

1. FUNCTIONAL REQUIREMENTS OF THE INFORMATION SYSTEM FOR THE HEALTHCARE DISPATCH SERVICE (IS DCZ)

1.1 GENERAL REQUIREMENTS

1.1.1 The information system (IS) interface should be designed as an [MUI \(Multilingual User Interface\)](#). The primary (or built-in) language is Slovenian. The contracting authority must be able to translate the language files into other languages and to display them in these languages without any programming knowledge or interventions by the supplier.

The descriptions of the functionalities of the required IS are provided below. The contractor may also offer a more suitable solution than the one described, taking into account the recorded minimum requirements. The cases described are intended for a better understanding of the required functionalities.

Where stated in the document [optional], a tenderer is given additional points that are taken into consideration when making the selection. Additional points for a particular functionality are displayed next to the text.

1.1.2 A comprehensive information system must be based on MultiTier architecture.

1.1.3 In the event of a failure of one centre, it must be possible to redirect the application to a database and a file space in another centre without any programming knowledge and supplier intervention. Switch time < 5 min.

1.2 BASIC MENU

1.2.1 In the basic menu, users can scroll through various IS modules.

1.2.2 Only the options for which they hold authorisations are displayed.

Registration in the system is described under the section titled Administration.

1.3 RECEIPT USING THE SLOVENIAN INDEX

1.3.1 The entire Index must be in Slovenian and translated into four languages: English, Italian, Hungarian, and German.

1.3.1.1 The Index language selection does not affect the user interface language.

1.3.2 Dispatchers toggle between different language versions by clicking on the language mark.

1.3.3 Initially, the Index appears in the language that was used or set up most recently. The default language is Slovenian.

1.3.4 [optional] The index can also be translated into other languages (Croatian or Spanish). All languages must be in Latin script. A tenderer must also submit documentation certifying that the translation is suitable (translation agency).

Orders for emergency transport are carried out over the telephone and received directly by calling the emergency number 112. Orders for non-emergency transport are carried out by calling a specified non-emergency number and via e-mail.

The final official version of the Slovenian Emergency Medical Service Index is enclosed with the Technical Specifications.

1.3.5 Electronic orders are carried out through the interface agreed upon by the selected tenderer and the tenderers providing existing information systems of healthcare institutions through which they have been generating or printing transport orders (Hipokrat, BIRPIS, etc.).

1.3.6 The trigger for electronic orders is linked to the printing of a non-emergency transport order.

1.3.7 The contracting authority must enter all of the information that is described in this chapter and relevant for the transport.

Basic description

1.3.8 The first entry in the form (e.g. receiving calls) is only enabled for the person who first opens the form in the editing mode.

1.3.9 The next and all subsequent users have the option to inspect the entry and monitor it in real time.

1.3.10 Changes after the first entry is activated/saved are enabled for multiple users, but it must be indicated which users are currently monitoring data and which data is being monitored.

1.3.11 An overview must clearly show who was the last person to change the data and who was the person who made the first entry.

1.3.11.1 The IS makes it possible for the entire audit trail to be saved (what, when, who).

1.3.12 [optional]The person who last changed the data can be automatically called by clicking on their name.

1.3.13 [optional]The person who first received a call can be automatically called by clicking on their name.

1.3.14 The ongoing auto-save function for the entered data and the overview of changes (entry history) are activated.

1.3.15 Data is divided into individual sections that take into account the logic/order of the Slovenian Index.

1.3.16 Scrolling forward and backward through the fields is possible by using the TAB key and the mouse.

1.3.17 [optional]Scrolling through individual sections is possible by using particular function keys.

Receipt of a transport order is entered into the reception form with the support of an informationised e-Slovenian Index.

1.3.18 The entire Index must be designed so that users with suitable rights can independently change all of the displayed text and edit links to appropriate advice and displayed pages.

1.3.19 [optional]Index administration is enabled for users with basic computer knowledge.

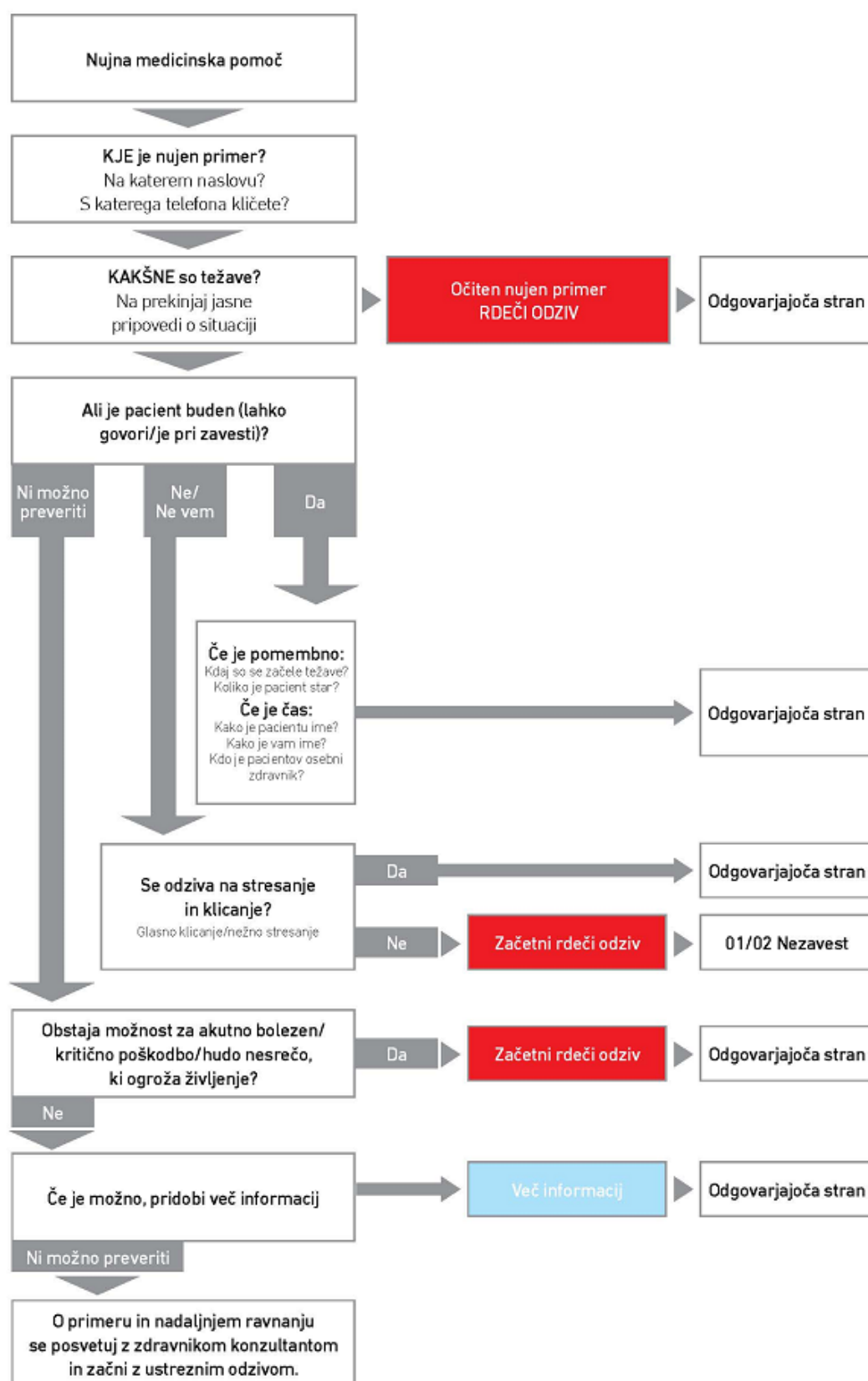
1.4 SLOVENIAN INDEX ALGORITHM – BEGINNING

The description refers to mandatory fields that the program must contain according to the Slovenian Index. The presented mode of operation is only intended for helping users understand the operation.

1.4.1 The displayed algorithm (Figure 1) is interactive; when we click on a button, either the corresponding page and/or an entry field opens.

To facilitate better understanding, the algorithm is displayed in the figure below:

Figure 1: Slovenian Index Homepage



SL	EN
Nujna medicinska pomoč	Emergency Medical Services
KJE je nujen primer?	WHERE is the emergency?
Na katerem naslovu?	At what address?
S katerega telefona kličete?	What telephone number are you calling from?
KAKŠNE so težave?	WHAT is the problem?
Na prekinjaj jasne prepovedi o situaciji	Do not interrupt a clear explanation of the situation
Očiten nujen primer	Evident emergency
RDEČI ODZIV	RED RESPONSE
Odgovarjajoča stran	Responding party
Ali je pacient buden (lahko govori/je pri zavesti)?	Is the patient awake (can they speak/are they conscious)?
Ni možno preveriti	Cannot be verified
Ne/Ne vem	No/I do not know
Da	Yes
Če je pomembno:	If relevant:
Kdaj so se začele težave?	When did the problem begin?
Koliko je pacient star?	How old is the patient?
Če je čas:	If there is time:
Kako je pacientu ime?	What is the patient's name?
Kako je vam ime?	What is your name?
Kdo je pacientov osebni zdravnik?	Who is the patient's personal doctor?
Odgovarjajoča stran	Responding party
Se odziva na stresanje in klicanje?	Is the patient responsive when shaken or called?
Glasno klicanje/nežno stresanje	Loud calling/gentle shaking
Da	Yes
Ne	No
Začetni rdeči odziv	Initial red response
Odgovarjajoča stran	Responding party
01/02 Nezavest	01/02 Unconsciousness
Obstaja možnost za akutno bolezen/kritično poškodbo/hudo nesrečo, ki ogroža življenje?	Is there a possibility of an acute illness/critical injury/severe accident that is life-threatening?
Da	Yes
Začetni rdeči odziv	Initial red response
Odgovarjajoča stran	Responding party
Ne	No
Če je možno pridobi več informacij	If possible, acquire more information.
Več informacij	More information
Odgovarjajoča stran	Responding party
Ni možno preveriti	Cannot be verified
O primeru in nadaljnjem ravnanju se posvetuj z zdravnikom konzultatom in začni z ustreznim odzivom.	Discuss the case and further actions with a consulting physician and commence a suitable response.

Item 1: Where is the emergency?

This is just the title of the field, there are two options below:

Item 1.1: At what address?

1.4.2 Geolocation search is enabled in the following manners:

1.4.2.1 Directly from a map

Go to any point on the linked map (described under section [1.10 Link with the GIS](#)) and the geolocation of an event and the address will be transcribed into the program by means of a suitable command.

1.4.2.2 On the basis of entered coordinates (GPS and XY)

1.4.2.3 House number catalogue

The house number catalogue is a separate database updated by the contracting authority. The first entry of data into the database is performed by the contractor. The update of the local database using an existing public database of the

Surveying and Mapping Authority of the Republic of Slovenia (GURS) must be enabled; simple data import in a particular text format. The administrator of the contracting authority's database can automatically enter or correct any record.

1.4.2.4 Catalogue of institutions

A database of institutions that is updated by the contracting authority through a simple form must also be established.

1.4.2.5 On the basis of the geolocation of landlines acquired from Emergency Notification Centres (ENC), Regional Emergency Notification Centres (RENC), and Operations and Communication Centre (OCC) or telephone service providers

When connected to these centres, the centres also provide data on the location of the telephone (address) and (optional) on the contracting authority (from the phone book of Slovenia). The program can display a location, geolocate it in its database and transcribe all other data.

1.4.2.6 On the basis of the likelihood of the geolocation of mobile phones from the base station coverage models

When connected to these centres, the centres also provide data through an IP line on the location of the telephone (area in which the phone may be located at the time when the call is made) and (optional) on the contracting authority (from the phone book of Slovenia). The program can display a location, geolocate it in its database and transcribe all other data.

1.4.2.7 The program verifies the likely location by comparing it to the entered location and suitably warns the dispatcher in the event of a major deviation.

1.4.2.8 Notes: additional field in which a description of the location is entered if a location cannot be geolocated (somewhere in the forest between locations x and y, etc.) or an addition to the geolocation (floor, flat, department, etc.)

1.4.3 Item 1.2 What telephone are you calling from?

If selected, an entry window opens containing the following possible fields

1.4.3.1 Caller number

Display of the incoming phone number that can be easily saved (speed dial or dedicated button) into the registration form, and display of known data (e.g. from a phone book)

1.4.4 Is the caller at the location? : Selection from two options: Yes/No

1.4.4.1 If not, the phone number at the location

1.4.5 Item 2 What is the problem?

The name of the field that has three choices available

1.4.5.1 Item 2.1 Event description: Text field All details of the event are entered into the field.

1.4.6 Item 3 Red response

1.4.6.1 Upon clicking a selected button, an intervention is assigned the status of a red response and it is displayed to the assigning dispatcher, and Item 4 is displayed.

1.4.7 Below the red response button, there is also a button for a transition directly to the card of the Slovenian Index: 50 Emergency Transports.

1.4.8 Item 4 Select an event

Selector for a suitable event by entering a code into a field:

1.4.8.1 By selecting from a drop-down menu

1.4.8.2 By entering the first few letters into a particular field

1.4.8.3 Basic events are specific events in the Slovenian Index.

1.4.9 Item 5: Is the patient conscious (awake/aware of their surroundings) and can the patient speak?

Question, inactive, below it there are three options (Items 6, 7, and 8) that lead to the next branch of the algorithm.

1.4.10 Item 6: I do not know

A button that, when selected, displays the next question (Item 9) and records the answer

1.4.11 Item 7: No

A button that, when selected, displays the next question (Item 11) and records the answer

1.4.12 Item 8: Yes

A button that, when selected, displays the following entry fields (Items 15, 16, 17, 18, and 19) and the possibility of determining the event (Item 4)

1.4.13 Item 9: Is there a possibility of an acute illness/critical injury/severe accident that is life-threatening?

Question, inactive, below it there are two options (Items 10 and 11) that lead to the next branch of the algorithm.

1.4.14 Item 10: No

A button that, when selected, displays the next question (Item 20) and records the answer.

1.4.15 Item 11: Yes

A button that, when selected, displays Item 3 and the field for selecting the event is displayed (Item 4)

1.4.16 **Item 12: Is the patient responsive when shaken or called?**

Question, inactive, below it there are two options (Items 13 and 14) that lead to the next branch of the algorithm.

1.4.17 **Item 13: Yes**

A button that, when selected, displays the field for selecting the event (Item 4)

1.4.18 **Item 14: No**

A button that, when selected, initiates Item 3 and displays the card 01/02 unconsciousness.

1.4.19 **Item 15: When did the problem begin?**

Question below, possibility of recording an answer, text field.

1.4.20 **Item 16: How old is the patient? Question below, possibility of recording an answer, text field.**

1.4.20.1 Two fields, age and date of birth, are displayed. When one is completed, the other is completed (calculated) automatically.

e.g.: enter the year of birth 2000 – the age of 14 is entered in the age field, and vice versa (only the year of birth is recorded based on the entry of the information).

1.4.20.2 The full date of birth can also be entered into the field for the date of birth, but this is not mandatory.

1.4.20.3 The piece of information that is automatically calculated is highlighted, so that it is clear that this is an automatic calculation.

1.4.21 **Item 17: What is the patient's name?**

Question below, possibility of recording an answer, text field.

1.4.22 **Item 18: What is your name?**

Question below, possibility of recording an answer, two text fields, surname and name, and relationship with the patient/person in care (next of kin, the police, eyewitness, 112, etc.)

1.4.23 **Item 19: Who is the patient's personal doctor?**

Question below, possibility of recording an answer, text field.

1.4.23.1 Link to the doctor database of the Health Insurance Institute of Slovenia (ZZZS), from which a dispatcher selects the stated doctor.

1.4.24 [optional]If information on the personal doctor is displayed, a pre-set message is sent to the work e-mail of this doctor after treatment is concluded.

1.4.25 [optional]If information on the doctor is displayed, there is an additional option for the p/pc to give their consent for their information to be provided to the personal doctor.

1.4.26 [optional]Entry of the ZZZS health insurance card number, and acquiring particular patient information from databases.

1.4.27 Item 20: If possible, acquire more information.

1.4.28 Item 21: More information

A button that, when selected, displays the field for selecting the event (Item 4)

1.4.29 Item 22: Cannot be verified

A button that, when selected, displays the field for selecting the event (Item 4).

1.4.30 When making a selection, the option is displayed for the call to be put through to an emergency doctor at an emergency centre (the program has a list of emergency doctors for consultation, and it offers dispatchers the most suitable doctor considering the event location) for consultation; the field for entering Item 2.1 is also displayed

1.4.31 Display of the appropriate event (Item 4)

The Index contains 37 different events that are designed similarly. One event/card will be described as an example of how to act.

When the link from the initial algorithm brings us to the appropriate event, this event is displayed as shown in the figure below.

1.4.32 The contractor must ensure that the text is displayed in a clear and legible manner (equivalent to the size of the text when printed onto an A4 sheet with a font size 10 or more, also on monitors > 24")

Figure 2: Event/card of the Slovenian Index

33 UROLOŠKE TEŽAVE

	KRITERIJI	NASVETI	ODGOVOR
PRIORITETA I	A.33.01 Velika odprta rana v predelu ledvic ali sečil	1	1. Aktiviraj najbližjo MoE REA ali MoE NRV in zdravnika DS. Ob zasedenosti MoE REA/zdravnika DS pošli najbližjo MoE NRV. 2. Po potrebi stori naslednje: - aktiviraj prve posredovalce, - aktiviraj reševalca na motorju, - aktiviraj najbližjo MoE NRV, - aktiviraj najbližjega zdravnika DS, - aktiviraj HNMP, - obvesti najbližje reševalno vozilo (čeprav pelje pacienta), - izjemoma predlagaj prevoz z osebnim vozilom. 3. Preveri preostale kriterije in okoliščine. 4. Zastavi ustrezna dodatna vprašanja. 5. Po potrebi prilagodi odziv. 6. Klicatelju daj ustrezne nasvete. 7. Če je mogoče, ostani na zvezi s klicateljem. 8. Obveščaj ekipe o morebitnih tveganjih in nevarnostih. 9. Po potrebi daj napotke zdravstvenemu osebju. Podroben način odziva urejajo veljavni standardni operativni postopki dispečerske službe zdravstva.
	A.33.02 Povišana telesna temperatura nad 38,5 °C, hude bolečine, izgleda slabotno in apatično	3	
	A.33.03 Erekcija, ki traja več kot 5 ur in hude bolečine	7	
PRIORITETA II	H.33.01 Hude in krčevite bolečine v hrbtu/ledveno	2	1. Preveri preostale kriterije in okoliščine. 2. Zastavi ustrezna dodatna vprašanja. 3. Če je mogoče, pridobi več informacij. 4. Klicatelju daj ustrezne nasvete. 5. Po potrebi stori naslednje: - aktiviraj MoE NRV, - o primeru obvesti zdravnika NMP oz. DS in se dogovori o načinu odziva in nato ponovno pokliči klicatelja, - pacientu naroči, naj pride v najbližjo DS, SUC ali UC. 7. Klicatelju naroči, naj takoj pokliče nazaj, če se stanje poslabša. 8. Po potrebi ostani na zvezi s klicateljem. Podroben način odziva urejajo veljavni standardni operativni postopki dispečerske službe zdravstva.
	H.33.02 Povišana telesna temperatura, vse hujše bolečine v hrbtu/ledveno	3 4	
	H.33.03 Pekoča bolečina pri uriniranju in povišana telesna temperatura nad 38,5 °C	3 4	
	H.33.04 Močna bolečina v spodnjem delu trebuha, nezmožnost/težave pri uriniranju	5	
	H.33.05 Vse hujša bolečina v mošnji	6	
	H.33.06 Vse hujša bolečina v dimljah	6	
	H.33.07 Pacient po presaditvi ledvic s povišano telesno temperaturo in bolečinami, odvaja majhne količine urina		
	H.33.08 Stalna, nezaželeni erekcija, zmerna bolečina, manj kot 5 ur	7	
PRIORITETA III	V.33.01 Pekoča bolečina pri uriniranju	3 4 8	1. Zastavi ustrezna dodatna vprašanja. 2. Klicatelju daj ustrezne nasvete. 3. Po potrebi stori naslednje: - pacientu svetuj, naj pokliče svojega osebnega zdravnika oz. se oglasi v njegovi ambulanti, - pacientu svetuj, naj pokliče DS oz. se oglasi v DS, - s klicateljem se dogovori o nadaljnjih ukrepih. 4. Klicatelju naroči, naj takoj pokliče nazaj, če se stanje spremeni. Podroben način odziva urejajo veljavni standardni operativni postopki dispečerske službe zdravstva.
	V.33.02 Gnojni izcedek iz penisa	3 4 8	
	V.33.03 Kri v urinu	8	
	V.33.04 Težave pri uriniranju	8	
	V.33.05 Pogosto uriniranje	8	
	V.33.06 Oteklina ali zatrdlina v mošnji ali dimljah, brez bolečin	8	
	V.33.07 Vnetje ali rane okoli spolovil	8	

SL	EN
UROLOŠKE TEŽAVE	UROLOGICAL ISSUES
KRITERIJI	CRITERIA
NASVETI	ADVICE
ODGOVOR	ANSWER
PRIORITETA I	PRIORITY I
Velika odprta rana v predelu ledvic ali sečil	Large open wound in the area of kidneys or the urinary system
Povišana telesna temperatura nad 38,5 °C, hude bolečine, izgleda slabotno in apatično	High body temperature above 38.5°C, severe pain, appears weak and apathetic
Erekcija, ki traja več kot 5 ur in hude bolečine	Erection lasting more than 5 hours and severe pain
1. Aktiviraj najbližjo MoE REA ali MoE NRV in zdravnika DS. Ob zasedenosti MoE REA/zdravnika DS pošlji najbližjo MoE NRV.	1. Activate the closest emergency vehicle mobile unit (with a doctor and a team of emergency medical responders – MoE REA) or an emergency vehicle mobile unit without a doctor and a team of emergency medical responders (MoE NRV), and a doctor of the dispatch service. If the MoE REA/on-call doctor are not available, send the closest MoE NRV.
2. Po potrebi stori naslednje: - aktiviraj prve posredovalce, - aktiviraj reševalca na motorju, - aktiviraj najbližjo MoE NRV, - aktiviraj najbližjega zdravnika DS, - aktiviraj HNMP, - obvesti najbližje reševalno vozilo (čeprav pelje pacienta) - izjemoma predlagaj prevoz z zasebnim vozilom	2. If necessary, do the following: - activate first responders, - activate a motorcycle ambulance, - activate the closest MoE NRV, - activate the closest on-call doctor, - activate HEMS (helicopter emergency medical services), - notify the closest emergency vehicle (even if it is transporting a patient) - in exceptional cases, recommend transport in a personal vehicle
3. Preveri preostale kriterije in okoliščine.	3. Verify other criteria and circumstances.
4. Zastavi ustrezna dodatna vprašanja.	4. Ask appropriate additional questions.
5. Po potrebi prilagodi odziv.	5. If necessary, adjust your response.
6. Klicatelju daj ustrezne nasvete.	6. Provide appropriate advice to the caller.
7. Če je mogoče, ostani na zvezi s klicateljem.	7. If possible, remain on the line with the caller.
8. Obveščaj ekipe o morebitnih tveganjih in nevarnostih.	8. Notify teams of any risks and dangers.
9. Po potrebi daj napotke zdravstvenemu osebju.	9. If necessary, provide instructions to healthcare personnel.
Podroben način odziva urejajo veljavni standardni operativni postopki dispečerske službe zdravstva.	A detailed method of response is regulated by the applicable standard operating procedure for healthcare dispatch services.
Prioriteta II	Priority II
Hude in krčevite bolečine v hrbtu/ledveno	Severe and convulsive back pain/pain in the kidney area
Povišana telesna temperatura, vse hujše bolečine v hrbtu/ledveno	High body temperature, increasing back pain/pain in the kidney area
Pekoča bolečina pri uriniranju in povišana telesna temperatura nad 38,5 °C	Burning pain when urinating and high body temperature above 38.5°C

Močna bolečina v spodnjem delu trebuha, nezmožnost/težave pri uriniranju	Severe pain in the lower part of the abdomen, inability/problem urinating
Vse hujša bolečina v mošnji	Increasingly severe pain in the scrotum
Vse hujša bolečina v dimljah	Increasingly severe pain in the groin
Pacient po presaditvi ledvic s povišano telesno temperaturo in bolečinami, odvaja majhne količine urina	A patient who has undergone a kidney transplant has high body temperature and is experiencing pain, they are releasing only small amounts of urine
Stalna, nezaželena erekcija, zmerna bolečina, manj kot 5 ur	Constant, unwanted erection, moderate pain, less than 5 hours
1. Preveri preostale kriterije in okoliščine.	1. Verify other criteria and circumstances.
2. Zastavi ustrezna dodatna vprašanja.	2. Ask appropriate additional questions.
3. Če je mogoče, pridobi več informacij.	3. If possible, acquire more information.
4. Klicatelju daj ustrezne nasvete.	4. Provide appropriate advice to the caller.
5. Po potrebi stori naslednje: - aktiviraj MoE NRV, - o primeru obvesti zdravnika NMP oz. DS in se dogovori o načinu odziva in nato ponovno pokliči klicatelja, - pacientu naroči, naj pride v najbližjo DS, SUC ali UC.	5. If necessary, do the following: - activate MoE NRV, - inform an emergency doctor or an on-call doctor of the case and arrange the method of response, and then call back the caller, - instruct the patient to come to the nearest on-call medical service (DS), a satellite emergency centre (SEC), or an emergency centre (EC).
7. Klicatelju naroči naj takoj pokliče nazaj, če se stanje poslabša.	7. Instruct the caller to call right back if the situation worsens.
8. Po potrebi ostani na zvezi s klicateljem.	8. If possible, remain on the line with the caller.
Podroben način odziva urejajo veljavni standardni operativni postopki dispečerske službe zdravstva.	A detailed method of response is regulated by the applicable standard operating procedure for healthcare dispatch services.
PRIORITETA III	PRIORITY III
Pekoča bolečina pri uriniranju	Burning pain when urinating
Gnojni izcedek iz penisa	Pustular penile discharge
Kri v urinu	Blood in urine
Težave pri uriniranju	Problems with urinating
Pogosto uriniranje	Frequent urinating
Oteklina ali zatrdlina v mošnji ali dimljah, brez bolečin.	Swelling or lump in the scrotum or groin, no pain.
Vnetje ali rane okoli spolovil	Infection or wounds surrounding genitalia
1. Zastavi ustrezna dodatna vprašanja.	1. Ask appropriate additional questions.
2. Klicatelju daj ustrezne nasvete.	2. Provide appropriate advice to the caller.
3. Po potrebi stori naslednje: - pacientu svetuj, naj pokliče svojega osebnega zdravnika oz. se zgloži v njegovi ambulanti, - pacientu svetuj naj pokliče DS oz. se oglasi v DS, - s klicateljem se dogovori o nadaljnjih ukrepih	3. If necessary, do the following: - advise the patient to call their personal doctor or to visit their practice, - advise the patient to call an on-call doctor or to visit an on-call medical service, - arrange further measures with the caller
4. Klicatelju naroči, naj takoj pokliče nazaj, če se stanje spremeni.	4. Instruct the caller to call right back if the situation changes.

Every record is marked with a code (far left). When a particular code is selected, relevant advice for the caller is opened, as well as advice for the medical personnel in the written version of the Slovenian Index, displayed on the right.

1.4.32.1 Additional questions must be displayed when the card is selected, as they help the dispatcher select the primary criterion. The answers to additional questions are entered into the previously described text field.

1.4.32.2 The information (on the bottom right side) is available upon clicking a button.

The entire Index must be designed so that users with suitable rights can change all of the displayed text and edit links to relevant advice and displayed pages.

1.4.33 A record on the course of the intervention

All further measures taken by the dispatch service are entered into the record on the course of the intervention.

1.4.33.1 Prior to every entry, the information on who made a record, who added data, and when (the date is abbreviated so as to only include the time; the full date is displayed if we click on the time) is added automatically.

1.4.34 Ordering teams

1.4.34.1 The selection of various orders of teams, such as outpatient clinics, oxygen, etc.; e.g., with pre-set buttons; when clicked, an interim window for entering the estimated time of arrival [arrival] can also be displayed for ordering outpatient clinics.

1.4.35 Forwarding a record

1.4.35.1 When we wish for a record to also be forwarded to a team providing transport, the option "forward record" is selected.

1.4.35.2 When a form is saved, the record is displayed in the field "record on the course of the intervention."

1.4.35.3 Information on when the record was created and who added it is added in front of the entered text.

1.4.36 A display for the dispatcher showing the activation of a vehicle and access time

1.4.36.1 The reception form shows the piece of information indicating which teams have been activated and the realistic access times required to access the location of an event.

1.4.37 [optional]if you click on a displayed activated team, the option to make a phone call or establish a radio connection appears

1.4.38 A display for the dispatcher showing various data from different databases

1.4.38.1 The display of data is shown in the event of matching incoming information (phone number, the name and surname of the p/pc, address of the p/pc or geolocation)

1.4.38.2 The data is shown immediately after the first matching piece of information is entered, and it is changed appropriately if multiple pieces of matching information are entered.

1.4.38.3 The most suitable piece of information is at the top (of the list). When two incoming criteria match two different entries, this is marked accordingly.

1.4.39	call history
1.4.39.1	The program shows those pieces of information from the database of previous entries that match the criterion.
1.4.39.2	When displaying information, the system enters into the database when and who saw this information and in what way (automatic display upon reception or manual search for information, e.g. in a transport log)

1.4.40	already received transport
1.4.40.1	From among the received transport requests, the program shows those that are on a waiting list or are being carried out, but have not finished yet.

This information is helpful for repeated calls or for preventing double entries.

1.4.41	safety warnings and information
1.4.41.1	Safety warnings and information are recorded in a database through the form titled Safety Warnings and Information.
1.4.41.2	The form is available to dispatchers, but it must be authorised by a competent person before it is automatically displayed.
1.4.41.3	The competent person must have a chance to inspect all entered warnings and information in a simple manner; displayed are only those that have not been authorised,
1.4.41.4	In this form, there are fields for determining incoming criteria, such as: phone number, address or geolocation (the area to which a warning applies can also be determined – set up on a map, or a whole street or town is determined), surname and name, date of birth
1.4.41.5	We select the type of warning entered in a drop-down menu (the user's administrator can enter different warning types, e.g. SAFETY, PALLIATIVE TEAM, INFORMATION, etc.)
1.4.41.6	The form contains a text field for entering the text of the warning.
1.4.41.7	The form contains a text field for entering the contact person when an even occurs and for specifying the number of the contact person. If you click the number, the phone number is dialled.
1.4.41.8	Upon display, it is indicated who entered a note and when.
1.4.41.9	A safety warning can be made active or inactive.
1.4.41.10	Displayed when suitable incoming criterion is provided.

1.4.42	an issued and still active transport order
1.4.42.1	When a transport order is issued for a person (criterion: surname and name) and this order is still active, the information from this form is displayed.
1.4.42.2	From among the displayed data, information is imported automatically into suitable fields in the form of a suitable file.
1.4.42.3	A dispatcher can import all of the displayed data into a suitable field, e.g. by using function keys.

Example:

Order no.	2 – Issued by	10 – Transport type	11 – reason for non-emergency transport or transport without	Route, ...
-----------	---------------	---------------------	--	------------

			medical personnel	
15897589	Šiška Community Medical Centre, Dr Novak Janez, M.D. 01-2545698	2-non-emergency	3-escort by a healthcare professional	

1.4.43 [optional] An administrator can determine which information will be displayed to the dispatcher.

1.4.44 Display of medical dispatchers who speak a foreign language

1.4.44.1 Searching and displaying available medical dispatchers who speak a required foreign language is enabled in the reception form by clicking on a dedicated button.

1.4.44.2 This information is obtained from the database on dispatchers by taking into account their availability.

1.4.44.3 Once a suitable dispatcher is selected, a telephone line is automatically established with the selected dispatcher; the call can also be forwarded and the information received up to that point concerning the call can also be displayed to the selected dispatcher who speaks a suitable foreign language.

1.4.44.4 If the selected dispatcher is not available, this dispatcher is notified of the incoming call and a notification appears on their monitor that says "forwarding a call due to the dispatcher's foreign language proficiency"

1.4.45 Special buttons for marking a particular event

1.4.45.1 By clicking a button or an entry field, the performed procedure is recorded, and the time and the user who made the entry are also recorded.

