations of stay at the ER, ward, ICU/HDU.
If the duration of stay at the ICU/HDI was less than 4 hours, a warning will show:



Please, check the dates and times entered at Q 4.1 and Q 4.4. If the duration of stay at the ICU/HDU is shorter than 4 hours, the patient **cannot be included in the study**. You have to stop this record and use it for the next eligible patient. Enter information of excluded patients in our screening log for local and aggregated data which you can find here: https://toxicstudy.org/documents as documents "Screening log template - LOCAL use" and "Screening log template – AGGREGATED data".
If the duration of stay at the ICU/HDU was less than 24 hours, another field will show: **Please answer this field!**

6.5.1 The duration of stay at the ICU/HDU was less than 24 hours. Was the patient transferred to another ICU/HDU?
- If the patient was not transferred to another ICU/HDU, select 'No'.
- If the patient was transferred to another ICU/HDU within 24 hours after your ICU/HDU admission, select 'Yes'. When 'Yes' is selected, a text will show asking to

complete the Castor file with answers from the ICU/HDU to which the patient was transferred. Please answer at least the following questions:

List of the questions to be answered by the ICU/HDU to which the patient was transferred (Please take the time to sum up the treatment durations at both ICU's/HDU's (before and after transfer). Complete the record as if the patient wasn't transferred (transfer time is included in the ICU-stay):

1. When was the patient discharged from the other ICU (date and time)?
2. When was the patient discharged from the hospital of the other ICU (date and time)?
3. Did the patient receive any of the below mentioned treatments? If yes, for how long (start date and time and stop date and time of treatment with time in hh:mm)?
    - Active cooling
    - Antidote treatment - which antidote?
    - Calming medication - which medication?
    - Cardiopulmonary resuscitation (CPR)
    - Fluid resuscitation - if total fluid during ICU stay >1.5 liters
    - Gastrointestinal resuscitation
    - Oxygen supplementation with FiO2>0.4 -which method was used?
    - Renal replacement therapy – which method was used?
    - Alkalinisation
    - Tracheostomy
    - Vasopressors – which vasopressors were used
    - Mechanical ventilation (either endotracheal intubation or non-invasive)
    - Other treatments……
    - No treatment (monitoring)
4. Were there any complications – which ones?
    1. Acute hepatic failure
    2. Acute renal failure (severe, KDIGO stage 2 or 3)
    3. Anoxic brain injury
    4. Aspiration pneumonia
    5. Coma
    6. Hospital acquired infection
    7. Hypertensive crisis
    8. Respiratory failure
    9. Other complications……
    10. No complications
5. What was the vital status of the patient at hospital discharge?
    1. Alive Levend

2. Died at the ICU
3. Died at the hospital after ICU discharge

6. The vital status of the patient 30 days after the first ICU admission (before transfer)?
   - Alive
   - Dead
   - Unknown

7 Contact with Poisons Information Centre (PIC)

7.1 If a Poisons Information Centre (PIC) was contacted, select 'Yes'.
- If a PIC was not contacted for advice on the patient, select 'No'.
- If information on contact with a PIC is not known or available to you, select 'Unknown'.

7.1.1. OPTIONAL. This field appears when 'Yes' was selected at Q 7.1.
- If the PIC has given the information that there is no intoxication, select 'No intoxication'.
- If the PIC has estimated the intoxication as mild, select 'Mild intoxication'.
- If the PIC has estimated the intoxication as moderate, select 'Moderate intoxication'.
- If the PIC has estimated the intoxication as severe, select 'Severe intoxication'.
- If the severity of intoxication was not estimated by the PIC, select 'Severity not estimated by the PIC'.
- If information on the estimation of toxicity by the PIC is not known or available to you, select 'Unknown'.

7.1.2. OPTIONAL. This field appears when 'Yes' was selected at Q 7.1.
- If the PIC has given the advice that no hospital admission was needed, select 'No admission needed'.
- If the PIC has given the advice that the patient should be admitted to a normal nursing ward, select 'Admission to a normal nursing ward'.
- If the PIC has given the advice that the patient should be admitted to the ICU/HDU, select 'ICU/HDU admission'.
- If the PIC hasn't given any advice about the necessity of admission, select 'No advice about admission'.
- If the advice from the PIC about the necessity of admission is not listed as an option provided, select 'Other'. Specify which other admission advice was provided in question Q 7.1.2.1.

- If information on the advice from the PIC on the necessity of admission is not known or available to you, select 'Unknown'.
- If the PIC has given the advice that the patient should be admitted to the hospital for observation without mentioning a specific department, select 'Hospital admission (ICU or ward admission not specified)'.

Patient characteristics

8. Age, gender, weight and height

8.1. Enter the age of the patient at hospital admission in years.
- Note that an age **under 18 years is an exclusion criterion of the INTOXICATE study**.

8.2. Select the most appropriate option for the gender of the patient. If the patient is or was neither 'Male' nor 'Female', select 'Non-binary'.
- If any information on the gender of the patient is not known or available to you, select 'Unknown or not available'.

8.3. Enter the patient's weight at hospital admission in kilograms (kg).

8.4. Enter the patient's height at hospital admission in meters (m).

8.5. The BMI is automatically calculated, based on the weight and height you entered.
- If the BMI is higher than 50 or lower than 10, a warning will appear and you have to check the values you entered for the patient's weight and/or height. If the BMI is actually higher than 50, please click the cogwheel next to the BMI, select "Comments" and confirm that you have entered the weight and height correctly and that the patient has morbid obesity.

9. Comorbidities

9.1. Check the boxes of the comorbid conditions (acute or chronic) that are most applicable to the patient at ICU/HDU admission (to 2 hours of ICU/HDU admission). For the definitions of the acute and chronic comorbid conditions see table 3 on page 10 (next page). Make sure that the selected comorbidities are consistent with the rest of the report e.g.: If "Chronic hemodialysis" or "Chronic kidney disease (CKD)" are checked, this is consistent with the serum creatinine (step 14) or if "Myocardial Infarction" or "Arrhythmia" are checked, this is consistent with the ECG results (step 15).
- If there is another important comorbid condition that could influence the LOS or IC-treatment that is not listed in the options provided, select 'Other'.

- If the patient has no comorbidities that could influence the outcome of the patient (LOS or ICU treatment), and the intoxication is the only pathological condition of the patient at ICU admission, select 'None'.

  9.1.1. If you selected 'Other' at Q 9.1, this field will appear to enter/describe the other relevant (acute or chronic) comorbid condition present at ICU admission (to 2 hours of ICU/HDU admission).

Table 3: List of comorbid conditions and their definitions

Comorbid condition	Definition
Acute Myocardial Infarction (AMI)	The criteria include detection of rise and/or fall of cTn with at least one value above the 99th percentile and with at least one of the following: a) Symptoms of AMI b) New ischemic ECG changes c) Development of pathological Q waves d) Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality in a pattern consistent with an ischemic etiology e) Identification of a coronary thrombus by angiography including intracoronary imaging or by autopsy In case there is evidence of an imbalance between myocardial oxygen supply and demand unrelated to coronary thrombosis, the thrombus identification (e) will be replaced by: Imaging evidence of new loss of viable myocardium, or new regional wall motion abnormality in a pattern consistent with an ischemic etiology. *According to the "Fourth Universal Definition of Myocardial Infarction (2018): https://www.onlinejacc.org/content/accj/72/18/2231.full.pdf*
Acute airway obstruction	a) Acute airway obstruction of the upper airway caused by e. g. infection (epiglottitis), foreign bodies, anaphylaxis, irritant gases and (angio)edema unrelated to the intoxication. b) Acute lower airway obstruction caused by e. g. pneumothorax or barotrauma. *Uptodate (april 3rd 2020): https://www.uptodate.com/contents/clinical-presentation-diagnostic-evaluation-and-management-of-central-airway-obstruction-in-adults,* *Textbook of Surgery, Fourh Edition. Published 2020 https://onlinelibrary.wiley.com/doi/pdf/10.1002/9781119468189.ch71* *Goldfrank's Toxicologic Emergencies, Ninth Edition. Published 2011*

Addiction	"Addiction is a chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences." *American Society of Addiction Medicine:* *https://www.asam.org/Quality-Science/definition-of-addiction* Criteria added by the DSM-5 specific for substance abuse: a) The substance use causes or increases physical or psychiatric problems b) More substance is required to get the same effect (tolerance) c) Withdrawal symptoms appear and decrease after use of the substance *DSM-5 criteria* *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3767415/*
Arrythmia	Co-existing medically treated arrhythmia (antiarrhythmic drugs, anti-coagulants, antiplatelet, calcium channel or beta-blockers, catheter ablation, implantable cardioverter defibrillator (ICD) or pacemaker) unrelated to but may be exacerbated by the intoxication reason of ICU-admission. *https://www.heart.org/en/health-topics/arrhythmia/prevention--treatment-of-arrhythmia*
Chronic cardiovascular insufficiency	Including cardiomyopathy, severe heart valve or coronary diseases with angina or symptoms at rest or minimal physical effort such as changing clothing and day to day care (NYHA Class IV). *New York Heart Association (NYHA)* *https://www.heart.org/en/health-topics/heart-failure/what-is-heart-failure/classes-of-heart-failure*
Chronic hemodialysis	Indicated for patients with: "symptoms or signs attributable to kidney failure (serositis, acid-base or electrolyte abnormalities, pruritus); inability to control volume status or blood pressure; a progressive deterioration in nutritional status refractory to dietary intervention; or cognitive impairment. This often but not invariably occurs in the GFR range between 5 and 10 ml/min/1.73 m2" (KDIGO). *Kidney Disease Improving Global Outcomes (KDIGO)* *https://kdigo.org/wp-content/uploads/2017/02/KDIGO_2012_CKD_GL.pdf*
Chronic Kidney Disease (CKD)	"CKD is defined as abnormalities of kidney structure or function, present for >3 months, with implications for health and CKD is classified based on cause, GFR category, and albuminuria category (CGA)."

Prognosis of CKD by GFR and albuminuria category

Prognosis of CKD by GFR and Albuminuria Categories: KDIGO 2012				Persistent albuminuria categories Description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g <3 mg/mmol	30-300 mg/g 3-30 mg/mmol	>300 mg/g >30 mg/mmol
GFR categories (ml/min/ 1.73 m^2) Description and range	G1	Normal or high	≥90			
	G2	Mildly decreased	60-89			
	G3a	Mildly to moderately decreased	45-59			
	G3b	Moderately to severely decreased	30-44			
	G4	Severely decreased	15-29			
	G5	Kidney failure	<15			

Green: low risk (if no other markers of kidney disease, no CKD); Yellow: moderately increased risk; Orange: high risk; Red, very high risk.

This table shows the prognosis based on GFR and albuminuria category. All patients within the low risk group (green) do not have CKD.

Kidney Disease Improving Global Outcomes (KDIGO)
https://kdigo.org/wp-content/uploads/2017/02/KDIGO_2012_CKD_GL.pdf

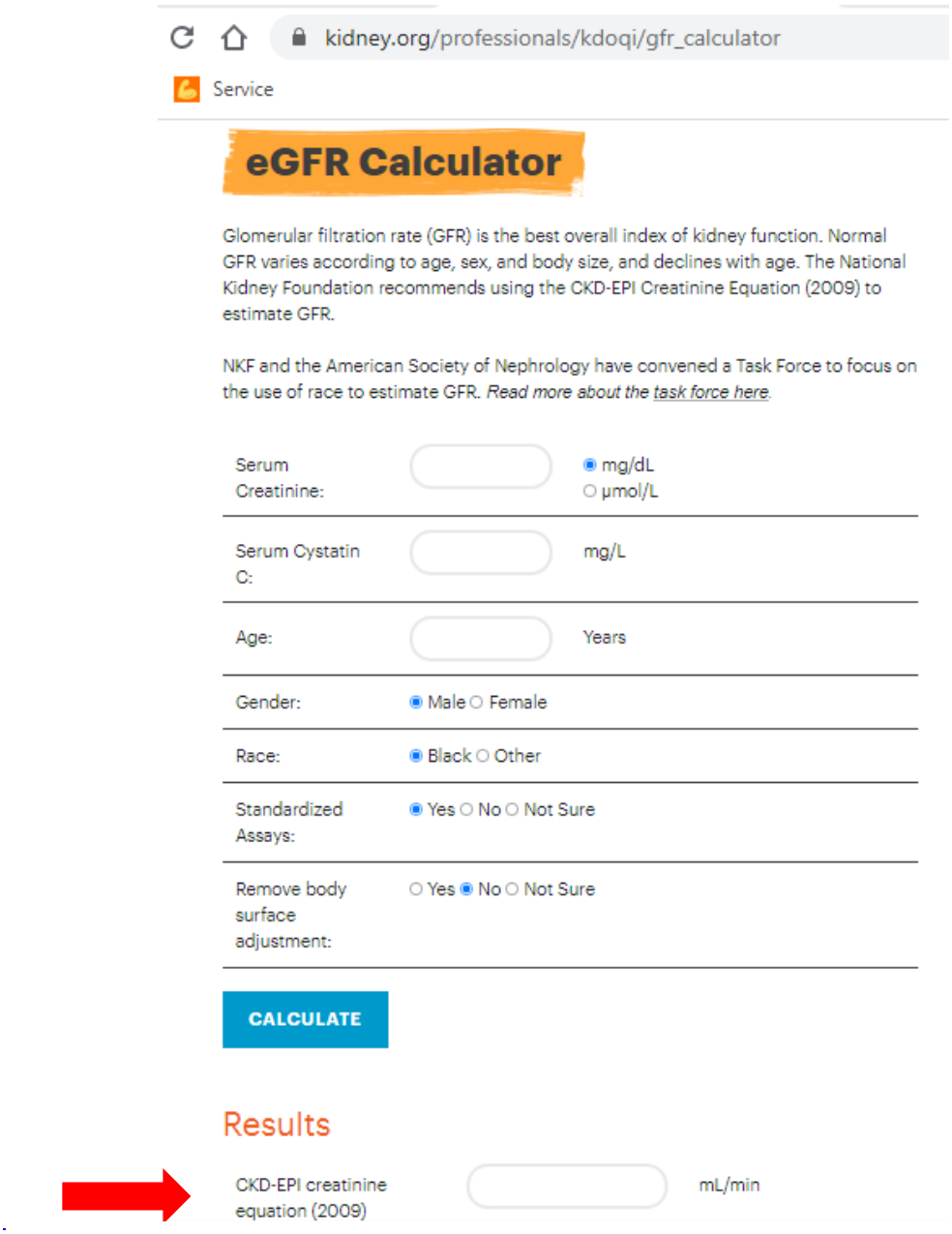
For the calculation of the GFR we use the formula from the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI):

GFR = 141 × min(Scr/κ, 1)α × max(Scr/κ, 1)-1.209 × 0.993age

For women: × 1.018
For Afro-American: × 1.159

Scr is serum creatinine in µmol/L
κ is 61.9 for women en 79.6 for men
α is -0.329 for women en -0.411 for men
min is minimum Scr/κ or 1
max is maximum Scr/κ or 1

Direct link to an online GFR calculator:
https://www.kidney.org/professionals/kdoqi/gfr_calculator
For the CKD-EPI formula Serum Cystatin C is not needed. You can find the calculated GFR in the result of CKD-EPI creatinine equation (red arrow):



Chronic Obstructive Pulmonary Disease (COPD)	Chronic obstructive disease (including emphysema/bronchitis), resulting in severe exercise restriction (i.e., unable to climb stairs or perform household duties; or documented chronic hypoxia, hypercapnia, secondary polycythemia or respirator dependency.

	Ho KM, Finn J, Knuiman M, Webb SAR. Combining multiple comorbidities with Acute PhysiologyScore to predict hospital mortality of critically ill patients: a linked data cohort study. Anaesthesia, 2007;62:1095-1100 https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-2044.2007.05231.x *The American Thoracic Society* https://www.thoracic.org/professionals/clinical-resources/critical-care/clinical-education/mechanical-ventilation/respiratory-failure-mechanical-ventilation.pdf *Zimmerman JE, Kramer AA, McNair DS, Malila FM. Acute Physiology and Chronic Health Evaluation (APACHE) IV: Hospital mortality assessment for today's critically ill patients. Crit Care Med, 2006 may;34(5):1297-1310* https://journals.lww.com/ccmjournal/Fulltext/2006/05000/Acute_Physiology_and_Chronic_Health_Evaluation.1.aspx
Cirrhosis	"Biopsy proven cirrhosis and documented portal hypertension; episodes of past upper GI bleeding attributed to portal hypertension; or prior episodes of hepatic failure/encephalopathy/coma." *Ho KM, Finn J, Knuiman M, Webb SAR. Combining multiple comorbidities with Acute PhysiologyScore to predict hospital mortality of critically ill patients: a linked data cohort study. Anaesthesia, 2007;62:1095-1100* https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-2044.2007.05231.x
Delirium	A with an appropriate screening tool established delirium during the admission period: from hospital admission to two hours of ICU admission. An appropriate screening tool is a tool that allows to establish a delirium within one (doctor's) service. In case your screening tool requires information from multiple services to establish a delirium or the screening could not have been assessed because of decreased consciousness this field is not applicable. This definition is taken from the National Intensive Care Evaluation (NICE). A national foundation (Dutch word: "stichting") to collect intensive care data for the monitoring and improvement of the quality of intensive care in the Netherlands. *Stichting-NICE* https://stichting-nice.nl/dd/#904 *(Dutch website)*
Dementia	"Dementia is a syndrome – usually of a chronic or progressive nature – in which there is deterioration in cognitive function (i.e. the ability to process thought) beyond what might be expected from normal ageing. It affects memory, thinking, orientation, comprehension, calculation, learning capacity,

	language, and judgement. Consciousness is not affected. The impairment in cognitive function is commonly accompanied, and occasionally preceded, by deterioration in emotional control, social behaviour, or motivation." Causes include: vascular, Alzeimer disease, Parkinson's disease, presenile, seline, Lewy body, alcoholic, primary degenerative, Huntington's disease, Creutzfeldt-Jakob disease, drug-induced dementia, Pick's disease and other diseases that cause degeneration of the frontal lobe. *World Health Organisation (WHO)* *https://www.who.int/en/news-room/fact-sheets/detail/dementia* *Elixhauser comorbidity Index ICD-10* *https://journals.lww.com/lww-medicalcare/Fulltext/1998/01000/Comorbidity_Measures_for_Use_with_Administrative.4.aspx*
Diabetes	Diabetes requiring medical treatment (insulin preparation or oral anti-diabetics) prior to ICU admission. Gravitation diabetes without treatment is not included. This definition is taken from the National Intensive Care Evaluation (NICE). A national foundation (Dutch word: "stichting") to collect intensive care data for the monitoring and improvement of the quality of intensive care in the Netherlands. *Stichting-NICE* *https://stichting-nice.nl/dd/#78 (Dutch website)* It should be noted that APACHE IV scores diabetes only for patients admitted to the ICU after coronary artery bypass graft (CABG) surgery and has diabetic hyperglycemic hyperosmolar nonketotic coma (HHNC) and Diabetic ketoacidosis added to the diagnosis list at ICU admission. The Charlson Index has separated scores for diabetes and diabetes with end organ damage. And the Elixhauser comorbidity index includes diabetes without medical treatment. *Ho KM, Dobb GJ, Lee KY, Finn J, Knuiman M, Webb SAR. The effect of comorbidities on risk of intensive care readmission during the same hospitalization: A linked data cohort study. J Crit Care, 2009;24:101-107* *https://reader.elsevier.com/reader/sd/pii/S0883944108000154?token=ED426CBE33139AD7F6AD9EC7135FE2B1230E56930B9B1C903DB17D35861BE29A23200E5F95CAE58A432B98D824FEDB44*
Hematological malignancy	Tumors of the hematopoietic and lymphoid tissues including all myeloid neoplasms, chronic and acute leukemia, MyeloProliferative Neoplasms (MPN), lymphoma, myeloma, histiocytic and mature T/NK neoplasms.

	According to: Vardiman JW, Thiele J, Arber DA, Brunning RD, Borowitz MJ, Porwit A, Harris NL, Beau Le MM, Hellström-Lindeberg E, Tefferi A, and Bloomfield CD. The 2008 revision of World Health Organisation (WHO) classification of myeloid neoplasms and acute leukemia: rationale and important changes. *https://ashpublications.org/blood/article/114/5/937/103719/The-2008-revision-of-the-World-Health-Organization*
Immunodeficiency	"The patient has received therapy that suppresses resistance to infection (e.g., immunosuppression, chemotherapy, radiation, long term or recent high dose steroids, or has a disease that is sufficiently advanced to suppress resistance to infection, e.g., leukemia, lymphoma, AIDS)" *Ho KM, Finn J, Knuiman M, Webb SAR. Combining multiple comorbidities with Acute PhysiologyScore to predict hospital mortality of critically ill patients: a linked data cohort study. Anaesthesia, 2007;62:1095-1100* *https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-2044.2007.05231.x*
Intracranial pressure	Head injury, meningitis, hematomas, vein obstruction, thrombosis, brain tumor, edema, contusions or abscesses can increase the intracranial pressure and add extra comorbidity to the condition of the intoxicated patient. This definition only applies to patients that need at least 1 hour of continuous intracranial pressure monitoring with a intraventricular, intraparenchymal, subarachnoidal, subdural or epidural catheter during one doctor's service (ICU-admission) until two hours of ICU-admission. If a catheter is used only for the drainage of fluid or pressure has been measured once during a lumbar puncture this field is not applicable. This definition is taken from the National Intensive Care Evaluation (NICE). A national foundation (Dutch word: "stichting") to collect intensive care data for the monitoring and improvement of the quality of intensive care in the Netherlands. *Stichting-NICE* https://stichting-nice.nl/dd/#563 *(Dutch website)*
Malnutrition/weight loss	By malnutrition/weight loss we define 'undernutrition' which includes low weight for age and micronutrient deficiencies or insufficiencies (lack of important vitamins and minerals). Malnutrition can be established by using the 'MUST' (Malnutrition Universal Screening Tool which includes information on how much % of the last body weight (<5, 5-10 and >10) the patient has lost unintentionally in the past 3-6 months, the Body Mass Index (BMI) (>20, 18.5 – 20, <18.5) and if the patient has not have had nutritional intake for >5

	days. Malnutrition is common amongst the elderly, and abusers of alcohol and drugs. *World Health Organization (WHO)* *https://www.who.int/features/qa/malnutrition/en/* *MUST* *https://www.bapen.org.uk/pdfs/must/must_full.pdf*
Metabolic/ endocrine disease	Metabolic diseases caused by abnormal metabolic processes that can be congenital due to inherited enzyme abnormalities or acquired due to disease of an endocrine organ or failure of a metabolically important organ such as the liver including iron, calcium and lipid metabolism disorders, malabsorption syndromes and mitochondrial diseases. *National Library of Medicine* *https://meshb.nlm.nih.gov/record/ui?ui=D008659, Revision date: 28th of februari 2018* Endocrine diseases with symptoms (Dwarfism does not necessarily mean that the patient is experiencing sickness and requires treatment directly for the hormonal dysfunction) caused by pathological processes of the endocrine glands, and diseases resulting from abnormal level of available hormones including (apart from diabetes): Adrenal Gland diseases, Gonadal disorders, Parathyroid Diseases, Hypophyseal Disorders, Neurohypophyseal Diseases, Pituitary Gland Diseases and Posterior Pituitary Disorders. National Library of Medicine https://meshb.nlm.nih.gov/record/ui?ui=D004700, Revision date: 7th of July 2004
Paralysis	Loss of motor function in one or more muscles caused by damaged nervous system (previous trauma, stroke, infection, auto immuun or degenerate diseases) including Parkinson's disease, ALS, multiple sclerosis, Guillain-Barré syndrome and muscular dystrophy) *Christopher & Dana Reeve Foundation* *https://www.christopherreeve.org/living-with-paralysis/health/causes-of-paralysis*
Primary Epilepsy	• At least two unprovoked (or reflex) seizures occurring greater than 24 hours apart.