1.4.45.2 Begin providing instructions for resuscitation over the phone (if no, why not)

1.4.45.3 Sent for an AED

1.4.45.4 AED at the event location (if, after a certain time, a dispatcher does not mark this field, but the field [sent for an AED] is still marked, the dispatcher is warned by the program

1.4.45.5 Commence chest compressions (if not possible, enter the reason; selection from a list also possible: an eyewitness is not at the event location/the eyewitness hung up/the eyewitness refuses to perform resuscitation/the eyewitness is unable to perform resuscitation/the eyewitness is unable to follow instructions)

1.4.45.6 The performance of the first defibrillation (if no, why not)

1.4.46 Standard operating procedures

Standard operating procedures (hereinafter: SOP) are special protocols/forms that allow the entry of special information on particular events.

- 1.4.46.1 SOPs are displayed automatically when a particular event is selected, a particular parameter is entered, or upon request.
- 1.4.46.2 A user with suitable rights is allowed to change the text of the SOPs and to determine the parameters for the automatic display of SOPs.
- 1.4.47 [optional] A contracting party may develop additional SOPs based on a template

1.4.48 Ordering an emergency outpatient clinic

- 1.4.48.1 It is retrieved from the reception form by clicking on the button for ordering an emergency outpatient clinic.

(Appendix 3)

- 1.4.48.2 All emergency outpatient clinic forms are visible in a joint tab where they can be reviewed and amended. They are completed with known data beforehand (team, event time, etc.)
- 1.4.48.3 When reviewing, filters can be switched on depending on the fields that a form contains
- 1.4.49 [optional] Transfer of this data to other information systems (UC, hospitals), depending on the selected final location

1.4.50 Mass accidents and major accidents

- 1.4.50.1 The form can be cancelled by pressing a button in the section "events of special significance"

(Appendix 2)

- 1.4.50.2 The form that appears is determined in the section "events of special significance" depending on the type, level, and location of the event
- 1.4.50.3 Every entry into the form is seen immediately, and the following is recorded next to every sub-section:
- 1.4.50.4 Start time of the selected sub-section and the conclusion of an action
- 1.4.50.5 Who made the entry
- 1.4.50.6 Text entry for notes

1.4.51 Events of special significance

- 1.4.51.1 An SOP in the reception form by clicking on the button "EVENT OF SPECIAL SIGNIFICANCE."

These are events that will result in a special organisation of work (a part of the service suspends its regular work and is allocated to manage such an event (mass accident, major on-call service, drills). The shift supervisor completes the SOP event of special significance.

- 1.4.52 When generating such an event, a form with the following

sub-sections appears:

- 1.4.52.1 Who generated the event (automatic)
- 1.4.52.2 Event name
- 1.4.52.3 Determining event type and level
- 1.4.52.4 Number of persons involved
- 1.4.52.5 Time of generation (automatic)
- 1.4.52.6 Event beginning time
- 1.4.52.7 End time
- 1.4.52.8 Special features
- 1.4.52.9 Jobs in which the event is managed (or an individual position, or Regional Healthcare Coordination Group (RKSZ), etc.)
- 1.4.52.10 Phone number of jobs to which calls are forwarded
- 1.4.53 In the "event of special significance" section, there is a button "send a memo"

A window into which text is entered appears.

- 1.4.54 After saving, the notification is forwarded to all radio stations of teams that are included in this event.
- 1.4.55 Active events of special significance (that have not yet concluded) can be selected in the reception form.
- 1.4.56 All of these interventions appear in a special section – events of special significance.
- 1.4.57 [optional]When a warning line concerning an event of special significance is displayed, the dispatcher adds a note to the intervention while the reception form is active by clicking on the warning line; this note is then displayed in a special section.
- 1.4.58 When an event of special significance is generated, a warning line appears to all dispatchers (in both centres!) in the top part of the monitor, and the warning line says: ONGOING EVENT OF SPECIAL SIGNIFICANCE! "EVENT NAME", "the job post where the event is managed", "dispatch centre that manages the event"
- 1.4.59 [optional]The record is also placed on the wallboard in both centres. The number of treated persons, activated teams, etc. is also shown there.

A potential, but not final list of special and emergency events also includes, e.g.: chemical accidents, a transport of a patient with EVD (communicable diseases), violent demonstrations, etc.

1.5 ADVANCE ORDERS, REVIEW OF NON-EMERGENCY TRANSPORTS

Advance orders can be entered into the program in two ways:

- 1.5.1 Electronic ordering of non-emergency transports from other hospital and health-care information systems
- 1.5.2 The person ordering the transport orders the transport through their information system or a web form for ordering transport described in the chapter

Application and website for ordering and monitoring emergency transports

1.5.2.1 Through this application or their information system, they can monitor the transport carried out, namely at least:

1.5.2.2 A pop-up notification or "order accepted" or "WARNING order not accepted." Repeat the procedure or call the phone number"

1.5.2.3 Who is the provider of the transport

1.5.2.4 Team sent (transport status: On the way)

1.5.2.5 Team's estimated time of arrival at location

1.5.2.6 Time of arrival at location (transport status: at the location)

1.5.2.7 Patient at destination (transport status: at destination)

1.5.3 [optional] transport performance is evaluated

1.5.4 [optional] commendation or complaint concerning the transport is given

1.5.5 From the reception form

1.5.5.1 The entry of a non-emergency transport is possible through the SloInNMP 50 form: Emergency transport, or directly into the reception form.

1.5.6 In addition to the sections described, the reception forms must be enabled for the purpose of advance orders for the following sections as well:

1.5.6.1 Entry field for the selection of the date and time of the beginning or of the collection of a p/pc

1.5.6.2 Punctuality required: Yes/No

1.5.6.3 Entry of individual warnings.

1.5.6.4 Selection of the planned transport provider.

1.5.7 Method of entry is also marked in the display line.

1.5.8 **Display of all advance orders**

1.5.9 When selecting "display of all advance orders," all advance orders are displayed for a selected date or period (date and time).

1.5.10 The display includes the following data:

1.5.10.1 Intervention ID

1.5.10.2 Surname of the p/pc

1.5.10.3 Name of the p/pc

1.5.10.4 Starting location

1.5.10.5 Final location

1.5.10.6 Starting time and date; when this is not determined, the record is highlighted and the status "date of performance unknown" is selected

1.5.10.7 Advance order status (time of performance status, see above; awaiting treatment; under treatment; planned)

1.5.10.8 Allocated; to whom; time of allocation

1.5.11 Intervention status times, when known:

1.5.11.1 On the way

1.5.11.2 At location

1.5.11.3 Returning

1.5.11.4 At destination

1.5.11.5 Finished

1.5.12 The display can be filtered or sorted depending on the parameters described under this item above (the data included in the display).

1.5.13 The quick search of already ordered non-emergency transports by name and surname, address of residence, birth information, and health

insurance card number.

1.5.14

Double-click and the entire record is opened.

1.6 PLANNING ADVANCE ORDERS

1.6.1 The module for planning the advance orders of emergency transports allows dispatchers to plan the performance of non-emergency interventions.

1.6.1.1 On the basis of the known information about a vehicle (number of beds, number of seats, intended function of the vehicle), the team (only the driver, driver and escort), the home base of the vehicle and, later, of the already allocated transports, the patient status (must be the only patient in the vehicle), and the desired time of transport, the module recommends to the dispatcher which patients could also be added to a vehicle.

1.6.1.2 It must take into account that only those patients whose transport would not constitute a major deviation from the planned main route are recommended.

1.6.2 [optional] the availability of the vehicle is shown graphically

1.6.3 [optional] the route and stops are displayed on a map

1.7 DISPATCHING EMERGENCY INTERVENTIONS

1.7.1 The dispatch form for emergency interventions allows dispatchers to have an overview of the received interventions, ongoing interventions, and available teams; it also allows them to allocate interventions to ambulance teams.

1.7.2 The following filter can be included in the dispatch form:

1.7.2.1 all transports displayed,

1.7.2.2 display of non-emergency transports,

1.7.2.3 display of emergency transports,

1.7.2.4 display of transports performed by a doctor (EDV)

1.7.2.5 display according to geographic areas,

1.7.2.6 isolated to a special or

1.7.2.7 extraordinary event, etc.

1.7.3 The sections are displayed in a transparent manner:

1.7.3.1 the interventions waiting list is above,

1.7.3.2 available teams are in the middle,

1.7.3.3 ongoing interventions are below,

1.7.3.4 the size of the sections can be adjusted.

1.7.4 It is clearly marked if not all of the content is displayed.

1.7.5 [optional] The sections are automatically adjusted depending on the size of the content.

1.7.6 The sections are divided depending on the coverage area.

1.7.7 Individual sections include

1.7.7.1 displayed teams,

1.7.7.2 the intervention waiting list, and

1.7.7.3 ongoing interventions according to their locations

1.7.8 The section "events of special significance" appears

immediately when such an event is generated and it remains visible until the event ends.

1.7.8.1 Here, the interventions that are marked as events of special significance in the reception form and the teams assigned to such events are displayed.

1.7.9 If there are many such events, a separate section appears for each event.

1.7.10 An intervention can also be accepted in this section.

1.7.11 A button with multiple options is added to this section (these options appear if right-clicked)

1.7.11.1 Accept an intervention; a new form with already completed sections on the event of special significance is opened (location, description, etc.). The intervention can be amended and saved.

1.7.11.2 Assign an intervention; a menu with a selection of all available teams is displayed, if one or more suitable teams are selected, an intervention is generated automatically with already completed sections on the event of special significance (location, description, etc.) and it is assigned to selected teams to be performed.

1.7.11.3 The teams are listed from top to bottom according to their ETA.

1.7.12 On the list, teams are listed according to individual displayed sections (intended function of the vehicle, ETA, etc.) by clicking on the desired section.

1.7.13 [optional] For teams that have been selected to perform these interventions, but have still not been given the status of being assigned to an event of special significance, this status is added automatically.

1.7.14 Display of received interventions – intervention waiting list:
the following data is displayed:

Display of all received interventions that are still not performed.

1.7.14.1 Colour-coded priority assignment

1.7.14.2 Intervention ID

1.7.14.3 Time of occurrence

1.7.14.4 Starting location of the event

1.7.14.5 Final location of the event

1.7.14.6 Type of event

1.7.14.7 Description

1.7.14.8 Display, if a first responder has been activated for an intervention

1.7.15 The intervention is displayed in a separate section, depending on the starting location of the event.

1.7.16 Display of all available teams. The following data is displayed:

The display of both teams that are available at the time.

1.7.16.1	Team designation
1.7.16.2	Call sign of the team
1.7.16.3	Vehicle
1.7.16.4	Primary area
1.7.16.5	Team structure and intended function of the vehicle
1.7.16.6	Availability time
1.7.16.7	Current location (the area where it is located; if the team is not in its primary area, a colour code appears)
1.7.16.8	Current availability (can also be a colour code)
1.7.16.9	If unavailable, it is indicated which intervention is currently carried out
1.7.16.10	Indicator of performed interventions (it is displayed how many interventions the team has performed and for how long it has been occupied)
1.7.17	If right-clicked, the following options are available
1.7.17.1	The team can be tagged or untagged, thus specifying that it has been assigned to an event of special significance
1.7.17.2	Change the area where the team is displayed
1.7.18	Teams must be displayed in a transparent manner in sections, according to their coverage areas or their current location or the area of an event of special significance.
1.7.19	The form allows an overview of at least more than 100 teams.
1.7.20	The areas and sections in the administrative module can be selected and changed.
1.7.21	The order of the teams is adjusted depending on availability, e.g.: the last team that performed an intervention is placed last among the available teams according to individual sections.
1.7.22	Display of ongoing interventions
1.7.23	After an intervention team is dispatched, this team disappears from the intervention waiting list and is placed among ongoing interventions.
1.7.24	They are displayed in a separate section, depending on the

starting location of the event. The following data is displayed:

1.7.24.1	Team designation
1.7.24.2	Call sign of the team
1.7.24.3	Vehicle
1.7.24.4	Team structure and intended function of the vehicle
1.7.24.5	Intervention ID
1.7.24.6	Priority
1.7.24.7	Starting location
1.7.24.8	Final location
1.7.24.9	The indication of the "received" status forwarded by team members through a manual radio station; it means that the activation message has been received by their radio station
1.7.24.10	Time of assignment
1.7.24.11	Time on the way
1.7.24.12	Time at the location
1.7.24.13	Time of returning
1.7.24.14	Time at the destination
1.7.24.15	Time of the team's availability
1.7.24.16	Time of the team's arrival at the starting point
1.7.24.17	Team's estimated time of arrival at the event location

1.7.25	Colour and sound alarm if, after a particular time period, an intervention is not assigned with the "on the way" status
1.7.26	Colour and sound alarm if, after a particular time period, an intervention is not assigned with the "available" status
1.7.27	Sound alarm in the event of an "available" status.
1.7.28	Colour and sound alarms are different for each event, and users with administrator rights can assign them and change them.

1.8 ASSIGNMENT OF NON-EMERGENCY TRANSPORTS

The assignment of non-emergency transport is adjusted to dispatching non-emergency transport, in which case a reasonable set of the data shown above is displayed. The differences that affect the method of work of emergency and non-emergency transport are as follows:

- Non-emergency transport is generally ordered quite some time prior to its performance (even a week ahead of time), which makes it possible for its performance to be planned. When planning and performing such transport, a dispatcher must ensure the following:
 - previously determined workload of providers (contractually laid down by the ZZS)
 - efficient use of all resources
 - the time when the transport was ordered needs to be taken into account
 - transports can be combined if this is reasonable (multiple patients travelling in the same direction can be transported in the same vehicle)
 - the prescribed capacities of the vehicle (no. of patients lying down and sitting up) as laid down by the Rules on Carriage of Patients
- The system includes a larger number of ordered transports

- The system includes a larger number of various providers or teams

1.8.1 Display of data according to team

1.8.1.1 Automatic display of interventions and assignments and other information on the team for the dispatcher, when a telephone call is received and this telephone number is assigned to a team or through a DMR radio system and this radio station is assigned to a team.

1.8.2 Team activation of assignment of transport

1.8.2.1 The activation must allow the process of notifying a team on its dispatch to be as quick as possible (no longer than 20 seconds).

(see also: Assistance for dispatchers when making decisions)

1.8.2.2 Sending data on the intervention to vehicles and collecting statuses from the CarPC.

1.8.2.3 Sending automatically generated activation messages from the dispatching program to the selected team through its DMR radio station.

Table 1: The information forwarded by the team to the information system of the healthcare dispatch service (hereinafter: DSZ)

information	description	intervention time	method
RECEIVED	the team sends a message that it has received a DSZ activation message and that it will begin performing an intervention	immediately after the activation notification has been received	MRS
ON THE WAY	the team sends a message that it has left to perform an intervention.	when the entire foreseen team is gathered and the vehicle begins driving to the intervention location	MRSV or CPC
AT THE LOCATION	the team sends a message saying that it has arrived at the event location	the vehicle has arrived at the foreseen event location	MRSV or CPC
WITH THE PATIENT	one team member sends a message stating that they have reached the patient	a team member has reached the intended patient	MRS
RETURNING	the team sends a message that it is returning from the intervention location and that the transport to the destination has begun	the vehicle started driving from the intervention location to the final location	MRSV or CPC
AT DESTINATION	the team sends a message that it has arrived at the final location where it will hand over the patient	the vehicle has arrived at the foreseen location where it will hand over the patient	MRSV or CPC
AVAILABLE	the team sends a message saying that the team members and the vehicle are ready for the next intervention	as soon as the next intervention can begin	MRSV or CPC

MRS=mobile radio station of a team member

MRSV=mobile radio station in the vehicle

CPC= car PC

Table 2: The information forwarded by the DSZ to the team

information	description	method
intervention number	12-digit unique identification number of an intervention	MRS CPC
(priority)	level of urgency that must be taken into account by the team when driving to the event location	MRS CPC
event code and address	the event code in accordance with the Slovenian index and the address of the event	MRS CPC
important information	on event type, hazards at the location, etc.	MRS CPC
Patient name and surname	Surname and name of the patient; when this is not possible, "STRANGER" is displayed	MRS CPC
telephone number	telephone number of the caller	CPC
starting location	address: city or town, street and street number, floor; when this is not possible, the description of the location, the road, etc. is provided	MRS CPC
additional information	DSZ subsequently sends to the system all additional information that has been found or is relevant for performing the intervention	CPC

MRS=mobile radio station

CPC= car PC

1.8.3 For the purpose of connecting the information systems in vehicles with the dispatch service, a documented, open, and stable protocol must be specified (a connection must be enabled for various IS providers).

1.8.4 The functional specifications of the connection must be recorded in accordance with a freely accessible protocol.

1.8.5 Intervention conclusion

1.8.5.1 Once the record under ongoing interventions is marked, the intervention is concluded and it is erased from the list of ongoing interventions, and the team is assigned with the "available" status.

1.8.6 Assistance for dispatchers when making decisions

1.8.7 The display appears when the record in the intervention waiting list window is selected.

1.8.8 The IS allows selected teams to be activated simultaneously.

1.8.9 The program recommends and enables the following actions for each intervention:

1.8.10 On the basis of a calculation of the estimated access time of teams, the closest available and suitable ambulance teams, motorcycle ambulance, etc. are displayed. In the calculation in the section with multiple possible equal teams, according to the ETA, the team with the earliest "AVAILABLE" status is in the first spot.

1.8.11 Separately, the closest and most suitable unavailable

teams and their current status (on the way, at the location) are displayed, and	
1.8.11.1	The dispatch of the intervention by sending an activation message to the communication device of team members is enabled
1.8.11.2	A call to the phone number of the team
1.8.12 The unit of the closest first responders and	
1.8.12.1	The sending of an activation message to the communication device of first responders or to a mobile application is enabled
1.8.12.2	A call to the phone number of the selected first responder
1.8.13 HEMS and	
1.8.13.1	activation depending on the airworthiness of the HEMS unit and on the event location is suggested
1.8.13.2	a call to the phone number of the selected HEMS team
1.8.13.3	The dispatch of the intervention by sending an activation message to the communication device of team members
1.8.14 Emergency doctor	
1.8.14.1	The dispatch of the intervention by sending an activation message to the communication device of team members
1.8.14.2	A call to the phone number of the team
1.8.15	A specified priority is taken into account with regard to transport intervals (whether a transport is an emergency transport or not)
1.8.16	A correction factor must be taken into account with regard to transport intervals. This factor can be changed by the user's administrator himself.
1.8.17	[optional] The program continually monitors the estimated access times and the realistically achieved access times, and it calculates the standard deviation. The administrator may use this information as the correction factor.
1.8.18 Calculation of the team's estimated time of arrival at the event location[ETA1]	
1.8.18.1	On the basis of the known event location and the information on the status and the location of the team, the program calculates the estimated time of arrival at the event location.
1.8.18.2	The calculated estimated time of arrival is automatically displayed in the process of selecting suitable teams for interventions, in the line "ongoing interventions" in the form for the received call, and in the GIS module.
1.8.19 Calculation of the estimated time of the arrival of a team to a destination[ETA2]	
1.8.19.1	On the basis of the known event location and the information on the status, namely that the team is returning, and the location of the team, the program calculates the estimated time of arrival at the destination.
1.8.19.2	The calculated estimated time of arrival of the team to the destination is automatically displayed in the line "ongoing interventions" and in the GIS module.
1.8.20 Calculation of the estimated time of the unavailability of a	

team[ETA3]

1.8.20.1 On the basis of the known event location and the information on the status and the location of the team, the estimated time of engagement at the location, and the time of the handover of a patient, the program calculates the estimated time of the team's unavailability.

1.8.20.2 The calculated estimated time the team's unavailability is automatically displayed in the line "ongoing interventions" and in the GIS module.

1.8.21 The closest AED

1.8.21.1 Display of the AED location (see the AED database)

1.8.21.2 The ETA of the access of an eyewitness to an AED (a calculation is displayed for eyewitnesses who are on foot, by bike, or by car)

1.8.21.3 Information on the AED

1.8.21.4 The contact information of the AED administrator and a call to his phone number

An example of an ETA calculation:

ETA1=time of intervention dispatch+1min+travel time to the starting location; corrected later=time "on the way"+ travel time to the starting location

ETA2=the time "from the location" +transport interval to the final location

ETA3= time of intervention dispatch+1min+travel time to the starting location+ time at the location(30 min)+ travel time to the starting location+ time of handover(15 min); the total time is corrected on the basis of better input information

1.8.22 [optional] The user's administrator can edit and correct the ETA3 calculation, e.g. He may correct the specified time of providing care at the location, the time of handing over a patient.

1.9 TRANSPORT LOG

1.9.1 The transport log displays all of the entered intervention by individual entries.

1.9.2 The fields that are displayed are the same as all of the entered data from the reception and dispatch form.

1.9.3 The log also contains all of the data on a particular intervention.

1.9.4 The log can be searched depending on various entered parameters:

1.9.4.1 Intervention numbers

1.9.4.2 Time period

1.9.4.3 Transport provider

1.9.4.4 Team

1.9.4.5 Patient information (name/surname/address/event location/institution)

1.9.5 [optional] The display of all performed interventions in a manner similar to the reception form, including the display of all data, in chronological order. An intervention is displayed by means of a click.

1.10 CONNECTION WITH THE GIS

1.10.1	Google Maps can serve as the primary maps, for which suitable licences must be enclosed.
1.10.2	Other maps must be locally uploaded.
1.10.2.1	Toggling between maps is enabled by pressing a button placed above the displayed maps.
1.10.3	Any map manipulation requires an immediate response. Displaying, moving, zooming in and out and switching layers on and off must be instantaneous, quicker than 1/10 second after an action is activated.
1.10.4	The import of various layers from other databases (RENC, public databases) and their display must be enabled.
1.10.5	Display of geographic blueprints with a vector map.
1.10.6	Display of geographic blueprints with a raster satellite image.
1.10.7	Displaying the location of emergency medical teams
1.10.8	On the map, vehicle locations are displayed in the form of a frame, depending on the selected filter.
1.10.8.1	Attributes (engine, emergency signalling, team designation, team type, vehicle designation, location statuses, affiliation of a vehicle to a particular dispatch centre) are displayed by the vehicle in text and colour form.
1.10.8.2	In order to have an overview of the vehicle equipment and of all of the vehicle data, the team can do so by means of a right-click or a left-click.
1.10.9	The position of vehicles and the displayed vehicle status (attributes) are recorded by means of GPS positions and vehicle telemetry data.
1.10.10	Individual filters can be selected, thus displaying
1.10.10.1	only non-emergency ambulances,
1.10.10.2	only emergency ambulances,
1.10.10.3	all vehicles for a selected area,
1.10.10.4	all vehicles monitored through the DSZ system
1.10.10.5	etc.
1.10.11	Display of interventions on a map
1.10.12	All of the received transports are displayed on a geographic blueprint and in a list with displayed colour or text attributes:
1.10.12.1	An intervention under the purview of an individual centre or EMS unit
1.10.12.2	Priority
1.10.12.3	Intervention ID
1.10.13	Intervention performance status
1.10.13.1	Awaiting performance
1.10.13.2	Dispatched team
1.10.13.3	Vehicle at the location
1.10.13.4	Vehicle returning
1.10.14	When clicking on the frame or selecting the focus, the

following information is displayed:

1.10.14.1 Team dispatched to the location (team designation and call sign)

1.10.15 Additional data on the intervention

1.10.15.1 Surname and name of the p/pc

1.10.15.2 Starting location of the event

1.10.15.3 Final location

1.10.15.4 Type of event

1.10.15.5 Description of the situation

1.10.15.6 Warnings for the team

1.10.16 Display of points of interest and other data

Various points of interest and their contact and other relevant information from public and your own databases can be displayed.

1.10.16.1 Display of schools, nursery schools, mountain cabins, etc.

1.10.16.2 Display of house number locations

1.10.16.3 Display of locations of automated defibrillators from your own databases or other accessible databases

1.10.16.4 Display of motorway crossing locations

1.10.16.5 Display of the closest route from the ambulance to the intervention and vice versa

1.10.16.6 Display of municipal borders

1.10.16.7 Display of areas of coverage for each team

1.10.16.8 Display of road blocks (automated message when the road to the location is blocked)

1.10.16.9 Display of active first responders (whose status in the mobile application is ACTIVE)

1.10.17 Automatic switching of display layers on and off, depending on the interest indicated in the dispatch program.

1.10.18 Pre-set views for quickly switching between various views of interest on the map.

1.10.19 Statistics with overviews

1.10.19.1 Searching transports

1.10.19.2 Searching interventions

1.10.19.3 Overviews of periods for teams with stops

1.10.19.4 Overviews of periods for vehicles with stops

1.10.19.5 A detailed overview of all measurements of a vehicle's transport, including a graphic display on a map with a time stamp, engine status, emergency signalling status, etc.

1.10.19.6 A detailed overview of all measurements of a vehicle's transport in a table, including a time stamp, engine status, emergency signalling status, etc.

1.10.19.7 Workload diagram by vehicle or all for all vehicles

1.10.19.8 Workload diagram by team or all for all teams

1.11 EMERGENCY MEDICAL TEAM SCHEDULE

The team schedule consists of two modules.

The first is a team schedule included directly in the database and the other one is a WEB module ([WEB module](#))

Explanation of teams and subsequently required data

Teams are determined in a standard manner by taking into account surveys and agreements. Each team has its own designation, e.g. NLJ1 (ambulance team no. 1 the Ljubljana Ambulance Service)

A team is given a vehicle, which can be replaced during the day (in the event of a breakdown, if its being washed), and team members (who rotate, depending on the time of day). In the first view, a dispatcher is only interested in the team designation, and in the event of a more detailed overview, they are interested in all of the data available in the database on the vehicle, communication devices assigned to a vehicle, and current team members.

1.11.1	Module for the schedule
1.11.1.1	It enables the planning of available teams for a particular day and period (this is done by the organisation providing mobile units in a particular area).
1.11.1.2	A schedule includes a standard schedule for a longer time period; this includes teams that must be available for a particular network according to applicable rules.
1.11.1.3	Teams planned in a standard manner are specially designated and also displayed in the module for planning advance orders.
1.11.1.4	Once the actual schedule for the current day matches the standard, it is highlighted (e.g. in green); and if it does not match, it is highlighted in e.g. red.

1.11.2	The following sections can be entered into the schedule:
1.11.2.1	Team designation
1.11.2.2	Vehicle designation (from the code table)
1.11.3	If there is an electronic register of ambulances, information is obtained from this database.
1.11.3.1	Otherwise, the web module allows data on vehicles to be entered in accordance with the client's requirements.
1.11.3.2	Area of coverage

The area that will be covered by the team or the primary area of operation

1.11.3.3	Team type/intended purpose
----------	----------------------------

The team intended for emergency, non-emergency transport, transport without medical personnel, an emergency doctor's vehicle, HEMS, etc.

1.11.4	Availability start time
1.11.4.1	The time is specified by means of a date and time.
1.11.5	Availability end time
1.11.5.1	The time is specified by means of a date and time.
1.11.6	Team members:
1.11.6.1	Driver
1.11.6.2	Escort
1.11.6.3	Physician
1.11.6.4	Additional member
1.11.6.5	Phone number.
1.11.7	This information is displayed to the dispatcher when vehicles are displayed, namely in a manner allowing the dispatcher to directly call or activate a team.

1.11.8	The planned events of a team
1.11.8.1	It is marked whether a team is assigned to be on call, performs regular work, or attends to an event of special significance (the event can be selected, only active events are displayed)
1.11.9	Every schedule entry and correction is visible in the archive of changes.
1.11.10	The time is recorded, as well as who made a change and what the change is.
1.11.11	A schedule can also be exported as a report drafted in advance.

1.12 DATA EXPORT

1.12.1	The data on performed and received transports can be exported into a suitable format that allows the data to be sent later, e.g. to the ZZS and to transport operators.
1.12.2	The export is performed for a particular time period.

The dataset is communicated at a later time.

1.13 WEB MODULE

The WEB module for the external partners of the dispatch service is intended for exchanging various significant pieces of information between the partners and the centre, and vice versa. It consists of multiple individual sections; for each of them,

1.13.1	users with suitable rights can determine user rights.
--------	---

Security protocol:

1.13.2	To ensure a controlled access to the network, to prevent access to data during data transfer and encryption.
--------	--

The security protocol should ensure:

- data protection
- data integrity
- data cannot be forwarded
- detection of lost "packages"
- SSL protocol (secure sockets layer protocol).

1.13.3	WEB schedule
1.13.3.1	The WEB module enables the entry of the availability of teams through an internet module; the entered data is saved in the central database.
1.13.3.2	To make an entry, a user name and password are required (study the option of registering by using a professional ZZS card – provided that it is possible to integrate this solution into the development) specified by a user with suitable rights.
1.13.4	The sections are the same as those described in the chapter "team schedule."
1.13.5	The entry of data on vehicles is enabled (licence plate number, garage number, intended function, vehicle drive, brand, number of beds and seats,

etc.)

1.13.6 On-call services at public events

The operators that provide health care services at events provide the centre with all of the information on the on-call service that they will be providing:

1.13.7 According to the Rules, service providers must provide the following information to the DSZ

1.13.7.1 The plan for providing communication at a public event (a soft copy – PDF format; foreseen working channels of the radio connection system for regular work and for the work during emergency events at a public event, a radio directory with indicated call signs, and information on the holders of key functions in the event of a mass accident at a public event; head of an EMS intervention, head of primary triage, transport coordinator); a healthcare service provider at a public event cannot use the working channels of the radio connection system and the call signs used by the DSZ for its work, and

1.13.7.2 The plan for performing healthcare services at a public event, including all of the data and elements required by the EMS Service Rules (a soft copy – PDF format)

1.13.7.3 The organiser of the event, including the person in charge and contact information

1.13.7.4 Location, date, time, and the estimated duration of an event

1.13.7.5 Type of event (event categorisation according to the enclosed instructions)

1.13.7.6 Foreseen number and type of attendees

1.13.7.7 Contact information of the team

1.13.8 Overview of performed interventions

1.13.8.1 An authorised person of the emergency transport provider is allowed to have an overview of all of the performed interventions that have been carried out by their unit, namely by drafting periodical reports, the content of which has been coordinated with the Rules on the Carriage of Patients.

1.13.9 Overview of the situation in hospitals

1.13.9.1 Allow the recording of data on hospital capabilities in accordance with the Guidelines on the Operation of Emergency Medical Services in the Event of Mass Accidents.

1.13.9.2 It enables the hospital's authorised person and the dispatch service to manually enter all of the required data.

1.13.9.3 The review of the information is specified in the chapter MODULE FOR THE OPERATIONAL SUPPORT OF THE REGIONAL HEALTHCARE COORDINATION GROUP

1.13.9.4 For the purpose of connecting the information systems in hospitals with the dispatch service, a documented, open, and stable protocol must be specified (a connection must be enabled for various IS providers).

1.13.9.5 The functional specifications of the connection must be recorded in accordance with a freely accessible protocol.

1.13.10 An overview of planned interventions and teams

1.13.10.1 The dispatch centre communicates how many teams it wishes for the emergency transport provider to plan in a particular time period, which will be available on the basis of the information obtained from the [qualitative data processing module](#).

1.13.11 Statistics overview

1.13.11.1 The provider's authorised person is allowed to have an overview of the entered statistics that the dispatch centre wishes to present to transport providers.

1.13.12 Entry of reports

Providers complete various required forms that the dispatch centre is obliged to monitor and

process

1.13.12.1	Reports on emergencies – drafting a report in accordance with the client’s requirements
1.13.12.2	Annual work reports – drafting a report in accordance with the client’s requirements
1.13.12.3	Complaints/comments/suggestions – drafting a report in accordance with the client’s requirements
1.13.13	A simple overview of records is enabled with the use of filters.
1.13.14	Generating an emergency transport certificate

If speeding is discovered, the police and the municipal warden service require the owners of ambulances to disclose information on the driver and any justification for the use of the blue light, i.e. emergency transport.