	• One unprovoked (or reflex) seizure and a probability of further seizures similar to the general recurrence risk (at least 60%) after two unprovoked seizures, occurring over the next 10 years. • Diagnosis of an epilepsy syndrome ○ Epilepsy is considered to be resolved for individuals who had an age-dependent epilepsy syndrome but are now past the applicable age or those who have remained seizure-free for the last 10 years, with no seizure medicines for the last 5 years. *Epilepsy foundation* *https://www.epilepsy.com/article/2014/4/revised-definition-epilepsy*
Psychiatric	Including all mental disorders except for "addiction": depression, borderline, schizophrenia, bipolar, eating, post-traumatic stress, anxiety and neurodevelopmental disorders such as mental retardation. *DSM-IV* *https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.x00DiagnosticClassification*
Sepsis	Life-threatening organ dysfunction ((acute change in) total SOFA score of >2) caused by a dysregulated host response to infection (either locally or systemically). This includes any infection present (pulmonary, pancreatic, hepatic, brain, soft tissue) that is suspected to cause organ dysfunction present at ICU admission (to two hours after ICU-admission). Including e. g. dysregulated/complicated pneumonia, pancreatitis, hepatitis, endocarditis, meningitis, encephalitis infections. *The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)* *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4968574/*
Severe respiratory disease with e.g. oxygen use or mechanical ventilation at home	Chronic restrictive or vascular disease (excluding COPD) resulting in severe exercise restriction (i.e., unable to climb stairs or perform household duties; or documented chronic hypoxia, hypercapnia, secondary polycythemia, severe pulmonary hypertension (>40 mmHg), or respirator dependency. *Ho KM, Finn J, Knuiman M, Webb SAR. Combining multiple comorbidities with Acute PhysiologyScore to predict hospital mortality of critically ill patients: a linked data cohort study. Anaesthesia, 2007;62:1095-1100* *https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1365-2044.2007.05231.x*

	This definition includes e. g. pulmonary edema (cardiogenic and non-cardiogenic), pulmonary embolism, atelectasis, central hypoventilation, asthma, restrictive lung disease (fibrosis, sarcoidosis, interstitial lung diseases) myopathies, neuropathies, myasthenia gravis, atelectasis. *The American Thoracic Society* *https://www.thoracic.org/professionals/clinical-resources/critical-care/clinical-education/mechanical-ventilation/respiratory-failure-mechanical-ventilation.pdf* *Zimmerman JE, Kramer AA, McNair DS, Malila FM. Acute Physiology and Chronic Health Evaluation (APACHE) IV: Hospital mortality assessment for today's critically ill patients. Crit Care Med, 2006 may;34(5):1297-1310* *https://journals.lww.com/ccmjournal/Fulltext/2006/05000/Acute_Physiology_and_Chronic_Health_Evaluation.1.aspx*
Stroke	A stroke is a medical condition in which poor blood flow to the brain causes cell death. Including: Ischemic stroke, hemorrhagic stroke and transient ischemic attack (TIA). National Heart, Lung, and Blood Institute https://www.nhlbi.nih.gov/health-topics/stroke The National Intensive Care Evaluation (NICE) (a national foundation (Dutch word: "stichting") to collect intensive care data for the monitoring and improvement of the quality of intensive care in the Netherlands) has added to this condition the criterium that the stroke has taken place during ICU admission or within one hour after ICU admission. *Stichting-NICE* *https://stichting-nice.nl/dd/#61 (Dutch website)*

9.2. If the patient has a second reason of ICU/HDU admission, select 'Yes'.

- If the patient has only the intoxication as reason for ICU/HDU admission, select 'No'.

9.2.1 If you selected 'Yes' at Q 9.2, select the most fitting second reason for ICU admission.

- If the patient needed ICU admission because of the necessity of mechanical ventilation, select 'Mechanical ventilation'.
- If the patient needed ICU admission because the patient received cardiopulmonary resuscitation (CPR) prior to ICU admission, select

'Having received a cardiopulmonary resuscitation before ICU admission'.

- If the patient needed ICU admission because of elective surgery next to the intoxication, select 'Elective surgery'.
- If the patient needed ICU admission because of multiple traumatic injuries on top of the intoxication after an accident or attack, select 'Poly-trauma'.
- If the patient needed ICU admission because the patient has suffered a traumatic injury on top the intoxication after an accident or attack that is predominantly a brain injury, select 'Brain trauma'.
- If the patient needed ICU admission because the patient has suffered a traumatic injury on top of the intoxication after an accident or attack that are predominantly burns, select 'Burns'.
- If the patient's second reason for ICU admission is not listed in the options provided, select 'Other'. You can enter the second reason of ICU admission e.g. hypovolemia, hypothermia or hypoglycemia.

Exposure

10. Exposure characteristics

10.1. Enter the amount of substances the patient was exposed to with a maximum of 20.

10.2. Select the most probable reason of exposure. If the patient has intentionally taken the substance(s), select 'Intentional'.

- If the patient was exposed to the substance(s) by accident, select 'Unintentional'.

10.2.1. If you selected 'Intentional' this field will appear. Select the most applicable reason for intentional exposure. If it was a suicide attempt, select 'Suicide attempt'.

- If the exposure was intentional but the effects were unforeseen by lack of judgement or mistake (untested street drugs, ignorance for drug-to-drug interactions or unfavorable environmental conditions), select 'Exploratory behavior'.
- If information on the reason for intentional use is not known or available to you, select 'Unknown'.
- If the reason for intentional substance use is not listed in these options provided, select 'Other'. You can enter other reasons of intentional use manually here, e.g. abuse/addiction.

10.2.2. If you selected 'Unintentional' this field will appear. Select the most applicable reason for unintentional exposure, if the accidental exposure

was caused by a medication error of the patient, select the reason 'Medication error made by the patient'.

- If the unintentional exposure was caused by a medication error of the care giver (doctor, hospital, pharmacy), select 'Iatrogenic'.
- If the exposure was intentional but the effects were unforeseen by lack of judgement or a mistake (untested street drugs, ignorance for drug-to-drug interactions or unfavorable environmental conditions), select 'Exploratory behavior'.
- If the reason for accidental exposure is not listed with these options, select 'Other'. You can enter other reasons of unintentional use manually here, e.g. abuse/addiction.

10.3 If the time of exposure can be determined, select 'Known'.

- If the time of exposure could not be determined, select 'unknown'.
- If the time of exposure is not known but estimated, select 'Estimated'.

10.3.1. Please enter the time between exposure and ICU/HDU admission in hours.

i. Whole numbers can be entered for whole hours. Half an hour can be given as: 0.5 and a quarter of an hour can be given as: 0.25. So for example if a patient was exposed at 14:00 and ICU/HDU admission was at 16:45, the time between exposure and ICU/HDU admission should be given as: 2.75 hours.

10.4 Table to register the categories, routes, and doses of all exposures. Please note that **the number of exposures entered in Q 10.1 are the same as the number of rows in this table.**

Click on the "Add measurement" button in the upper right corner of the Table to open the *Table of exposures*. For each exposure answer the following questions (Q 1-2.5) in the Table (see instructions at "Questions in the Table of exposures**"** below). If you finished answering the questions for one exposure, click the blue "Add another" button in the lower right corner of the Table to open a fresh page to enter the answers for the next exposure. When you finished all exposures, you can close the Table by clicking the blue "Close report" button at the left lower corner of the Table. You now see an oversight of what you entered in the *Table of exposures*. **The number of rows should equal the number of exposures answered at Q 10.1** ("Number of exposures").
The questions of the *Table of exposures* are explained in the text below.

Questions in the Table of exposures

1. Enter the name of exposure, for example: "Paracetamol". If the name appears in the search engine, select the right name to save it.

- If you can't find the right name, enter a **synonym**. The search engine contains predefined names of exposure and some of them are synonyms. For example: to find Carbon monoxide you can type "Carbon" or "CO" and the search engine will find "CO / carbon monoxide".
- If you can't find the right name, try enter a **few letters** of the name of exposure that you are looking for. When you enter a few letters the search engine will show all names containing the letters. Click on the name to save.
- If the name you are looking for is not in the search engine after trying the previous described options above, type in: "Other". The search engine will show the option "Other", click it to save it and enter the name **manually**.

2. Select the most appropriate category of exposure. If the exposure was to medication, select 'Human medication'.

- If the exposure was to a drug of abuse such as Heroin, Cocaine, XTC, a black market drug, an experimental new drug or another "street drug", select 'Drug of abuse'.
- If there was exposure to alcohol, select 'Alcohol'.
- If the exposure was to any (household) cleaning detergent, select 'Chemical, cleaning product'.
- If the exposure was to another type of chemical including poisonous (ant poison), radioactive or corrosive substances, select 'Chemical, other'.
- If the exposure was to a gas including carbon monoxide, chlorine or laughing gas, select 'Gas'.
- If the exposure was to smoke/dust (tiny solid particles which are light enough to float in the air) or fumes (vapours/tiny liquid particles) such as zinc oxide or magnesium oxide, ammonia and formaldehyde, select 'Smoke/fumes'.
- If the exposure was to a toxic mushroom or mold/fungus, select
- 'Mushroom'.
- If the exposure was to plant toxins, select 'Plant'.
- If the exposure was to the poison of animals, select 'Animal'.
- If the category of exposure is not listed in the options provided, select 'Other' and enter it manually in Q 2.2.
- If the category of exposure is not known or available to you, select 'Unknown'.

2.1. If you selected 'Animal' for the most appropriate category at Q 2 of this Table, this field will appear. Here you can select the animal of exposure.

- If the animal is not listed in the options provided, select 'Other'.

2.1.1. Enter the "other" animal of exposure here manually.

2.3 Select the most appropriate route of exposure.

- If the route of exposure is not listed in the options provided, select 'Other' and enter the route of exposure manually in Q 2.3.1.
- If the route of exposure is unknown, select 'Unknown'.

2.4 Please enter the (estimated) amount of exposure here manually. **Enter "999" in case of an unknown amount.**

2.5 Please select the appropriate unit to quantify dose of exposure. **Select 'Unknown' in case of an unknown amount of exposure.** For a gas you can select 'Liters (L)' and for alcohol you can select 'Unit' for unit of alcohol. One unit is 10ml or 8g pure alcohol. The number of units in a drink is based on the size and strength of the drink. The standard measure alcohol by volume (ABV) is a measure of the amount of pure alcohol as a percentage of the total volume: e.g. wine has 12% ABV meaning 12% of the volume is pure alcohol. The amount of units in any drink is the total volume (in ml) multiplied by its ABV (as an percentage) divided by 1000: strength (ABV) x volume (ml) ÷ 1,000 = units (*Table 4: "Alcohol content in units of standard drinks"*).

Table 4: Alcohol content in units of standard drinks

Type of drink	Number of alcohol units
Single small shot of spirits (25ml, ABV 40%)	1 unit
Alcopop (275ml, ABV 5.5%)	1.5 units
Small glass of red/white/rosé wine (125ml, ABV 12%)	1.5 units
Bottle of lager/beer/cider (330ml, ABV 5%)	1.7 units
Can of lager/beer/cider (440ml, ABV 5.5%)	2 units
Pint of lower-strength lager/beer/cider (ABV 3.6%)	2 units
Standard glass of red/white/rosé wine (175ml, ABV 12%)	2.1 units
Pint of higher-strength lager/beer/cider (ABV 5.2%)	3 units
Large glass of red/white/rosé wine (250ml, ABV 12%)	3 units

Clinical assessment between the exposure and up to 2 hours after ICU/HDU admission

11 Symptoms

11.1. Check the boxes of the gastrointestinal symptoms that are most applicable to the patient from hospital admission to 2 hours of ICU/HDU admission.

- If the patient didn't have gastrointestinal symptoms, check 'No gastrointestinal symptoms' at the bottom of the list.
- If the patient had gastrointestinal symptoms that are not listed in the options provided, check 'Other' and enter the "other" gastrointestinal symptom(s) of the patient manually at Q 11.1.1.

Please answer questions Q 11.2-6 in the same way as Q 11.1. Please note that you have to select "No symptoms" for each category of which the patient has no symptoms.
For definitions of the symptoms see Table 5.

Table 5: Symptoms and their definitions

Symptom	Definition
Abdominal pain	Pain in the abdomen https://www.merriam-webster.com/dictionary/abdomen
Absent bowel sounds	Absence of sounds from the abdomen/bowel/intestine/gut determined with asculation. Sailer, Christian, Wasner, Susanne. Differential Diagnosis Pocket. Hermosa Beach, CA: Borm Bruckmeir Publishing LLC, 2002:77 ISBN 1591032016
Diarrhea	Diarrhea, also spelled diarrhoea, is the condition of having at least three loose, liquid, or watery bowel movements each day. https://www.who.int/en/news-room/fact-sheets/detail/diarrhoeal-disease
Dysphagia	Difficulty or discomfort in swallowing, as a symptom of disease. https://www.lecturio.com/concepts/dysphagia/
Hematemesis	Vomiting blood. https://www.ncbi.nlm.nih.gov/books/NBK411/
Nausea	A diffuse sensation of unease and discomfort, often perceived as an urge to vomit. https://pubmed.ncbi.nlm.nih.gov/17885699/

Vomitting	Vomiting (also known as emesis and throwing up)[a] is the involuntary, forceful expulsion of the contents of one's stomach through the mouth and sometimes the nose. Tintinalli, Judith E. (2010). Emergency Medicine: A Comprehensive Study Guide (Emergency Medicine (Tintinalli)). New York: McGraw-Hill Companies. p. 830. ISBN 978-0-07-148480-0.
Apnea	"transient cessation of respiration" https://www.merriam-webster.com/dictionary/apnea
Bradypnea	"abnormally slow breathing" https://www.merriam-webster.com/medical/bradypnea
Bronchospasms	"constriction of the air passages of the lung (as in asthma) by spasmodic contraction of the bronchial muscles" https://www.merriam-webster.com/dictionary/bronchospasms
Coughing	A cough is a sudden expulsion of air through the large breathing passages that can help clear them of fluids, irritants, foreign particles and microbes. As a protective reflex, coughing can be repetitive with the cough reflex following three phases: an inhalation, a forced exhalation against a closed glottis, and a violent release of air from the lungs following opening of the glottis, usually accompanied by a distinctive sound. https://www.sciencedirect.com/science/article/pii/S0140673608605954?via%3Dihub
Irritation	Irritation, in biology and physiology, is a state of inflammation or painful reaction to allergy or cell-lining damage. A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact can cause irritation. https://www.osha.gov/laws-regs/regulations/standardnumber/1917/1917.28AppA#:~:text=%22Irritant%3A%22%20A%20chemical%2C,at%20the%20site%20of%20contact.
Respiratory depression	Hypoventilation: "deficient ventilation of the lungs that results in reduction in the oxygen content or increase in the carbon dioxide content of the blood or both" https://www.merriam-webster.com/medical/hypoventilation

Shortness of breath	Shortness of breath, also known as dyspnea is a feeling of not being able to breathe well enough. Distinct sensations include effort/work, chest tightness, and air hunger (the feeling of not enough oxygen). Donald A. Mahler; Denis E. O'Donnell (20 January 2014). Dyspnea: Mechanisms, Measurement, and Management, Third Edition.
Stridor	"a harsh vibrating sound heard during respiration in cases of obstruction of the air passages" https://www.merriam-webster.com/dictionary/stridor
Tachypnea	"abnormally rapid breathing : increased rate of respiration" https://www.merriam-webster.com/dictionary/tachypnea
Chest pain	Non-heart-related chest pain is pain or discomfort in the chest, typically the front of the chest. It may be described as sharp, dull, pressure, heaviness or squeezing.Associated symptoms may include pain in the shoulder, arm, upper abdomen, or jaw, along with nausea, sweating, or shortness of breath. Tintinalli JE, Stapczynski JS, Ma OJ, Yealy DM, Meckler GD, Cline D (2016). Tintinalli's emergency medicine: a comprehensive study guide (Eighth ed.). New York: McGraw-Hill Education. pp. 325–331. Schey R, Villarreal A, Fass R (April 2007). "Noncardiac chest pain: current treatment". Gastroenterology & Hepatology. 3 (4): 255–62.
Palpitations	Palpitations are perceived abnormalities of the heartbeat characterized by awareness of cardiac muscle contractions in the chest, which is further characterized by the hard, fast and/or irregular beatings of the heart. https://pubmed.ncbi.nlm.nih.gov/28613787/
Referred pain from cardiac origin	Heart-related chest pain/angina pectoris/pain due to insufficient blood flow to the heart. Associated symptoms may include pain in the shoulder, arm, upper abdomen, or jaw, along with nausea, sweating, or shortness of breath.

	Alpert, Joseph S. (2005). Cardiology for the Primary Care Physician. Springer Science & Business Media. p. 47.
Agitation	"Agitation is an unpleasant state of extreme arousal. An agitated person may feel stirred up, excited, tense, confused, or irritable." https://medlineplus.gov/ency/article/003212.htm#:~:text=Agitation%20is%20an%20unpleasant%20state,tense%2C%20confused%2C%20or%20irritable.
Altered consciousness	Loss of consciousness, impaired consciousness, altered mental status may be caused by any pathologic state that interferes with the function of the reticular activating system (eg, brainstem stroke), both cerebral cortices (eg, encephalitis), or both the reticular activating system and cortices (eg, cardiac syncope). Between normal consciousness and complete loss of consciousness, states of partially preserved consciousness with limited ability to respond to external stimuli can be identified. https://empendium.com/mcmtextbook/chapter/B31.I.1.33.
Apathy	The term apathy describes the lack of motivation seen in a variety of neuropsychiatric disorders. It is employed by clinicians to describe such familiar attributes as loss of interests, loss of emotions, flattening of affect, or loss of energy. https://neuro.psychiatryonline.org/doi/pdf/10.1176/jnp.3.3.243
Ataxia	Ataxia is a neurological sign consisting of lack of voluntary coordination of muscle movements that can include gait abnormality, speech changes, and abnormalities in eye movements. https://www.mayoclinic.org/diseases-conditions/ataxia/symptoms-causes/syc-20355652
Blindness, visual disturbances	Visual impairment includes those who have low vision or who are blind including different types of visual symptoms such as Blurred vision, hazy/cloudiness, wavy or spots in central vision, restricted peripheral vision, poor night vision, difficulty seeing colors. https://www.ncbi.nlm.nih.gov/books/NBK448182/
Coma	Unarousable unresponsiveness due to trauma, cerebrovascular disease, intoxications, infections, seizures and metabolic

	derangements. A patient with a GCS of ≤8 is considered to be in a (severe) coma. This definition is also used by the SOFA score. file:///H:/Downloads/3-s2.0-B9780323052269500116-main.pdf https://medicinainternaelsalvador.com/wp-content/uploads/2017/09/Plum-and-Posners-Diagnosis-of-Stupor-and-Coma.pdf
Confusion	A mental state in which one is not thinking clearly. https://www.cancer.gov/publications/dictionaries/cancer-terms/def/confusion
Deafness, auditory disturbances	A person who is not able to hear as well as someone with normal hearing – hearing thresholds of 20 dB or better in both ears – is said to have hearing loss. Hearing loss may be mild, moderate, severe, or profound. It can affect one ear or both ears, and leads to difficulty in hearing conversational speech or loud sounds. https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss
Delirium	Delirium is an alteration in mental status that is characterized by acute onset, fluctuating course, impaired attention, and either a disturbance in the level of consciousness or disorganized thinking. https://oxfordmedicine.com/view/10.1093/med/9780190862800.001.0001/med-9780190862800-chapter-81
Dizziness	Spatial disorientation, motion of the environment, or lightheadedness. Differentiate from Vertigo, illusion of revolution in space. https://meshb.nlm.nih.gov/record/ui?name=Dizziness
Extrapyramidal symptoms	Extrapyramidal side effects (EPS), commonly referred to as drug-induced movement disorders are among the most common adverse drug effects patients experience from dopamine-receptor blocking agents. A variety of movement phenotypes has since been described along the EPS spectrum, including dystonia, akathisia, and parkinsonism, which occur more acutely, as well as more chronic manifestations of tardive akathisia and tardive dyskinesia.

	https://www.ncbi.nlm.nih.gov/books/NBK534115/
Fasciculations	The fasciculations can be defined as visible fast, fine, spontaneous and intermittent contractions of muscle fibers. Some neurologists call them verminosis, because they look like worms moving below the dermis. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4192433/#!po=70.3125
Hallucinations	hallucinations are involuntary false perceptions occurring concurrently with real perceptions (thus excluding dreams), and having qualities of real perceptions, i.e. vividness, substantiality, and location in external objective space. https://hkjo.lib.hku.hk/archive/files/2c023b7934fcf5e064bfd487061eaa53.pdf
Hypertonia	Hypertonia is a condition in which there is too much muscle tone so that arms or legs, for example, are stiff and difficult to move including spasticity and rigidity. https://www.ninds.nih.gov/Disorders/All-Disorders/Hypertonia-Information-Page#:~:text=Definition,stiff%20and%20difficult%20to%20move.
Hypotonia	Hypotonia is a medical term used to describe decreased muscle tone. Normally, even when relaxed, muscles have a very small amount of contraction that gives them a springy feel and provides some resistance to passive movement. It is not the same as muscle weakness, although the two conditions can co-exist. https://www.ninds.nih.gov/Disorders/All-Disorders/Hypotonia-Information-Page#:~:text=Definition,some%20resistance%20to%20passive%20movement.
Miosis /pin point pupils	Abnormal (non-physiological) constriction of the pupil. https://www.ncbi.nlm.nih.gov/medgen/6409#:~:text=Definition,from%20HPO%5D
Mydriasis / wide pupils still reactive to light	Abnormal dilatation of the iris. https://www.ncbi.nlm.nih.gov/medgen/?term=Mydriasis
Myoclonus	Very brief, involuntary random muscular contractions occurring at rest, in response to sensory stimuli, or accompanying voluntary movements.

	https://www.ncbi.nlm.nih.gov/medgen/?term=Myoclonus Myoclonus refers to sudden, brief involuntary twitching or jerking of a muscle or group of muscles. It describes a clinical sign and is not itself a disease. The twitching cannot be stopped or controlled by the person experiencing it. https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Myoclonus-Fact-Sheet#:~:text=Myoclonus%20refers%20to%20sudden%2C%20brief,is%20not%20itself%20a%20disease.
Nystagmus	Rhythmic, involuntary oscillations of one or both eyes related to abnormality in fixation, conjugate gaze, or vestibular mechanisms. https://www.ncbi.nlm.nih.gov/medgen/?term=Nystagmus
Paralysis	Partial or complete loss of function of one or more muscles. It is usually caused by damage to the nervous system. https://www.ncbi.nlm.nih.gov/medgen/?term=Paralysis
Seizures/convulsions	A seizure is an intermittent abnormality of nervous system physiology characterised by a transient occurrence of signs and/or symptoms due to abnormal excessive or synchronous neuronal activity in the brain. https://www.ncbi.nlm.nih.gov/medgen/?term=seizures
Tinnitus	Tinnitus is an auditory perception that can be described as the experience of sound ringing or other noises in one or both of your ears or in the head, in the absence of external acoustic stimulation. https://www.ncbi.nlm.nih.gov/medgen/?term=Tinnitus
Tremors	Tremor is an involuntary, rhythmic muscle contraction leading to shaking movements in one or more parts of the body. It is a common movement disorder that most often affects the hands but can also occur in the arms, head, vocal cords, torso, and legs. Tremor may be intermittent (occurring at separate times, with breaks) or constant. It can occur sporadically (on its own) or happen as a result of another disorder. https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Tremor-Fact-Sheet#:~:text=get%20more%20information%3F-,What%20is%20tremor%3F,cords%2C%20torso%2C%20and%20legs.