1.13.14.1 Ambulance stations and users with authorisations are allowed to print an emergency transport certificate prepared in advance on the basis of the selected intervention, the data on the driver, the data on the vehicle, and referring to the number of a decision. (Appendix 4)

1.14 QUALITATIVE DATA PROCESSING MODULE

1.14.1	The qualitative data processing module must allow the calculation and graphic display of statistics and quality and performance indicators for different time periods and different users (level access).
1.14.2	The module should allow various graphic displays of calculated quality and performance indicators and the results related to meeting standards in various sections/modules of the application.
1.14.3	The module should allow the export of data into the MS Office and OpenOffice environments and the drafting of previously defined periodic reports upon the request of the client with the option of exporting them and saving them in PDF format.
1.14.4	Quality indicators

- 1.14.4.1 **Healthcare dispatch centre (DSZ) response time:** is the time from establishing a telephone connection between a caller (the first “ring”) and the healthcare dispatch centre to when a healthcare dispatcher answers (“picks up the phone”) their call,
- 1.14.4.2 **Time of the DSZ receiving the call:** is the time from picking up the phone at the healthcare dispatch centre to making a decision on the manner of performing the intervention of determining the degree of urgency (priority),
- 1.14.4.3 **Time of receiving the call:** is the time from picking up the phone at the RENC/OCC (112/113) to making a decision on the manner of performing the intervention of determining the degree of urgency (priority),
- 1.14.4.4 **Call processing time:** is the time from picking up the phone at the DCZ to finishing the conversation with the caller.
- 1.14.4.5 **Total call processing time:** is the time from picking up the phone at the RENC/OCC (112/113) to finishing the conversation with the caller.
- 1.14.4.6 **Activation time:** is the time from determining the level of urgency (priority) to activating a suitable team. Activation shall be the time when a team confirms that it has accepted an intervention (the ACCEPTED status).
- 1.14.4.7 **DSZ reaction time:** is the time from when a healthcare dispatcher answers a call (“picks up the phone”) to when they activate a suitable team. It actually consists of the time of the DSZ receiving the call and the activation time (status ACCEPTED).
- 1.14.4.8 **Departure time:** the time from initiating team activation by the dispatcher to the actual departure of a team (status ON THE WAY).
- 1.14.4.9 **Time required to access the event location:** is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a team arrives at the event location (status AT THE LOCATION),
- 1.14.4.10 **Time required to access a patient:** is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a team reaches a patient (status WITH THE PATIENT),
- 1.14.4.11 **Patient treatment time:** is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a patient is handed over at the final location (status PATIENT HANDOVER),
- 1.14.4.12 **Total intervention time:** is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a team is released from its duty on a case (status AVAILABLE),
- 1.14.4.13 **Cardiac arrest recognition index:** is the ratio between cardiac arrests recognised by healthcare dispatchers and the cardiac arrests actually discovered by teams at event locations.
- 1.14.4.14 **Commencement of chest compressions in the event of cardiac arrest:** is the time from when a healthcare dispatcher answers a call (“picks up the phone”) to when chest compressions are actually commenced.
- 1.14.4.15 **Performing AED defibrillation in the event of cardiac arrest:** is the time from when a healthcare dispatcher answers a call (“picks up the phone”) to when the first AED defibrillation is performed.
- 1.14.4.16 **Return of spontaneous circulation (ROSC) in the event of cardiac arrest:** is the proportion of cardiac arrest patients that had spontaneous circulation with palpable pulse upon being handed over to a hospital (simultaneous display of the number of cardiac arrests with witnesses and initial VF or VT rhythm).
- 1.14.5 [optional] **Survival until discharge in the event of cardiac arrest:** is the proportion of patients treated for cardiac arrest that have been discharged from the hospital

alive

1.14.6 [optional] **Primary angioplasty (PTCA/PCI) for STEMI patients:** is the proportion of STEMI patients on whom primary angioplasty was performed within 150 minutes after the call had been received

1.14.7 [optional] **Therapy adequacy for STEMI patients:** is the proportion of STEMI patients who have undergone adequate therapy

1.14.8 [optional] **Thrombolysis for ICV patients:** is the proportion of FAST-positive patients that were potential thrombolysis candidates and arrived at the Emergency Neurology Unit within 60 minutes after the call had been received

1.14.9 [optional] **Therapy adequacy for ICV patients:** is the proportion of patients suspected to have suffered ICV who have received a suitable therapy from EMS mobile units

1.14.9.1 **Compliance with protocols:** is a quality indicator that indicates in percentage to what extent a healthcare dispatcher took into consideration a particular algorithm or rules of procedure while receiving a call or performing other tasks and assignments. The module should allow free entry [Optional] The module contains a solution for freely creating forms for measuring the compliance with protocols and for the automatic calculation of results, i.e. the calculation of the quality indicator.

1.14.10 Quality standards

Quality standards are defined by the Rules on Health Dispatch Service, the ZZSZ Rules on Emergency Medical Service, and the Instructions for Exercising the Rights to Ambulance Transport and Other Transport. Due to possible changes of these legal acts, the module should enable a simple monitoring of the parameters defined by the quality standards (e.g. changing the anticipated median values, the anticipated percentiles, time limits, etc.).

1.14.10.1 According to the response time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

- average response time of ten seconds or less,
- in 90% of treated emergency calls (112 and 113), the response times are ten seconds or less, and in 70% of all treated non-emergency calls, they are also ten seconds or less,
- the response times for all treated calls are within two minutes,
- in 90% of all treated emergency calls (112 and 113) and in 70% of all treated non-emergency calls, there are fewer than 0.02% unanswered calls.

1.14.10.2 According to the standard "time of receiving and handling a call," the healthcare dispatch service (DSZ) achieves the following results in its work:

- the average time of receiving a call is 40 seconds or less,
- in 90% of all treated red priority calls, the times of receiving a call are 40 seconds or less, and in 70% of all treated yellow priority calls, they are also 40 seconds or less.

1.14.10.3 According to the activation time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

- the average activation time for all treated emergency red priority calls is 20 seconds or less,

- the activation time in 90% of all treated emergency red priority calls is 20 seconds or less,

1.14.10.4 According to the reaction time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

- the average reaction time of the DSZ for emergency red priority calls is 60 seconds or less,
- the reaction time in 90% of all treated emergency red priority calls is 60 seconds or less,

1.14.10.5 The standard “time required to access the event location” stipulates that the average access time required by EMS mobile units to access an event location does not exceed 15 minutes.

1.14.10.6 The “departure time” standard stipulates that the average time of the departure of EMS mobile units does not exceed 60 seconds.

1.14.10.7 According to the intervention time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

- the average intervention time in the event of emergency yellow priority calls is 60 minutes or less,
- the intervention time in 70 % of all treated emergency yellow priority calls is 60 minutes or less.

1.14.11 Performance indicators

- 1.14.11.1 **hourly phone call load:** is a piece of information on the number of incoming telephone calls received by the call centre at an individual DCZ in one hour,
- 1.14.11.2 **hourly radio communication load:** is a piece of information on the number of radio communications carried out by an individual DCZ in one hour,
- 1.14.11.3 **hourly load related to the electronic ordering of non-emergency transports:** is a piece of information on the number of e-orders for performing non-emergency transports received by a particular DCZ in one hour,
- 1.14.11.4 **the availability of healthcare dispatchers:** is a piece of information on the availability of healthcare dispatchers in a selected time interval (LogOn, LogOff, Work, Unavailable, etc.),
- 1.14.11.5 **the workload of healthcare dispatchers:** is a piece of information on the workload of healthcare dispatchers in a selected time interval (Answered Calls, Unanswered Calls),
- 1.14.11.6 **the average call processing time:** is the average time from first picking up the phone (receiving the call) to the agreed upon termination of the phone connection with the caller,
- 1.14.11.7 **the average time of processing an e-order:** is the average time of all actions related to the processing of e-orders of non-emergency transports until they are assigned,
- 1.14.11.8 **Number of FCR (First Call Resolution) calls:** is the number of interventions (cases) that only required one (1) telephone call for the issue to be resolved,
- 1.14.11.9 **patient treatment time at the location:** is the time from the team's arrival to the patient (the status WITH THE PATIENT) to the moment when the team departs from the event location (the status RETURNING)
- 1.14.11.10 **patient handover time:** is the time from the moment of arrival of any EMS mobile unit, a HEMS team, and a provider of non-emergency transport to the final location (the status AT THE DESTINATION) to the moment when a patient is handed over at the final location (the status PATIENT HANDOVER). The longest patient handover time is 15 minutes.
- 1.14.11.11 **the display of the daily occupancy of available teams;** the occupancy of available teams in a 24-hour time interval shows the time intervals of the following team statuses: AVAILABLE, CONDITIONALLY AVAILABLE, ON THE WAY
- 1.14.11.12 **the display of the average daily occupancy of available teams;** the average occupancy of available teams in a 24-hour time interval shows the time intervals of the following team statuses: AVAILABLE, CONDITIONALLY AVAILABLE, ON THE WAY
- 1.14.11.13 **time for providing a replacement vehicle/aircraft:** is the time from the retreat of a vehicle/aircraft of any EMS mobile unit team, HEMS team, and the provider of non-emergency transport from operational use to the moment when a replacement vehicle/aircraft is provided.
- 1.14.11.14 **the index of emergency transports to an event location:** is the ratio between interventions performed with the use of special light and sound signalling and interventions with red priority

1.14.12 In order to calculate the above indicators, quality

standards, and performance indicators, the module must have at least the following data:

- 1.14.12.1 Event beginning time
- 1.14.12.2 time when call was made to RENC/OCC – 112/113
- 1.14.12.3 time when the caller's line was established (the first "ring") with DCZ
- 1.14.12.4 the time when the healthcare dispatcher answered ("picked up the telephone")
- 1.14.12.5 the time until the level of urgency (priority) is determined or until a decision on the manner of performing the intervention is made
- 1.14.12.6 the time when the conversation with the caller finishes
- 1.14.12.7 the time of the selection/assignment of a suitable team
- 1.14.12.8 the time when suitable teams are activated (the status ACCEPTED)
- 1.14.12.9 team departure time (the status ON THE WAY)
- 1.14.12.10 team arrival time at the event location (the status AT THE LOCATION)
- 1.14.12.11 the time when a team reaches a patient (the status WITH THE PATIENT)
- 1.14.12.12 the time when a team departs from an event location (the status RETURNING)
- 1.14.12.13 team arrival time at the final location (the status AT THE DESTINATION)
- 1.14.12.14 the time when a patient is handed over to hospital staff (the status PATIENT HANDOVER)
- 1.14.12.15 the number of cardiac arrests actually discovered by teams
- 1.14.12.16 the time when the performance of chest compressions begins
- 1.14.12.17 the time when the first AED defibrillation is performed
- 1.14.12.18 the number of patients suffering from cardiac arrest in a prehospital environment (the information is obtained from the application described under 1.24; manual entry possible)
- 1.14.12.19 the number of patients suffering from spontaneous circulation in the event of cardiac arrest in a prehospital environment, with palpable pulse when handed over to a hospital (the information is obtained from the application described under 1.24; manual entry possible)
- 1.14.12.20 the number of patients suffering from cardiac arrest in a prehospital environment who were alive upon discharge from the hospital (manual entry in the application described under 1.24; entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.21 number of STEMI patients in a prehospital environment (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.22 the number of STEMI patients on whom primary angioplasty has been performed (PTCA/PCI) – (manual entry in the application described under 1.24; entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.23 the number of STEMI patients with a suitable therapy – (manual entry in the application described under 1.24; entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.24 number of patients suspected of suffering from ICV (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.25 number of FAST-positive patients (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)

1.14.12.26 number of FAST-positive patients who were thrombolysis candidates (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)

1.14.12.27 number of patients suspected of suffering from ICV with a suitable therapy (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)

1.14.13 Overview of DSZ loads

The module should enable the display of the performed work of an individual healthcare dispatch centre (DSZ) or the healthcare dispatch service as a whole (level access):

1.14.13.1 **according to the types of events** defined in the Slovenian Emergency Medical Service Index; the display according to the selected parameters in the filter and the display in the form of a diagram or a table are enabled,

1.14.13.2 **according to the hourly phone call load**; average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.3 **display of hourly phone call loads** for each hour of the day for each day of the week in a selected time interval (the shortest time interval is one week – 7 days); average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.4 **according to the hourly radio communication load**; average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.5 **display of hourly radio communication loads** for each hour of the day for each day of the week in a selected time interval (the shortest time interval is one week – 7 days); average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.6 **according to the hourly load related to the electronic ordering of non-emergency transports**; average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.7 **display of hourly load related to the electronic ordering of non-emergency transports** for each hour of the day for each day of the week in a selected time interval (the shortest time interval is one week – 7 days); average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.8 **display of healthcare dispatcher availability**; average, minimum, and maximum values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to selected time interval; they are displayed in the form of tables and diagrams,

1.14.13.9 **display of healthcare dispatcher workload**; average, minimum, and maximum values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to selected time interval; they are displayed in the form of tables and diagrams,

1.14.13.10 **display of average call processing time**; values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to priorities, according to selected time interval; they are displayed in the form of tables and diagrams (separate graphic display according to classes),

1.14.13.11 **display of average time of processing an e-order**; values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to priorities, according to selected time interval; they are displayed in the form of tables and diagrams (separate graphic display according to classes),

1.14.13.12 **display of the proportion of FCR calls**; values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to priorities, according to selected time interval; they are displayed in the form of tables and diagrams

1.14.14 **The module enables data filtering according to: DSZ**

as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, receiving healthcare dispatcher, the controlling and assigning dispatcher, the ZZZS regional unit, municipality, town/city, street, street number.

1.14.14.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.15 Overview of the use of the Slovenian Emergency Medical Service Index

The module should enable the display of the use of the Slovenian Emergency Medical Service Index in an individual healthcare dispatch centre or of the healthcare dispatch service as a whole (level access):

1.14.15.1 **display of the use of the Slovenian Emergency Medical Service Index;** display of the total number of the use of individual cards of the Slovenian Emergency Medical Service for emergency medical assistance for DSZ, an individual DCZ and an individual receiving healthcare dispatcher; display of the average, minimum and maximum use of individual cards of the Slovenian Medical Service Index for emergency service; display in the form of a table or diagram (separate graphic display according to class),

1.14.15.2 **display of the frequency of the application of criteria;** display according to individual cards of the Slovenian Emergency Medical Service, display according to DSZ, an individual DCZ and an individual receiving healthcare dispatcher; display of the average, minimum and maximum application of criteria according to individual cards of the Slovenian Medical Service Index for emergency service; display in the form of a table or diagram (separate graphic display according to class),

1.14.15.3 **display of times receiving a call;** display according to cards of the Slovenian Emergency Medical Service, according to the selected criteria of the Slovenian Emergency Medical Service, according to individual receiving healthcare dispatchers; display in the form of a table or diagram (separate graphic display according to class),

1.14.15.4 **display of call processing time;** display according to cards of the Slovenian Emergency Medical Service, according to the selected criteria of the Slovenian Emergency Medical Service, according to individual receiving healthcare dispatchers; display in the form of a table or diagram (separate graphic display according to class),

1.14.15.5 **display of the cardiac arrest recognition index;** or DSZ, an individual DCZ and an individual receiving healthcare dispatcher; display in the form of a table or diagram (separate graphic display according to class),

1.14.16 **The module enables data filtering according to:** DSZ as a whole, individual DCZ, the selected time interval, individual receiving healthcare dispatcher, the ZZZS regional unit, municipality, town/city, street, street number.

1.14.16.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.17 Overview of intervention times

The module should enable the display of intervention time of an individual healthcare dispatch centre (DSZ) or the healthcare dispatch service as a whole (level access):

1.14.17.1 **DSZ response time**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.2 **Time of the DSZ receiving the call**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.3 **DSZ reaction interval**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.4 **departure time**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.5 **time required to access the event location**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.6 **patient treatment time at the location**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.7 **patient treatment time**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.17.8 **total intervention time**; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),

1.14.18 **The module enables data filtering according to:** DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, receiving healthcare dispatcher, the controlling and assigning dispatcher, the transport provider, the intended function of the vehicle, the vehicle's garage number, the ZZS regional unit, the provider's coverage area, municipality, town/city, street, street number.

1.14.18.1 The module enables an overview of automatically calculated ETA1, ETA2, and ETA3 compared to the real intervention times in a selected time period, and the calculation of deviations.

1.14.18.2 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.19 **Team availability/occupancy overview**

The module should enable the display of the occupancy of the available teams of an individual healthcare dispatch centre (DCZ) or the healthcare dispatch service as a whole (level access):

1.14.19.1 **the display of the daily occupancy of available teams;** display of the occupancy of available teams in a 24-hour time period for a selected day; display in the form of a table or diagram,

1.14.19.2 **the display of the average daily occupancy of available teams;** display of the average, minimum, and maximum occupancy of available teams in a 24-hour time period for a selected day; display in the form of a table or diagram,

1.14.19.3 **patient handover time;** display of the average, minimum, and maximum patient handover time; the comparison with the maximum permitted handover time is displayed; display in the form of a table or diagram (separate graphic display according to classes),

1.14.20 **The module enables data filtering according to:** DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, type of public healthcare institution (applies for the patient handover time), the intended function of the vehicle, the vehicle's garage number, the ZZZS regional unit, the provider's area of coverage, municipality, town/city, street, street number.

1.14.20.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.21 Overview of performed interventions

The module should enable an overview of the performed interventions of an individual healthcare dispatch centre (DCZ) or the healthcare dispatch service as a whole (level access):

1.14.21.1 **overview of interventions according to the types of events** defined in the Slovenian Emergency Medical Service Index; the display according to the selected parameters in the filter and the display in the form of a diagram or a table are enabled,

1.14.21.2 **time for providing a replacement vehicle/aircraft;** display of the average, minimum, and maximum time; the comparison with the maximum permitted handover time is displayed; display in the form of a table or diagram (separate graphic display according to classes),

1.14.21.3 **the index of emergency transports to an event location:** display of the average, minimum, and maximum index; display in the form of a table or diagram (separate graphic display according to class),

1.14.22 **The module enables data filtering according to:** DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the vehicle's garage number, the ZZZS regional unit, the provider's area of coverage, municipality, town/city, street, street number.

1.14.22.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.23 Overview of the compliance with protocols

1.14.23.1 The module enables the naming of the indicators related to the compliance with protocols, the appointment of limits, and the entry of results.

1.14.23.2 The results of the compliance with protocols are shown in a table or diagram (separate graphic display according to classes).

1.14.24 [Optional]The module provides a tool for creating entry forms for measuring compliance with protocols and the automatic calculation and display of results in a table or a diagram.

1.14.25 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, receiving healthcare dispatcher, the controlling and assigning dispatcher, the ZZS regional unit, municipality, town/city, street, street number.

1.14.25.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.26 Intervention load analysis

The module should allow the performance of an intervention load analysis (CDA analysis) The procedure for performing an intervention load analysis:

1.14.26.1 Randomly adjustable periods that are at least 20 weeks long are covered.

1.14.26.2 A period is divided into days of the week.

1.14.26.3 The interventions are added up for each day of the week.

1.14.26.4 The interventions on a particular day are divided according to hours of the day.

1.14.26.5 The following is calculated for individual hours:

- a. The average number of interventions (classic Avg)
- b. High average:
 - i. the analysed period is divided into quartiles,
 - ii. the maximum value is found in each quartile,
 - iii. their average is calculated based on the maximum values.
- c. Peak average:
 - i. the maximum value is found in the first and second quartile,
 - ii. the maximum value is found in the third and fourth quartile,
 - iii. The results are added up and divided by 2.
- d. Maximum value (classic Max):
 - i. The maximum value is found in the analysed period.

1.14.26.6 It is compared to the standard "available teams" every day, for each hour and type, and separately to the actually available teams.

1.14.26.7 The variance/deviation from the standard "available teams" is calculated for each day, for each hour, and separately for actually available teams.

1.14.26.8 The result is shown graphically in the form of a linear diagram with a polynomial visualisation of the variance movement.

The interpretation of the results of the intervention load analysis:

1. Variance – 0.5 to 0 or more means that there is a small likelihood that all of the required services will not be provided with the available teams,
2. Variance – 0.5 to -1 means that there is a likelihood that all of the required services will not be provided with the available teams,
3. Variance smaller than -2 means that there is a great likelihood that all of the required services will not be provided with the available teams,
4. High average – the event will occur at least once a month; if this volume is managed, all of the necessary services will be provided in 75% of all cases.
5. Peak average – the event will occur at least once every 10 weeks; if this volume is managed, all of the necessary services will be provided in 90% of all cases.
6. The maximum value (Max) that appeared during the period of measurement; if this volume is managed, all of the necessary services will be provided in 100% of all cases, in theory.

1.14.27 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special

light and alarm signalling), priority, the provider, the intended function of the vehicle, the ZZSZ regional unit, the provider's area of coverage, municipality.

1.14.27.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.28 The geolocation and time analysis of the performed interventions

The module should allow the application of the GIS module for the graphic display (various cartographic bases):

1.14.28.1 **display of performed interventions with significant time components:** in a selected area of the operation of the dispatch service, the performed interventions are shown on various cartographic bases and in various manners (at least through a dot plot review and ordinary kriging),

1.14.28.2 **display of achieved intervention times:** in a selected area of the operation of the dispatch service, the achieved intervention times are shown on various cartographic bases and in various manners (at least through a dot plot review and ordinary kriging); deviations from the foreseen standards are specially marked,

1.14.28.3 **display of foreseen intervention times:** in a selected area of the operation of the dispatch service, the foreseen intervention times are shown on various cartographic bases and in various manners (at least through a dot plot review and ordinary kriging) by taking into consideration the starting locations and the traffic situation and limitations; the achievement of the foreseen standards is specially marked,

1.14.29 **The module enables data filtering according to:** DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the ZZSZ regional unit, the provider's area of coverage, municipality.

1.14.29.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance. The module enables the export of graphic displays in JPG, TIF, or PDF formats.

1.14.30 Quality control and assurance related to the performed work

The module should enable the calculation of all previously listed quality indicators and the display of the achievement of quality standards:

1.14.30.1 **the display of quality indicators:** display of the average, minimum, and maximum values; display in the form of a table or diagram (separate graphic display according to classes),

1.14.30.2 **the display of the achievement of the "response time" standards:**

- a. the display of the achievement of the average time by displaying the achievement of (or deviation from) the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- b. the display of the achieved particular percentile of response times of all handled emergency calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- c. the display of the achieved particular percentile of response times of all handled non-emergency calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- d. the display of the achieved response times for all calls according to different

classes (10 sec. intervals; after 120 sec., only the option > 120 sec.)

- e. the display of the achieved particular percentile of unanswered calls for all handled emergency calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- f. the display of the achieved particular percentile of unanswered calls for all handled non-emergency calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),

1.14.30.3 the display of the achievement of the "time of receiving and handling a call":

- g. the display of the achievement of the average time by displaying the achievement of (or deviation from) the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- h. the display of the achieved particular percentile of the time of receiving and handling a call for all handled red-priority calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- i. the display of the achieved particular percentile of the time of receiving and handling a call for all handled yellow-priority calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),

1.14.30.4 the display of the achievement of the "activation time" standard:

- j. the display of the achievement of the average time for all handled emergency red-priority calls by displaying the achievement of (or deviation from) the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- k. the display of the achieved particular percentile of the activation time for all handled emergency red-priority calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),

1.14.30.5 the display of the achievement of the "reaction time" standard:

- l. the display of the achievement of the average time for all handled emergency red-priority calls by displaying the achievement of (or deviation from) the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- m. the display of the achieved particular percentile of reaction time of all handled red-priority emergency calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),

1.14.30.6 the display of the achievement of the "access time" standard:

- n. the display of the achievement of the average time for all EMS mobile unit interventions by displaying the achievement of (or deviation from) the foreseen limit; display in the form of a table or diagram (separate display according to classes),

1.14.30.7 the display of the achievement of the "intervention time" standard:

- o. the display of the achievement of the average time for all handled emergency yellow-priority calls by displaying the achievement of (or deviation from) the foreseen limit; display in the form of a table or diagram (separate display according to classes),
- p. the display of the achieved particular percentile of the activation time of all

handled emergency yellow-priority calls in the foreseen limit; display in the form of a table or diagram (separate display according to classes),

1.14.31 numeric and graphic (diagrams, counters, etc.)

1.14.31.1 The module should allow the creation of forms for measuring the "compliance with protocols" quality indicator, which includes the definition of the desired limits and the calculation and mutual comparison of results.

1.14.31.2 The module should randomly select a defined number of cases that will be included in the qualitative analysis for the selected healthcare dispatcher.

1.14.32 **The module enables data filtering according to:** DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the ZZZS regional unit, the provider's area of coverage, municipality.

1.14.32.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.33 Cardiac arrest report – "Utstein style"

1.14.33.1 The module should allow the creation and display of a report on cardiac arrests in a prehospital environment, which must be coordinated with the foreseen reporting according to the Utstein style.

1.14.34 Drafting pre-defined reports

1.14.34.1 The drafting of various pre-defined periodic reports (daily, weekly, monthly, quarterly, semi-annual, annual, and multi-annual report) on the operation of a healthcare dispatch centre or the entire healthcare dispatch service is enabled.

1.14.34.2 The drafting of a routine press release is also considered a pre-defined report.

1.14.34.3 All reports can be exported and saved in PDF format.

1.14.35 Other requirements

1.14.35.1 All changes of data must be traceable in accordance with applicable standards and legislation in the relevant field.

1.14.35.2 Selective graphic display of quality and performance indicators and indicators of meeting standards are enabled in the following forms: as a bar chart, column chart, pie chart, and line chart. [Optional] In addition to the requisite forms, the module allows quality and performance indicators and indicators of meeting standards to also be displayed as: area charts, surface charts, and combo charts.

1.14.35.3 For all available table and chart displays of quality and performance indicators and indicators of the meeting standards, a random display on all wallboards is also enabled.

1.15 SYSTEM STATUS CONTROL MODULE

1.15.1 System status control at a healthcare dispatch

centre	
1.15.2	Remote insight into the situation in individual posts
1.15.2.1	Who is registered at the post
1.15.2.2	Reason for unavailability
1.15.2.3	Insight into current work
1.15.2.4	Assuming work from each work post
1.15.2.5	Foreign language proficiency of an active healthcare dispatcher
1.15.3	Overview of the hospital's status concerning available capacities
1.15.3.1	See Point 1.25. 10 Regional Healthcare Coordination Group (hereinafter: RKSZ) MODUL ZA PODPORO
1.15.3.2	To enable integration with the hospital information system providing desired data in electronic form.
1.15.3.3	The WEB module allows a person authorised by the hospital to enter the status of the desired data.
1.15.4	Overview of the status concerning available capacities for intervening in the field
1.15.4.1	See point 1.25.7.4 RKSZ
1.15.4.2	A display of all of the system's capacities in the form of tables and charts is enabled, including displaying deviations from the anticipated status considering the time of an enquiry
1.15.4.3	A selective display of all of the system's capacities in the form of tables and charts is enabled, including displaying deviations from the anticipated status considering the time of an enquiry and the selected field
1.15.5	[optional]Graphic display (usually kriging) of the system ETA1 (average ETA1) considering the number and locations of the currently available teams is enabled
1.15.6	[optional]Selective graphic display (usually kriging) of the system ETA1 (average ETA1) considering the selected area, locations and number of the currently available teams is enabled
1.15.7	[optional]System modulation with the goal of meeting the standard "access time" and the randomly determined ETA3 considering the occurrence of interventions, the selected area, the anticipated locations (locations of teams are determined randomly) and the number of available teams is enabled.
1.15.8	Quality
1.15.8.1	Quantitative display of the workload of a healthcare dispatcher (e.g. the number of received calls, the number of dispatched interventions, etc.)
1.15.8.2	A random selection and automatic display of selected quality and performance indicators and indicators of meeting quality standards in the form of tables and/or selected chart form is enabled.
1.15.9	Help button
Through a help button, a person from the workplace notifies their superior that there is a problem and that they require assistance.	
1.15.9.1	The supervising dispatcher may provide assistance from their workplace or assume the work task.
1.15.10	Displaying the situation on the wallboard
The display of pre-defined desired data is enabled on the wallboard (default setting).	

1.15.10.1	Concerning the current work: the number of calls per day, the number of calls per hour, the number of current calls, the number of calls on hold, the waiting time in seconds, etc.
1.15.10.2	The graphic display of the achievement of the standard “response time” for emergency calls (e.g. in the form of a clock), separate for: healthcare dispatch service (DSZ), DCZM, and DCZL
1.15.11	[optional]The graphic display of the achievement of the standard “response time” for non-emergency calls (e.g. in the form of a clock), separate for: healthcare dispatch service (DSZ), DCZM, and DCZL
1.15.11.1	Option to give warnings (using warnings prepared beforehand or free text)
1.15.11.2	The display of current time
1.15.11.3	The display of a map (also of individual areas) with a display of ambulances and interventions
1.15.11.4	Displaying photographs
1.15.11.5	Showing a video
1.15.11.6	Showing live images from the field
1.15.12	System status control in the healthcare dispatch service

An authorised person can have an insight into the system status at all healthcare dispatch centres, including an insight into the status and capabilities of controlled hospitals. Take into account the premises from the [previous subchapter](#).

1.16 STAFF MODULE

1.16.1	The staff module enables employees to enter their desired times for annual leave, job replacements, reports on events, data about employees, notifications and a review of documents.
1.16.2	Data that are visible to each individual employee, are based on their rights.
1.16.3	Under each own tab, every employee can:
1.16.3.1	Edit their access password
1.16.3.2	Review entered data (staff)
1.16.3.3	Review entered reports on events and reports on how events have been resolved
1.16.3.4	Enter and review vacation dates and see if they have been approved
1.16.3.5	Enter and review own replacements and see if the replacements have been agreed upon or approved
1.16.3.6	Enters detected defects
1.16.3.7	Reviews all notifications
1.16.3.8	Reviews documents and confirms on being informed on the documents
1.16.4	Annual leave
1.16.5	The desired time of annual leave can be entered via a form, where the following has been recorded
1.16.5.1	Time of annual leave entry (automatic)
1.16.5.2	Date of annual leave start
1.16.5.3	Date of annual leave end
1.16.5.4	Selection of type of leave (from the list)
1.16.5.5	Notes
1.16.6	Every employee can review annual leave times in the

review list, where they can see whether the annual leave has been approved or rejected, as well as the reason for rejection or necessary supplementations.

1.16.7	The administrator can:
1.16.8	Review annual leave times by filters (unreviewed, approved, not approved, per employees) and print them
1.16.9	Approve/reject individual annual leave
1.16.10	Notes that require supplementation
1.16.11	Replacements
1.16.12	The desired replacement can be entered via a form, where the following has been recorded
1.16.13	Time of replacement entry (automatic)
1.16.14	Date of replacement
1.16.15	Rotation of replacement
1.16.16	Employee that will replace me
1.16.17	Notes

1.16.18 Every employee can review replacements in the review list, where they can see whether the replacement has been approved or rejected, as well as the reason for rejection or necessary supplementations, and whether the replacing employee agreed with the replacement.

1.16.19 The option to review replacements of other employees where the employee is stated as the possible replacement, and add agreement.

1.16.20 The administrator can:

1.16.20.1	Review replacements by filters (unreviewed, approved, not approved, per employee, per agreement) and print them
1.16.20.2	Approve/reject individual replacement
1.16.20.3	Notes that require supplementation

1.16.21 Reports on events

Employees can use the form to enter their reports on various events, which must be, according to the service rules, entered for any detected deviation, reports on improvements etc.

1.16.22 The form contains the following fields:

1.16.22.1	Time of entry (automatic)
1.16.22.2	Author (automatic)
1.16.22.3	ID reports on events (automatic)
1.16.22.4	Type of event (extraordinary event, proposal for improvement, enquiries, public relations)
1.16.22.5	Event title
1.16.22.6	Where did the event happen?
1.16.22.7	When did the event happen (date and time separately)
1.16.22.8	Description of event
1.16.22.9	Status of report (automatic)

1.16.23 Every employee can review all reports and the status of the report, as well as reports on how the extraordinary event has been resolved, which were

prepared for the specific event.

1.16.24 Portfolios

1.16.24.1 An authorised person can create a portfolio on the basis of the report on event.

1.16.24.2 The author and time of the portfolio preparation is recorded.

1.16.24.3 One main report can be added to the portfolio (on the basis of which the portfolio was prepared), as well as other reports that have not been included in any other portfolio.

1.16.24.4 One or several reports on resolving the event can be created in the portfolio.

1.16.24.5 Document scan can be attached

1.16.24.6 We can determine who will deal with the extraordinary event, and we send them an e-mail with a generated message such as: You have been appointed to resolve the extraordinary event no. xy, which was determined in the xy portfolio. The deadline for conclusion is (date).

1.16.25 Notifications

1.16.26 The authorised person can publish individual notifications that are important for the entire staff. They can:

1.16.26.1 Author of notification

1.16.26.2 Date of notification

1.16.26.3 Date of validity from: to

1.16.26.4 Add a title to the notification

1.16.26.5 Write the displayed text

1.16.26.6 Attach a document that will be displayed under the text

1.16.26.7 Determine the type or necessity of notification

- URGENT, the notification is displayed at login in the system, the user has to select the option "read" to hide it. All current messages that have not yet been read are displayed. The urgent message is visible in the notification tab for the entire time.
- REGULAR, the notification is displayed only in the notification tab.

1.16.26.8 Determine to whom the notification is intended

- Individual employee
- All employees
- One or several profiles (by jobs)

1.16.26.9 Review all notifications by filters (title, date of entry, author) and print them

1.16.26.10 Review who has read urgent notifications and who has not

1.16.27 Documents

All instructions for work and other important documents which have to be familiar to the employee are published under the documents section.