Burns	A burn is an injury to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction or contact with chemicals. https://www.who.int/news-room/fact-sheets/detail/burns
Cyanosis	Bluish discoloration of the skin and mucosa due to poor circulation or inadequate oxygenation of arterial or capillary blood. https://www.ncbi.nlm.nih.gov/medgen/?term=Cyanosis
Dehydration	A condition resulting from the excessive loss of water from the body. It is usually caused by severe diarrhea, vomiting or diaphoresis. A loss of turgor can be detected. https://www.ncbi.nlm.nih.gov/medgen/?term=Dehydration https://www.ncbi.nlm.nih.gov/medgen/536718
Dermal necrosis	Necrosis is a premature death of cells which occurs due to autolysis (self-digestion of cells after release of enzymes). These cells are a part of the living tissue inside the skin. Necrosis occurs due to external injury or trauma in a particular organ. Necrotic tissue is skin necrosis, in which many cells die in the same organ. https://www.medanta.org/internal-medicine-hospital/disease/necrotic-tissue/
Diaphoresis	Hidrosis, sweating, perspiration is production of fluids secreted by the sweat glands in the skin of mammals. https://www.sciencedirect.com/science/article/pii/S0021925818760262?via%3Dihub
Dryness of the skin	Xeroderma, xerosis or xerosis cutis, or simply dry skin, is a skin condition characterized by excessively dry skin. https://www.urmc.rochester.edu/encyclopedia/content.aspx?contenttypeid=85&contentid=P00281 It can be caused by excessive alcohol intake. https://dermnetnz.org/topics/cutaneous-adverse-effects-of-alcohol
Dysesthesias, paresthesias	Painful sensations elicited by a nonpainful cutaneous stimulus such as a light touch or gentle stroking over affected areas of the body. Sometimes referred to as hyperpathia or hyperalgesia. Often perceived as an intense burning, dyesthesias may outlast the stimulus by several seconds. https://www.ncbi.nlm.nih.gov/medgen/?term=Dysesthesias

	Paresthesia refers to a burning or prickling sensation that is usually felt in the hands, arms, legs, or feet, but can also occur in other parts of the body. The sensation, which happens without warning, is usually painless and described as tingling or numbness, skin crawling, or itching or a feeling of "pins and needles". It can be caused by nerve damage. https://www.ninds.nih.gov/Disorders/All-Disorders/Paresthesia-Information-Page#:~:text=Definition,%2C%20skin%20crawling%2C%20or%20itching.
Itching	Itching or ruritus is an itch or a sensation that makes a person want to scratch. This term refers to an abnormally increased disposition to experience pruritus. https://www.ncbi.nlm.nih.gov/medgen/?term=Itching
Purpura	Purpura (from Latin: purpura, meaning "purple") is the appearance of red or purple discolorations on the skin that do not blanch on applying pressure. They are caused by bleeding underneath the skin. This term refers to an abnormally increased susceptibility to developing purpura. Purpura are larger than petechiae. https://www.ncbi.nlm.nih.gov/medgen/?term=Purpura
Rash/redness	Redness of the skin, caused by hyperemia of the capillaries in the lower layers of the skin. Hyperemia is when your blood adjusts to support different tissues throughout your body. Passive hyperemia is usually caused by disease and is more serious which is the type of hyperemia that we like to refer to. https://www.ncbi.nlm.nih.gov/medgen/?term=Erythema
Red skin	(Systemically) reddened skin of any cause, in specific: Intoxication by boric acid, carbon monoxide, cyanide, atropine, scopolamine. https://medical-dictionary.thefreedictionary.com/red+skin
Swelling	Swelling or edema is an abnormal accumulation of fluid beneath the skin, or in one or more cavities of the body. https://www.ncbi.nlm.nih.gov/medgen/?term=edema
Toxic epidermal necrosis (TEN)	Toxic epidermal necrolysis (TEN) is a type of severe skin reaction. Early symptoms include fever and flu-like symptoms. A few days later the skin begins to blister and peel forming painful raw areas. Mucous membranes, such as the mouth, are

	also typically involved. Complications include dehydration, sepsis, pneumonia, and multiple organ failure. https://medlineplus.gov/genetics/condition/stevens-johnson-syndrome-toxic-epidermal-necrolysis/
Yellow skin/icterus	Yellow skin / jaundice / icterus is yellow pigmentation of the skin due to bilirubin, which in turn is the result of increased bilirubin concentration in the bloodstream. https://www.ncbi.nlm.nih.gov/medgen/?term=icterus
Anxiety	Intense feelings of nervousness, tenseness, or panic, often in reaction to interpersonal stresses; worry about the negative effects of past unpleasant experiences and future negative possibilities; feeling fearful, apprehensive, or threatened by uncertainty; fears of falling apart or losing control. https://www.ncbi.nlm.nih.gov/medgen/?term=anxiety
Bleeding excessively, large or deep bruises	Abnormal susceptibility to bleeding is often referred to as a bleeding diathesis. A bleeding diathesis may be related to vascular, platelet and coagulation defects. https://www.ncbi.nlm.nih.gov/medgen/?term=abnormal+bleeding Subcutaneous hemorrhaging refers to an abnormally increased susceptibility to bruising (purpura, petechiae, or ecchymoses). https://www.ncbi.nlm.nih.gov/medgen/?term=hemorrhag+susceptibility
Cholinergic symptoms (lacrimation, urination)	Cholinergic toxicity is caused by substances that stimulate, enhance or mimic the neurotransmitter acetylcholine, the primary neurotransmitter of the parasympathetic nervous systems. Acetylcholine stimulates muscarinic and nicotinic receptors to cause muscle contraction and glandular secretions. https://www.ncbi.nlm.nih.gov/books/NBK539783/
Erosions of mucous membranes	Erosions and blisters of the mucous membranes, the moist, inner lining of some organs and body cavities such as the nose, mouth, lungs and stomach). https://jamanetwork.com/journals/jamadermatology/article-abstract/518941
Papilledema	Papilledema refers to edema (swelling) of the optic disc secondary to any factor which increases cerebral spinal fluid pressure https://www.ncbi.nlm.nih.gov/medgen/?term=Papilledema

Red eyes	Red eye is the cardinal sign of ocular inflammation. The condition is usually benign and can be managed by primary care physicians. Conjunctivitis is the most common cause of red eye. Other common causes include blepharitis, corneal abrasion, foreign body, subconjunctival hemorrhage, keratitis, iritis, glaucoma, chemical burn, and scleritis. https://pubmed.ncbi.nlm.nih.gov/20082509/
Rigidity, cramping	Continuous involuntary sustained muscle contraction. When an affected muscle is passively stretched, the degree of resistance remains constant regardless of the rate at which the muscle is stretched. This feature helps to distinguish rigidity from muscle spasticity. https://www.ncbi.nlm.nih.gov/medgen/?term=rigidity Cramping or muscle spasticity is a motor disorder characterized by a velocity-dependent increase in tonic stretch reflexes with increased muscle tone, exaggerated (hyperexcitable) tendon reflexes. https://www.ncbi.nlm.nih.gov/medgen/?term=spasticity
Salivation	Excessive salivation means the excessive production of saliva. https://www.ncbi.nlm.nih.gov/medgen/11419
Thirst	Thirst or polydipsia refers to excessive thirst manifested by excessive fluid intake. https://www.ncbi.nlm.nih.gov/medgen/?term=Polydipsia

11.7. Table to register the locations where the patient presented the symptoms. **Note that the number of locations in this table is the same as the number of symptoms you selected in Q 11.1-6.** Click the button in the upper right corner of the Table with the blue text "Add measurement" to open the *Table of symptom locations*. Please check one of the symptoms you entered in the previous questions (Q 11.1-6), and the box of the location where the patient presented this symptom. When you finished entering the location of one symptom, click the blue "Add another" button in the lower right corner of the table to repeat the steps for each symptom. If you finished, close the Table by clicking the blue "Close report" button on the left lower corner of the table. You can see an oversight in the *Table of symptom locations*. The number of rows should equal the number of symptoms you answered at questions (Q 11.1-6).

12. Vital functions

Enter the most deviant and clinically relevant vital signs measured from the start of intoxication and up to 2 hours after ICU/HDU admission in questions Q12-6. The normal ranges are given by clicking the information buttons: ⓘ If measurements are within the normal range, please give the **FIRST values measured at ICU/HDU admission. Note that the Mean Arterial Pressure is lower than the Diastolic Blood Pressure.**

13. GCS

13.1. If a GCS was assessed between the start of intoxication and up to 2 hours after ICU/HDU admission and the sub scores are available, select 'Yes, with subscores'.

- If the subscores are unavailable, select 'Yes, without subscores'.
- If the GCS could not be assessed because the patient was intubated and sedated, select 'No because the patient was intubated/sedated'.
- If the GCS could not be assessed because of another reason than intubation and sedation, select 'No, other reason'.
- If information on the assessment of the GCS is unknown or unavailable, select 'Unknown'. **In case of multiple GCS, take the lowest GCS available.**

13.1.1. If you selected 'Yes, with subscores' at Q 13.1 this field will show. Select the eye opening score of the lowest assessed GCS between hospital presentation and the first 2 hours of ICU/HDU admission. Answer Q 13.1.2 up to Q 13.1.3 in the same way.

13.1.5 If you selected 'Yes, without subscores' at Q 13.1, you have to enter the lowest GCS available (only one score).

Note that if the patient was intubated at the ICU or later at the ED and the GCS before intubation is available, you enter the GCS before intubation, instead of selecting "No, because the patient was intubated/sedated at admission to the ED".

14. Lab

14.1. If lab was performed between the start of intoxication and up to 2 hours after ICU/HDU admission, select 'Yes'.

- If no lab was performed during that time, select 'No'.

14.1.1. If you selected 'Yes' at Q 14.1 this field will show. Check the boxes of all lab tests that were performed between the start of intoxication and up to 2 hours after ICU/HDU admission. **Please make sure you enter the correct units and calculate the correct amount manually, if needed.**

14.1.1.1. If you selected 'Arterial blood gas' at Q 14.1.1 this field will show. Please enter the arterial pH.

14.1.1.2. If you selected 'Arterial blood gas' at Q 14.1.1 this field will show. Please, enter the pO2.

14.1.1.3. If you selected 'Arterial blood gas' at Q 14.1.1 this field will show. Please, enter the pCO2.

14.1.1.4. If you selected 'Arterial blood gas' at Q 14.1.1 this field will show. Please, enter the O2 saturation.

14.1.1.5. If you selected 'International Normalized Ratio (INR)' at Q 14.1.1 this field will show. Please, enter the INR.

14.1.1.6. If you checked 'Electrolytes' at Q 14.1.1, this field will show. Select the unit used for electrolytes at your department.

14.1.1.7. If you selected 'Electrolytes' at Q 14.1.1, this field will show. Please, check the boxes of electrolytes that were determined.

- If you checked 'Sodium' at Q 14.1.1.6, this field will show. Enter the amount of sodium measured with the lab test.
- If you checked 'Potassium' at Q 14.1.1.6, this field will show. Enter the amount of potassium measured with the lab test.
- If you checked 'Chloride' at Q 14.1.1.6, this field will show. Enter the amount of chloride measured with the lab test.
- If you checked 'Bicarbonate' at Q 14.1.1.6, this field will show. Enter the amount of bicarbonate measured with the lab test.

14.1.1.8. If you checked 'Blood glucose' at Q 14.1.1, this field will show. Select the unit used for blood glucose at your department.

14.1.1.9. If you checked 'Blood glucose' at Q 14.1.1, this field will show. Enter the amount of glucose measured with the lab test.

14.1.1.10. If you checked 'Serum creatinine' at Q 14.1.1, this field will show. Select the unit used for serum creatinine at your department.

14.1.1.11. If you checked 'Serum creatinine' at Q 14.1.1, this field will show. Enter the amount of serum creatinine measured with the lab test.

14.1.1.12. If you checked 'Lactate' at Q 14.1.1, this field will show. Select the unit used for lactate at your department.

14.1.1.13. If you checked 'Lactate' at Q 14.1.1, this field will show. Enter the amount of lactate measured with the lab test.

14.1.1.14. If you checked 'Liver' at Q 14.1.1, this field will show. Select the unit used for liver enzymes at your department.

14.1.1.15. If you checked 'Liver' at Q 14.1.1, this field will show. Check the boxes of the liver enzymes that were measured in the lab test.

14.1.1.16. If you checked 'Blood toxicology screen' at Q 14.1.1, this field will show. Select the best applicable option.

- If the blood toxicology screen was positive, select 'Yes'.
- If the blood toxicology screen was negative or unclear, select 'No'.

14.1.1.17. If you checked 'Blood toxicology screen' at Q 14.1.1, this field will show. Select the best applicable option.

- If the blood toxicology screen changed the management or treatment of the patient, select 'Yes'.
- If the blood toxicology screen has not changed any policy for the patient, select ' No'.
- If any information on the consequences of the blood toxicology screen result is not known or available to you, select 'Unknown'.

14.1.1.18. If you checked 'Blood toxicology screen' at Q 14.1.1, this field will show. Please enter why the result(s) of the blood toxicology screen did or did not alter the policy of the patient.
This field is optional and does not need to be filled in.

14.1.1.19. If you checked 'Urine toxicology screen' at Q 14.1.1, this field will show. Select the best applicable option.

- If the urine toxicology screen was positive, select 'Yes'.
- If the urine toxicology screen was negative or unclear, select 'No'.

14.1.1.20. If you checked 'Urine toxicology screen' at Q 14.1.1, this field will show. Select the best applicable option.

- If the urine toxicology screen changed the management or treatment of the patient, select 'Yes'.
- If the urine toxicology screen has not changed any policy for the patient, select ' No'.

- If any information on the consequences of the urine toxicology screen result is not known or available to you, select 'Unknown'.

14.1.1.21. If you checked 'Urine toxicology screen' at Q 14.1.1, this field will show. Please enter why the result(s) of the urine toxicology screen did or did not alter the policy of the patient.
This field is optional and does not need to be filled in.

14.1.1.22. If you checked 'Ureum' at Q 14.1.1, this field will show. Select the unit used for ureum at your department.

14.1.1.23. If you checked 'Ureum' at Q 14.1.1, this field will show. Enter the amount of ureum measured with the lab test.