1.16.28 When an individual document is published, an authorised person can:

1.16.28.1 Add a document title

1.16.28.2 Short description

1.16.28.3 Attach a document scan

1.16.28.4 Determine whether an employee should choose the option "I am informed about the document".

1.16.28.5 Review who has not been informed on various documents.

1.16.29 Staff

1.16.30 Under the staff tab we can enter employees and enable

them rights:

1.16.30.1	Surname and name
1.16.30.2	Attach the employee's photo
1.16.30.3	Date of birth
1.16.30.4	UKCL number of employee
1.16.30.5	Agent number
1.16.30.6	Employee's username
1.16.30.7	Date of employment at UKCL
1.16.30.8	Date of employment at DSZ
1.16.30.9	Date of termination
1.16.30.10	Reason for termination
1.16.30.11	Permanent address
1.16.30.12	Temporary address (if necessary)
1.16.30.13	Distance to work place in km
1.16.30.14	(calculation) of arrival to work in minutes
1.16.30.15	Education level
1.16.30.16	Acquired title
1.16.30.17	Date of professional exam or diploma (scan can be attached)
1.16.30.18	Chamber's permission for work (scan can be attached)
1.16.30.19	Foreign language knowledge (the module then displays dispatchers who have knowledge of foreign languages)
1.16.30.20	Telephone number
1.16.30.21	E-mail address
1.16.30.22	Workplace
1.16.30.23	Access permissions or user rights administration
1.16.30.24	Password or PIN
1.16.30.25	Card number (ZZZS or similar)
1.16.30.26	Concluded courses (scans of certificates can be attached)

- Mandatory courses
- Other courses

1.16.31 Search by employees, data display and printing by filters is enabled

1.16.31.1	data by employees
1.16.31.2	joint list of all employees (employee number, surname and name, empty line)
1.16.31.3	list by times employees are accessible (surname, name, address, phone number, workplace, access time in minutes)
1.16.31.4	list of entered courses by employees
1.16.31.5	list of all who have not concluded an xy course or list of all who concluded the xy course

1.17 ADMINISTRATION OF INDIVIDUAL MODULES

1.17.1 The administration of individual modules enables users

with appropriate rights:

- 1.17.1.1 The authorised person can determine in what way an individual should login to the system (card or PIN or card+PIN)
- 1.17.1.2 At login there is an option to choose among various jobs (reception, dispatcher, shift supervisor, user with suitable rights, medical practitioner) with regard to permits and the setup of desktop in accordance with the login.
- 1.17.1.3 Option to select at logout (end of work, break etc.). When the card is removed, the desktop is automatically locked and asks for the reason of logout.
- 1.17.1.4 The dispatcher logs in once via a joint login in all components of the solution.
- 1.17.1.5 New entries to all system databases as are described above (institutions, employees, devices, publicly accessible AEDs etc)
- 1.17.1.6 Corrections of forms' texts, e-Slovenian index

1.18 TELEPHONE AND RECORDING

The telephone module is a program module that functions on the computer and enables the following functionalities.

1.18.1	Phone directory
1.18.1.1	Fast search by number or title
1.18.1.2	Entry of phone numbers/edit of entries <ul style="list-style-type: none">○ Telephone number○ Contact name○ Determining the attribution of contacts to institutions or locations that are geolocated, therefore, it is possible to acquire the location of the caller when the call is made○ Determining speed dial buttons
1.18.1.3	Automatic calls from the directory
1.18.1.4	Automatic capture of phone number from the phone sub-system, calls and reconnections from the program, reception form of the dispatcher program
1.18.1.5	Automatic display of directory data to the dispatcher when call is made
1.18.2	Recording
1.18.2.1	Recording must be enabled for all phone and radio lines and building loudspeaker system.
1.18.2.2	Access rights management
1.18.2.3	Search for recordings with regard to phone number, actual connection, agent number, age of recording.
1.18.2.4	Keeping a logbook of all who listen to recordings; time and identification stamp for every review of recordings.
1.18.2.5	Keeping a logbook of all recordings stored by listeners.
1.18.2.6	The capacity to store recordings for 1 year, automatic deletion of recordings after a certain time period.
1.18.2.7	Support for remote listening to recordings.
1.18.2.8	Compatibility with the dispatcher program for listening recordings from the dispatcher program.
1.18.3	Call centre

Enables at least the following functionalities:

1.18.3.1 With signalisation of the dispatcher desk (sign at call that a call is in progress/dispatcher is occupied) – see connection with the occupancy indicator.

1.18.3.2 A preliminary announcement must be made in accordance with the legislation for all non-urgent lines (except for 112, 113). Recording of preliminary announcements must be enabled. The possibility of different preliminary announcements with regard to the entry line.

1.18.3.3 It can be determined for individual workplaces, from which lines (all lines, only internal lines, urgent, non-urgent) they can accept calls.

1.18.3.4 It is possible to preliminarily determine and also change for authorised persons, from which lines they can receive calls (all lines, only internal lines, urgent, non-urgent lines or special numbers) with regard to individual work (dispatcher, reception) and the work desk.

1.18.3.5 Possibility of creating groups of reception and transmission dispatchers who serve waiting lines

1.18.3.6 Formation of waiting lines with regard to the line or call priority or according to preset priorities (calls from priority directions skip the waiting line, e.g. 112, 113 etc.)

1.18.3.7 Equal load on agents within the group of dispatchers

1.18.3.8 Online review of the current status of dispatchers and groups; organised insight into the occupancy of agents (shift supervisor etc.).

1.18.3.9 The compatibility of the telephone exchange with the dispatcher program for an automatic entry of the phone number of incoming call in the dispatcher program and the display of the caller identity from the phone directory.

1.18.3.10 The compatibility of the telephone exchange with the dispatcher program that in its user interface presents the statuses of other dispatchers (LogOn, Work, Unavailable) and the statuses of their phones (Idle, Ringing, Ringed, Connected)

1.18.3.11 The compatibility of telephone exchange with the dispatcher program for calling from the dispatcher program and phone directory.

1.18.3.12 The compatibility of telephone exchange with the dispatcher program for connecting incoming calls from the dispatcher program.

1.18.3.13 Listening to recordings of radio and phone conversations (with regard to allocated rights or every dispatcher can listen only to own calls in a determined time period).

1.18.3.14 The possibility of accessing individual calls from the reception form.

1.18.3.15 Administration of phone and radio recordings.

1.18.3.16 Protection of data against unauthorised access and access rights management

1.18.3.17 All changes of data must be traceable in accordance with applicable standards and legislation in the relevant field.

1.18.4 Connection with occupancy indicator

1.18.5 Switch on of LED signal lights (operator status) is possible via the RS232 interface.

1.18.5.1 3 to 12V voltage on 6, 7 or 6and8 pins is necessary for switching on the signal light. 5 GND , 6 red, 8 green, 6&8 yellow.

1.18.6 For using the null modem cable with full handshake we need hi on DTR and RTS

1.18.7 The connection with the occupancy indicator depends on

the occupancy of the dispatcher when making a phone call.

1.18.7.1 Red light on the indicator: the dispatcher is logged in the system and is occupied with a phone call or they are working

1.18.7.2 Yellow light: the dispatcher is logged in the system, but is only conditionally available for incoming calls (except for special numbers or lines)

1.18.7.3 Green light: the dispatcher is logged in the system and available to accept the call

1.18.8 Red light on the indicator: it has to be connected to the current occupancy with a phone call (the dispatcher has a call in progress and is not available to accept the next call) or the work function is switched on.

1.18.8.1 Red light switches on automatically immediately after the dispatcher's line becomes occupied.

1.18.9 Yellow light on the indicator: the dispatcher uses the function button (conditionally available) to announce that they are in the work process and are conditionally available.

1.18.9.1 By pressing the function button the yellow light automatically switches on the indicator.

1.18.9.2 The dispatcher is not available for external calls (except for special numbers or lines).

1.18.10 Green light on the indicator: the dispatcher is not in the process of accepting a call (phone line is available) and is prepared to accept a new call.

1.19 MOBILE APPLICATION FOR FIRST RESPONDERS

The mobile application is intended for first responders.

1.19.1 It is available for Android and IOS devices.

1.19.2 The user logs into the application with own username and password.

1.19.3 At the first login, the user uses the registration code that is allocated by DSZ to register in the system. The user agrees with the general described conditions and allows the tracking of location when active.

1.19.4 Every user has his or her own profile where the following can be determined: education, date of course undertaken for first responders, type of course undertaken, licence expiry; if in the unit: name of the unit, etc.

1.19.5 After login the user determines his or her own status (active/inactive). This means that the dispatcher can locate them for an intervention nearby.

1.19.6 When selecting the first responder (in the dispatcher assistance module) the following message is sent to the mobile device: There is an emergency nearby (distance from event in km)], can you attend?

1.19.6.1 If the first responder replies with YES, an activation message is sent.

1.19.7 The first responder informs the dispatcher via the

application:

1.19.7.1 Activation accepted

1.19.7.2 On the way

1.19.7.3 On site (automatic transmission of geolocation)

1.19.8 It is possible to communicate via the application, via the CALL DISPATCHER button, when the phone line is initiated to the preset phone number or the application enables the "push to talk" function that operates as a VHF radio communication.

1.19.9 The application automatically generates a message on the activation of the first responder and sends it e.g. to the competent ReCo.

1.19.10 The map with the event location and the location of the nearest AED on the way to the event or near the event, guidance to both locations (on foot or by car).

1.19.11 The system administrator can administer users, allocate and withdraw rights, update databases and upgrade the application. (Agreement with the developer about the development of updates and upgrades). The user is notified of a new upgrade at login.

1.19.12 Upon a request, the application sends the information dispatcher solution the location of active users, so that the module for dispatcher assistance displays data about the nearest first responders.

1.20 APPLICATION AND WEBSITE FOR ORDERING AND MONITORING EMERGENCY TRANSPORTS

1.20.1 The system enables the ordering of a non-emergency transport (based on the transport order) and the monitoring of its implementation.

1.20.1.1 Necessary data are determined under section [1.5 Advance orders, review of non-emergency transports](#)

1.20.2 The module enables other entities who order emergency

transports access to the application (patient, relatives)

1.20.2.1 The user is signed in the web module with the ZZSZ number and the transport order number (according to the e-referral example)

1.20.2.2 The order can be entered at the latest 12 hours before the selected implementation. When the order is not possible, the following notification is displayed: "Your order was not accepted, because the 12-hour time limitation has been exceeded. Call xxxx to order transport."

1.20.2.3 Besides the module as described under [1.5 Advance orders, review of non-emergency transports](#) enables the selection with the question "Do you want us to notify you of the progress of the emergency transport?"

1.20.2.4 When this option is selected, the user chooses how they want to be informed (e-mail, mobile phone).

1.20.2.5 If the user selects mobile phone, they have to enter the phone number where they want to receive notifications.

1.20.2.6 The system automatically sends two messages to mobile phone:

1.20.2.7 Message 1, for instance: "The ordered transport will be implemented by [name of service provider]. Envisaged time of arrival to the address [user address] is [date and time]. If the order data do not match, inform us immediately on the number xxxx."

1.20.2.8 Message 2, for instance: "Dear Sir or Madam, your transport is being implemented. Estimated time of arrival is [date and time]. Please, be ready."

1.20.3 [Option] The module enables the user to make a commendation or complaint with regard to the performed DSZ services. The user has the possibility to collaborate in an e-survey on the satisfaction of users of dispatcher services.

1.21 DMR DISPATCHER AND PHONE CONSOLE

Description of radio system operations

The DMR digital radio system is simultaneously intended for speech connections and narrowband data connections for coordination and guidance of emergency vehicles across Slovenia.

1.21.1 Direct communication between the application and the repeater network system via IP connections

Therefore, it is important that the DSZ has constant control of the DMR connection system. DSZ requires an application that directly communicates with the system (repeaters) via IP connections. Such a solution has several advantages from the standpoint of radio network planning and implementation architecture. Other solutions include a larger number of antennas on one antenna pillar, which can represent a problem due to mutual disturbances and can consequently lead to a failure in communication on certain channels (groups). The advantage of the system is that it enables greater functionality to the user and better stability in emergency situations.

1.21.2	Review of the repeater network operations
1.21.2.1	The DSZ responsible person has to have a visual review in real time of the entire backbone of the DMR connection system.
1.21.2.2	DMR repeaters, links and Ethernet connection, where it is enabled, have to be visible.
1.21.2.3	If an error occurs, it must be recorded and the user's responsible person must be warned.
1.21.2.4	Control from remote devices in a safe network must be possible.
1.21.2.5	If a certain zone fails, a warning sign must be issued to notify the health dispatcher who will take appropriate measures.
1.21.3	The system requires the setup of an Ethernet connection between all zones.
1.21.4	Required bandwidth is 64 kbps per radio channel.

1. Envisaged mechanical part - description:

1.1. server:

1. Intel Xeon E3-1200v2 series (quad-core) or higher
2. Memory
 - a. The server has minimum 6 slots for memory modules.
 - b. The server has at least 32 GB DDR4 ECC Single/Dual-rank Registered work memory installed in modules of at least 16 GB in size and operating on at least 2400 MHz (PC4).
3. The server has a system for remote supervision with the following features:
 - a. power supply control option
 - b. system restart option
 - c. information about system errors via SNMP messages
 - e. graphic KVM (keyboard, video, mouse) access via the Ethernet interface
 - f. option of using remote media
 - f. communication with the system via the Ethernet interface
 - g. use of system via command line interface (CLI)
4. Power supply:
 - a. The server has two power chargers (at least 94% platinum efficiency) which operate redundantly with load division (230V)
 - b. In case of failure the remaining server assumes the entire load
 - c. Support by simultaneous supply from two independent sources (230V)
 - e. Chargers are hot-swap exchangeable.
5. The server has internal disk capacities as follows:
 - a. Everything is prepared for the installation of at least 4 hot-swap 2.5" SAS disks
 - b. Two SAS disks with min. 146 GB, 15k RPM "hot-swap" are installed
6. The server has an internal SAS/SATA 12Gbps RAID controller with RAID 0, 1, 1+0 and 5 functionality and at least 2 GB cache memories with flash protection. The RAID controller cannot occupy the PCI guide.
7. The server has at least 4x 1GB network cards
8. The server has at least 6 USB ports, of which at least three are version USB 3.0.
9. The server has the following PCI extensions:
 - a. At least four PCI-E 3.0 x4 or faster, and
 - b. At least four PCI-E 3.0 x8 or faster

- b. Support for "boot from SAN"
- c. Support for "HBA failover"
- 10. The server has at least 5 USB ports, of which at least three are version USB 3.0.
- 11. The server has the following PCI extensions:
 - a. At least three PCI-E 3.0 x8 or faster
 - b. The option for upgrade with two additional PCI-E 3.0 x8 or faster

1.2. DMR radio stations

- 136-174 MHz frequency range
- 12.5 kHz channel bandwidth
- Modulation type: 11K0F3E (FM modulation), 7K60FXE&7K60F1E (12,5kHz 4FSK digital speech modulation), 7K60F1D & 7K60FXD (12,5kHz 4FSK digital data modulation)
- TDMA co-access
- Analogue and digital work option – can be set by channels
- Maximum deviation at 12.5kHz ± 2.5 kHz
- Intermodulation 70 dB
- Receiver frequency stability ± 0.5 PPM
- Transmitter frequency stability ± 0.5 PPM
- Analogue sensitivity ≥ 0.30 μ V for 12dB SINAD
- Digital sensitivity ≥ 0.3 μ V at 5% BER
- Digital protocol ETSI-TS 102 361-1, -2, -3
- IP data transfer via USB interface
- Temperature range of operation (-30 °C to +60 °C)

1.3. TETRA radio stations: Frequency range: 350-390/380-430/410-470/806-870

- Channel bandwidth: 25kHz
- Transmit / receive Separation kHz: 10 (380-430) 45(806-870) 10 (350-390) 10 (410-470)
- Switching Bandwidth (TMO) MHz : 50 (380-430) 19 (806-825) 40 (350-390) 60 (410-470)
- Switching Bandwidth (DMO) MHz: 50 (380-430) 19 (806-825) 40 (350-390) 60 (410-470)
- Transmitter RF Power Watt: Class 3 (380-430) (806-825) (350-390) (410-470)
- Accuracy of transmission level: +/- db 2
- Receiver class: A & B
- Receiver Static Sensitivity dBm: -112 minimum -114 typical
- Dynamical sensitivity of the dBm receiver: -103 minimum -105 typical
- Temperature range of operation: from -30 °C to +60 °C

1.21.5 Program part – description of operations:

1.21.6	The application is displayed on the touch screen and on the monitor.
1.21.7	It enables radio and telephone communication.

The following is possible:

1.21.7.1 The telephone and radio systems are connected in one joint application which can be managed via the touch screen and with the mouse on the monitor. Audio and microphone are jointly connected to one pair of earphones with a microphone. Listening is enabled via an external speaker on the desk and an external microphone.

1.21.7.2 Warnings at system failure or problems in the network

1.21.7.3 Switching between talking on the phone and radio station. The telephone as the primary source transmits to the radio station when the button is pressed.

1.21.8 Connections, conference calls, telephone-radio system connections are possible.

1.21.8.1 The touch screen displays the phone directory and the directory of radio stations, all contacts and contacts that are signed in the system are displayed.

1.21.8.2 Data must be reasonably displayed to enable the dispatcher an overview of currently available teams.

1.21.8.3 The logbook of communication and implemented activities must be displayed. Various filters and views can be included

- display all emergency teams (e.g. mark N),
- display the area where several random areas can be selected, e.g. Ljubljana and Domžale (e.g. marks LJ and DO),
- display all teams,

1.21.8.4 Display the status of phone lines (calls waiting - line, phone number with the display of the institution from the directory)

1.21.8.5 Conversations among dispatchers

1.21.8.6 Selection of volume on each channel

1.21.9 DMR dispatcher:

1.21.9.1 The possibility to design radio connection user groups so that individual contacts can be set in the same communication group within an individual zone. Simple caller selection is enabled and a private call can be initiated.

1.21.9.2 Transmission to several channels.

1.21.9.3 The option of sending text and preset instant messages (phone and radio station).

1.21.9.4 Display of accepted statuses from the radio system (ON THE WAY, RETURNING, ...).

1.21.9.5 Preset short replies (OK, WAIT FOR A MOMENT, RETURN TO BASE, APPROVED). It is marked at reply to whom the message and which message was sent.

1.21.9.6 Switch on and off of listening to the channel and transmission on the channel.

1.21.9.7 Selection of the radio channel via the console.

1.21.10 It is possible to select the following from the mark of the

displayed contact	
1.21.10.1	On which work channel the radio station is transmitting
1.21.10.2	If the radio station is switched on or off
1.21.10.3	The number of radio station of the person
1.21.11	Display of last contacts
1.21.11.1	The 5 last contacts with whom we communicated or who sent the message are displayed on the console. When selecting this contact the same options are given as under the item
1.21.12	Display of received messages
1.21.12.1	Received messages are displayed, such as "Available", "On the way" etc., the time of message sent and sender
1.21.13	Login
1.21.13.1	Every user logs into the system via a radio station (sends a short message) and informs whether the radio station is active or if the person is available for work.
The users writes the code, team code (vehicle code, if necessary) and job they perform in the message. The server uses the ID of employees/users, team and emergency vehicles mark, code book of functions and displays data on the console.	
1.21.14	LogOff
1.21.14.1	When the user wants to log off, e.g. when they conclude work, they send a message with their own ID.
1.21.14.2	The logoff is accepted only if the code is sent from the same terminal as it was entered.
1.21.15	Verification of entry
1.21.15.1	When we want to verify from the radio station who is logged in, the station sends a message with "?" and the server sends a message with data on the entry in the system.
1.21.16	Connection to the TETRA radio system
1.21.16.1	System configuration must enable the connection of the DMR radio station to TETRA radio station and vice versa.
1.21.17	Connection to GIS module
1.21.17.1	The server must be connected with GIS of the dispatcher service and display the location of radio stations that transmit their locations.
1.21.18	Sending messages from the program via a radio station to a certain vehicle or person. The scope of data sent by the server to the station, which is determined in the program. When a longer message is concerned, the text is sent in two messages.
1.21.19	Recording
1.21.19.1	Recording is implemented on the audio output of radio stations connected to the server.
1.21.19.2	Audio recording is digitalised and stored in the database.
1.21.19.3	Spoken messages on the console are stored in digital form directly to server.

1.22 CONNECTING INTEGRATION COMPONENTS

1.22.1	All described functionalities must be interconnected and operate as one IS.
1.22.2	The information system must operate to enable the

connection to other information systems and components.

1.22.3 Bidirectional communication of exchange is implemented with hospital IS.

1.23 APPLICATION FOR RECEIVING INTERVENTIONS IN AN EMERGENCY VEHICLE

The application is intended for receiving data sent from the dispatcher service to the vehicle and for sending certain data from the emergency vehicle to the dispatcher service.

The device used must support SIM cards and transmit a WiFi point for connecting other devices (see the application for the entry of reports on emergency transports).

1.23.1	The hours in the application are synchronised with the central server.
1.23.2	The application must accept and display data as determined in Table 2.
1.23.3	Data must be displayed in a transparent way.
1.23.4	Display can be in several levels – view one enables overview of basic data (points 1.23.1.1 to 1.23.1.6), upon demand, view two is opened where several data are displayed
1.23.5	Sending time statuses via sufficiently large and visible buttons from Table 1.
1.23.5.1	The application sends a warning when illogical time statuses are provided, e.g. time of the vehicle on the way does not correspond to the time on site, etc.
1.23.6	The application enables navigation across routable maps loaded on the device and with regard to the received location sent from the dispatcher service.
1.23.7	[Option] The application can use at least two different routable maps, where the first type are loaded on the device, and the second type acquire data via the internet (e.g. Google Maps) and considers the current traffic information to calculate the appropriate route.
1.23.7.1	The access to navigation is simple, i.e. by pressing one button and without other steps.
1.23.7.2	When the application operates in navigation mode, the buttons for sending time statuses must be accessible.
1.23.8	The application works on Android, iOS and Windows operation systems and the display adapts to the device size
1.23.9	The application receives the motor signal and blue lights, and sends these data to DSZ
1.23.10	The system should offer a comprehensive system, i.e. also the sensor and the option for their switching from the vehicle to the application
1.23.11	The application receives the vehicle's position and sends it to DSZ in real time (at least every 10 seconds)
1.23.12	The application receives the vehicle's position from the registration plate or from the automatic geolocator.
1.23.13	A short sound alarm can be heard upon a new intervention.
1.23.14	The application operates locally and also without disturbances when the connection is lost. Data are sent immediately when the connection is established.
1.23.15	The basic screen also displays several interventions at the same time.
1.23.16	Concluded interventions are greyed out and are not active

any more.

1.23.17 The application accepts changes made in the basic dispatcher program and warns about each new accepted change with a short sound signal.

1.23.18 The upper part of the application writes where the vehicle is located and which radio channel must be used to access the dispatcher centre, e.g.: [Domžale, DCZ Ljubljana, CH Ljubljana 12]

1.24 APPLICATION FOR THE ENTRY OF REPORTS ON EMERGENCY TRANSPORTS, EMERGENCY INTERVENTION PROTOCOLS AND PREHOSPITAL RESUSCITATION PROTOCOL

The application is intended to enter documents that mobile units have to fill out in their work.

1.24.1 It operates on tablet computers or laptops with Android, iOS and Windows operation systems.

1.24.2 The hours are synchronised with the central server.

1.24.3 It connects to the joint access point in the emergency vehicle (or via the tablet for accepting intervention or router)

1.24.4 The content follows the determined protocols in the Rules on Emergency Medical Service, the Rules on the Carriage of Patients and enables the entry of data for:

1.24.4.1 Report on emergency transport

1.24.4.2 Emergency intervention protocol

1.24.4.3 Prehospital resuscitation protocol

1.24.4.4 Medical care/emergency transport refusal

1.24.5 The application helps enter data in necessary tables and displays final calculations, e.g. GCS

1.24.6 [Option] Automatic transfer of data from monitoring devices in the emergency vehicle to the application for the entry of reports is enabled. The points are recognised depending on: the number of devices for which data transfer is enabled (e.g. ECG monitor, defibrillator, ventilator, other devices) and on the number of various producers and models of devices for which this is enabled (e.g. PhysioControl LP 12, 15; Zoll X, M; Phillips Heartstart MRx, XL; Corpuls3; Schiller Argus, Defigard...).

1.24.7 Upon the entry of medicines, infusion liquids ... it assists with the list of potential medicines and dosages.

1.24.8 Upon the entry of material (intravenous, tubes etc.) it assists by displaying the possible choice.

1.24.9 Upon the entry of diagnosis according to MKB, it assists by displaying the possible diagnosis and the classification by entered letters or numbers

E.g.: Upon the entry of the word "aneurism" it displays all possible diagnoses (I25.3 Heart aneurism, I25.4 Coronary artery aneurism ...) or at entry I28.1 it displays "Pulmonary artery aneurism".

1.24.10 It enables the attachment of images or videos.

1.24.11 The application receives data sent from the dispatcher program and they do not have to be re-entered.

1.24.12 When the entered data are changed, the user sees a message: "Data that you are entering do not match the data already entered. Upon

confirmation the data in the central database will be changed."

Example:

1.24.13	The application also functions locally without connection.
1.24.14	When the connection is re-established, the data are automatically transferred to central database, where all data about a certain intervention are collected from the received call to the end of treatment
1.24.15	Printing of individual protocols under points 1.24.4.1 to 1.24.4.4 in the prescribed form is enabled
1.24.16	Sending of filled out reports to the final reception institution is enabled.
1.24.17	[Option] The integration interface for data exchange with the existing hospital IS has been designed.
1.24.18	Signature via touch screen is enabled.
1.24.19	It enables the display of the currently available equipment in the emergency vehicle and the quantity of currently available sanitary material and medicines.
1.24.20	The application records the use of material by patients, also automatically, for other material, users can enter data.
1.24.21	The replacement of equipment in the vehicle or the use of equipment from the vehicle can also be marked.
1.24.22	[Option] Used material can be recorded by scanning the QR code
1.24.23	The application enables the entry of received material and other equipment in the emergency vehicle. The material and equipment can be selected from the list of possible equipment and material.
1.24.24	[Option] Equipment and material can be accepted by scanning the QR code
1.24.25	When the quantity of sanitary material does not apply to the standard or a certain piece of equipment is missing, the application warns the user.
1.24.26	It contains the form about the review of the emergency vehicle, separately for the driver and the escort (Appendix 1).
1.24.27	[Optional] The device enables registration of a logistics officer and intervention manager at the event and prepares a table or graph presentation of available sources at the site of the event (the number of emergency and other vehicles, sorted by types of vehicles, the type and number of currently available medical equipment, the type and number of currently available sanitary material and medicines, and the type and number of available staff...).
1.24.28	[Optional] Several points: web application – no maintenance by final users; less points, computer application – maintenance by final users, installations
1.24.29	The application contains the basic statistical module that enables a structured presentation of the number of implemented patient care procedures and a numerical and financial presentation of the used material and medicines.
1.24.30	[Optional] The advanced statistical module enables statistical data processing in accordance with the requirements of the Ministry of Health for the reporting of emergency medical services units. Data in tables and graphs are presented in accordance with the requirements under 1.14.
1.24.31	The module enables that data are filtered as follows: the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the vehicle's garage number, the ZZS regional unit, the provider's area of coverage, municipality, town/city, team member,

type of patient care procedure, material, medicine

1.24.32 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.25 MODULE FOR THE OPERATIONAL SUPPORT OF THE REGIONAL HEALTHCARE COORDINATION GROUP

In accordance with SOP for the operation of DSZ/DCZ at events, a Regional Healthcare Coordination Group (RKSZ) shall be formed at DCZ; however, it needs a special module within the scope of an IT solution to support the operations of DSZ.

1.25.1	Information from event location
1.25.1.1	Time of last report
1.25.1.2	Time of event
1.25.1.3	Location of event (geolocation, descriptive)
1.25.1.4	Type of event
1.25.2	Presence of hazards YES/NO;
1.25.2.1	if YES, the hazard must be selected from the code list and described
1.25.2.2	Estimated number of injured/affected/diseased persons
1.25.2.3	Estimated number of casualties
1.25.2.4	Image from event location (optional)
1.25.2.5	Display of the map from the GIS system
1.25.2.6	Air temperature at the event location
1.25.2.7	Wind direction at event location
1.25.2.8	Wind speed at event location
1.25.2.9	Visibility (clear, cloudy, foggy, ... description)
1.25.3	Public relations
1.25.3.1	Responsible person: name and surname, contact data
1.25.3.2	Time of latest PR statement: type and content
1.25.3.3	Time of the next statement: type and content (draft)
1.25.3.4	Attachment of documents (word, pdf, excel ...)
1.25.4	Holders of key functions
1.25.4.1	Function, name and surname
1.25.4.2	Allocated working channel
1.25.4.3	Telephone number
1.25.4.4	E-mail
1.25.4.5	Table presentation: possibility of expanding the table by adding key functions.
1.25.5	Display of estimated transport times
1.25.6	On the basis of the selection of starting location:
1.25.6.1	ETA calculation for all possible locations (SUC, UC, SB, UKC locations)
1.25.6.2	ETA display for all mobile units (vehicles, helicopters etc.) to the place of event
1.25.7	Display of transport capacities or system capacities
1.25.7.1	Location of EMS unit/patient transport services provider(the unit of first responders
1.25.7.2	Type of source (type of emergency vehicle, helicopter, other ...)
1.25.7.3	24-hour availability (daytime, night-time ...)
1.25.7.4	Display of calculation of transport capacities (tables and graphs)
1.25.8	[Optional] The system enables a table or graph presentation of sources at special event or event site (the number of emergency and other vehicles, sorted by types of vehicles, the type and number of currently available medical equipment, the type and number

of currently available sanitary material and medicines, and the type and number of available staff...).

1.25.9	Notifying hospitals
1.25.9.1	Name of notified institution
1.25.9.2	Time of notification
1.25.9.3	Current institution alarm and time of last change
1.25.9.4	Staff sent to the location (description)
1.25.10	Distribution key
1.25.10.1	Name of institution providing data
1.25.10.2	Time of last change
1.25.10.3	Number of possible accepted patients of triage category I
1.25.10.4	Number of possible accepted patients of triage category II
1.25.10.5	Number of possible accepted patients of triage category III
1.25.11	Report on capacities
1.25.11.1	Name of institution providing data
1.25.11.2	Time of last change
1.25.11.3	Capacities by individual specialities of the institution (surgery etc.)
1.25.11.4	Hospital ventilators
1.25.11.5	Available beds
1.25.11.6	Clinic capacities
1.25.12	Data about transfers
1.25.12.1	When there are transfers between hospitals, the module enables the entry of transfer.
1.25.12.2	The numbers of capacities are automatically updated, where the patient is subtracted from the release hospital and it is added to the admission hospital.
1.25.13	Display of data about the current system capacities
1.25.14	Entry of general capacities or capacities by institutions

This is intended for the entry of predefined data according to the Report on capacities table.

1.25.14.1	When an event occurs, and there are no data from institutions, general data can be imported.
1.25.14.2	Entry and subsequent transfer for various days of the week and parts of the day is possible.

1.26 CALCULATION OF SERVICES

1.26.1	A calculation must be made to assess the performed dispatcher service and how much the management of an individual intervention costs. Therefore, at the end, the application makes a calculation and displays it in a special section.
1.26.2	The application automatically adds a service for those services, where this is possible, other services must be selected by the dispatcher.
1.26.3	Individual calculation items are designed so that the administrator can add or change them.
1.26.4	Every service item is composed of a code, short description, notes and evaluation
1.26.5	The number of the intervention, date and time of implementation and the person who implemented the service are added to each selected

service
1.26.6 The calculation or display of implemented services (by quantity and price) is enabled with various filters, i.e.:


- 1.26.6.1 For a selected time period, from to
- 1.26.6.2 For selected services, one or more or all
- 1.26.6.3 For selected dispatchers, one or more or all
- 1.26.6.4 For the selected intervention or all

The envisaged services and method of recording are presented in the table below.

Table 3: Services provided by the healthcare dispatch service

Code	Service description	Acquisition
DSZ001	The procedure of accepting a call by using the Slovenian Emergency Medical Service Index	Always when Index use should be applied
DSZ002	The procedure of giving instructions by using the Slovenian Emergency Medical Service Index (phone advice)	Always when Index use should be applied
DSZ003	The procedure of giving instructions for the implementation of basic resuscitation procedures	When the 01/02 Unconscious adult/child card is selected and where cardiac arrest is confirmed
DSZ004	The procedure of providing instructions for first aid procedures implementation	Chosen by the dispatcher
DSZ005	The procedures of activating teams for EMS intervention/patient transport	When the EMS team is activated to the intervention location
DSZ006	The procedure of managing teams in the field at the implementation of regular activity	When the EMS team is activated to the intervention location
DSZ007	The procedure of managing teams in the field at the management of event (the event is not VN/MN)	Chosen by the dispatcher
DSZ008	The procedure of establishing the EMS system status	Chosen by the dispatcher
DSZ009	Coordination of EMS system in case of major accident	Chosen by the dispatcher
DZS010	Coordination of EMS system in case of mass accident	Chosen by the dispatcher
DSZ011	The procedure of providing instructions for the implementation of EMS procedures to the emergency team	Chosen by the dispatcher
DSZ012	Coordination of teams on duty at major events	Chosen by the dispatcher

Attachment 1 : Form for the takeover of emergency vehicle driver



**OBRAZEC ZA PREDAJO / PREVZEM REŠEVALNEGA VOZILA
VOZNIK**

Datum: _____ Izmena: dnevna ☐ nočna ☐

Reševalec - voznik: _____ ⇨ _____ Vozilo št.: _____

STANJE VOZILA IN OPREME

Motorno olje	<input type="checkbox"/>	Gorivo	<input type="checkbox"/>	Hladilna tekočina	<input type="checkbox"/>
Svetlobna telesa	<input type="checkbox"/>			Zvočna signalizacija	<input type="checkbox"/>
Zvočna signalizacija za nujno vožnjo					<input type="checkbox"/>
Svetlobna signalizacija za nujno vožnjo					<input type="checkbox"/>
Stanje in polnjenjenost pnevmatik					<input type="checkbox"/>
Čistoča zunanosti reševalnega vozila	<input type="checkbox"/>			Čistoča vozn. prostora	<input type="checkbox"/>
Poškodbe na vozilu	<input type="checkbox"/>			Mobilni telefon	<input type="checkbox"/>
Vgrajene UKV post.: RPLj	<input type="checkbox"/>	ZARE +	<input type="checkbox"/>	Prenosna svetilka	<input type="checkbox"/>
Karta mesta Ljubljana	<input type="checkbox"/>			Atlas	<input type="checkbox"/>
Zaščitni komplet (zaščitne rokavice, papirnati robčki, alkoholni robčki)					<input type="checkbox"/>

OBVEZNA OPREMA VOZILA

Varnostni trikotnik	<input type="checkbox"/>	Rezervne žarnice	<input type="checkbox"/>
Gasilni aparat	<input type="checkbox"/>	Rezervno kolo	<input type="checkbox"/>
Pribor za menjavo rezervnega kolesa			<input type="checkbox"/>

OPOMBE: _____

Predal: _____ Prevzel: _____

KC št. identa 5505547

SL	EN
REŠEVALNA POSTAJA	AMBULANCE SERVICE
univerzitetni klinični center ljubljana	Ljubljana University Medical Centre
OBRAZEC ZA PREDAJO / PREVZEM REŠEVALNEGA VOZILA	FORM FOR THE SUBMISSION/TAKEOVER OF EMERGENCY VEHICLE
VOZNIK	DRIVER
Datum:	Date:
Izmena:	Shift:
dnevna	day
nočna	night
Reševalec – voznik:	Emergency operator – driver:
Vozilo št.:	Vehicle no.:
STANJE VOZILA IN OPREME	VEHICLE AND EQUIPMENT CONDITION
Motorno olje	Motor oil
Gorivo	Fuel
Hladilna tekočina	Cooling agent
Svetlobna telesa	Lights
Zvočna signalizacija	Audible signalisation
Zvožna signalizacija za nunjo vožnjo	Audible signalisation for non-emergency drive
Svetlobna signalizacija za nujno vožnjo	Audible signalisation for emergency drive
Stanje in polnjenost pnevmatik	Condition of tyres
Čistoča zunanosti reševalnega vozila	Emergency vehicle external cleanliness
Čistoča vozn. prostora	Vehicle interior cleanliness
Poškodbe na vozilu	Damage on vehicle
Mobilni telefon	Mobile phone
Vgrajene UKV post.:	Installed VHP stations:
RPLj	RPLj
ZARE +	ZARE +
Prenosna svetilka	Portable lamp
Karta mesta Ljubljana	Map of Ljubljana
Atlas	Globe
Zaščitni komplet (zaščitne rokavice, papirnati robčki, alkoholni robčki)	Protection set (protective gloves, paper tissues, alcohol tissues)
OBVEZNA OPREMA VOZILA	MANDATORY VEHICLE EQUIPMENT
Varnostni trikotnik	Warning triangle
Rezervne žarnice	Spare light bulbs
Gasilni aparat	Fire extinguisher
Rezervno kolo	Spare wheel
Pribor za menjavo rezervnega kolesa	Kit for spare wheel replacement
OPOMBE:	NOTES:
Predal:	Submitted by:
Prevzel:	Taken over by:
KC št. identa 5505547	KC ID No. 5505547

Attachment 1 : Form for the takeover of emergency vehicle escort



**OBRAZEC ZA PREDAJO / PREVZEM REŠEVALNEGA VOZILA
SPREMLJEVALEC - NUJNO REŠEVALNO VOZILO**

Datum: _____

Izmena: dnevna ☐ nočna ☐

Reševalec - spremljevalec: _____ ⇄ Vozilo št.: _____

PRENOSNA UKV POSTAJA

KISIK Kisikova jeklenka 10l: št. 1 _____ bar št. 2 _____ bar ☐

REANIMACIJSKI KOVČEK (po standardu opreme) ☐

KOVČEK ZA OBRAVNAVO POŠKODB (po standardu opreme) ☐

RESPIRATORNI KOVČEK (po standardu opreme) ☐

OPEKLINSKI KOVČEK (po standardu opreme) ☐

REŠEVALNI TELOVNIK (po standardu opreme) ☐

MEDICINSKI APARATI

Prenosni EKG mon./defib. Tip: _____ ☐ Pr. aspirator Tip: _____ ☐

Prenosni ventilator Tip: _____ ☐ _____ bar ☐

Prenosni pulzni oksimeter ☐ Prenosni kapnometer ☐

Merilec telesne temperature ☐ Infuzijska črpalka ☐

OPREMA ZA IMOBILIZACIJO

Vratne opornice (komplet) ☐ Vakuumske opornice za okončine (komplet) ☐

Vakuumska blazina ☐ Zajemalna nos. s 4. pasovi in oporo za glavo ☐

Deska za imobilizacijo otrok ☐ Steznik za imobilizacijo sedečega pošk. ☐

OSTALA MEDICINSKA OPREMA IN POTROŠNI MATERIAL

Grelec infuzij ☐ Material za aplikacijo kisika ☐

Infuzijske tekočine in sistemi ☐ Maske za inhalacije ☐

Adrenalin ☐ Material za aspiracijo ☐

Material za vzpostavitev I.V. in I.O. poti ☐ Baktericidni filtri ☐

Komplet za e.t. intubacijo ☐ Povezovalne cevi ☐

Obvezilni material ☐ Glavna nosila ☐

Porodni set ☐ Rezervna nosila ☐

Zaščitne rokavice in papirnati robčki ☐ Kardiološki stol ☐

Koš za infektivne odpadke ☐ Univerzalne škarje ☐

Rjuhe, brisače in odeja ☐ Komprimeter ☐

Zaščitni kompleti (3 kom.) ☐ Vrečke za bruhanje (10 kom.) ☐

OPOMBE: _____

Predal: _____

Prevzel: _____

KC št. identa 5505545

SL	EN
REŠEVALNA POSTAJA	AMBULANCE SERVICE
univerzitetni klinični center ljubljana	Ljubljana University Medical Centre
OBRAZEC ZA PREDAJO / PREVZEM REŠEVALNEGA VOZILA	FORM FOR THE SUBMISSION/TAKEOVER OF EMERGENCY VEHICLE
SPREMLJEVALEC – NUJNO REŠEVALNO VOZILO	ESCORT – EMERGENCY VEHICLE
Datum:	Date:
Izmena:	Shift:
dnevna	day
nočna	night
Reševalec – spremljevalec:	Emergency operator – escort:
Vozilo št.:	Vehicle no.:
PRENOSNA UKV POSTAJA	PORTABLE VHF STATION
KISIK	OXYGEN
Kisikova jeklenka 10l:	Oxygen cylinder 10 L:
št. 1 ____ bar	no. 1 ____ bar
št. 2 ____ bar	no. 2 ____ bar
REANIMACIJSKI KOVČEK (po standardu opreme)	REANIMATION CASE (according to equipment standard)
KOVČEK ZA OBRAVNAVO POŠKODB (po standardu opreme)	INJURY TREATMENT CASE (according to equipment standard)
RESPIRATORNI KOVČEK (po standardu opreme)	RESPIRATORY CASE (according to equipment standard)
OPEKLINSKI KOVČEK (po standardu opreme)	BURNS TREATMENT CASE (according to equipment standard)
REŠEVALNI TELOVNIK (po standardu opreme)	RESCUE VEST (according to equipment standard)
MEDICINSKI APARATI	MEDICAL APPARATUSES
Prenosni EKG mon./defib.	Portable ECG mon./defib.
Tip:	Type:
Pr. aspirator Tip	Portable aspirator Type
Prenosni ventilator	Portable ventilator
Tip	Type
bar	bar
Prenosni pulzni oksimeter	Portable pulse oximeter
Prenosni kapnometer	Portable capnometer
Merilec telesne temperature	Body temperature thermometer
Infuzijska črpalka	Infusion pump
OPREMA ZA IMOBILIZACIJO	IMMOBILISATION KIT
Vratne opornice (komplet)	Neck braces (set)
Vakuumske opornice za okončine (komplet)	Vacuum splints for extremities (set)
Vakuumska blazina	Vacuum cushion
Zajemalja nos. s 4 pasovi in oporo za glavo	Carrying trolley with 4 belts and head support
Deska za imobilizacijo otrok	Children immobilisation board
Steznik za imobilizacijo sedečega pošk.	Support for the immobilisation of a sitting injured person

OSTALA MEDICINSKA OPREMA IN POTROŠNI MATERIAL	OTHER MEDICAL EQUIPMENT AND MATERIALS
Grelec infuzij	Infusion heater
Material za aplikacijo kisika	Oxygen application material
Infuzijske tekočine in sistemi	Infusion liquids and systems
Maske za inhalacije	Inhalation masks
Adrenalin	Adrenaline
Material za aspiracijo	Aspiration material
Material za vzpostavitev I.V. in I.O. poti	Material for enabling the IV and IO channel
Baktericidni filtri	Bactericide filters
Komplet za e.t. intubacijo	Set for e.t. intubation
Povezovalne cevi	Connecting lines
Obvezilni material	Bandages
Glavna nosila	Main carriers
Porodni set	Labour kit
Rezervna nosila	Spare carriers
Zaščitne rokavice in papirnati robčki	Protective gloves and paper tissues
Kardiološki stol	Cardiology chair
Koš za infektivne odpadke	Infectious waste bin
Univerzalne škarje	Universal scissors
Rjuhe, brisače in odeja	Sheets, towels and blanket
Komprimeter	Komprimeter
Zaščitni kompleti (3 kom.)	Protective kits (3 pieces)
Vrečke za bruhanje (10 kom.)	Vomit bags (10 pieces)
OPOMBE:	NOTES:
Predal:	Submitted by:
Prevzel:	Taken over by:
KC št. identa 5505547	KC ID No. 5505547

Appendix 2: Forms for major and mass accidents

Major accident involving 5 to 9 injured people

MEASURES OF THE LJUBLJANA UKC AMBULANCE SERVICE				
Sequence	MEASURE	MODE OF ACTIVATION	RESERVE MODE ACTIVATIONS	Implemented/by/notes
1.	Notifying the emergency SNMP medical practitioner	Direct line 01-522-84-09 01-522-41-40	VHF channel: Rescue 1 Int. no. 90-35-61	
2.	Motor activation (during operation)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
3.	Activation 1 of reanimation mobile Readiness of other teams	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
4.	Activating head of shift supervisor	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1 Mobile phone: 041-775-397	
5.	Notifying/checking OCC	113	112	
6.	Notifying supervisory traumatologist In case of poisonings notify the Poison Control Centre	Via triage Tel. 90-46-46, 90-37-28 Toxicologist: 041-635-500	Dect: 8917 Or MT: 90-22-11	
	In case of uncertainties wait with additional activations until the arrival of the first team to the site and until acquiring the METHANE report The team that arrives first at the site provides the METHANE report which you submit to the HCT (hospital commanding team at the UKC			

	emergency unit)																								
	<table><tr><td>M</td><td>Major event</td><td>Confirmation that the case is a mass accident, plan activation</td></tr><tr><td>E</td><td>Exact location</td><td>Exact location of event (coordinates if possible)</td></tr><tr><td>T</td><td>Type of event</td><td>Railway accident with hazards, bus accident ...</td></tr><tr><td>H</td><td>Hazards</td><td>Present and potential hazards</td></tr><tr><td>A</td><td>Access</td><td>Safe directions of accessing the location of the event; reserve approaches</td></tr><tr><td>N</td><td>Number of casualties</td><td>Initial evaluation of the number of injured/diseased people</td></tr><tr><td>E</td><td>Emergency services</td><td>Present and necessary emergency services</td></tr></table>	M	Major event	Confirmation that the case is a mass accident, plan activation	E	Exact location	Exact location of event (coordinates if possible)	T	Type of event	Railway accident with hazards, bus accident ...	H	Hazards	Present and potential hazards	A	Access	Safe directions of accessing the location of the event; reserve approaches	N	Number of casualties	Initial evaluation of the number of injured/diseased people	E	Emergency services	Present and necessary emergency services			
M	Major event	Confirmation that the case is a mass accident, plan activation																							
E	Exact location	Exact location of event (coordinates if possible)																							
T	Type of event	Railway accident with hazards, bus accident ...																							
H	Hazards	Present and potential hazards																							
A	Access	Safe directions of accessing the location of the event; reserve approaches																							
N	Number of casualties	Initial evaluation of the number of injured/diseased people																							
E	Emergency services	Present and necessary emergency services																							
7.	Activation of 2 RPL emergency vehicles <ul style="list-style-type: none">• RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1																						
8.	Notifying HNMP (during operation)	112 RENC	113																						
9.	Notifying the management of RPKC: <ul style="list-style-type: none">• Head of the Medical Centre Ambulance Service (RPKC)• Head of emergency service• Head of dispatch service	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-61) team management	Internal directory																						
10.	Activation of neighbouring EMS units	Internal directory	112																						
11.	Call of teams from home, if necessary	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-61)	Internal directory																						

		joint operations		
12.	Notifying rescue fireman – heliport	Building loudspeaker system Joint selective call	Personal Selective call VHF channel: Rescue	
13.	Termination of implementation of non-emergency transports, if necessary	Patient: 01-280-30-70	Patient: 041-624531	
14.	Engaging private providers of services for implementing non-emergency transports, if necessary	Patient: 01-280-30-70	Patient: 041-624531	

Activation of 1st plan level 10–20 injured people

	MEASURES OF THE LJUBLJANA UKC AMBULANCE SERVICE			
Sequence	MEASURE	MODE OF ACTIVATION	RESERVE MODE ACTIVATIONS	
1.	Notifying the emergency SNMP medical practitioner	Direct line 01-522-84-09 01-522-41-40	VHF channel: Rescue 1 Int. no. 90-35-61	
2.	Motor activation (during operation)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
3.	Activation 2 of reanimation mobile units Readiness of other teams	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
4.	Activating head of shift supervisor	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1 Mobile phone: 041-775-397	
5.	Notifying/checking OCC	113	112	
6.	Notifying supervisory traumatologist In case of poisonings notify the Poison Control Centre	Via triage Tel. 90-46-46, 90-37-28 Toxicologist: 041-635-500	Dect: 8917 Or MT: 90-22-11	
	In case of uncertainties wait with additional activations until the arrival of the first team to the site and until acquiring the METHANE report The team that arrives first to the site provides METHANE report which you submit to the HCT (hospital commanding team at the UKC emergency unit)			

	<table><tr><td>M</td><td>Major event</td><td>Confirmation that the case is a mass accident, plan activation</td></tr><tr><td>E</td><td>Exact location</td><td>Exact location of event (coordinates</td></tr><tr><td>T</td><td>Type of event</td><td>Railway accident with hazards, bus accident ...</td></tr><tr><td>H</td><td>Hazards</td><td>Present and potential hazards</td></tr><tr><td>A</td><td>Access</td><td>Safe directions of accessing the location of the event: reserve approaches</td></tr><tr><td>N</td><td>Number of casualties</td><td>Initial evaluation of the number of injured/diseased people</td></tr><tr><td>E</td><td>Emergency services</td><td>Present and necessary emergency services</td></tr></table>			M	Major event	Confirmation that the case is a mass accident, plan activation	E	Exact location	Exact location of event (coordinates	T	Type of event	Railway accident with hazards, bus accident ...	H	Hazards	Present and potential hazards	A	Access	Safe directions of accessing the location of the event: reserve approaches	N	Number of casualties	Initial evaluation of the number of injured/diseased people	E	Emergency services	Present and necessary emergency services	
M	Major event	Confirmation that the case is a mass accident, plan activation																							
E	Exact location	Exact location of event (coordinates																							
T	Type of event	Railway accident with hazards, bus accident ...																							
H	Hazards	Present and potential hazards																							
A	Access	Safe directions of accessing the location of the event: reserve approaches																							
N	Number of casualties	Initial evaluation of the number of injured/diseased people																							
E	Emergency services	Present and necessary emergency services																							
7.	Activation of 2 RPL emergency vehicles <ul style="list-style-type: none">RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1																						
8.	Notifying HNMP (during operation)	112 RENC	113																						
9.	Notifying the management of RPKC: <ul style="list-style-type: none">Head of the Medical Centre Ambulance Service (RPKC)Head of emergency serviceHead of dispatch service	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-61) team management	Internal directory																						
10.	Activation of neighbouring EMS units	Internal directory	112																						
11.	Call of teams from home, if necessary	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-	Internal directory																						

		61) joint operations		
12.	Notifying rescue fireman – heliport	Building loudspeaker system Joint selective call	Personal Selective call VHF channel: Rescue 1	
13.	Activation of 1 vehicle for inter-ambulance transports (van with seats 3 or 22) Transport of additional healthcare staff to the place of event. Transport of patients of triage category III	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
14.	Ensuring additional 5 emergency vehicles (emergency ambulances) <ul style="list-style-type: none"> • RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity) • EMS units nearest to the place of event 	Building loudspeaker system Group call At call: Intervencije.net	Personal Selective call VHF channel: Rescue 1 Internal directory	
15.	Call to additional dispatcher	Group activation: Intervencije.net	Internal directory	
16.	Call to 2 teams (driver + escort) from home.	Group activation: Intervencije.net	Internal directory	
17.	Termination of implementation of non-emergency transports, if necessary	Patient: 01-280-30-70	Patient: 041-624531	
18.	Engaging private providers of services for implementing non-emergency transports, if necessary	Patient: 01-280-30-70	Patient: 041-624531	

Activation of 2nd plan level 21 to 30 injured people

MEASURES OF THE LJUBLJANA UKC AMBULANCE SERVICE				
Sequence	MEASURE	MODE OF ACTIVATION	RESERVE MODE ACTIVATIONS	
1.	Notifying the emergency SNMP medical practitioner	Direct line 01-522-84-09 01-522-41-40	VHF channel: Rescue 1 Int. no. 90-35-61	
2.	Motor activation (during operation)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
3.	Activation 2 of reanimation mobile units Readiness of other teams	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
4.	Activating head of shift supervisor	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1 Mobile phone: 041-775-397	
5.	Notifying/checking OCC	113	112	
6.	Notifying supervisory traumatologist In case of poisonings notify the Poison Control Centre	Via triage Tel. 90-46-46, 90-37-28 Toxicologist: 041-635-500	Dect: 8917 Or MT: 90-22-11	
	In case of uncertainties wait with additional activations until the arrival of the first team to the site and until acquiring the METHANE report The team that arrives first to the site provides METHANE report which you submit to the HCT (hospital commanding team at the UKC emergency)			

	unit)																								
	<table><tr><td>M</td><td>Major event</td><td>Confirmation that the case is a mass accident, plan activation</td></tr><tr><td>E</td><td>Exact location</td><td>Exact location of event (coordinates</td></tr><tr><td>T</td><td>Type of event</td><td>Railway accident with hazards bus accident</td></tr><tr><td>H</td><td>Hazards</td><td>Present and potential hazards</td></tr><tr><td>A</td><td>Access</td><td>Safe directions of accessing the location of the event: reserve approaches</td></tr><tr><td>N</td><td>Number of casualties</td><td>Initial evaluation of the number of injured/diseased people</td></tr><tr><td>E</td><td>Emergency services</td><td>Present and necessary emergency services</td></tr></table>			M	Major event	Confirmation that the case is a mass accident, plan activation	E	Exact location	Exact location of event (coordinates	T	Type of event	Railway accident with hazards bus accident	H	Hazards	Present and potential hazards	A	Access	Safe directions of accessing the location of the event: reserve approaches	N	Number of casualties	Initial evaluation of the number of injured/diseased people	E	Emergency services	Present and necessary emergency services	
M	Major event	Confirmation that the case is a mass accident, plan activation																							
E	Exact location	Exact location of event (coordinates																							
T	Type of event	Railway accident with hazards bus accident																							
H	Hazards	Present and potential hazards																							
A	Access	Safe directions of accessing the location of the event: reserve approaches																							
N	Number of casualties	Initial evaluation of the number of injured/diseased people																							
E	Emergency services	Present and necessary emergency services																							
7.	Activation of mass accident trailer	112 RENC	Phone no.: 01-234-2000 GBL																						
8.	Activation of 2 RPL emergency vehicles <ul style="list-style-type: none">RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1																						
9.	Notifying HNMP (during operation)	112 RENC	113																						
10.	Notifying the management of RPKC: <ul style="list-style-type: none">Head of the Medical Centre Ambulance Service (RPKC)Head of emergency serviceHead of dispatch service	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-61) team management	Internal directory																						
11.	Activation of neighbouring EMS units	Internal directory	112																						

12.	Call of teams from home, if necessary	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-61) joint operations	Internal directory	
13.	Notifying rescue fireman – heliport	Building loudspeaker system Joint selective call	Personal Selective call VHF channel: Rescue 1	
14.	Activation of 2 vehicle for inter-ambulance transports (van with seats 3 or 22) Transport of additional healthcare staff to the place of event. Transport of patients of triage category III	Building loudspeaker system Group call At call: Intervencije.net	Personal Selective call VHF channel: Rescue 1 Internal directory RENC OCC	
15.	Ensuring additional 7 to 10 emergency vehicles (emergency ambulances): <ul style="list-style-type: none"> • RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity) • EMS units nearest to the place of event 	Building loudspeaker system Group call At call: Intervencije.net	Personal Selective call VHF channel: Rescue 1 Internal directory RENC OCC	
16.	Call to additional dispatcher	Group activation: Intervencije.net	Internal directory CKP KC: 90-22-22 RENC	
17.	Call to 7 teams (driver + escort) from home. 5 units for providing first aid/emergency medical care at the location of the event (do not need emergency vehicles)	Group activation: Intervencije.net	Internal directory CKP KC: 90-22-22 RENC	

18.	If necessary, activation of LPP bus	112 RENC	MOL-OZCRO Phone no.: 01-306-1883 (MO) Phone no.: 01-505-6045 (LPP)	
19.	Termination of implementation of non-emergency transports, if necessary	Patient: 01-280-30-70	Patient: 041-624531	
20.	Engaging private providers of services for implementing non-emergency transports, if necessary	Patient: 01-280-30-70	Patient: 041-624531	

Activation of 3rd plan level for 31 or more injured people

MEASURES OF THE LJUBLJANA UKC AMBULANCE SERVICE				
Sequence	MEASURE	MODE OF ACTIVATION	RESERVE MODE ACTIVATIONS	
1.	Notifying the emergency SNMP medical practitioner	Direct line 01-522-84-09 01-522-41-40	VHF channel: Rescue 1 Int. no. 90-35-61	
2.	Motor activation (during operation)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
3.	Activation 2 of reanimation mobile units Readiness of other teams	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1	
4.	Activating head of shift supervisor	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1 Mobile phone: 041-775-397	
5.	Notifying/checking OCC	113	112	
6.	Notifying supervisory traumatologist In case of poisonings notify the Poison Control Centre	Via triage Tel. 90-46-46, 90-37-28 Toxicologist: 041-635-500	Dect: 8917 Or MT: 90-22-11	
	In case of uncertainties wait with additional activations until the arrival of the first team to the site and until acquiring the METHANE report The team that arrives first to the site provides METHANE report which you submit to the HCT (hospital commanding team at the UKC emergency unit)			

	<table><tr><td>M</td><td>Major event</td><td>Confirmation that the case is a mass accident, plan activation</td></tr><tr><td>E</td><td>Exact location</td><td>Exact location of event (coordinates</td></tr><tr><td>T</td><td>Type of event</td><td>Railway accident with hazards, bus accident ...</td></tr><tr><td>H</td><td>Hazards</td><td>Present and potential hazards</td></tr><tr><td>A</td><td>Access</td><td>Safe directions of accessing the location of the event: reserve approaches</td></tr><tr><td>N</td><td>Number of casualties</td><td>Initial evaluation of the number of injured/diseased people</td></tr><tr><td>E</td><td>Emergency services</td><td>Present and necessary emergency services</td></tr></table>	M	Major event	Confirmation that the case is a mass accident, plan activation	E	Exact location	Exact location of event (coordinates	T	Type of event	Railway accident with hazards, bus accident ...	H	Hazards	Present and potential hazards	A	Access	Safe directions of accessing the location of the event: reserve approaches	N	Number of casualties	Initial evaluation of the number of injured/diseased people	E	Emergency services	Present and necessary emergency services		
M	Major event	Confirmation that the case is a mass accident, plan activation																						
E	Exact location	Exact location of event (coordinates																						
T	Type of event	Railway accident with hazards, bus accident ...																						
H	Hazards	Present and potential hazards																						
A	Access	Safe directions of accessing the location of the event: reserve approaches																						
N	Number of casualties	Initial evaluation of the number of injured/diseased people																						
E	Emergency services	Present and necessary emergency services																						
7.	Activation of mass accident trailer	112 RENC	Phone no.: 01-234-2000 GBL																					
8.	Activation of 2 RPL emergency vehicles <ul style="list-style-type: none">RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity)	Building loudspeaker system Group call	Personal Selective call VHF channel: Rescue 1																					
9.	Notifying HNMP (during operation)	112 RENC	113																					
10.	Notifying the management of RPKC: <ul style="list-style-type: none">Head of the Medical Centre Ambulance Service (RPKC)Head of emergency serviceHead of dispatch service	Joint notification system Intervencije.net Activating pagers via ENCRS (01/471-32-61) team management	Internal directory																					
11.	Activation of neighbouring EMS units	Internal directory	112																					
12.	Call of teams from home, if necessary	Joint notification system Intervencije.net	Internal directory																					

		Activating pagers via ENCRS (01/471-32-61) joint operations		
13.	Notifying rescue fireman – heliport	Building loudspeaker system Joint selective call	Personal Selective call VHF channel: Rescue 1	
14.	Activation of 2 vehicles for inter-ambulance transports (van with seats 3 or 22) Transport of additional healthcare staff to the place of event. Transport of patients of triage category III	Building loudspeaker system Group call At call: Intervencije.net	Personal Selective call VHF 1st channel RENC OCC	
15.	Ensuring additional > 10 emergency vehicles (emergency ambulances) <ul style="list-style-type: none"> • RPKC (MANDATORY: in LJ two emergency vehicles remain for regular activity) • EMS units nearest to the place of event 	Building loudspeaker system Group call At call: Intervencije.net	Personal Selective call VHF 1st channel RENC OCC	
16.	Call to additional dispatcher	Group activation: Intervencije.net	Internal directory CKP KC: 90-22-22 RENC	
17.	Call to 10 teams (driver + escort) from home. 8 units for providing first aid/emergency medical care at the location of the event	Group activation: Intervencije.net	Internal directory CKP KC: 90-22-22 RENC	

	(do not need emergency vehicles)			
18.	Activation of LPP bus	112 RENC	MOL-OZCRO Phone no.: 01-306-1883 (MO) Phone no.: 01-505-6045 (LPP)	
19.	Complete termination of non-emergency transports			
20.	Engaging private entities to provide less demanding transports at mass accident	Patient: 01-280-30-70	Patient: 041-624531	

Attachment 3 : Order for emergency outpatient clinic (opened with regard to the optional choice of department)

I. ANNOUNCEMENT OF TRANSPORT TO EMERGENCY NEUROLOGY UNIT

1. Reception emergency centre/hospital
2. Age
3. Patient gender
4. Time when symptoms appeared
5. A thrombolysis candidate? Yes ... no
6. Consciousness – description GCS
7. Respiration – O2 saturation
8. Circulation (RR, pulse)
9. Who is accompanying the patient/medical practitioner, healthcare technician
10. Therapy? Which?
11. Time of call
12. Estimated time of arrival
13. Who is sending the message/phone number
14. Call received by
15. Date

II. ANNOUNCEMENT OF REANIMATION

1. Reception emergency centre/hospital
2. Type of injury / illness
3. Consciousness status
4. Respiratory path status/intubation (YES/NO)
5. Respiration status (spontaneous/ventilated)
6. Circulation (RR, pulse)
7. Age
8. Gender
9. Who is accompanying the patient/medical practitioner, healthcare technician
10. Therapy? Which?
11. Time of call
12. Estimated time of arrival
13. Who is sending the message/phone number
14. Call received by
15. Date

***Situation after resuscitation**

1. Time of cardiac arrest
2. Time of CPR start (layman, EMS)
3. Defibrillation? Time of first defibrillation and number?
4. Use of mechanic device for chest compression?

III. ANNOUNCEMENT OF PATIENT FOR OUTPATIENT CLINIC

1. Reception emergency centre/hospital/outpatient clinic
2. Type of injury / illness
3. Consciousness status
4. Respiration status (spontaneous/ventilated)

5. Circulation (RR, pulse)
6. Age
7. Gender
8. Who is accompanying the patient/medical practitioner, healthcare technician
9. Therapy/interventions? Which?
10. Time of call
11. Estimated time of arrival
12. Who is sending the message/phone number
13. Call received by
14. Date

Attachment 4 : Sending data about emergency transport
(yellow marked fields that are related to an individual event)

univerzitetni klinični center ljubljana
University Medical Centre Ljubljana



Reševalna postaja

Zaloška cesta 2
1525 Ljubljana
T 01/522 22 17
F 01/432 73 31
W www.kclj.si

Naslov (policija ali mestno redarstvo)

Ljubljana, 06. 10. 2017
Štev.: 571-01/2017-078

Zadeva: Posredovanje podatkov o vozniku reševalnega vozila

Vaš znak: 2240-63585/2017-52121312 (80474026)(sklic na prejeto odločbo)

Spoštovani,

V zvezi z vašim povpraševanjem o podatkih uporabe reševalnega vozila z registrsko številko LJ TS 625, vam sporočamo, da je bilo navedeno reševalno vozilo v času meritve hitrosti 01. 10. 2017 ob 14:43 uri, v uporabi za službene namene, na izvajanju nujne intervencije.

V prilogi posredujemo knjigo prevozov za intervencijo vozila z reg. št. LJ TS 625, iz katerega je razvidno, da je bilo reševalno vozilo napoteno na nujno vožnjo z uporabo svetlobno-zvočne signalizacije, zaradi česar menimo, da četrti odstavek 101. člena Zakona o pravilih cestnega prometa (Ur. l. RS, št. 82/2013) izključuje odgovornost voznika za prekršek po 5. točki 5. odstavka (ali po 2. točki 7. odstavka) 46. člena Zakona o pravilih cestnega prometa. Zakon o pravilih cestnega prometa namreč v 101. členu med drugim določa, da voznikom vozil s prednostjo, vozil za spremstvo in vozil v spremstvu ni treba upoštevati prometnih pravil in prometne signalizacije.

Vozilo je uporabljal voznik Ime in Priimek, Naslov, EMSO, slovensko državljanstvo.