14.1.1.24. If you checked 'White blood cell count (WBC)' at Q 14.1.1, this field will show. Select the unit used for WBC at your department.

14.1.1.25. If you checked 'White blood cell count (WBC)' at Q 14.1.1, this field will show. Enter the WBC result from the lab test.

14.1.1.26. If you checked 'Platelet count' at Q 14.1.1, this field will show. Select the unit used for platelet count at your department.

14.1.1.27. If you checked 'Platelet count' at Q 14.1.1, this field will show. Enter the platelet count result from the lab test.

14.1.1.28. If you checked 'Hemoglobin' at Q 14.1.1, this field will show. Select the unit used for hemoglobin at your department.

14.1.1.29. If you checked 'Hemoglobin' at Q 14.1.1, this field will show. Enter the amount of hemoglobin measured with the lab test.

14.1.1.30. If you checked 'Bilirubin' at Q 14.1.1, this field will show. Select the unit used for bilirubin at your department.

14.1.1.31. If you checked 'Bilirubin' at Q 14.1.1, this field will show. Enter the amount of bilirubin measured with the lab test.

14.1.1.32. If you checked 'Other' at Q 14.1.1, this field will show. Enter which other lab tests have been performed and what were the results.

15. ECG

15.1. **First note that you check the date and time of the ECG and record the correct ECG.** If an ECG was performed between the start of intoxication and up to 2 hours after ICU/HDU admission, select 'Yes'.

- If no ECG was performed between the start of intoxication and up to 2 hours after ICU/HDU admission, select 'No'.

15.1.1. If you selected 'Yes' to Q 15.1, this field will appear. Enter date in '*dd-mm-yyyy'* and time in *'hh:mm'* of ECG assessment.

15.1.2. If you selected 'Yes' to Q 15.1, this field will appear. Enter the Heart Rate of the ECG in beats per minute.

15.1.3. If you selected 'Yes' to Q 15.1, this field will appear. Enter the QRS duration of the ECG **in milliseconds (ms) without decimal point.**

15.1.4. If you selected 'Yes' to Q 15.1, this field will appear. Enter the QT-time of the ECG **in milliseconds (ms) without decimal point. Note that we do not record the corrected QT-time. Please enter the uncorrected QT-time.**

15.1.5. If you selected 'Yes' to Q 15.1, this field appears. Select the most applicable option.

- If there were any abnormalities on the ECG, select 'Yes'.
- If the ECG was interpreted as normal, select 'No'.
- If any information on abnormalities on the ECG is unknown or unavailable from between hospital presentation and up to 2 hours of ICU/HDU admission, select 'Unknown'.

15.1.5.1. If you selected ´Yes´ at Q 15.1.5, this field will appear. Select the abnormalities that were on the ECG.

- If the abnormality on the ECG is not listed in the options provided, select ´Other´.

15.1.5.1.1. If you selected ´Intracardiac conduction abnormalities (e.g. QRS > 120 ms)' at Q 15.1.5.1, this field will show. Select the type of intracardiac conduction abnormalities seen on the ECG.

15.1.5.1.1.1. If you selected 'AV conduction disorder' at Q 15.1.5.1.1, this field will show. Select type of AV conduction abnormality seen on the ECG.

15.1.5.1.1.1.1. OPTIONAL. The answer to this question is not obligatory. If you selected 'Other' at Q 15.1.5.1.1, this field will show. Enter the other type of AV conduction disorder manually.

15.1.5.1.1.2. If you selected 'IV conduction disorder' at Q 15.1.5.1.1, this field will show. Select the type of IV

conduction disorder seen on the ECG that is most applicable to the patient.

15.1.5.1.1.3. If you selected 'Supraventricular rhythm disorders' at Q 15.1.5.1.1, this field will appear. Select the type of supraventricular rhythm disorder on the ECG that is most applicable to the patient.

15.1.5.1.1.4. If you selected 'Ventricular rhythm disorders' at Q 15.1.5.1.1, this field will appear. Select the most applicable type of ventricular rhythm disorder that was seen on the ECG.

15.1.5.1.1.4.1. OPTIONAL. If you selected 'Specific repolarization disorder' at Q 15.1.5.1.1.4, this field will show. Enter the other repolarization disorder seen on the ECG.

15.1.5.1.1.5. If you selected 'Other' at Q 15.1.5.1.1, this field will show. Enter the other intracardiac conduction abnormality manually in this empty field.

15.1.5.1.2. OPTIONAL. If you selected 'Other' at Q 15.1.5.1, this field will show. Enter the other cardiac abnormality found on the ECG of the patient manually in this empty field.

16. Treatment from the start of the start of the intoxication and up to ICU/HDU admission

16.1. Select all treatments given to the patient from the start of intoxication and up to ICU/HDU admission. For definitions of the treatments see Table 6: "Treatments and their definitions" (page 42).

- If the patient received a treatment that is not listed in the options provided, select 'Other'. **Note that mechanical ventilation is an option! You can select "Mechanical ventilation (either endotracheal intubation or non-invasive)".** If you selected 'Other' at Q 16.1, the field 16.1.1. will show. Enter

the other treatment(s) given to the patient from exposure and up to ICU/HDU admission.

Table 6: Treatments and their definitions

Treatment	Definition
Active cooling	Treatments that aim to reduce the core temperature in cases with heat stroke including icebaths, icepacks, intravenous cooling, sedation with benzodiazepine, muscle relaxants or dantrolene (only with the intention to reduce core body temperature, not to calm the patient!), evaporative cooling (undressing and wetting of the patient with blowing of ventilators). Lipman GS, Eifling KP, Ellis MA, Gaudio FG, Otten EM, Grissom CK; Wilderness Medical Society. Wilderness Medical Society practice guidelines for the prevention and treatment of heat-related illness: 2014 update. Wilderness Environ Med. 2014 Dec;25(4 Suppl):S55-65. doi: 10.1016/j.wem.2014.07.017. PMID: 25498263. Armstrong LE, Crago AE, Adams R, Roberts WO, Maresh CM. Whole-body cooling of hyperthermic runners: comparison of two field therapies. Am J Emerg Med. 1996 Jul;14(4):355-8. doi: 10.1016/S0735-6757(96)90048-0. PMID: 8768154. Laskowski LK, Landry A, Vassallo SU, Hoffman RS. Ice water submersion for rapid cooling in severe drug-induced hyperthermia. Clin Toxicol (Phila). 2015; 53: 181-4
Antidote treatment	Treatment used to antagonize the toxic effects of the intoxication including toxic kinetics and toxic dynamics. Examples include lipid emulsions for intoxications with lipophilic drugs, methylene blue for carbon monoxide poisonings and sodium bicarbonate for intoxications with tricyclic antidepressant drugs. Cave G, et al. Intravenous lipid emulsion as antidote: a summary of published human experience. Emerg Med Australas; 2011; 23(2):123-41. Barash M, Reich KA, Rademaker D. Lidocaine-induced methemoglobinemia: a clinical reminder. J Am Osteopath

	Assoc. 2015 Feb;115(2):94-8. doi: 10.7556/jaoa.2015.020. PMID: 25637615.
Calming medication	Indications for calming medication are for example acute and dangerous behavioral disturbances, (suspicion of) substance abuse, intoxication with cocaine or another stimulant drugs, epileptic insults, when the patient is agitated, has a delirium (of unknown origin), excited delirium syndrome, hypertensive syndrome or life threatening somatic state. Procedural sedation for mechanical ventilation with e.g. Propofol, is not seen as calming medication because the procedure is part of the treatment "Mechanical ventilation (either endotracheal intubation or non-invasive)" in which case the box for mechanical ventilation should be checked instead. If the Propofol is given for the intention to treat any of the above mentioned conditions, it can be recorded as calming medication. Alexander J, Tharyan P, Adams C, John T, Mol C, Philip J. Rapid tranquillisation of violent or agitated patients in a psychiatric emergency setting. Pragmatic randomised trial of intramuscular lorazepam v. haloperidol plus promethazine. Br J Psychiatry 2004; 185: 63–9. Gillies D, Sampson S, Beck A, Rathbone J. Benzodiazepines for psychosis-induced aggression or agitation. Cochrane Database Syst Rev 2013; 9.
Cardiopulmonary resuscitation (CPR)	PR – or Cardiopulmonary Resuscitation – is an emergency lifesaving procedure performed when the heart stops beating. Immediate CPR can double or triple chances of survival after cardiac arrest. https://cpr.heart.org/en/resources/what-is-cpr
Fluid resuscitation with >1.5 L fluid total	Treatment for the correction of volume depletion. The rate of correction of volume depletion depends upon its severity. With severe volume depletion or hypovolemic shock, at least 1 to 2 liters of isotonic fluids are generally given as rapidly as possible in an attempt to restore tissue perfusion. Fluid

	replacement is continued at a rapid rate until the clinical signs of hypovolemia improve (eg, low blood pressure, low urine output, and/or impaired mental status). Effect of Slower vs Faster Intravenous Fluid Bolus Rates on Mortality in Critically Ill Patients: The BaSICS Randomized Clinical Trial. Fernando G FG Zampieri JAMA: Journal of the American Medical Association 326(9) American Medical Association 2021-07
Gastrointestinal decontamination	Gastrointestinal decontamination refers to the practice of functionally removing an ingested toxin from the gastrointestinal (GI) tract in order to decrease its absorption or increase its clearance. https://www.uptodate.com/contents/gastrointestinal-decontamination-of-the-poisoned-patient?search=gastrointestintal%20decontamination&source=search_result&selectedTitle=1~72&usage_type=default&display_rank=1
Oxygen supplementation with FiO2 > 0.4	Supplemental oxygen (ie, >21 percent) is routinely administered to prevent desaturation during airway management, and to compensate for the impairment of gas exchange. The total amount of oxygen exposure should be limited, and FiO2 of 0.3 to 0.5 should provide adequate oxygenation with a margin of safety for most patients. https://www.uptodate.com/contents/mechanical-ventilation-during-anesthesia-in-adults?search=oxygen%20therapy%20FiO2%2040%25&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1
Renal replacement therapy (RRT)	Renal replacement therapy (RRT) that is used for the treatment of the metabolic, respiratory and hemodynamic complications of intoxications and for the increased elimination of toxins. https://www.uptodate.com/contents/drug-removal-in-continuous-kidney-replacement-therapy?search=renal%20replacement%20therapy%20intoxi

	cation&source=search_result&selectedTitle=4~150&usage_type=default&display_rank=4
Serum alkalinisation	Serum alkalinisation with sodium bicarbonate both enhances toxin elimination and reduces toxic effects in poisonings with tricyclic antidepressants making it an antidote treatment. Sodium bicarbonate treatment can also be used in case of salicylate poisoning to only enhance the elimination of the toxin from the central nervous system. https://www.uptodate.com/contents/tricyclic-antidepressant-poisoning?search=serum%20alkalinisation%20TCA&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1 https://www.uptodate.com/contents/salicylate-aspirin-poisoning-in-adults?search=serum%20alkalinisation%20&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1
Tracheostomy	Tracheostomy is a surgical procedure that creates an opening in the anterior wall of the trachea to facilitate airway access and ventilation in patients with acute upper airway obstruction who failed intubation with an endotracheal tube or in whom an endotracheal tube cannot be placed. Examples include those with severe upper airway obstruction due to angioedema, hematoma or anaphylaxis. https://www.uptodate.com/contents/tracheostomy-rationale-indications-and-contraindications?search=tracheostomy&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1
Vasopressors	One or more drugs that induce vasoconstriction and thereby elevate mean arterial pressure (MAP). Vasopressors differ from inotropes, which increase cardiac contractility; however, many drugs have both vasopressor and inotropic effects. Vasopressors include alpha adrenergic, beta adrenergic, dopamine, calcium sensitizers and angiotensin.

	https://www.uptodate.com/contents/use-of-vasopressors-and-inotropes?search=vasopressors&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1
Mechanical ventilation (either endotracheal intubation or non-invasive)	Clinicians can select among three fundamental strategies for mechanical ventilation: noninvasive positive pressure ventilation (NPPV), general invasive positive pressure ventilation (IPPV), and lung-protective invasive positive pressure ventilation (L-IPPV). https://www.uptodate.com/contents/mechanical-ventilation-of-adults-in-the-emergency-department?search=mechanical%20ventilation&source=search_result&selectedTitle=5~150&usage_type=default&display_rank=5
None	The patient was admitted at the ICU/HDU for observation.