Lep pozdrav,

Priimek in Ime
Ustanova

Priloga:

- knjiga prevozov



Univerzitetni klinični center Ljubljana, Zaloška cesta 2, SI-1000 Ljubljana
ID št. za DDV: SI52111776, matična številka: 5057272, zakladniški področje: 0110-0603-0277-394

SL	EN
univerzitetni klinični center ljubljana	Ljubljana University Medical Centre
Reševalna postaja	Ambulance Service
Zaloška cesta 2	Zaloška Cesta 2
1525 Ljubljana	1525 Ljubljana
T 01/522 22 17	Phone no.: 01/522 22 17
F 01/432 73 31	Fax: 01/432 73 31
W www.kclj.si	W www.kclj.si
Ljubljana, 06. 10. 2017	Ljubljana, 6 October 2017
Štev.: 571-01/2017-078	No: 571-01/2017-078
Naslov (policija ali mestno redarstvo)	Address (the police or municipal warden service)
Zadeva: Posredovanje podatkov o vozniku reševalnega vozila	Subject: Sending data about the emergency vehicle driver
Vaš znak: 2240-63585/2017-52121312 (80474026) (sklic na prejeto odločbo)	Your reference: 2240-63585/2017-52121312 (80474026) (reference to received decision)
Spoštovani,	Dear Sir or Madam,
V zvezi z vašim povpraševanjem o podatkih uporabe reševalnega vozila z registrsko številko LJ TS 625, vam sporočamo, da je bilo navedeno reševalno vozilo v času meritve hitrosti 01. 10. 2017 ob 14:43 uri, v uporabi za službene namene, na izvajanju nujne intervencije.	With reference to your enquiry about the data on using the emergency vehicle with registration plate LJ TS 625 we inform you that the indicated emergency vehicle was during speed control period on 1 October 2017 at 14:43 used for emergency intervention.
V prilogi posredujemo knjigo prevozov za intervencijo vozila LJ TS 625, iz katerega je razvidno, da je bilo reševalno vozilo napoteno na nujno vožnjo z uporabo svetlobno-zvočne signalizacije, zaradi česar menimo, da četrti odstavek 101. člena Zakona o pravilih cestnega prometa (Ur. l. RS, št. 82/2013) izključuje odgovornost voznika za prekršek po 5. točki 5. odstavka (ali po 2. točki 7. odstavka) 46. člena Zakona o pravilih cestnega prometa. Zakon o pravilih cestnega prometa namreč v 101. členu med drugim določa, da voznikom vozil s prednostjo, vozil za spremstvo in vozil v spremstvu ni treba upoštevati prometnih pravil in prometne signalizacije.	Attached, we are sending you the logbook of intervention transports for vehicle LJ TS 625, which shows that the emergency vehicle was sent to emergency transport by using light and audible signalisation, due to which we believe that the fourth paragraph of Article 1010 of the Road Traffic Rules Act (Official Gazette of the Republic of Slovenia [Uradni list RS], no. 82/2013) excludes the liability of the driver for an offence as per item 5 of the fifth paragraph (or item 2 of the seventh paragraph) of Article 46 of the Road Traffic Rules Act. Article 101 of the Road Traffic Rules Act stipulates that vehicles of preference, vehicles of escort and escorted vehicles do not have to obey the road traffic rules and traffic signalisation.
Vozilo je uporabljal voznik Ime in Priimek, Naslov, EMŠO, slovensko državljanstvo.	The vehicle was used by Name and surname, address, personal identification number, Slovenian citizen.
Lep pozdrav,	Yours faithfully,
Priimek in Ime	Name and surname
Ustanova	Institution
Priloga:	Appendix:
- knjiga prevozov	- transport log
Univerzitetni klinični center Ljubljana, Zaloška cesta 2, SI-1000 Ljubljana	Ljubljana University Medical Centre, Zaloška cesta 2, SI-1000 Ljubljana
ID št. za DDV: SI52111776, matična številka 5057272, zakladniški podračun: 0110-0603-0277-894	VAT ID no.: SI52111776, registration no. 5057272, treasury sub-account: 0110-0603-0277-894

1. FUNCTIONAL REQUIREMENTS OF THE INFORMATION SYSTEM FOR THE HEALTHCARE DISPATCH SERVICE (IS DCZ)

1.1 General requirements

- 1.1.1 The information system (IS) interface should be designed as an MUI (Multilingual User Interface). The primary (or built-in) language is Slovenian. The contracting authority must be able to translate the language files into other languages and to display them in these languages without any programming knowledge or interventions by the supplier.
- 1.1.2 A comprehensive information system must be based on MultiTier architecture.
- 1.1.3 In the event of a failure of one centre, it must be possible to redirect the application to a database and a file space in another centre without any programming knowledge and supplier intervention. Switch time < 5 min.

1.2 BASIC MENU

- 1.2.1 In the basic menu, users can scroll through various IS modules.
- 1.2.2 Only the options for which they hold authorisations are displayed.

1.3 RECEIPT USING THE SLOVENIAN INDEX

- 1.3.1 The entire Index must be in Slovenian and translated into four languages: English, Italian, Hungarian, and German.
 - 1.3.1.1 The Index language selection does not affect the user interface language.
- 1.3.2 Dispatchers toggle between different language versions by clicking on the language mark.
- 1.3.3 Initially, the Index appears in the language that was used or set up most recently. The default language is Slovenian.
- 1.3.4 [optional] The index can also be translated into other languages. All languages must be in Latin script. A tenderer must also submit documentation certifying that the translation is suitable (translation agency).
- 1.3.5 Electronic orders are carried out through the interface agreed upon by the selected tenderer and the tenderers providing existing information systems of healthcare institutions through which they have been generating or printing transport orders (Hipokrat, BIRPIS, etc.).
- 1.3.6 The trigger for electronic orders is linked to the printing of a non-emergency transport order.
- 1.3.7 The contracting authority must enter all of the information that is described in this chapter and relevant for the transport.
- 1.3.8 The first entry in the form (e.g. receiving calls) is only enabled for the person who first opens the form in the editing mode.
- 1.3.9 The next and all subsequent users have the option to inspect the entry and monitor it in real time.
- 1.3.10 Changes after the first entry is activated/saved are enabled for multiple users, but it must be indicated which users are currently monitoring data and which data is being monitored.
- 1.3.11 An overview must clearly show who was the last person to change the data and who was the person who made the first entry.
 - 1.3.11.1 The IS makes it possible for the entire audit trail to be saved (what, when, who).
- 1.3.12 [optional] The person who last changed the data can be automatically called by clicking on their name.
- 1.3.13 [optional] The person who first received a call can be automatically called by clicking on their name.
- 1.3.14 The ongoing auto-save function for the entered data and the overview of changes (entry history) are activated.
- 1.3.15 Data is divided into individual sections that take into account the logic/order of the Slovenian Index.

- 1.3.16 Scrolling forward and backward through the fields is possible by using the TAB key and the mouse.
- 1.3.17 [optional]Scrolling through individual sections is possible by using particular function keys.
- 1.3.18 The entire Index must be designed so that users with suitable rights can independently change all of the displayed text and edit links to appropriate advice and displayed pages.
- 1.3.19 [optional]Index administration is enabled for users with basic computer knowledge.

1.4 Slovenian Index algorithm – Beginning

- 1.4.1 The displayed algorithm (Figure 1) is interactive; when we click on a button, either the corresponding page and/or an entry field opens.
- 1.4.2 Geolocation search is enabled in the following manners:
 - 1.4.2.1 Directly from a map
 - 1.4.2.2 On the basis of entered coordinates (GPS and XY)
 - 1.4.2.3 House number catalogue
 - 1.4.2.4 Catalogue of institutions
 - 1.4.2.5 On the basis of the geolocation of landlines acquired from Emergency Notification Centres (ENC), Regional Emergency Notification Centres (RENC), and Operations and Communication Centre (OCC) or telephone service providers
 - 1.4.2.6 On the basis of the likelihood of the geolocation of mobile phones from the base station coverage models
 - 1.4.2.7 The program verifies the likely location by comparing it to the entered location and suitably warns the dispatcher in the event of a major deviation.
 - 1.4.2.8 Notes: additional field in which a description of the location is entered if a location cannot be geolocated (somewhere in the forest between locations x and y, etc.) or an addition to the geolocation (floor, flat, department, etc.)
- 1.4.3 Item 1.2 What telephone are you calling from?
 - 1.4.3.1 Caller number
- 1.4.4 Is the caller at the location? : Selection from two options: Yes/No
 - 1.4.4.1 If not, the phone number at the location
- 1.4.5 Item 2 What is the problem?
 - 1.4.5.1 Item 2.1 Event description: Text field All details of the event are entered into the field.
- 1.4.6 Item 3 Red response
 - 1.4.6.1 Upon clicking a selected button, an intervention is assigned the status of a red response and it is displayed to the assigning dispatcher, and Item 4 is displayed.
- 1.4.7 Below the red response button, there is also a button for a transition directly to the card of the Slovenian Index: 50 Emergency Transports.
- 1.4.8 Item 4 Select an event
 - 1.4.8.1 By selecting from a drop-down menu
 - 1.4.8.2 By entering the first few letters into a particular field
 - 1.4.8.3 Basic events are specific events in the Slovenian Index.
- 1.4.9 Item 5: Is the patient conscious (awake/aware of their surroundings) and can the patient speak?
- 1.4.10 Item 6: I do not know
- 1.4.11 Item 7: No
- 1.4.12 Item 8: Yes
- 1.4.13 Item 9: Is there a possibility of an acute illness/critical injury/severe accident that is life-threatening?
- 1.4.14 Item 10: No
- 1.4.15 Item 11: Yes
- 1.4.16 Item 12: Is the patient responsive when shaken or called?
- 1.4.17 Item 13: Yes
- 1.4.18 Item 14: No
- 1.4.19 Item 15: When did the problem begin?

- 1.4.20 Item 16: How old is the patient? Question below, possibility of recording an answer, text field.
 - 1.4.20.1 Two fields, age and date of birth, are displayed. When one is completed, the other is completed (calculated) automatically.
 - 1.4.20.2 The full date of birth can also be entered into the field for the date of birth, but this is not mandatory.
 - 1.4.20.3 The piece of information that is automatically calculated is highlighted, so that it is clear that this is an automatic calculation.
- 1.4.21 Item 17: What is the patient's name?
- 1.4.22 Item 18: What is your name?
- 1.4.23 Item 19: Who is the patient's personal doctor?
 - 1.4.23.1 Link to the doctor database of the Health Insurance Institute of Slovenia (ZZZS), from which a dispatcher selects the stated doctor.
- 1.4.24 [optional]If information on the personal doctor is displayed, a pre-set message is sent to the work e-mail of this doctor after treatment is concluded.
- 1.4.25 [optional]If information on the doctor is displayed, there is an additional option for the p/pc to give their consent for their information to be provided to the personal doctor.
- 1.4.26 [optional]Entry of the ZZZS health insurance card number, and acquiring particular patient information from databases.
- 1.4.27 Item 20: If possible, acquire more information.
- 1.4.28 Item 21: More information
- 1.4.29 Item 22: Cannot be verified
- 1.4.30 When making a selection, the option is displayed for the call to be put through to an emergency doctor at an emergency centre (the program has a list of emergency doctors for consultation, and it offers dispatchers the most suitable doctor considering the event location) for consultation; the field for entering Item 2.1 is also displayed
- 1.4.31 Display of the appropriate event (Item 4)
- 1.4.32 The contractor must ensure that the text is displayed in a clear and legible manner (equivalent to the size of the text when printed onto an A4 sheet with a font size 10 or more, also on monitors > 24")
 - 1.4.32.1 Additional questions must be displayed when the card is selected, as they help the dispatcher select the primary criterion. The answers to additional questions are entered into the previously described text field.
 - 1.4.32.2 The information (on the bottom right side) is available upon clicking a button.
- 1.4.33 A record on the course of the intervention
 - 1.4.33.1 Prior to every entry, the information on who made a record, who added data, and when (the date is abbreviated so as to only include the time; the full date is displayed if we click on the time) is added automatically.
- 1.4.34 Ordering teams
 - 1.4.34.1 The selection of various orders of teams, such as outpatient clinics, oxygen, etc.; e.g., with pre-set buttons; when clicked, an interim window for entering the estimated time of arrival [arrival] can also be displayed for ordering outpatient clinics.
- 1.4.35 Forwarding a record
 - 1.4.35.1 When we wish for a record to also be forwarded to a team providing transport, the option "forward record" is selected.
 - 1.4.35.2 When a form is saved, the record is displayed in the field "record on the course of the intervention."
 - 1.4.35.3 Information on when the record was created and who added it is added in front of the entered text.
- 1.4.36 A display for the dispatcher showing the activation of a vehicle and access time
 - 1.4.36.1 The reception form shows the piece of information indicating which teams have been activated and the realistic access times required to access the location of an event.
- 1.4.37 [optional]if you click on a displayed activated team, the option to make a phone call or establish a radio connection appears

- 1.4.38 A display for the dispatcher showing various data from different databases
 - 1.4.38.1 The display of data is shown in the event of matching incoming information (phone number, the name and surname of the p/pc, address of the p/pc or geolocation)
 - 1.4.38.2 The data is shown immediately after the first matching piece of information is entered, and it is changed appropriately if multiple pieces of matching information are entered.
 - 1.4.38.3 The most suitable piece of information is at the top (of the list). When two incoming criteria match two different entries, this is marked accordingly.
- 1.4.39 call history
 - 1.4.39.1 The program shows those pieces of information from the database of previous entries that match the criterion.
 - 1.4.39.2 When displaying information, the system enters into the database when and who saw this information and in what way (automatic display upon reception or manual search for information, e.g. in a transport log)
- 1.4.40 already received transport
 - 1.4.40.1 From among the received transport requests, the program shows those that are on a waiting list or are being carried out, but have not finished yet.
- 1.4.41 safety warnings and information
 - 1.4.41.1 Safety warnings and information are recorded in a database through the form titled Safety Warnings and Information.
 - 1.4.41.2 The form is available to dispatchers, but it must be authorised by a competent person before it is automatically displayed.
 - 1.4.41.3 The competent person must have a chance to inspect all entered warnings and information in a simple manner; displayed are only those that have not been authorised,
 - 1.4.41.4 In this form, there are fields for determining incoming criteria, such as: phone number, address or geolocation (the area to which a warning applies can also be determined – set up on a map, or a whole street or town is determined), surname and name, date of birth
 - 1.4.41.5 We select the type of warning entered in a drop-down menu (the user's administrator can enter different warning types, e.g. SAFETY, PALLIATIVE TEAM, INFORMATION, etc.)
 - 1.4.41.6 The form contains a text field for entering the text of the warning.
 - 1.4.41.7 The form contains a text field for entering the contact person when an even occurs and for specifying the number of the contact person. If you click the number, the phone number is dialled.
 - 1.4.41.8 Upon display, it is indicated who entered a note and when.
 - 1.4.41.9 A safety warning can be made active or inactive.
 - 1.4.41.10 Displayed when suitable incoming criterion is provided.
- 1.4.42 an issued and still active transport order
 - 1.4.42.1 When a transport order is issued for a person (criterion: surname and name) and this order is still active, the information from this form is displayed.
 - 1.4.42.2 From among the displayed data, information is imported automatically into suitable fields in the form of a suitable file.
 - 1.4.42.3 A dispatcher can import all of the displayed data into a suitable field, e.g. by using function keys.
- 1.4.43 [optional] An administrator can determine which information will be displayed to the dispatcher.
- 1.4.44 Display of medical dispatchers who speak a foreign language
 - 1.4.44.1 Searching and displaying available medical dispatchers who speak a required foreign language is enabled in the reception form by clicking on a dedicated button.
 - 1.4.44.2 This information is obtained from the database on dispatchers by taking into account their availability.
 - 1.4.44.3 Once a suitable dispatcher is selected, a telephone line is automatically established with the selected dispatcher; the call can also be forwarded and the information received up to that point concerning the call can also be displayed to the selected dispatcher who speaks a suitable foreign language.
 - 1.4.44.4 If the selected dispatcher is not available, this dispatcher is notified of the incoming call and a

notification appears on their monitor that says “forwarding a call due to the dispatcher's foreign language proficiency”

1.4.45 Special buttons for marking a particular event

1.4.45.1 By clicking a button or an entry field, the performed procedure is recorded, and the time and the user who made the entry are also recorded.

1.4.45.2 Begin providing instructions for resuscitation over the phone (if no, why not)

1.4.45.3 Sent for an AED

1.4.45.4 AED at the event location (if, after a certain time, a dispatcher does not mark this field, but the field [sent for an AED] is still marked, the dispatcher is warned by the program

1.4.45.5 Commence chest compressions (if not possible, enter the reason; selection from a list also possible: an eyewitness is not at the event location/the eyewitness hung up/the eyewitness refuses to perform resuscitation/the eyewitness is unable to perform resuscitation/the eyewitness is unable to follow instructions)

1.4.45.6 The performance of the first defibrillation (if no, why not)

1.4.46 Standard operating procedures

1.4.46.1 SOPs are displayed automatically when a particular event is selected, a particular parameter is entered, or upon request.

1.4.46.2 A user with suitable rights is allowed to change the text of the SOPs and to determine the parameters for the automatic display of SOPs.

1.4.47 [optional] A contracting party may develop additional SOPs based on a template

1.4.48 Ordering an emergency outpatient clinic

1.4.48.1 It is retrieved from the reception form by clicking on the button for ordering an emergency outpatient clinic.

1.4.48.2 All emergency outpatient clinic forms are visible in a joint tab where they can be reviewed and amended. They are completed with known data beforehand (team, event time, etc.)

1.4.48.3 When reviewing, filters can be switched on depending on the fields that a form contains

1.4.49 [optional] Transfer of this data to other information systems (UC, hospitals), depending on the selected final location

1.4.50 Mass accidents and major accidents

1.4.50.1 The form can be cancelled by pressing a button in the section “events of special significance”

1.4.50.2 The form that appears is determined in the section “events of special significance” depending on the type, level, and location of the event

1.4.50.3 Every entry into the form is seen immediately, and the following is recorded next to every sub-section:

1.4.50.4 Start time of the selected sub-section and the conclusion of an action

1.4.50.5 Who made the entry

1.4.50.6 Text entry for notes

1.4.51 Events of special significance

1.4.51.1 An SOP in the reception form by clicking on the button “EVENT OF SPECIAL SIGNIFICANCE.”

1.4.52 When generating such an event, a form with the following sub-sections appears:

1.4.52.1 Who generated the event (automatic)

1.4.52.2 Event name

1.4.52.3 Determining event type and level

1.4.52.4 Number of persons involved

1.4.52.5 Time of generation (automatic)

1.4.52.6 Event beginning time

1.4.52.7 End time

1.4.52.8 Special features

1.4.52.9 Jobs in which the event is managed (or an individual position, or Regional Healthcare Coordination Group (RKSZ), etc.)

1.4.52.10 Phone number of jobs to which calls are forwarded

1.4.53 In the “event of special significance” section, there is a button “send a memo”

- 1.4.54 After saving, the notification is forwarded to all radio stations of teams that are included in this event.
- 1.4.55 Active events of special significance (that have not yet concluded) can be selected in the reception form.
- 1.4.56 All of these interventions appear in a special section – events of special significance.
- 1.4.57 [optional]When a warning line concerning an event of special significance is displayed, the dispatcher adds a note to the intervention while the reception form is active by clicking on the warning line; this note is then displayed in a special section.
- 1.4.58 When an event of special significance is generated, a warning line appears to all dispatchers (in both centres!) in the top part of the monitor, and the warning line says: ONGOING EVENT OF SPECIAL SIGNIFICANCE! “EVENT NAME”, “the job post where the event is managed”, “dispatch centre that manages the event”
- 1.4.59 [optional]The record is also placed on the wallboard in both centres. The number of treated persons, activated teams, etc. is also shown there.

1.5 ADVANCE ORDERS, REVIEW OF NON-EMERGENCY TRANSPORTS

- 1.5.1 Electronic ordering of non-emergency transports from other hospital and health-care information systems
- 1.5.2 The person ordering the transport orders the transport through their information system or a web form for ordering transport described in the chapter Application and website for ordering and monitoring emergency transports
 - 1.5.2.1 Through this application or their information system, they can monitor the transport carried out, namely at least:
 - 1.5.2.2 A pop-up notification or “order accepted” or “WARNING order not accepted.” Repeat the procedure or call the phone number”
 - 1.5.2.3 Who is the provider of the transport
 - 1.5.2.4 Team sent (transport status: On the way)
 - 1.5.2.5 Team’s estimated time of arrival at location
 - 1.5.2.6 Time of arrival at location (transport status: at the location)
 - 1.5.2.7 Patient at destination (transport status: at destination)
- 1.5.3 [optional] transport performance is evaluated
- 1.5.4 [optional] commendation or complaint concerning the transport is given
- 1.5.5 From the reception form
 - 1.5.5.1 The entry of a non-emergency transport is possible through the SIolnNMP 50 form: Emergency transport, or directly into the reception form.
- 1.5.6 In addition to the sections described, the reception forms must be enabled for the purpose of advance orders for the following sections as well:
 - 1.5.6.1 Entry field for the selection of the date and time of the beginning or of the collection of a p/pc
 - 1.5.6.2 Punctuality required: Yes/No
 - 1.5.6.3 Entry of individual warnings.
 - 1.5.6.4 Selection of the planned transport provider.
- 1.5.7 Method of entry is also marked in the display line.
- 1.5.8 Display of all advance orders
- 1.5.9 When selecting “display of all advance orders,” all advance orders are displayed for a selected date or period (date and time).
- 1.5.10 The display includes the following data:
 - 1.5.10.1 Intervention ID
 - 1.5.10.2 Surname of the p/pc
 - 1.5.10.3 Name of the p/pc
 - 1.5.10.4 Starting location
 - 1.5.10.5 Final location
 - 1.5.10.6 Starting time and date; when this is not determined, the record is highlighted and the status

“date of performance unknown” is selected

1.5.10.7 Advance order status (time of performance status, see above; awaiting treatment; under treatment; planned)

1.5.10.8 Allocated; to whom; time of allocation

1.5.11 Intervention status times, when known:

1.5.11.1 On the way

1.5.11.2 At location

1.5.11.3 Returning

1.5.11.4 At destination

1.5.11.5 Finished

1.5.12 The display can be filtered or sorted depending on the parameters described under this item above (the data included in the display).

1.5.13 The quick search of already ordered non-emergency transports by name and surname, address of residence, birth information, and health insurance card number.

1.5.14 Double-click and the entire record is opened.

1.6 PLANNING ADVANCE ORDERS

1.6.1 The module for planning the advance orders of emergency transports allows dispatchers to plan the performance of non-emergency interventions.

1.6.1.1 On the basis of the known information about a vehicle (number of beds, number of seats, intended function of the vehicle), the team (only the driver, driver and escort), the home base of the vehicle and, later, of the already allocated transports, the patient status (must be the only patient in the vehicle), and the desired time of transport, the module recommends to the dispatcher which patients could also be added to a vehicle.

1.6.1.2 It must take into account that only those patients whose transport would not constitute a major deviation from the planned main route are recommended.

1.6.2 [optional] the availability of the vehicle is shown graphically

1.6.3 [optional] the route and stops are displayed on a map

1.7 DISPATCHING EMERGENCY INTERVENTIONS

1.7.1 The dispatch form for emergency interventions allows dispatchers to have an overview of the received interventions, ongoing interventions, and available teams; it also allows them to allocate interventions to ambulance teams.

1.7.2 The following filter can be included in the dispatch form:

1.7.2.1 all transports displayed,

1.7.2.2 display of non-emergency transports,

1.7.2.3 display of emergency transports,

1.7.2.4 display of transports performed by a doctor (EDV)

1.7.2.5 display according to geographic areas,

1.7.2.6 isolated to a special or

1.7.2.7 extraordinary event, etc.

1.7.3 The sections are displayed in a transparent manner:

1.7.3.1 the interventions waiting list is above,

1.7.3.2 available teams are in the middle,

1.7.3.3 ongoing interventions are below,

1.7.3.4 the size of the sections can be adjusted.

1.7.4 It is clearly marked if not all of the content is displayed.

1.7.5 [optional] The sections are automatically adjusted depending on the size of the content.

1.7.6 The sections are divided depending on the coverage area.

1.7.7 Individual sections include

1.7.7.1 displayed teams,

1.7.7.2 the intervention waiting list, and

- 1.7.7.3 ongoing interventions according to their locations
- 1.7.8 The section “events of special significance” appears immediately when such an event is generated and it remains visible until the event ends.
 - 1.7.8.1 Here, the interventions that are marked as events of special significance in the reception form and the teams assigned to such events are displayed.
- 1.7.9 If there are many such events, a separate section appears for each event.
- 1.7.10 An intervention can also be accepted in this section.
- 1.7.11 A button with multiple options is added to this section (these options appear if right-clicked)
 - 1.7.11.1 Accept an intervention; a new form with already completed sections on the event of special significance is opened (location, description, etc.). The intervention can be amended and saved.
 - 1.7.11.2 Assign an intervention; a menu with a selection of all available teams is displayed, if one or more suitable teams are selected, an intervention is generated automatically with already completed sections on the event of special significance (location, description, etc.) and it is assigned to selected teams to be performed.
 - 1.7.11.3 The teams are listed from top to bottom according to their ETA.
- 1.7.12 On the list, teams are listed according to individual displayed sections (intended function of the vehicle, ETA, etc.) by clicking on the desired section.
- 1.7.13 [optional]For teams that have been selected to perform these interventions, but have still not been given the status of being assigned to an event of special significance, this status is added automatically.
- 1.7.14 Display of received interventions – intervention waiting list: the following data is displayed:
 - 1.7.14.1 Colour-coded priority assignment
 - 1.7.14.2 Intervention ID
 - 1.7.14.3 Time of occurrence
 - 1.7.14.4 Starting location of the event
 - 1.7.14.5 Final location of the event
 - 1.7.14.6 Type of event
 - 1.7.14.7 Description
 - 1.7.14.8 Display, if a first responder has been activated for an intervention
- 1.7.15 The intervention is displayed in a separate section, depending on the starting location of the event.
- 1.7.16 Display of all available teams. The following data is displayed:
 - 1.7.16.1 Team designation
 - 1.7.16.2 Call sign of the team
 - 1.7.16.3 Vehicle
 - 1.7.16.4 Primary area
 - 1.7.16.5 Team structure and intended function of the vehicle
 - 1.7.16.6 Availability time
 - 1.7.16.7 Current location (the area where it is located; if the team is not in its primary area, a colour code appears)
 - 1.7.16.8 Current availability (can also be a colour code)
 - 1.7.16.9 If unavailable, it is indicated which intervention is currently carried out
 - 1.7.16.10 Indicator of performed interventions (it is displayed how many interventions the team has performed and for how long it has been occupied)
- 1.7.17 If right-clicked, the following options are available
 - 1.7.17.1 The team can be tagged or untagged, thus specifying that it has been assigned to an event of special significance
 - 1.7.17.2 Change the area where the team is displayed
- 1.7.18 Teams must be displayed in a transparent manner in sections, according to their coverage areas or their current location or the area of an event of special significance.
- 1.7.19 The form allows an overview of at least more than 100 teams.
- 1.7.20 The areas and sections in the administrative module can be selected and changed.
- 1.7.21 The order of the teams is adjusted depending on availability, e.g.: the last team that performed

an intervention is placed last among the available teams according to individual sections.

1.7.22 Display of ongoing interventions

1.7.23 After an intervention team is dispatched, this team disappears from the intervention waiting list and is placed among ongoing interventions.

1.7.24 They are displayed in a separate section, depending on the starting location of the event. The following data is displayed:

1.7.24.1 Team designation

1.7.24.2 Call sign of the team

1.7.24.3 Vehicle

1.7.24.4 Team structure and intended function of the vehicle

1.7.24.5 Intervention ID

1.7.24.6 Priority

1.7.24.7 Starting location

1.7.24.8 Final location

1.7.24.9 The indication of the “received” status forwarded by team members through a manual radio station; it means that the activation message has been received by their radio station

1.7.24.10 Time of assignment

1.7.24.11 Time on the way

1.7.24.12 Time at the location

1.7.24.13 Time of returning

1.7.24.14 Time at the destination

1.7.24.15 Time of the team’s availability

1.7.24.16 Time of the team’s arrival at the starting point

1.7.24.17 Team’s estimated time of arrival at the event location

1.7.25 Colour and sound alarm if, after a particular time period, an intervention is not assigned with the “on the way” status

1.7.26 Colour and sound alarm if, after a particular time period, an intervention is not assigned with the “available” status

1.7.27 Sound alarm in the event of an “available” status.

1.7.28 Colour and sound alarms are different for each event, and users with administrator rights can assign them and change them.

1.8 ASSIGNMENT OF NON-EMERGENCY TRANSPORTS

1.8.1 Display of data according to team

1.8.1.1 Automatic display of interventions and assignments and other information on the team for the dispatcher, when a telephone call is received and this telephone number is assigned to a team or through a DMR radio system and this radio station is assigned to a team.

1.8.2 Team activation of assignment of transport

1.8.2.1 The activation must allow the process of notifying a team on its dispatch to be as quick as possible (no longer than 20 seconds).

1.8.2.2 Sending data on the intervention to vehicles and collecting statuses from the CarPC.

1.8.2.3 Sending automatically generated activation messages from the dispatching program to the selected team through its DMR radio station.

1.8.3 For the purpose of connecting the information systems in vehicles with the dispatch service, a documented, open, and stable protocol must be specified (a connection must be enabled for various IS providers).

1.8.4 The functional specifications of the connection must be recorded in accordance with a freely accessible protocol.

1.8.5 Intervention conclusion

1.8.5.1 Once the record under ongoing interventions is marked, the intervention is concluded and it is erased from the list of ongoing interventions, and the team is assigned with the “available” status.

1.8.6 Assistance for dispatchers when making decisions

- 1.8.7 The display appears when the record in the intervention waiting list window is selected.
- 1.8.8 The IS allows selected teams to be activated simultaneously.
- 1.8.9 The program recommends and enables the following actions for each intervention:
- 1.8.10 On the basis of a calculation of the estimated access time of teams, the closest available and suitable ambulance teams, motorcycle ambulance, etc. are displayed. In the calculation in the section with multiple possible equal teams, according to the ETA, the team with the earliest "AVAILABLE" status is in the first spot.
- 1.8.11 Separately, the closest and most suitable unavailable teams and their current status (on the way, at the location) are displayed, and
 - 1.8.11.1 The dispatch of the intervention by sending an activation message to the communication device of team members is enabled
 - 1.8.11.2 A call to the phone number of the team
- 1.8.12 The unit of the closest first responders and
 - 1.8.12.1 The sending of an activation message to the communication device of first responders or to a mobile application is enabled
 - 1.8.12.2 A call to the phone number of the selected first responder
- 1.8.13 HEMS and
 - 1.8.13.1 activation depending on the airworthiness of the HEMS unit and on the event location is suggested
 - 1.8.13.2 a call to the phone number of the selected HEMS team
 - 1.8.13.3 The dispatch of the intervention by sending an activation message to the communication device of team members
- 1.8.14 Emergency doctor
 - 1.8.14.1 The dispatch of the intervention by sending an activation message to the communication device of team members
 - 1.8.14.2 A call to the phone number of the team
- 1.8.15 A specified priority is taken into account with regard to transport intervals (whether a transport is an emergency transport or not)
- 1.8.16 A correction factor must be taken into account with regard to transport intervals. This factor can be changed by the user's administrator himself.
- 1.8.17 [optional] The program continually monitors the estimated access times and the realistically achieved access times, and it calculates the standard deviation. The administrator may use this information as the correction factor.
- 1.8.18 Calculation of the team's estimated time of arrival at the event location[ETA1]
 - 1.8.18.1 On the basis of the known event location and the information on the status and the location of the team, the program calculates the estimated time of arrival at the event location.
 - 1.8.18.2 The calculated estimated time of arrival is automatically displayed in the process of selecting suitable teams for interventions, in the line "ongoing interventions" in the form for the received call, and in the GIS module.
- 1.8.19 Calculation of the estimated time of the arrival of a team to a destination[ETA2]
 - 1.8.19.1 On the basis of the known event location and the information on the status, namely that the team is returning, and the location of the team, the program calculates the estimated time of arrival at the destination.
 - 1.8.19.2 The calculated estimated time of arrival of the team to the destination is automatically displayed in the line "ongoing interventions" and in the GIS module.
- 1.8.20 Calculation of the estimated time of the unavailability of a team[ETA3]
 - 1.8.20.1 On the basis of the known event location and the information on the status and the location of the team, the estimated time of engagement at the location, and the time of the handover of a patient, the program calculates the estimated time of the team's unavailability.
 - 1.8.20.2 The calculated estimated time the team's unavailability is automatically displayed in the line "ongoing interventions" and in the GIS module.
- 1.8.21 The closest AED

- 1.8.21.1 Display of the AED location (see the AED database)
- 1.8.21.2 The ETA of the access of an eyewitness to an AED (a calculation is displayed for eyewitnesses who are on foot, by bike, or by car)
- 1.8.21.3 Information on the AED
- 1.8.21.4 The contact information of the AED administrator and a call to his phone number
- 1.8.22 [optional] The user's administrator can edit and correct the ETA3 calculation, e.g. He may correct the specified time of providing care at the location, the time of handing over a patient.