16.2. Table to register locations of where the treatment was given.

Click the button in the upper right corner of the Table with the blue text "Add measurement" to open the *Table of treatment locations*. Instructions to complete the Table of treatment locations are listed below:

Questions of the Table of treatment locations

1. Select one of the treatments you entered at question 16.1 (Q 16.1). **Note that mechanical ventilation is an option! You can select "Mechanical ventilation (either endotracheal intubation or non-invasive)".**
   - If the treatment was not listed in the options provided at Q 16.1, select 'Other'.

   1.1. If you selected 'Antidote' treatment at Q 1 of this Table, this field will show. Check the box(es) of the antidote(s) given to the patient.
      - If the antidote is not listed in the options provided, select 'Other' and enter the other antidote manually at Q 1.1.1.

   1.2. If you selected 'Calming medication' at Q 1 of this Table, this field will show. Check the box(es) of calming medication given to the patient from hospital presentation to 2 hours of ICU/HDU admission.

- If the calming medication given to the patient is not listed in the options provided, select 'Other' and enter the other calming medication manually at Q 1.2.1.

1.3. If you selected 'Cardiopulmonary resuscitation (CPR)' at Q 1 of this Table, this field will show. Enter the time in hours (h) that passed between exposure and the start of CPR.

i. Please give whole numbers for whole hours and enter "0.5" for half an hour and "0.25" for a quarter of an hour. For example if the exposure was at 14:00 and CPR started at 15:45, enter: "1.75" hour(s).

1.4. If you selected 'Vasopressors' at Q 1 of this Table, this field will show. Select the vasopressor(s) given to the patient from hospital presentation to 2 hours of ICU/HDU admission.

- If the vasopressor(s) given to the patient are not listed in the options provided, select 'Other' and enter the other vasopressor(s) manually at Q 1.4.1.

1.5. If you selected 'Other' at Q 1 of this Table, this field will show. Enter the other treatment given to the patient from hospital presentation to 2 hours of ICU/HDU admission manually here.

2. Check the box of the location where the treatment you selected started.

i. When you finished entering the location of one treatment, click the blue "Add another" button in the lower right corner of the Table to open a fresh page for the location of the next treatment. When you are finished, close the Table by clicking the blue "Close report" button on the left lower corner of the Table. You can now see an oversight in the Table of treatment locations. **The number of rows should equal the number of treatments you selected at question 16.1 (Q 16.1).**

17. Treatment given within 0-24 hours of ICU/HDU stay

17.1. Select all the treatments given within the first 24 hours of ICU/HDU stay; given on the first day of ICU/HDU admission. **Note that mechanical ventilation is an option! You can select "Mechanical ventilation (either endotracheal intubation or non-invasive)".**

- If a treatment that was given to the patient on the first day of ICU/HDU stay is not listed in the options provided, select 'Other'.
- If no treatment was initiated on the first day of ICU/HDU stay, select 'None'.

17.1.1. If you selected 'Other' at question 17.1 (Q 17.1), this field will show. Enter the other treatment(s) given to the patient on the first day of ICU/HDU admission manually here.

17.2. Table to register the locations of start of treatments and duration of treatments given between 0 and 24 hours (24 hours included) after ICU/HDU admission. Click the button in the upper right corner of the Table with the blue text "Add measurement" to open *the Table of ICU/HDU treatments given within the first 24 hours of ICU/HDU stay*. Instructions for the Table are listed below:
Questions of the Table of ICU/HDU treatments given within the first 24 hours of ICU/HDU stay – **please note that in case the patient was transferred to another ICU we ask you to sum up the durations of treatment given at both ICU's/HDU's (before and after transfer) and complete the Castor file as if the patient was not transferred at all. We include transfer time as time at the ICU.**

1. Select one of the treatments given to the patient between 0-24 hours after ICU/HDU admission (**The same as the answer to question 17.1** (Q 17.1)).
   - If the treatment is not listed in the options provided, select 'Other'

1.1. If you selected 'Oxygen supplementation with an FiO2 of >0.4' at Q 1, this field will show. Select the type of oxygen supplementation given to the patient in the first 24 hours of ICU/HDU stay. Note that only treatments with an oxygen supplementation with an FiO2 of >0.4 are included.
   - If the type of oxygen supplementation is not listed in the options provided, select 'Other'

1.1.1. If you selected 'Other' at Q 1.1., this field will appear. Enter the other type of oxygen supplementation given to the patient <24 hours of ICU/HDU stay.

1.2. If you selected 'Oxygen supplementation with an FiO2 of >0.4' at Q 1, this field will show together with a Conversion table for FiO2 of oxygen supplementation treatments at field 1.3. Enter the highest FiO2 used for oxygen supplementation.

i. The FiO2 is the fraction of inspired oxygen and is given as a number between 0 and 1. Natural air contains 21% oxygen which is equal to a FiO2 of 0.21.

1.4 If you selected 'Mechanical ventilation (either endotracheal intubation or non-invasive' at Q 1 of this Table, this field will appear. Select the type of ventilation that was given to the patient in the first 24 hours of of ICU/HDU stay.

- If the type of ventilation given to the patient is not listed in the options provided, select 'Other' and enter the other type of ventilation manually at Q 1.4.1.

1.6 If you selected 'Vasopressors' at Q 1 of this Table, this field will show. Select the vasopressor(s) given to the patient <24 hours of ICU/HDU stay.

- If the vasopressor given is not listed in the options provided, select 'Other' and enter the other vasopressor manually at Q 1.6.1.

1.7 If you selected 'Renal replacement therapy (RRT)' at Q 1 of this Table, this field will show. Select the type of RRT given to the patient <24 hours of ICU/HDU stay.

- If the type of RRT given to the patient during the first 24 hours of ICU/HDU stay is not listed in the options provided, select 'Other' and enter the other type of RRT manually at Q 1.7.1.

1.8 If you selected 'Calming medication' at Q 1 of this Table, this field will show. Select the type of calming medication given to the patient <24 hours of ICU/HDU stay.

- If the type of calming medication given to the patient is not listed in the options provided, select 'Other' and enter the other type of calming medication manually at Q 1.8.1.

1.9 If you selected 'Cardiopulmonary resuscitation (CPR)' at Q 1 of this Table, this field will show. Enter the amount of time that has passed between exposure time and the start of CPR **in hours (h).**

i. Please enter hours as whole numbers, half an hour as 0.5, a quarter of an hour as 0.25. For example: If exposure time was 14:00 and start of CPR was at 15:45, enter: 1.75.

1.10 If you selected 'Antidote treatment' at Q 1 of this table, this field will show. Select the antidote that was administered <24 hours of ICU/HDU stay.

- If the antidote is not listed in the options provided, select 'Other' and enter the other antidote manually at Q 1.10.1.

1.11 If you selected 'Active cooling' at Q 1 of this Table, this field will show. Select the type of active cooling that was performed on the patient <24 hours of ICU/HDU stay.

- If the type of active cooling the patient received <24 hours of ICU/HDU stay is not listed in the options provided, select 'Other' and enter the other type of cooling manually at Q 1.11.1.

1.12 If you selected 'Fluid resuscitation with >1.5 L in total' at Q 1 of this Table, this field will appear. Enter the total amount of fluid given to the patient <24 hours of ICU/HDU stay in milliliters (ml).

1.13 If you selected 'Gastrointestinal decontamination' at Q 1 of this Table, this field will appear. Select the type of gastrointestinal decontamination used on the patient <24 hours of ICU/HDU admission.

- If the type of gastrointestinal decontamination is not listed in the options provided, select 'Other' and enter the other type of gastrointestinal decontamination manually at Q 1.13.1.

1.14 If you selected 'Other' at Q 1 of this Table, this field will show. Enter the other treatment given to the patient <24 hours of ICU/HDU admission manually.

2. Select the location of the start of the treatment given between 0-24 hours after ICU/HDU admission.
   - If the treatment given to the patient in the first 24 hours of ICU/HDU stay started at the ER, select 'Started at the ER'.
   - If the treatment started at the ICU/HDU, select 'Started at the ICU/HDU'
   - If the treatment given was initiated at the ambulance, select 'Ambulance'.
   - If the location of start of treatment is not listed in the options provided, select 'Other' and enter the other location of treatment at Q 2.1.
   - If information on the location of start of treatment given between 0-24 hours after ICU/HDU admission is not known or unavailable to you, select 'Unknown'.
3. Select a unit of time (hours, days weeks or months) to measure the duration of the treatment that was given in the first 24 hours of ICU/HDU stay (24th hour included).
4. Enter the duration of the treatment given in the first 24 hours of ICU/HDU stay according to the units chosen in the previous question (Q 3).

If you finished answering the questions for one treatment given between 0-24 hours after ICU/HDU admission, click the blue button that says "Add another" in the lower right corner of the Table to open a fresh page with the same questions for the next treatment. When you finished entering all treatments given between 0-24 hours after ICU/HDU admission, close the Table by clicking the blue "Close report" button on the left lower corner of the Table.

You now see an oversight in the *Table of ICU/HDU treatments given within 0-24 hours of ICU/HDU stay*. **The number of rows should be equal to the number**

of treatments given at Q 17.1 ("*Which treatment(s) was/were initiated within the first 24 hours at the ICU/HDU*?").

18. Treatment given after the first 24 hours and during the rest of ICU/HDU stay.

18.4 **Please answer this question.** Select "Yes" if the duration of stay at ICU/HDU was shorter than 24 hours and **ignore the following questions on this page (Step 18). If the stay at the ICU/HDU was 24 hours or longer, answer the rest of the questions on this page.**

18.5 Select the treatments given after the first 24 hours and during the rest of the ICU/HDU stay. If a treatment is given after the first 24 hours of ICU/HDU stay that is not listed in the options provided, select 'Other' and enter the other treatment manually at Q 18.5.1.

18.6 Table to register information on the treatments given after the first 24 hours of ICU/HDU admission (> 24 hours). Click the button in the upper right corner of the Table with the blue text "Add measurement" to open *the Table of ICU/HDU treatments given after the first day of ICU/HDU stay*. Instructions about entering data in the Table are listed below:

Questions in the Table of ICU/HDU treatments given after the first 24 hours of ICU/HDU stay and the rest of ICU/HDU stay - **please note that in case the patient was transferred to another ICU we ask you to sum up the durations of treatment given at both ICU's/HDU's (before and after transfer) and complete the file as if the patient was not transferred at all. We include transfer time as time at the ICU.**

1. Select one of the treatments given to the patient after the first 24 hours and the rest of ICU/HDU stay (from the treatments answered at Q 18.3.2).
   - If the treatment is not listed in the options provided, select 'Other'.

   1.1. If you selected 'Oxygen supplementation with an FiO2 of >0.4' at Q 1 of this Table, this field will show. Select the type of oxygen supplementation given to the patient after the first 24 hours and the rest of ICU/HDU stay.
      - If the type of oxygen supplementation is not listed in the options provided, select 'Other' and enter the other type of oxygen supplementation given to the patient manually at Q 1.1.1.

   1.4 If you selected 'Mechanical ventilation (either endotracheal intubation or non-invasive)' at Q 1 of this Table, this field will appear. Select the

type of mechanical ventilation that was given to the patient from the first 24 hours and the rest of ICU/HDU stay (>24 hours).

- If the type of ventilation given to the patient is not listed in the options provided, select 'Other' and enter the other type of mechanical ventilation manually at Q 1.4.1.

1.6. If you selected 'Vasopressors' at Q 1 of this Table, this field will show. Select the vasopressor(s) given to the patient >24 hours of ICU/HDU stay.

- If the vasopressor given is not listed in the options provided, select 'Other' and enter the other type of vasopressor manually at Q 1.6.1.

1.7. If you selected 'Renal replacement therapy (RRT)' at Q 1 of this Table, this field will show. Select the type of RRT given to the patient >24 hours of ICU/HDU stay.

- If the type of RRT given to the patient on after the first 24 hours and the rest of ICU/HDU stay is not listed in the options provided, select 'Other' and enter the other type of RRT manually at Q 1.7.1.

1.8. If you selected 'Calming medication' at Q 1 of this Table, this field will show. Select the type calming medication given to the patient >24 hours of ICU/HDU stay.

- If the type of calming medication given to the patient is not listed in the options provided, select 'Other' and enter the other calming medication manually at Q 1.8.1.

1.9. If you selected 'Cardiopulmonary resuscitation (CPR)' at Q 1 of this Table, this field will show. Enter the amount of time that passed between exposure and start of CPR in hours (h).

i. Please enter hours as whole numbers, half an hour as 0.5, a quarter of an hour as 0.25. For example: If exposure time was 14:00 and start of CPR was at 15:45, enter: 1.75.

1.10. If you selected 'Antidote treatment' at Q 1 of this table, this field will show. Select the antidote that was administered >24 hours of ICU/HDU stay.

- If the antidote is not listed in the options provided, select 'Other' and enter the other antidote treatment manually at Q 1.10.1.

1.11. If you selected 'Active cooling' at Q 1 of this Table, this field will show. Select the type of active cooling that was performed on the patient >24 hours of ICU/HDU stay.

- If the type of active cooling that the patient received >24 hours of ICU/HDU stay is not listed in the options provided, select 'Other' and enter the other type of active cooling manually at Q 1.11.1.

1.12. If you selected 'Fluid resuscitation with >1.5 L in total' at Q 1 of this Table, this field will appear. Enter the total amount of fluid given to the patient >24 hours of ICU/HDU stay in milliliters (ml).

1.13. If you selected 'Gastrointestinal decontamination' at Q 1 of this Table, this field will appear. Select the type of gastrointestinal decontamination used on the patient >24 hours of ICU/HDU admission.

- If the type of gastrointestinal decontamination is not listed in the options provided, select 'Other' and enter the other type of gastrointestinal decontamination manually at Q 1.13.1.

1.14. If you selected 'Other' at Q 1 of this Table, this field will show. Enter the other treatment given to the patient >24 hours of ICU/HDU admission manually.

2. Select the location of the start of the treatment given after the first 24 hours and during the rest of the ICU/HDU stay.
   - If the treatment given to the patient >24 hours of ICU/HDU stay started at the emergency room (ER), select 'Started at the ER'.
   - If the treatment given >24 hours of ICU/HDU stay started at ICU/HDU admission (at the ICU/HDU), select 'Started at the ICU/HDU'
   - If the treatment given >24 hours of ICU/HDU stay was initiated in the ambulance, select 'Ambulance'.
   - If the location of start of treatment given >24 hours of ICU/HDU stay is not listed in the options provided, select 'Other'.
   - If information on the location of start of treatment given >24 hours of ICU/HDU stay is not known or unavailable to you, select 'Unknown'.
3. Select a unit of time (hours, days weeks or months) to measure the duration of the treatment given.
4. Enter the duration of the treatment given >24 hours of ICU/HDU stay according to the units chosen in the previous question (Q 3) of this Table.

If you finished the questions for one treatment given >24 hours of ICU/HDU stay, click the blue "Add another" button in the lower right corner of the Table. A fresh page will open to answer the same questions for the next treatment. When you finished entering all treatments given >24 hours of ICU/HDU stay, close the Table by clicking the blue "Close report" button on the left lower corner of the Table. You now see an oversight in the Table of ICU/HDU treatments given after

the first 24 hours and the rest of ICU/HDU stay. **The number of rows should equal the number of treatments answered at Q 18.3.2 ("*Which treatment(s) did the patient receive > 24 hours after ICU/HDU admission*?").**

19 APACHE score during ICU/HDU stay

19.1 If an APACHE score has been assessed during the ICU/HDU stay, select 'Yes'.

- If no APACHE score has been assessed, select 'No'.

19.1.1 If you selected 'Yes' at Q 19.1. this field will show. Select the type of APACHE score that was assessed for the patient.

- If the version of the APACHE score that was assessed is not listed in the options provided, select 'Other'.

19.1.1.1 If you selected 'Other' at Q 19.1.1., this field appear. Enter the other version of the APAHCE score that was assessed for the patient from the first 24 hours of ICU/HDU stay manually.

19.1.2 If you selected 'Yes' at Q 19.1. this field will show. Enter the value of the APACHE score that was assessed for the patient from the first 24 hours of ICU/HDU stay.

20 SOFA score during ICU/HDU stay

20.1 If a SOFA score has been assessed during the ICU/HDU stay, and the sub scores are available to you, select 'Yes, with sub scores'.

- If a SOFA scores has been assessed and the sub scores are not available or unknown to you, select 'Yes, without sub scores'.
- If no SOFA score has been assessed for the patient, select 'No'.
  i. Take the first SOFA score that has been assessed at the ICU/HDU (of the first 24 hours of ICU/HDU stay). If multiple SOFA scores have been assessed during ICU/HDU stay, take the highest SOFA score.

If you selected 'Yes, with sub scores' at Q 20.1, fields Q 20.1.1-6 will show.

20.1.7 Here the SOFA score will be calculated automatically based on the sub scores selected in questions 20.1.1-6. If the sub scores are not completed, the warning "Not all values for this calculation are available (yet)" will show. Please complete the sub scores of the SOFA score.

201.7.1 If you selected 'Yes, without sub scores' at Q 20.1, this field will show. Enter the total SOFA score manually (take the highest total SOFA score if multiple SOFA scores are available).

21. SAPS score during ICU/HDU stay

21.1 If a SAPS score was assessed during ICU/HDU stay, select 'Yes'.

- If no SAPS score was assessed, select 'No'.

21.1.1 If you selected 'Yes' at Q 21.1, this field will show. Select the version of the SAPS score that has been assessed.

i. The SAPS II score uses values from the first 24 hours of ICU/HDU stay. The SAPS III score uses values from the first hour of ICU/HDU stay.

21.1.2 If you selected 'Yes' at Q 21.1, this field will show. Enter the total SAPS score that was assessed at the ICU/HDU.

i. If multiple SAPS scores were calculated, enter the highest SAPS score available from ICU/HDU stay.

22. Optional: Other scores

22.1 Optional. Answering this question is not obligatory. If other scores were assessed during ICU/HDU stay (e.g. Toxscore or Poisoning Severity Score (PSS)), select 'Yes'. If no other scores have been assessed at the ICU/HDU, select 'No'.

22.1.1 If you selected 'Yes' at Q 22.1, this field will appear. This field is also optional! Enter the other score that has been assessed during ICU/HDU stay manually.

23. Complications during ICU/HDU stay

23.1 Check the boxes of complications that occurred during ICU/HDU stay that are most applicable to the patient. For the definitions of the here listed complications see Table 7: "List of complications and their definitions", page 56.

- If the complications that occurred during ICU/HDU stay are not listed in the options provided, select 'Other' and enter the other complications manually at Q 23.1.1.
- If no complications occurred during ICU/HDU stay, select 'No complications'.

Table 7: List of complications and their definitions

Complication	Definition
Acute liver failure	The patient has ≥ 1 of the next conditions: • Highest level of bilirubin from a sample taken <24 hours of ICU/HDU admission (lab result can be determined >24 hours): ≥ umol/l • Receives artificial liver support (Molecular Adsorbents Recirculating System (MARS) or extracorporeal treatment with (pig-) hepatocytes) for ≥ 1 hour at the day of SOFA assessment. The first definition is used by APACHE III and IV and the second by the SOFA score.
Acute Kidney Injury ("severe", KDIGO stage 2 or 3)	Severe acute kidney injury is defined by: - a doubling of the serum creatinine level from baseline, - a serum creatinine level of 4 mg per deciliter (354 µmol per liter) or more with an increase of 0.3 mg per deciliter (27 µmol per liter) from baseline, - or a urine output of less than 6 ml per kilogram of body weight during the preceding 12 hours." (We use the KDIGO-criteria, which have also been used in a recent randomised controlled trial in the NEJM, the STARRT-AKI trial); see: https://www.nejm.org/doi/full/10.1056/NEJMoa2000741
Aspiration pneumonitis	"Is defined as acute lung injury after the inhalation of regurgitated gastric contents. This syndrome occurs in patient who have a marked disturbance of consciousness such as that resulting from a drug overdose, seizures, a massive stroke, or the use of anesthesia." https://www.nejm.org/doi/pdf/10.1056/NEJM200103013440908?articleTools=true

Circulatory failure	The patient has > 1 of the next conditions:
	• The lowest mean arterial pressure is <70 mmHg
	• The dopamine dosing rate is ≤ 5 ug/kg/min or the patient receives dobutamine (any dose)
	• The dosing rate of:
	  • Dopamine is > 5 ug/kg/min OR
	  • Epinephrine is ≤ 0.1 ug/kg/min OR
	  • Norepinephrine is ≤ 0.1 ug/kg/min
	• The dosing rate of:
	  • Dopamine is > 15 ug/kg/min OR
	  • Epinephrine is > 0.1 ug/kg/min OR
	  • Norepinephrine is > 0.1 ug/kg/min

	This definition is used in the SOFA score.
Coma	Unarousable unresponsiveness due to trauma, cerebrovascular disease, intoxications, infections, seizures and metabolic derangements. A patient with a GCS of ≤8 is considered to be in a (severe) coma. This definition is also used by the SOFA score. file:///H:/Downloads/3-s2.0-B9780323052269500116-main.pdf https://medicinainternaelsalvador.com/wp-content/uploads/2017/09/Plum-and-Posners-Diagnosis-of-Stupor-and-Coma.pdf
Hospital acquired infection	"Also known as "nosocomial infection", is an infection occurring in a patient during the process of care in a hospital or other health care facility which was not present or incubating at the time of admission. A hospital acquired infection can affect patients in any type of setting where they receive care and can also appear after discharge". WHO (World Health Organisation) https://www.who.int/gpsc/country_work/burden_hcai/en/
Hypoxic-ischemic brain injury	Neuronal cell death after prolonged hypoxia (happens most often after cardiac arrest/cardiopulmonary resuscitation) https://link.springer.com/content/pdf/10.1007/s00401-009-0509-0.pdf file:///H:/Downloads/1-s2.0-S0196064416304656-main.pdf https://www.nejm.org/doi/pdf/10.1056/NEJMoa012689?articleTools=true
Respiratory failure	If the patient has a PaO2/FiO2 ratio of <200 and is mechanically ventilated <24 hours of ICU/HDU stay. This definition is used in the SOFA score.

24. Vital status at hospital discharge

24.1 Select the vital status of the patient at hospital discharge. If the patient was alive at hospital discharge, select 'Alive'.

- If the patient died at the ICU/HDU, select 'Deceased at ICU/HDU'.
- If the patient died at another ward after being discharged from the ICU/HDU, select 'Deceased at the ward following ICU/HDU discharge'.

24.1.1 If you selected 'Alive' at Q 24.1, this field will show. Select the location of the patient after ICU/HDU discharge.

- If the location of the patient after ICU/HDU discharge is not listed in the options provided, select 'Other' and enter the other location manually at Q 24.1.1.1.

24.1.2 If you selected 'Diseased at the ICU/HDU' or 'Deceased at the ward following ICU/HDU discharge' at Q 24.1, this field will show. Select the most applicable time unit to quantify the time between ICU/HDU admission and death.

24.1.3 If you selected 'Deceased at the ICU/HDU' or 'Deceased at the ward following ICU/HDU discharge' at Q 24.1, this field will show. Enter the amount of time passed between ICU/HDU admission and death in units (chosen in the previous question (Q 24.1.2.)).

24.1.4 If you selected 'Deceased at ICU' or 'Diseased at the ward following ICU/HDU discharge' at Q 24.1, this field will show. Check the boxes of the conditions that were the causes of death.

- If the cause of death is not listed in the options provided, select 'Other' and enter the other cause of death manually at Q 24.1.4.1.

24.2. If life sustaining-care was withheld or withdrawn select 'yes'.

- If life sustaining-care was not withheld at any point during the patient's hospital stay, select 'No'.

24.2.1. If you selected 'Yes' at Q 24.2, this field will show. Select the treatments that were withheld. If the treatment that was withheld is not listed in the options provided, select 'Other' and enter the other withheld treatment manually at Q 24.2.1.1.

24.2.2. If you selected 'Yes' at Q 24.2, this field will show. Enter the date in "DD-MM-YYYY" and time in "hh:mm" of the first limitation of life sustaining treatment.

24.2.3. If you selected 'Yes' at Q 24.2, this field will show. Automatic calculation of time. A warning will appear if the chronological order of the dates and times is not logical. In this case, please, check the dates and times you entered in the previous fields.

25 Vital status 30 days after ICU/HDU admission

25.1 Select the vital status of the patient 30 days after ICU/HDU admission.

- If information about the vital status of the patient, **after having tried to retrieve it,** is unknown or unavailable to you, select 'Unknown'.

End of record: *INTOXICATED PATIENTS*.

26 Oversight: Different durations of stay at the ER, on ward, at ICU/HDU are computed.

27 End: End procedure, information to read. Nothing to enter.