1.9 TRANSPORT LOG

- 1.9.1 The transport log displays all of the entered intervention by individual entries.
- 1.9.2 The fields that are displayed are the same as all of the entered data from the reception and dispatch form.
- 1.9.3 The log also contains all of the data on a particular intervention.
- 1.9.4 The log can be searched depending on various entered parameters:
 - 1.9.4.1 Intervention numbers
 - 1.9.4.2 Time period
 - 1.9.4.3 Transport provider
 - 1.9.4.4 Team
 - 1.9.4.5 Patient information (name/surname/address/event location/institution)
- 1.9.5 [optional] The display of all performed interventions in a manner similar to the reception form, including the display of all data, in chronological order. An intervention is displayed by means of a click.

1.10 CONNECTION WITH THE GIS

- 1.10.1 Google Maps can serve as the primary maps, for which suitable licences must be enclosed.
- 1.10.2 Other maps must be locally uploaded.
 - 1.10.2.1 Toggling between maps is enabled by pressing a button placed above the displayed maps.
- 1.10.3 Any map manipulation requires an immediate response. Displaying, moving, zooming in and out and switching layers on and off must be instantaneous, quicker than 1/10 second after an action is activated.
- 1.10.4 The import of various layers from other databases (RENC, public databases) and their display must be enabled.
- 1.10.5 Display of geographic blueprints with a vector map.
- 1.10.6 Display of geographic blueprints with a raster satellite image.
- 1.10.7 Displaying the location of emergency medical teams
- 1.10.8 On the map, vehicle locations are displayed in the form of a frame, depending on the selected filter.
 - 1.10.8.1 Attributes (engine, emergency signalling, team designation, team type, vehicle designation, location statuses, affiliation of a vehicle to a particular dispatch centre) are displayed by the vehicle in text and colour form.
 - 1.10.8.2 In order to have an overview of the vehicle equipment and of all of the vehicle data, the team can do so by means of a right-click or a left-click.
- 1.10.9 The position of vehicles and the displayed vehicle status (attributes) are recorded by means of GPS positions and vehicle telemetry data.
- 1.10.10 Individual filters can be selected, thus displaying
 - 1.10.10.1 only non-emergency ambulances,
 - 1.10.10.2 only emergency ambulances,
 - 1.10.10.3 all vehicles for a selected area,
 - 1.10.10.4 all vehicles monitored through the DSZ system
 - 1.10.10.5 etc.
- 1.10.11 Display of interventions on a map
- 1.10.12 All of the received transports are displayed on a geographic blueprint and in a list with displayed colour or text attributes:
 - 1.10.12.1 An intervention under the purview of an individual centre or EMS unit

- 1.10.12.2 Priority
- 1.10.12.3 Intervention ID
- 1.10.13 Intervention performance status
 - 1.10.13.1 Awaiting performance
 - 1.10.13.2 Dispatched team
 - 1.10.13.3 Vehicle at the location
 - 1.10.13.4 Vehicle returning
- 1.10.14 When clicking on the frame or selecting the focus, the following information is displayed:
 - 1.10.14.1 Team dispatched to the location (team designation and call sign)
- 1.10.15 Additional data on the intervention
 - 1.10.15.1 Surname and name of the p/pc
 - 1.10.15.2 Starting location of the event
 - 1.10.15.3 Final location
 - 1.10.15.4 Type of event
 - 1.10.15.5 Description of the situation
 - 1.10.15.6 Warnings for the team
- 1.10.16 Display of points of interest and other data
 - 1.10.16.1 Display of schools, nursery schools, mountain cabins, etc.
 - 1.10.16.2 Display of house number locations
 - 1.10.16.3 Display of locations of automated defibrillators from your own databases or other accessible databases
 - 1.10.16.4 Display of motorway crossing locations
 - 1.10.16.5 Display of the closest route from the ambulance to the intervention and vice versa
 - 1.10.16.6 Display of municipal borders
 - 1.10.16.7 Display of areas of coverage for each team
 - 1.10.16.8 Display of road blocks (automated message when the road to the location is blocked)
 - 1.10.16.9 Display of active first responders (whose status in the mobile application is ACTIVE)
- 1.10.17 Automatic switching of display layers on and off, depending on the interest indicated in the dispatch program.
- 1.10.18 Pre-set views for quickly switching between various views of interest on the map.
- 1.10.19 Statistics with overviews
 - 1.10.19.1 Searching transports
 - 1.10.19.2 Searching interventions
 - 1.10.19.3 Overviews of periods for teams with stops
 - 1.10.19.4 Overviews of periods for vehicles with stops
 - 1.10.19.5 A detailed overview of all measurements of a vehicle's transport, including a graphic display on a map with a time stamp, engine status, emergency signalling status, etc.
 - 1.10.19.6 A detailed overview of all measurements of a vehicle's transport in a table, including a time stamp, engine status, emergency signalling status, etc.
 - 1.10.19.7 Workload diagram by vehicle or all for all vehicles
 - 1.10.19.8 Workload diagram by team or all for all teams

1.11 EMERGENCY MEDICAL TEAM SCHEDULE

- 1.11.1 Module for the schedule
 - 1.11.1.1 It enables the planning of available teams for a particular day and period
 - 1.11.1.2 A schedule includes a standard schedule for a longer time period; this includes teams that must be available for a particular network according to applicable rules.
 - 1.11.1.3 Teams planned in a standard manner are specially designated and also displayed in the module for planning advance orders.
 - 1.11.1.4 Once the actual schedule for the current day matches the standard, it is highlighted (e.g. in green); and if it does not match, it is highlighted in e.g. red.
- 1.11.2 The following sections can be entered into the schedule:

- 1.11.2.1 Team designation
- 1.11.2.2 Vehicle designation (from the code table)
- 1.11.3 If there is an electronic register of ambulances, information is obtained from this database.
 - 1.11.3.1 Otherwise, the web module allows data on vehicles to be entered in accordance with the client's requirements.
 - 1.11.3.2 Area of coverage
 - 1.11.3.3 Team type/intended purpose
- 1.11.4 Availability start time
 - 1.11.4.1 The time is specified by means of a date and time.
- 1.11.5 Availability end time
 - 1.11.5.1 The time is specified by means of a date and time.
- 1.11.6 Team members:
 - 1.11.6.1 Driver
 - 1.11.6.2 Escort
 - 1.11.6.3 Physician
 - 1.11.6.4 Additional member
 - 1.11.6.5 Phone number.
- 1.11.7 This information is displayed to the dispatcher when vehicles are displayed, namely in a manner allowing the dispatcher to directly call or activate a team.
- 1.11.8 The planned events of a team
 - 1.11.8.1 It is marked whether a team is assigned to be on call, performs regular work, or attends to an event of special significance (the event can be selected, only active events are displayed)
- 1.11.9 Every schedule entry and correction is visible in the archive of changes.
- 1.11.10 The time is recorded, as well as who made a change and what the change is.
- 1.11.11 A schedule can also be exported as a report drafted in advance.

1.12 DATA EXPORT

- 1.12.1 The data on performed and received transports can be exported into a suitable format that allows the data to be sent later, e.g. to the ZZS and to transport operators.
- 1.12.2 The export is performed for a particular time period.

1.13 WEB MODULE

- 1.13.1 users with suitable rights can determine user rights.
- 1.13.2 To ensure a controlled access to the network, to prevent access to data during data transfer and encryption.
- 1.13.3 WEB schedule
 - 1.13.3.1 The WEB module enables the entry of the availability of teams through an internet module; the entered data is saved in the central database.
 - 1.13.3.2 To make an entry, a user name and password are required (study the option of registering by using a professional ZZS card – provided that it is possible to integrate this solution into the development) specified by a user with suitable rights.
- 1.13.4 The sections are the same as those described in the chapter “team schedule.”
- 1.13.5 The entry of data on vehicles is enabled (licence plate number, garage number, intended function, vehicle drive, brand, number of beds and seats, etc.)
- 1.13.6 On-call services at public events
- 1.13.7 According to the Rules, service providers must provide the following information to the DSZ
 - 1.13.7.1 The plan for providing communication at a public event (a soft copy – PDF format; foreseen working channels of the radio connection system for regular work and for the work during emergency events at a public event, a radio directory with indicated call signs, and information on the holders of key functions in the event of a mass accident at a public event; head of an EMS intervention, head of primary triage, transport coordinator); a healthcare service provider at a public event cannot use the working channels of the radio connection system and the call signs used by the DSZ for its work, and

- 1.13.7.2 The plan for performing healthcare services at a public event, including all of the data and elements required by the EMS Service Rules (a soft copy – PDF format)
- 1.13.7.3 The organiser of the event, including the person in charge and contact information
- 1.13.7.4 Location, date, time, and the estimated duration of an event
- 1.13.7.5 Type of event (event categorisation according to the enclosed instructions)
- 1.13.7.6 Foreseen number and type of attendees
- 1.13.7.7 Contact information of the team
- 1.13.8 Overview of performed interventions
 - 1.13.8.1 An authorised person of the emergency transport provider is allowed to have an overview of all of the performed interventions that have been carried out by their unit, namely by drafting periodical reports, the content of which has been coordinated with the Rules on the Carriage of Patients.
- 1.13.9 Overview of the situation in hospitals
 - 1.13.9.1 Allow the recording of data on hospital capabilities in accordance with the Guidelines on the Operation of Emergency Medical Services in the Event of Mass Accidents.
 - 1.13.9.2 It enables the hospital's authorised person and the dispatch service to manually enter all of the required data.
 - 1.13.9.3 The review of the information is specified in the chapter MODULE FOR THE OPERATIONAL SUPPORT OF THE REGIONAL HEALTHCARE COORDINATION GROUP
 - 1.13.9.4 For the purpose of connecting the information systems in hospitals with the dispatch service, a documented, open, and stable protocol must be specified (a connection must be enabled for various IS providers).
 - 1.13.9.5 The functional specifications of the connection must be recorded in accordance with a freely accessible protocol.
- 1.13.10 An overview of planned interventions and teams
 - 1.13.10.1 The dispatch centre communicates how many teams it wishes for the emergency transport provider to plan in a particular time period, which will be available on the basis of the information obtained from the qualitative data processing module.
- 1.13.11 Statistics overview
 - 1.13.11.1 The provider's authorised person is allowed to have an overview of the entered statistics that the dispatch centre wishes to present to transport providers.
- 1.13.12 Entry of reports
 - 1.13.12.1 Reports on emergencies – drafting a report in accordance with the client's requirements
 - 1.13.12.2 Annual work reports – drafting a report in accordance with the client's requirements
 - 1.13.12.3 Complaints/comments/suggestions – drafting a report in accordance with the client's requirements
- 1.13.13 A simple overview of records is enabled with the use of filters.
- 1.13.14 Generating an emergency transport certificate
 - 1.13.14.1 Ambulance stations and users with authorisations are allowed to print an emergency transport certificate prepared in advance on the basis of the selected intervention, the data on the driver, the data on the vehicle, and referring to the number of a decision. (Appendix 4)

1.14 QUALITATIVE DATA PROCESSING MODULE

- 1.14.1 The qualitative data processing module must allow the calculation and graphic display of statistics and quality and performance indicators for different time periods and different users (level access).
- 1.14.2 The module should allow various graphic displays of calculated quality and performance indicators and the results related to meeting standards in various sections/modules of the application.
- 1.14.3 The module should allow the export of data into the MS Office and OpenOffice environments and the drafting of previously defined periodic reports upon the request of the client with the option of exporting them and saving them in PDF format.
- 1.14.4 Quality indicators
 - 1.14.4.1 Healthcare dispatch centre (DSZ) response time: is the time from establishing a telephone connection between a caller (the first "ring") and the healthcare dispatch centre to when a healthcare

dispatcher answers (“picks up the phone”) their call,

1.14.4.2 Time of the DSZ receiving the call: is the time from picking up the phone at the healthcare dispatch centre to making a decision on the manner of performing the intervention of determining the degree of urgency (priority),

1.14.4.3 Time of receiving the call: is the time from picking up the phone at the RENC/OCC (112/113) to making a decision on the manner of performing the intervention of determining the degree of urgency (priority),

1.14.4.4 Call processing time: is the time from picking up the phone at the DCZ to finishing the conversation with the caller.

1.14.4.5 Total call processing time: is the time from picking up the phone at the RENC/OCC (112/113) to finishing the conversation with the caller.

1.14.4.6 Activation time: is the time from determining the level of urgency (priority) to activating a suitable team. Activation shall be the time when a team confirms that it has accepted an intervention (the ACCEPTED status).

1.14.4.7 DSZ reaction time: is the time from when a healthcare dispatcher answers a call (“picks up the phone”) to when they activate a suitable team. It actually consists of the time of the DSZ receiving the call and the activation time (status ACCEPTED).

1.14.4.8 Departure time: the time from initiating team activation by the dispatcher to the actual departure of a team (status ON THE WAY).

1.14.4.9 Time required to access the event location: is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a team arrives at the event location (status AT THE LOCATION),

1.14.4.10 Time required to access a patient: is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a team reaches a patient (status WITH THE PATIENT),

1.14.4.11 Patient treatment time: is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a patient is handed over at the final location (status PATIENT HANDOVER),

1.14.4.12 Total intervention time: is the time from when the healthcare dispatcher answers a call (“picks up the phone”) to when a team is released from its duty on a case (status AVAILABLE),

1.14.4.13 Cardiac arrest recognition index: is the ratio between cardiac arrests recognised by healthcare dispatchers and the cardiac arrests actually discovered by teams at event locations.

1.14.4.14 Commencement of chest compressions in the event of cardiac arrest: is the time from when a healthcare dispatcher answers a call (“picks up the phone”) to when chest compressions are actually commenced.

1.14.4.15 Performing AED defibrillation in the event of cardiac arrest: is the time from when a healthcare dispatcher answers a call (“picks up the phone”) to when the first AED defibrillation is performed.

1.14.4.16 Return of spontaneous circulation (ROSC) in the event of cardiac arrest: is the proportion of cardiac arrest patients that had spontaneous circulation with palpable pulse upon being handed over to a hospital (simultaneous display of the number of cardiac arrests with witnesses and initial VF or VT rhythm).

1.14.5 [optional] Survival until discharge in the event of cardiac arrest: is the proportion of patients treated for cardiac arrest that have been discharged from the hospital alive

1.14.6 [optional] Primary angioplasty (PTCA/PCI) for STEMI patients: is the proportion of STEMI patients on whom primary angioplasty was performed within 150 minutes after the call had been received

1.14.7 [optional] Therapy adequacy for STEMI patients: is the proportion of STEMI patients who have undergone adequate therapy

1.14.8 [optional] Thrombolysis for ICH patients: is the proportion of FAST-positive patients that were potential thrombolysis candidates and arrived at the Emergency Neurology Unit within 60 minutes after the call had been received

1.14.9 [optional] Therapy adequacy for ICH patients: is the proportion of patients suspected to have suffered ICH who have received a suitable therapy from EMS mobile units

1.14.9.1 Compliance with protocols: is a quality indicator that indicates in percentage to what extent a

healthcare dispatcher took into consideration a particular algorithm or rules of procedure while receiving a call or performing other tasks and assignments. The module should allow free entry [Optional] The module contains a solution for freely creating forms for measuring the compliance with protocols and for the automatic calculation of results, i.e. the calculation of the quality indicator.

1.14.10 Quality standards

1.14.10.1 According to the response time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

1.14.10.2 According to the standard "time of receiving and handling a call," the healthcare dispatch service (DSZ) achieves the following results in its work:

1.14.10.3 According to the activation time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

1.14.10.4 According to the reaction time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

1.14.10.5 The standard "time required to access the event location" stipulates that the average access time required by EMS mobile units to access an event location does not exceed 15 minutes.

1.14.10.6 The "departure time" standard stipulates that the average time of the departure of EMS mobile units does not exceed 60 seconds.

1.14.10.7 According to the intervention time standard, the healthcare dispatch service (DSZ) achieves the following results in its work:

1.14.11 Performance indicators

1.14.11.1 hourly phone call load: is a piece of information on the number of incoming telephone calls received by the call centre at an individual DCZ in one hour,

1.14.11.2 hourly radio communication load: is a piece of information on the number of radio communications carried out by an individual DCZ in one hour,

1.14.11.3 hourly load related to the electronic ordering of non-emergency transports: is a piece of information on the number of e-orders for performing non-emergency transports received by a particular DCZ in one hour,

1.14.11.4 the availability of healthcare dispatchers: is a piece of information on the availability of healthcare dispatchers in a selected time interval (LogOn, LogOff, Work, Unavailable, etc.),

1.14.11.5 the workload of healthcare dispatchers: is a piece of information on the workload of healthcare dispatchers in a selected time interval (Answered Calls, Unanswered Calls),

1.14.11.6 the average call processing time: is the average time from first picking up the phone (receiving the call) to the agreed upon termination of the phone connection with the caller,

1.14.11.7 the average time of processing an e-order: is the average time of all actions related to the processing of e-orders of non-emergency transports until they are assigned,

1.14.11.8 Number of FCR (First Call Resolution) calls: is the number of interventions (cases) that only required one (1) telephone call for the issue to be resolved,

1.14.11.9 patient treatment time at the location: is the time from the team's arrival to the patient (the status WITH THE PATIENT) to the moment when the team departs from the event location (the status RETURNING)

1.14.11.10 patient handover time: is the time from the moment of arrival of any EMS mobile unit, a HEMS team, and a provider of non-emergency transport to the final location (the status AT THE DESTINATION) to the moment when a patient is handed over at the final location (the status PATIENT HANDOVER). The longest patient handover time is 15 minutes.

1.14.11.11 the display of the daily occupancy of available teams; the occupancy of available teams in a 24-hour time interval shows the time intervals of the following team statuses: AVAILABLE, CONDITIONALLY AVAILABLE, ON THE WAY

1.14.11.12 the display of the average daily occupancy of available teams; the average occupancy of available teams in a 24-hour time interval shows the time intervals of the following team statuses: AVAILABLE, CONDITIONALLY AVAILABLE, ON THE WAY

1.14.11.13 time for providing a replacement vehicle/aircraft: is the time from the retreat of a vehicle/aircraft of any EMS mobile unit team, HEMS team, and the provider of non-emergency transport

from operational use to the moment when a replacement vehicle/aircraft is provided.

1.14.11.14 the index of emergency transports to an event location: is the ratio between interventions performed with the use of special light and sound signalling and interventions with red priority

1.14.12 In order to calculate the above indicators, quality standards, and performance indicators, the module must have at least the following data:

- 1.14.12.1 Event beginning time
- 1.14.12.2 time when call was made to RENC/OCC – 112/113
- 1.14.12.3 time when the caller's line was established (the first "ring") with DCZ
- 1.14.12.4 the time when the healthcare dispatcher answered ("picked up the telephone")
- 1.14.12.5 the time until the level of urgency (priority) is determined or until a decision on the manner of performing the intervention is made
- 1.14.12.6 the time when the conversation with the caller finishes
- 1.14.12.7 the time of the selection/assignment of a suitable team
- 1.14.12.8 the time when suitable teams are activated (the status ACCEPTED)
- 1.14.12.9 team departure time (the status ON THE WAY)
- 1.14.12.10 team arrival time at the event location (the status AT THE LOCATION)
- 1.14.12.11 the time when a team reaches a patient (the status WITH THE PATIENT)
- 1.14.12.12 the time when a team departs from an event location (the status RETURNING)
- 1.14.12.13 team arrival time at the final location (the status AT THE DESTINATION)
- 1.14.12.14 the time when a patient is handed over to hospital staff (the status PATIENT HANDOVER)
- 1.14.12.15 the number of cardiac arrests actually discovered by teams
- 1.14.12.16 the time when the performance of chest compressions begins
- 1.14.12.17 the time when the first AED defibrillation is performed
- 1.14.12.18 the number of patients suffering from cardiac arrest in a prehospital environment (the information is obtained from the application described under 1.24; manual entry possible)
- 1.14.12.19 the number of patients suffering from spontaneous circulation in the event of cardiac arrest in a prehospital environment, with palpable pulse when handed over to a hospital (the information is obtained from the application described under 1.24; manual entry possible)
- 1.14.12.20 the number of patients suffering from cardiac arrest in a prehospital environment who were alive upon discharge from the hospital (manual entry in the application described under 1.24; entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.21 number of STEMI patients in a prehospital environment (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.22 the number of STEMI patients on whom primary angioplasty has been performed (PTCA/PCI) – (manual entry in the application described under 1.24; entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.23 the number of STEMI patients with a suitable therapy – (manual entry in the application described under 1.24; entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.24 number of patients suspected of suffering from ICH (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.25 number of FAST-positive patients (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.26 number of FAST-positive patients who were thrombolysis candidates (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)
- 1.14.12.27 number of patients suspected of suffering from ICH with a suitable therapy (the information is obtained from the application described under 1.24; manual entry possible, entry in the case file of the treated patient, a retroactive entry is carried out by the consulting physician)

1.14.13 Overview of DSZ loads

1.14.13.1 according to the types of events defined in the Slovenian Emergency Medical Service Index; the display according to the selected parameters in the filter and the display in the form of a diagram or a table are enabled,

1.14.13.2 according to the hourly phone call load; average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.3 display of hourly phone call loads for each hour of the day for each day of the week in a selected time interval (the shortest time interval is one week – 7 days); average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.4 according to the hourly radio communication load; average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.5 display of hourly radio communication loads for each hour of the day for each day of the week in a selected time interval (the shortest time interval is one week – 7 days); average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.6 according to the hourly load related to the electronic ordering of non-emergency transports; average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.7 display of hourly load related to the electronic ordering of non-emergency transports for each hour of the day for each day of the week in a selected time interval (the shortest time interval is one week – 7 days); average, minimum, and maximum hourly loads according to the selected parameters in the filter are displayed; display in the form of a table or diagram,

1.14.13.8 display of healthcare dispatcher availability; average, minimum, and maximum values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to selected time interval; they are displayed in the form of tables and diagrams,

1.14.13.9 display of healthcare dispatcher workload; average, minimum, and maximum values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to selected time interval; they are displayed in the form of tables and diagrams,

1.14.13.10 display of average call processing time; values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to priorities, according to selected time interval; they are displayed in the form of tables and diagrams (separate graphic display according to classes),

1.14.13.11 display of average time of processing an e-order; values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to priorities, according to selected time interval; they are displayed in the form of tables and diagrams (separate graphic display according to classes),

1.14.13.12 display of the proportion of FCR calls; values for DSZ are displayed according to individual DCZ, according to individual healthcare dispatcher, according to priorities, according to selected time interval; they are displayed in the form of tables and diagrams

1.14.14 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, receiving healthcare dispatcher, the controlling and assigning dispatcher, the ZZS regional unit, municipality, town/city, street, street number.

1.14.14.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.14.15 Overview of the use of the Slovenian Emergency Medical Service Index

1.14.15.1 display of the use of the Slovenian Emergency Medical Service Index; display of the total number of the use of individual cards of the Slovenian Emergency Medical Service for emergency medical assistance for DSZ, an individual DCZ and an individual receiving healthcare dispatcher; display of the average, minimum and maximum use of individual cards of the Slovenian Medical Service Index for

- emergency service; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.15.2 display of the frequency of the application of criteria; display according to individual cards of the Slovenian Emergency Medical Service, display according to DSZ, an individual DCZ and an individual receiving healthcare dispatcher; display of the average, minimum and maximum application of criteria according to individual cards of the Slovenian Medical Service Index for emergency service; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.15.3 display of times receiving a call; display according to cards of the Slovenian Emergency Medical Service, according to the selected criteria of the Slovenian Emergency Medical Service, according to individual receiving healthcare dispatchers; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.15.4 display of call processing time; display according to cards of the Slovenian Emergency Medical Service, according to the selected criteria of the Slovenian Emergency Medical Service, according to individual receiving healthcare dispatchers; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.15.5 display of the cardiac arrest recognition index; or DSZ, an individual DCZ and an individual receiving healthcare dispatcher; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.16 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, individual receiving healthcare dispatcher, the ZZZS regional unit, municipality, town/city, street, street number.
- 1.14.16.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.17 Overview of intervention times
- 1.14.17.1 DSZ response time; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.2 Time of the DSZ receiving the call; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.3 DSZ reaction interval; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.4 departure time; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.5 time required to access the event location; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.6 patient treatment time at the location; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.7 patient treatment time; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.17.8 total intervention time; average, minimum, and maximum values according to selected parameters in the filter are displayed; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.18 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, receiving healthcare dispatcher, the controlling and assigning dispatcher, the transport provider, the intended function of the vehicle, the vehicle's garage number, the ZZZS regional unit, the provider's coverage area, municipality, town/city, street, street number.

- 1.14.18.1 The module enables an overview of automatically calculated ETA1, ETA2, and ETA3 compared to the real intervention times in a selected time period, and the calculation of deviations.
- 1.14.18.2 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.19 Team availability/occupancy overview
 - 1.14.19.1 the display of the daily occupancy of available teams; display of the occupancy of available teams in a 24-hour time period for a selected day; display in the form of a table or diagram,
 - 1.14.19.2 the display of the average daily occupancy of available teams; display of the average, minimum, and maximum occupancy of available teams in a 24-hour time period for a selected day; display in the form of a table or diagram,
 - 1.14.19.3 patient handover time; display of the average, minimum, and maximum patient handover time; the comparison with the maximum permitted handover time is displayed; display in the form of a table or diagram (separate graphic display according to classes),
- 1.14.20 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, type of public healthcare institution (applies for the patient handover time), the intended function of the vehicle, the vehicle's garage number, the ZZS regional unit, the provider's area of coverage, municipality, town/city, street, street number.
 - 1.14.20.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.21 Overview of performed interventions
 - 1.14.21.1 overview of interventions according to the types of events defined in the Slovenian Emergency Medical Service Index; the display according to the selected parameters in the filter and the display in the form of a diagram or a table are enabled,
 - 1.14.21.2 time for providing a replacement vehicle/aircraft; display of the average, minimum, and maximum time; the comparison with the maximum permitted handover time is displayed; display in the form of a table or diagram (separate graphic display according to classes),
 - 1.14.21.3 the index of emergency transports to an event location: display of the average, minimum, and maximum index; display in the form of a table or diagram (separate graphic display according to class),
- 1.14.22 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the vehicle's garage number, the ZZS regional unit, the provider's area of coverage, municipality, town/city, street, street number.
 - 1.14.22.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.23 Overview of the compliance with protocols
 - 1.14.23.1 The module enables the naming of the indicators related to the compliance with protocols, the appointment of limits, and the entry of results.
 - 1.14.23.2 The results of the compliance with protocols are shown in a table or diagram (separate graphic display according to classes).
- 1.14.24 [Optional]The module provides a tool for creating entry forms for measuring compliance with protocols and the automatic calculation and display of results in a table or a diagram.
- 1.14.25 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, receiving healthcare dispatcher, the controlling and assigning dispatcher, the ZZS regional unit, municipality, town/city, street, street number.
 - 1.14.25.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.26 Intervention load analysis
 - 1.14.26.1 Randomly adjustable periods that are at least 20 weeks long are covered.
 - 1.14.26.2 A period is divided into days of the week.

- 1.14.26.3 The interventions are added up for each day of the week.
- 1.14.26.4 The interventions on a particular day are divided according to hours of the day.
- 1.14.26.5 The following is calculated for individual hours:
- 1.14.26.6 It is compared to the standard “available teams” every day, for each hour and type, and separately to the actually available teams.
- 1.14.26.7 The variance/deviation from the standard “available teams” is calculated for each day, for each hour, and separately for actually available teams.
- 1.14.26.8 The result is shown graphically in the form of a linear diagram with a polynomial visualisation of the variance movement.
- 1.14.27 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the ZZS regional unit, the provider’s area of coverage, municipality.
 - 1.14.27.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.28 The geolocation and time analysis of the performed interventions
 - 1.14.28.1 display of performed interventions with significant time components: in a selected area of the operation of the dispatch service, the performed interventions are shown on various cartographic bases and in various manners (at least through a dot plot review and ordinary kriging),
 - 1.14.28.2 display of achieved intervention times: in a selected area of the operation of the dispatch service, the achieved intervention times are shown on various cartographic bases and in various manners (at least through a dot plot review and ordinary kriging); deviations from the foreseen standards are specially marked,
 - 1.14.28.3 display of foreseen intervention times: in a selected area of the operation of the dispatch service, the foreseen intervention times are shown on various cartographic bases and in various manners (at least through a dot plot review and ordinary kriging) by taking into consideration the starting locations and the traffic situation and limitations; the achievement of the foreseen standards is specially marked,
- 1.14.29 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the ZZS regional unit, the provider’s area of coverage, municipality.
 - 1.14.29.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance. The module enables the export of graphic displays in JPG, TIF, or PDF formats.
- 1.14.30 Quality control and assurance related to the performed work
 - 1.14.30.1 the display of quality indicators: display of the average, minimum, and maximum values; display in the form of a table or diagram (separate graphic display according to classes),
 - 1.14.30.2 the display of the achievement of the “response time” standards:
 - 1.14.30.3 the display of the achievement of the standard “time of receiving and handling a call”:
 - 1.14.30.4 the display of the achievement of the “activation time” standard:
 - 1.14.30.5 the display of the achievement of the “reaction time” standard:
 - 1.14.30.6 the display of the achievement of the “access time” standard:
 - 1.14.30.7 the display of the achievement of the “intervention time” standard:
- 1.14.31 numeric and graphic (diagrams, counters, etc.)
 - 1.14.31.1 The module should allow the creation of forms for measuring the “compliance with protocols” quality indicator, which includes the definition of the desired limits and the calculation and mutual comparison of results.
 - 1.14.31.2 The module should randomly select a defined number of cases that will be included in the qualitative analysis for the selected healthcare dispatcher.
- 1.14.32 The module enables data filtering according to: DSZ as a whole, individual DCZ, the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the ZZS regional unit, the provider’s area of coverage, municipality.
 - 1.14.32.1 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.
- 1.14.33 Cardiac arrest report – “Utstein style”

1.14.33.1 The module should allow the creation and display of a report on cardiac arrests in a prehospital environment, which must be coordinated with the foreseen reporting according to the Utstein style.

1.14.34 Drafting pre-defined reports

1.14.34.1 The drafting of various pre-defined periodic reports (daily, weekly, monthly, quarterly, semi-annual, annual, and multi-annual report) on the operation of a healthcare dispatch centre or the entire healthcare dispatch service is enabled.

1.14.34.2 The drafting of a routine press release is also considered a pre-defined report.

1.14.34.3 All reports can be exported and saved in PDF format.

1.14.35 Other requirements

1.14.35.1 All changes of data must be traceable in accordance with applicable standards and legislation in the relevant field.

1.14.35.2 Selective graphic display of quality and performance indicators and indicators of meeting standards are enabled in the following forms: as a bar chart, column chart, pie chart, and line chart.

[Optional] In addition to the requisite forms, the module allows quality and performance indicators and indicators of meeting standards to also be displayed as: area charts, surface charts, and combo charts.

1.14.35.3 For all available table and chart displays of quality and performance indicators and indicators of the meeting standards, a random display on all wallboards is also enabled.

1.15 SYSTEM STATUS CONTROL MODULE

1.15.1 System status control at a healthcare dispatch centre

1.15.2 Remote insight into the situation in individual posts

1.15.2.1 Who is registered at the post

1.15.2.2 Reason for unavailability

1.15.2.3 Insight into current work

1.15.2.4 Assuming work from each work post

1.15.2.5 Foreign language proficiency of an active healthcare dispatcher

1.15.3 Overview of the hospital's status concerning available capacities

1.15.3.1 See Point 1.25. 10 Regional Healthcare Coordination Group (hereinafter: RKSZ)_MODUL_ZA_PODPORO

1.15.3.2 To enable integration with the hospital information system providing desired data in electronic form.

1.15.3.3 The WEB module allows a person authorised by the hospital to enter the status of the desired data.

1.15.4 Overview of the status concerning available capacities for intervening in the field

1.15.4.1 See point 1.25.7.4 RKSZ

1.15.4.2 A display of all of the system's capacities in the form of tables and charts is enabled, including displaying deviations from the anticipated status considering the time of an enquiry

1.15.4.3 A selective display of all of the system's capacities in the form of tables and charts is enabled, including displaying deviations from the anticipated status considering the time of an enquiry and the selected field

1.15.5 [optional]Graphic display (usually kriging) of the system ETA1 (average ETA1) considering the number and locations of the currently available teams is enabled

1.15.6 [optional]Selective graphic display (usually kriging) of the system ETA1 (average ETA1) considering the selected area, locations and number of the currently available teams is enabled

1.15.7 [optional]System modulation with the goal of meeting the standard "access time" and the randomly determined ETA3 considering the occurrence of interventions, the selected area, the anticipated locations (locations of teams are determined randomly) and the number of available teams is enabled.

1.15.8 Quality

1.15.8.1 Quantitative display of the workload of a healthcare dispatcher (e.g. the number of received calls, the number of dispatched interventions, etc.)

1.15.8.2 A random selection and automatic display of selected quality and performance indicators and

indicators of meeting quality standards in the form of tables and/or selected chart form is enabled.

1.15.9 Help button

1.15.9.1 The supervising dispatcher may provide assistance from their workplace or assume the work task.

1.15.10 Displaying the situation on the wallboard

1.15.10.1 Concerning the current work: the number of calls per day, the number of calls per hour, the number of current calls, the number of calls on hold, the waiting time in seconds, etc.

1.15.10.2 The graphic display of the achievement of the standard "response time" for emergency calls (e.g. in the form of a clock), separate for: healthcare dispatch service (DSZ), DCZM, and DCZL

1.15.11 [optional]The graphic display of the achievement of the standard "response time" for non-emergency calls (e.g. in the form of a clock), separate for: healthcare dispatch service (DSZ), DCZM, and DCZL

1.15.11.1 Option to give warnings (using warnings prepared beforehand or free text)

1.15.11.2 The display of current time

1.15.11.3 The display of a map (also of individual areas) with a display of ambulances and interventions

1.15.11.4 Displaying photographs

1.15.11.5 Showing a video

1.15.11.6 Showing live images from the field

1.15.12 System status control in the healthcare dispatch service

1.16 STAFF MODULE

1.16.1 The staff module enables employees to enter their desired times for annual leave, job replacements, reports on events, data about employees, notifications and a review of documents.

1.16.2 Data that are visible to each individual employee, are based on their rights.

1.16.3 Under each own tab, every employee can:

1.16.3.1 Edit their access password

1.16.3.2 Review entered data (staff)

1.16.3.3 Review entered reports on events and reports on how events have been resolved

1.16.3.4 Enter and review vacation dates and see if they have been approved

1.16.3.5 Enter and review own replacements and see if the replacements have been agreed upon or approved

1.16.3.6 Enters detected defects

1.16.3.7 Reviews all notifications

1.16.3.8 Reviews documents and confirms on being informed on the documents

1.16.4 Annual leave

1.16.5 The desired time of annual leave can be entered via a form, where the following has been recorded

1.16.5.1 Time of annual leave entry (automatic)

1.16.5.2 Date of annual leave start

1.16.5.3 Date of annual leave end

1.16.5.4 Selection of type of leave (from the list)

1.16.5.5 Notes

1.16.6 Every employee can review annual leave times in the review list, where they can see whether the annual leave has been approved or rejected, as well as the reason for rejection or necessary supplementations.

1.16.7 The administrator can:

1.16.8 Review annual leave times by filters (unreviewed, approved, not approved, per employees) and print them

1.16.9 Approve/reject individual annual leave

1.16.10 Notes that require supplementation

1.16.11 Replacements

1.16.12 The desired replacement can be entered via a form, where the following has been recorded

- 1.16.13 Time of replacement entry (automatic)
- 1.16.14 Date of replacement
- 1.16.15 Rotation of replacement
- 1.16.16 Employee that will replace me
- 1.16.17 Notes
- 1.16.18 Every employee can review replacements in the review list, where they can see whether the replacement has been approved or rejected, as well as the reason for rejection or necessary supplementations, and whether the replacing employee agreed with the replacement.
- 1.16.19 The option to review replacements of other employees where the employee is stated as the possible replacement, and add agreement.
- 1.16.20 The administrator can:
 - 1.16.20.1 Review replacements by filters (unreviewed, approved, not approved, per employee, per agreement) and print them
 - 1.16.20.2 Approve/reject individual replacement
 - 1.16.20.3 Notes that require supplementation
- 1.16.21 Reports on events
- 1.16.22 The form contains the following fields:
 - 1.16.22.1 Time of entry (automatic)
 - 1.16.22.2 Author (automatic)
 - 1.16.22.3 ID reports on events (automatic)
 - 1.16.22.4 Type of event (extraordinary event, proposal for improvement, enquiries, public relations)
 - 1.16.22.5 Event title
 - 1.16.22.6 Where did the event happen?
 - 1.16.22.7 When did the event happen (date and time separately)
 - 1.16.22.8 Description of event
 - 1.16.22.9 Status of report (automatic)
- 1.16.23 Every employee can review all reports and the status of the report, as well as reports on how the extraordinary event has been resolved, which were prepared for the specific event.
- 1.16.24 Portfolios
 - 1.16.24.1 An authorised person can create a portfolio on the basis of the report on event.
 - 1.16.24.2 The author and time of the portfolio preparation is recorded.
 - 1.16.24.3 One main report can be added to the portfolio (on the basis of which the portfolio was prepared), as well as other reports that have not been included in any other portfolio.
 - 1.16.24.4 One or several reports on resolving the event can be created in the portfolio.
 - 1.16.24.5 Document scan can be attached
 - 1.16.24.6 We can determine who will deal with the extraordinary event, and we send them an e-mail with a generated message such as: You have been appointed to resolve the extraordinary event no. xy, which was determined in the xy portfolio. The deadline for conclusion is (date).
- 1.16.25 Notifications
- 1.16.26 The authorised person can publish individual notifications that are important for the entire staff. They can:
 - 1.16.26.1 Author of notification
 - 1.16.26.2 Date of notification
 - 1.16.26.3 Date of validity from: to
 - 1.16.26.4 Add a title to the notification
 - 1.16.26.5 Write the displayed text
 - 1.16.26.6 Attach a document that will be displayed under the text
 - 1.16.26.7 Determine the type or necessity of notification
 - 1.16.26.8 Determine to whom the notification is intended
 - 1.16.26.9 Review all notifications by filters (title, date of entry, author) and print them
 - 1.16.26.10 Review who has read urgent notifications and who has not
- 1.16.27 Documents

- 1.16.28 When an individual document is published, an authorised person can:
 - 1.16.28.1 Add a document title
 - 1.16.28.2 Short description
 - 1.16.28.3 Attach a document scan
 - 1.16.28.4 Determine whether an employee should choose the option "I am informed about the document".
 - 1.16.28.5 Review0 who has not been informed on various documents.
- 1.16.29 Staff
- 1.16.30 Under the staff tab we can enter employees and enable them rights:
 - 1.16.30.1 Surname and name
 - 1.16.30.2 Attach the employee's photo
 - 1.16.30.3 Date of birth
 - 1.16.30.4 UKCL number of employee
 - 1.16.30.5 Agent number
 - 1.16.30.6 Employee's username
 - 1.16.30.7 Date of employment at UKCL
 - 1.16.30.8 Date of employment at DSZ
 - 1.16.30.9 Date of termination
 - 1.16.30.10 Reason for termination
 - 1.16.30.11 Permanent address
 - 1.16.30.12 Temporary address (if necessary)
 - 1.16.30.13 Distance to work place in km
 - 1.16.30.14 (calculation) of arrival to work in minutes
 - 1.16.30.15 Education level
 - 1.16.30.16 Acquired title
 - 1.16.30.17 Date of professional exam or diploma (scan can be attached)
 - 1.16.30.18 Chamber's permission for work (scan can be attached)
 - 1.16.30.19 Foreign language knowledge (the module then displays dispatchers who have knowledge of foreign languages)
 - 1.16.30.20 Telephone number
 - 1.16.30.21 E-mail address
 - 1.16.30.22 Workplace
 - 1.16.30.23 Access permissions or user rights administration
 - 1.16.30.24 Password or PIN
 - 1.16.30.25 Card number (ZZZS or similar)
 - 1.16.30.26 Concluded courses (scans of certificates can be attached)
- 1.16.31 Search by employees, data display and printing by filters is enabled
 - 1.16.31.1 data by employees
 - 1.16.31.2 joint list of all employees (employee number, surname and name, empty line)
 - 1.16.31.3 list by times employees are accessible (surname, name, address, phone number, workplace, access time in minutes)
 - 1.16.31.4 list of entered courses by employees
 - 1.16.31.5 list of all who have not concluded an xy course or list of all who concluded the xy course

1.17 ADMINISTRATION OF INDIVIDUAL MODULES

- 1.17.1 The administration of individual modules enables users with appropriate rights:
 - 1.17.1.1 The authorised person can determine in what way an individual should login to the system (card or PIN or card+PIN)
 - 1.17.1.2 At login there is an option to choose among various jobs (reception, dispatcher, shift supervisor, user with suitable rights, medical practitioner) with regard to permits and the setup of desktop in accordance with the login.
 - 1.17.1.3 Option to select at logout (end of work, break etc.). When the card is removed, the desktop is

automatically locked and asks for the reason of logout.

1.17.1.4 The dispatcher logs in once via a joint login in all components of the solution.

1.17.1.5 New entries to all system databases as are described above (institutions, employees, devices, publicly accessible AEDs etc)

1.17.1.6 Corrections of forms' texts, e-Slovenian index

1.18 TELEPHONE AND RECORDING

1.18.1 Phone directory

1.18.1.1 Fast search by number or title

1.18.1.2 Entry of phone numbers/edit of entries

1.18.1.3 Automatic calls from the directory

1.18.1.4 Automatic capture of phone number from the phone sub-system, calls and reconnections from the program, reception form of the dispatcher program

1.18.1.5 Automatic display of directory data to the dispatcher when call is made

1.18.2 Recording

1.18.2.1 Recording must be enabled for all phone and radio lines and building loudspeaker system.

1.18.2.2 Access rights management

1.18.2.3 Search for recordings with regard to phone number, actual connection, agent number, age of recording.

1.18.2.4 Keeping a logbook of all who listen to recordings; time and identification stamp for every review of recordings.

1.18.2.5 Keeping a logbook of all recordings stored by listeners.

1.18.2.6 The capacity to store recordings for 1 year, automatic deletion of recordings after a certain time period.

1.18.2.7 Support for remote listening to recordings.

1.18.2.8 Compatibility with the dispatcher program for listening recordings from the dispatcher program.

1.18.3 Call centre

1.18.3.1 With signalisation of the dispatcher desk (sign at call that a call is in progress/dispatcher is occupied) – see connection with the occupancy indicator.

1.18.3.2 A preliminary announcement must be made in accordance with the legislation for all non-urgent lines (except for 112, 113). Recording of preliminary announcements must be enabled. The possibility of different preliminary announcements with regard to the entry line.

1.18.3.3 It can be determined for individual workplaces, from which lines (all lines, only internal lines, urgent, non-urgent) they can accept calls.

1.18.3.4 It is possible to preliminarily determine and also change for authorised persons, from which lines they can receive calls (all lines, only internal lines, urgent, non-urgent lines or special numbers) with regard to individual work (dispatcher, reception) and the work desk.

1.18.3.5 Possibility of creating groups of reception and transmission dispatchers who serve waiting lines

1.18.3.6 Formation of waiting lines with regard to the line or call priority or according to preset priorities (calls from priority directions skip the waiting line, e.g. 112, 113 etc.)

1.18.3.7 Equal load on agents within the group of dispatchers

1.18.3.8 Online review of the current status of dispatchers and groups; organised insight into the occupancy of agents (shift supervisor etc.).

1.18.3.9 The compatibility of the telephone exchange with the dispatcher program for an automatic entry of the phone number of incoming call in the dispatcher program and the display of the caller identity from the phone directory.

1.18.3.10 The compatibility of the telephone exchange with the dispatcher program that in its user interface presents the statuses of other dispatchers (LogOn, Work, Unavailable) and the statuses of their phones (Idle, Ringing, Ringed, Connected)

1.18.3.11 The compatibility of telephone exchange with the dispatcher program for calling from the dispatcher program and phone directory.

- 1.18.3.12 The compatibility of telephone exchange with the dispatcher program for connecting incoming calls from the dispatcher program.
- 1.18.3.13 Listening to recordings of radio and phone conversations (with regard to allocated rights or every dispatcher can listen only to own calls in a determined time period).
- 1.18.3.14 The possibility of accessing individual calls from the reception form.
- 1.18.3.15 Administration of phone and radio recordings.
- 1.18.3.16 Protection of data against unauthorised access and access rights management
- 1.18.3.17 All changes of data must be traceable in accordance with applicable standards and legislation in the relevant field.
- 1.18.4 Connection with occupancy indicator
- 1.18.5 Switch on of LED signal lights (operator status) is possible via the RS232 interface.
 - 1.18.5.1 3 to 12V voltage on 6, 7 or 6and8 pins is necessary for switching on the signal light. 5 GND , 6 red, 8 green, 6&8 yellow.
- 1.18.6 For using the null modem cable with full handshake we need hi on DTR and RTS
- 1.18.7 The connection with the occupancy indicator depends on the occupancy of the dispatcher when making a phone call.
 - 1.18.7.1 Red light on the indicator: the dispatcher is logged in the system and is occupied with a phone call or they are working
 - 1.18.7.2 Yellow light: the dispatcher is logged in the system, but is only conditionally available for incoming calls (except for special numbers or lines)
 - 1.18.7.3 Green light: the dispatcher is logged in the system and available to accept the call
- 1.18.8 Red light on the indicator: it has to be connected to the current occupancy with a phone call (the dispatcher has a call in progress and is not available to accept the next call) or the work function is switched on.
 - 1.18.8.1 Red light switches on automatically immediately after the dispatcher's line becomes occupied.
- 1.18.9 Yellow light on the indicator: the dispatcher uses the function button (conditionally available) to announce that they are in the work process and are conditionally available.
 - 1.18.9.1 By pressing the function button the yellow light automatically switches on the indicator.
 - 1.18.9.2 The dispatcher is not available for external calls (except for special numbers or lines).
- 1.18.10 Green light on the indicator: the dispatcher is not in the process of accepting a call (phone line is available) and is prepared to accept a new call.

1.19 MOBILE APPLICATION FOR FIRST RESPONDERS

- 1.19.1 It is available for Android and IOS devices.
- 1.19.2 The user logs into the application with own username and password.
- 1.19.3 At the first login, the user uses the registration code that is allocated by DSZ to register in the system. The user agrees with the general described conditions and allows the tracking of location when active.
- 1.19.4 Every user has his or her own profile where the following can be determined: education, date of course undertaken for first responders, type of course undertaken, licence expiry; if in the unit: name of the unit, etc.
- 1.19.5 After login the user determines his or her own status (active/inactive). This means that the dispatcher can locate them for an intervention nearby.
- 1.19.6 When selecting the first responder (in the dispatcher assistance module) the following message is sent to the mobile device: There is an emergency nearby (distance from event in km)], can you attend?
 - 1.19.6.1 If the first responder replies with YES, an activation message is sent.
- 1.19.7 The first responder informs the dispatcher via the application:
 - 1.19.7.1 Activation accepted
 - 1.19.7.2 On the way
 - 1.19.7.3 On site (automatic transmission of geolocation)
- 1.19.8 It is possible to communicate via the application, via the CALL DISPATCHER button, when the phone line is initiated to the preset phone number or the application enables the "push to talk" function that

operates as a VHF radio communication.

1.19.9 The application automatically generates a message on the activation of the first responder and sends it e.g. to the competent ReCo.

1.19.10 The map with the event location and the location of the nearest AED on the way to the event or near the event, guidance to both locations (on foot or by car).

1.19.11 The system administrator can administer users, allocate and withdraw rights, update databases and upgrade the application. (Agreement with the developer about the development of updates and upgrades). The user is notified of a new upgrade at login.

1.19.12 Upon a request, the application sends the information dispatcher solution the location of active users, so that the module for dispatcher assistance displays data about the nearest first responders.

1.20 APPLICATION AND WEBSITE FOR ORDERING AND MONITORING EMERGENCY TRANSPORTS

1.20.1 The system enables the ordering of a non-emergency transport (based on the transport order) and the monitoring of its implementation.

1.20.1.1 Necessary data are determined under section 1.5 Advance orders, review of non-emergency transports

1.20.2 The module enables other entities who order emergency transports access to the application (patient, relatives)

1.20.2.1 The user is signed in the web module with the ZZS number and the transport order number (according to the e-referral example)

1.20.2.2 The order can be entered at the latest 12 hours before the selected implementation. When the order is not possible, the following notification is displayed "Your order was not accepted, because the 12-hour time limitation has been exceeded. Call xxxx to order transport."

1.20.2.3 Besides the module as described under 1.5 Advance orders, review of non-emergency transports enables the selection with the question "Do you want us to notify you of the progress of the emergency transport?"

1.20.2.4 When this option is selected, the user chooses how they want to be informed (e-mail, mobile phone).

1.20.2.5 If the user selects mobile phone, they have to enter the phone number where they want to receive notifications.

1.20.2.6 The system automatically sends two messages to mobile phone:

1.20.2.7 Message 1, for instance: "The ordered transport will be implemented by [name of service provider]. Envisaged time of arrival to the address [user address] is [date and time]. If the order data do not match, inform us immediately on the number xxxx."

1.20.2.8 Message 2, for instance: "Dear Sir or Madam, your transport is being implemented. Estimated time of arrival is [date and time]. Please, be ready."

1.20.3 [Option] The module enables the user to make a commendation or complaint with regard to the performed DSZ services. The user has the possibility to collaborate in an e-survey on the satisfaction of users of dispatcher services.

1.21 DMR DISPATCHER AND PHONE CONSOLE

1.21.1 Direct communication between the application and the repeater network system via IP connections

1.21.2 Review of the repeater network operations

1.21.2.1 The DSZ responsible person has to have a visual review in real time of the entire backbone of the DMR connection system.

1.21.2.2 DMR repeaters, links and Ethernet connection, where it is enabled, have to be visible.

1.21.2.3 If an error occurs, it must be recorded and the user's responsible person must be warned.

1.21.2.4 Control from remote devices in a safe network must be possible.

1.21.2.5 If a certain zone fails, a warning sign must be issued to notify the health dispatcher who will take appropriate measures.

1.21.3 The system requires the setup of an Ethernet connection between all zones.

- 1.21.4 Required bandwidth is 64 kbps per radio channel.
- 1.21.5 Program part – description of operations:
- 1.21.6 The application is displayed on the touch screen and on the monitor.
- 1.21.7 It enables radio and telephone communication.
 - 1.21.7.1 The telephone and radio systems are connected in one joint application which can be managed via the touch screen and with the mouse on the monitor. Audio and microphone are jointly connected to one pair of earphones with a microphone. Listening is enabled via an external speaker on the desk and an external microphone.
 - 1.21.7.2 Warnings at system failure or problems in the network
 - 1.21.7.3 Switching between talking on the phone and radio station. The telephone as the primary source transmits to the radio station when the button is pressed.
- 1.21.8 Connections, conference calls, telephone-radio system connections are possible.
 - 1.21.8.1 The touch screen displays the phone directory and the directory of radio stations, all contacts and contacts that are signed in the system are displayed.
 - 1.21.8.2 Data must be reasonably displayed to enable the dispatcher an overview of currently available teams.
 - 1.21.8.3 The logbook of communication and implemented activities must be displayed. Various filters and views can be included
 - 1.21.8.4 Display the status of phone lines (calls waiting - line, phone number with the display of the institution from the directory)
 - 1.21.8.5 Conversations among dispatchers
 - 1.21.8.6 Selection of volume on each channel
- 1.21.9 DMR dispatcher:
 - 1.21.9.1 The possibility to design radio connection user groups so that individual contacts can be set in the same communication group within an individual zone. Simple caller selection is enabled and a private call can be initiated.
 - 1.21.9.2 Transmission to several channels.
 - 1.21.9.3 The option of sending text and preset instant messages (phone and radio station).
 - 1.21.9.4 Display of accepted statuses from the radio system (ON THE WAY, RETURNING, ...).
 - 1.21.9.5 Preset short replies (OK, WAIT FOR A MOMENT, RETURN TO BASE, APPROVED). It is marked at reply to whom the message and which message was sent.
 - 1.21.9.6 Switch on and off of listening to the channel and transmission on the channel.
 - 1.21.9.7 Selection of the radio channel via the console.
- 1.21.10 It is possible to select the following from the mark of the displayed contact
 - 1.21.10.1 On which work channel the radio station is transmitting
 - 1.21.10.2 If the radio station is switched on or off
 - 1.21.10.3 The number of radio station of the person
- 1.21.11 Display of last contacts
 - 1.21.11.1 The 5 last contacts with whom we communicated or who sent the message are displayed on the console. When selecting this contact the same options are given as under the item
- 1.21.12 Display of received messages
 - 1.21.12.1 Received messages are displayed, such as "Available", "On the way" etc., the time of message sent and sender
- 1.21.13 Login
 - 1.21.13.1 Every user logs into the system via a radio station (sends a short message) and informs whether the radio station is active or if the person is available for work.
- 1.21.14 LogOff
 - 1.21.14.1 When the user wants to log off, e.g. when they conclude work, they send a message with their own ID.
 - 1.21.14.2 The logoff is accepted only if the code is sent from the same terminal as it was entered.
- 1.21.15 Verification of entry
 - 1.21.15.1 When we want to verify from the radio station who is logged in, the station sends a message

with "?" and the server sends a message with data on the entry in the system.

1.21.16 Connection to the TETRA radio system

1.21.16.1 System configuration must enable the connection of the DMR radio station to TETRA radio station and vice versa.

1.21.17 Connection to GIS module

1.21.17.1 The server must be connected with GIS of the dispatcher service and display the location of radio stations that transmit their locations.

1.21.18 Sending messages from the program via a radio station to a certain vehicle or person. The scope of data sent by the server to the station, which is determined in the program. When a longer message is concerned, the text is sent in two messages.

1.21.19 Recording

1.21.19.1 Recording is implemented on the audio output of radio stations connected to the server.

1.21.19.2 Audio recording is digitalised and stored in the database.

1.21.19.3 Spoken messages on the console are stored in digital form directly to server.

1.22 CONNECTING INTEGRATION COMPONENTS

1.22.1 All described functionalities must be interconnected and operate as one IS.

1.22.2 The information system must operate to enable the connection to other information systems and components.

1.22.3 Bidirectional communication of exchange is implemented with hospital IS.

1.23 Application for receiving interventions in an emergency vehicle

1.23.1 The hours in the application are synchronised with the central server.

1.23.2 The application must accept and display data as determined in Table 2.

1.23.3 Data must be displayed in a transparent way.

1.23.4 Display can be in several levels – view one enables overview of basic data (points 1.23.1.1 to 1.23.1.6), upon demand, view two is opened where several data are displayed

1.23.5 Sending time statuses via sufficiently large and visible buttons from Table 1.

1.23.5.1 The application sends a warning when illogical time statuses are provided, e.g. time of the vehicle on the way does not correspond to the time on site, etc.

1.23.6 The application enables navigation across routable maps loaded on the device and with regard to the received location sent from the dispatcher service.

1.23.7 [Option] The application can use at least two different routable maps, where the first type are loaded on the device, and the second type acquire data via the internet (e.g. Google Maps) and considers the current traffic information to calculate the appropriate route.

1.23.7.1 The access to navigation is simple, i.e. by pressing one button and without other steps.

1.23.7.2 When the application operates in navigation mode, the buttons for sending time statuses must be accessible.

1.23.8 The application works on Android, iOS and Windows operation systems and the display adapts to the device size

1.23.9 The application receives the motor signal and blue lights, and sends these data to DSZ

1.23.10 The system should offer a comprehensive system, i.e. also the sensor and the option for their switching from the vehicle to the application

1.23.11 The application receives the vehicle's position and sends it to DSZ in real time (at least every 10 seconds)

1.23.12 The application receives the vehicle's position from the registration plate or from the automatic geolocator.

1.23.13 A short sound alarm can be heard upon a new intervention.

1.23.14 The application operates locally and also without disturbances when the connection is lost. Data are sent immediately when the connection is established.

1.23.15 The basic screen also displays several interventions at the same time.

1.23.16 Concluded interventions are greyed out and are not active any more.

- 1.23.17 The application accepts changes made in the basic dispatcher program and warns about each new accepted change with a short sound signal.
- 1.23.18 The upper part of the application writes where the vehicle is located and which radio channel must be used to access the dispatcher centre, e.g.: [Domžale, DCZ Ljubljana, CH Ljubljana 12]

1.24 Application for the entry of reports on emergency transports, emergency intervention protocols and prehospital resuscitation protocol

- 1.24.1 It operates on tablet computers or laptops with Android, iOS and Windows operation systems.
- 1.24.2 The hours are synchronised with the central server.
- 1.24.3 It connects to the joint access point in the emergency vehicle (or via the tablet for accepting intervention or router)
- 1.24.4 The content follows the determined protocols in the Rules on Emergency Medical Service, the Rules on the Carriage of Patients and enables the entry of data for:
 - 1.24.4.1 Report on emergency transport
 - 1.24.4.2 Emergency intervention protocol
 - 1.24.4.3 Prehospital resuscitation protocol
 - 1.24.4.4 Medical care/emergency transport refusal
- 1.24.5 The application helps enter data in necessary tables and displays final calculations, e.g. GCS
- 1.24.6 [Option] Automatic transfer of data from monitoring devices in the emergency vehicle to the application for the entry of reports is enabled. The points are recognised depending on: the number of devices for which data transfer is enabled (e.g. ECG monitor, defibrillator, ventilator, other devices) and on the number of various producers and models of devices for which this is enabled (e.g. PhysioControl LP 12, 15; Zoll X, M; Phillips Heartstart MRx, XL; Corpuls3; Schiller Argus, Defigard...).
- 1.24.7 Upon the entry of medicines, infusion liquids ... it assists with the list of potential medicines and dosages.
- 1.24.8 Upon the entry of material (intravenous, tubes etc.) it assists by displaying the possible choice.
- 1.24.9 Upon the entry of diagnosis according to MKB, it assists by displaying the possible diagnosis and the classification by entered letters or numbers
- 1.24.10 It enables the attachment of images or videos.
- 1.24.11 The application receives data sent from the dispatcher program and they do not have to be re-entered.
- 1.24.12 When the entered data are changed, the user sees a message: "Data that you are entering do not match the data already entered. Upon confirmation the data in the central database will be changed."
- 1.24.13 The application also functions locally without connection.
- 1.24.14 When the connection is re-established, the data are automatically transferred to central database, where all data about a certain intervention are collected from the received call to the end of treatment
- 1.24.15 Printing of individual protocols under points 1.24.4.1 to 1.24.4.4 in the prescribed form is enabled
- 1.24.16 Sending of filled out reports to the final reception institution is enabled.
- 1.24.17 [Option] The integration interface for data exchange with the existing hospital IS has been designed.
- 1.24.18 Signature via touch screen is enabled.
- 1.24.19 It enables the display of the currently available equipment in the emergency vehicle and the quantity of currently available sanitary material and medicines.
- 1.24.20 The application records the use of material by patients, also automatically, for other material, users can enter data.
- 1.24.21 The replacement of equipment in the vehicle or the use of equipment from the vehicle can also be marked.
- 1.24.22 [Option] Used material can be recorded by scanning the QR code
- 1.24.23 The application enables the entry of received material and other equipment in the emergency vehicle. The material and equipment can be selected from the list of possible equipment and material.
- 1.24.24 [Option] Equipment and material can be accepted by scanning the QR code

- 1.24.25 When the quantity of sanitary material does not apply to the standard or a certain piece of equipment is missing, the application warns the user.
- 1.24.26 It contains the form about the review of the emergency vehicle, separately for the driver and the escort (Appendix 1).
- 1.24.27 [Optional] The device enables registration of a logistics officer and intervention manager at the event and prepares a table or graph presentation of available sources at the site of the event (the number of emergency and other vehicles, sorted by types of vehicles, the type and number of currently available medical equipment, the type and number of currently available sanitary material and medicines, and the type and number of available staff...).
- 1.24.28 [Optional] Several points: web application – no maintenance by final users; less points, computer application – maintenance by final users, installations
- 1.24.29 The application contains the basic statistical module that enables a structured presentation of the number of implemented patient care procedures and a numerical and financial presentation of the used material and medicines.
- 1.24.30 [Optional] The advanced statistical module enables statistical data processing in accordance with the requirements of the Ministry of Health for the reporting of emergency medical services units. Data in tables and graphs are presented in accordance with the requirements under 1.14.
- 1.24.31 The module enables that data are filtered as follows: the selected time interval, the level of urgency (the use of special light and alarm signalling), priority, the provider, the intended function of the vehicle, the vehicle's garage number, the ZZS regional unit, the provider's area of coverage, municipality, town/city, team member, type of patient care procedure, material, medicine
- 1.24.32 The module enables data export to MS Office and OpenOffice and the drafting of periodic reports defined in advance.

1.25 MODULE FOR THE OPERATIONAL SUPPORT OF THE REGIONAL HEALTHCARE COORDINATION GROUP

- 1.25.1 Information from event location
 - 1.25.1.1 Time of last report
 - 1.25.1.2 Time of event
 - 1.25.1.3 Location of event (geolocation, descriptive)
 - 1.25.1.4 Type of event
- 1.25.2 Presence of hazards YES/NO;
 - 1.25.2.1 if YES, the hazard must be selected from the code list and described
 - 1.25.2.2 Estimated number of injured/affected/diseased persons
 - 1.25.2.3 Estimated number of casualties
 - 1.25.2.4 Image from event location (optional)
 - 1.25.2.5 Display of the map from the GIS system
 - 1.25.2.6 Air temperature at the event location
 - 1.25.2.7 Wind direction at event location
 - 1.25.2.8 Wind speed at event location
 - 1.25.2.9 Visibility (clear, cloudy, foggy, ... description)
- 1.25.3 Public relations
 - 1.25.3.1 Responsible person: name and surname, contact data
 - 1.25.3.2 Time of latest PR statement: type and content
 - 1.25.3.3 Time of the next statement: type and content (draft)
 - 1.25.3.4 Attachment of documents (word, pdf, excel ...)
- 1.25.4 Holders of key functions
 - 1.25.4.1 Function, name and surname
 - 1.25.4.2 Allocated working channel
 - 1.25.4.3 Telephone number
 - 1.25.4.4 E-mail
 - 1.25.4.5 Table presentation: possibility of expanding the table by adding key functions.
- 1.25.5 Display of estimated transport times

- 1.25.6 On the basis of the selection of starting location:
 - 1.25.6.1 ETA calculation for all possible locations (SUC, UC, SB, UKC locations)
 - 1.25.6.2 ETA display for all mobile units (vehicles, helicopters etc.) to the place of event
- 1.25.7 Display of transport capacities or system capacities
 - 1.25.7.1 Location of EMS unit/patient transport services provider(the unit of first responders)
 - 1.25.7.2 Type of source (type of emergency vehicle, helicopter, other ...)
 - 1.25.7.3 24-hour availability (daytime, night-time ...)
 - 1.25.7.4 Display of calculation of transport capacities (tables and graphs)
- 1.25.8 [Optional] The system enables a table or graph presentation of sources at special event or event site (the number of emergency and other vehicles, sorted by types of vehicles, the type and number of currently available medical equipment, the type and number of currently available sanitary material and medicines, and the type and number of available staff...).
- 1.25.9 Notifying hospitals
 - 1.25.9.1 Name of notified institution
 - 1.25.9.2 Time of notification
 - 1.25.9.3 Current institution alarm and time of last change
 - 1.25.9.4 Staff sent to the location (description)
- 1.25.10 Distribution key
 - 1.25.10.1 Name of institution providing data
 - 1.25.10.2 Time of last change
 - 1.25.10.3 Number of possible accepted patients of triage category I
 - 1.25.10.4 Number of possible accepted patients of triage category II
 - 1.25.10.5 Number of possible accepted patients of triage category III
- 1.25.11 Report on capacities
 - 1.25.11.1 Name of institution providing data
 - 1.25.11.2 Time of last change
 - 1.25.11.3 Capacities by individual specialties of the institution (surgery etc.)
 - 1.25.11.4 Hospital ventilators
 - 1.25.11.5 Available beds
 - 1.25.11.6 Clinic capacities
- 1.25.12 Data about transfers
 - 1.25.12.1 When there are transfers between hospitals, the module enables the entry of transfer.
 - 1.25.12.2 The numbers of capacities are automatically updated, where the patient is subtracted from the release hospital and it is added to the admission hospital.
- 1.25.13 Display of data about the current system capacities
- 1.25.14 Entry of general capacities or capacities by institutions
 - 1.25.14.1 When an event occurs, and there are no data from institutions, general data can be imported.
 - 1.25.14.2 Entry and subsequent transfer for various days of the week and parts of the day is possible.

1.26 Calculation of services

- 1.26.1 A calculation must be made to assess the performed dispatcher service and how much the management of an individual intervention costs. Therefore, at the end, the application makes a calculation and displays it in a special section.
- 1.26.2 The application automatically adds a service for those services, where this is possible, other services must be selected by the dispatcher.
- 1.26.3 Individual calculation items are designed so that the administrator can add or change them.
- 1.26.4 Every service item is composed of a code, short description, notes and evaluation
- 1.26.5 The number of the intervention, date and time of implementation and the person who implemented the service are added to each selected service
- 1.26.6 The calculation or display of implemented services (by quantity and price) is enabled with various filters, i.e.:

- 1.26.6.1 For a selected time period, from to
- 1.26.6.2 For selected services, one or more or all
- 1.26.6.3 For selected dispatchers, one or more or all
- 1.26.6.4 For the selected intervention or all