1 - Introduction

Considering the new emergency call triage and ambulance dispatch system recently implemented by the National Institute of Medical Emergency (INEM), we conducted a study on the models implemented in some European countries, with the aim of verifying the potential possibilities of contributing to possible improvements in the new system implemented in Portugal.

As a working methodology, several emails were sent to various entities and individuals representing European firefighters, who are represented in the CTIF, FEU, World Fire Congress and ABEU, requesting information on the organization of the triage and dispatch of resources implemented in their respective countries.

Following the emails sent, the following European countries responded to the requests:

1. **Portugal**
2. **Netherlands**
3. **Lithuania**
4. **Luxembourg**
5. **Denmark**
6. **Poland**
7. **Latvia**
8. **France**
9. **Estonia**
10. **United Kingdom**
11. **Spain**
12. **Bulgaria**
13. **Lithuania**

The following are the responses we received from each of the aforementioned countries.

2 – Organization, sorting and dispatch of resources from the parents who responded to the questionnaire.

2.1 - Portugal

In Portugal, the Integrated Medical Emergency System is coordinated by the National Institute of Medical Emergency, which has five Urgent Patient Guidance Centers (CODU) throughout the country, responsible for receiving and answering medical emergency calls (112), triaging and dispatching emergency resources (ambulances, medical vehicles and other means).

In Portugal, more than 80% of emergency medical services are provided by firefighters.

Recently, the National Institute of Emergency Medicine implemented a new system for triaging emergency calls and dispatching ambulances.

The new model establishes five priority levels, similar to the system used in hospital triage. The classification always results from a clinical assessment carried out by CODU professionals, based on information collected during the call to the European emergency number – 112. Each priority now corresponds to defined response times, allowing for more rigorous management of emergency resources.

- P1 – Emergency: situations associated with imminent risk to life, implying an immediate response, with the dispatch of Basic Life Support resources coordinated with Immediate or Advanced Life Support.

- P2 – Very urgent, situations with high clinical risk, the first resource is expected to arrive on site within 18 minutes.

- P3 – Urgent, situations with a risk of clinical deterioration, requiring arrival within 60 minutes, with the dispatch of Basic Life Support resources.

- P4 – Low urgency, situations associated with low clinical risk, Basic Life Support resources are expected to arrive at the scene within 120 minutes.

- P5 – Non-urgent situations that do not require the dispatch of emergency resources, with the call being immediately transferred to the SNS 24 helpline, where appropriate guidance and referral will be provided.

At the end of the call, the citizen will be informed about the assigned priority, the estimated response time, and the defined referral, focusing on transparency and managing the expectations of those calling 112. They will also be asked to report any changes in the signs or symptoms presented. If a new symptom appears, call 112 again.

2.2 - Netherlands

In the Netherlands, medical triage is carried out by the Ambulance Dispatch Center (Meldkamer). Ambulancezorg , MKA), which is part of the Regional Ambulance Services (Regionale). Ambulancevoorzieningen (RAV). Dispatch center operators determine, based on a professional assessment, the necessary response and its urgency. Since 2024, all RAV regions have operated with a nationally established urgency classification system, based on medical logic and developed by Ambulancezorg. Netherlands . This classification comprises seven categories:

A0 – Maximum emergency: immediate dispatch of a highly complex ambulance, for example, in a resuscitation operation or when a patient is having difficulty breathing or is not breathing.

A1 – Emergency: a potentially fatal situation.

A2 – Emergency (less urgent): urgent medical need, but less urgent than A1.

B1 – Request for highly complex care, but not urgent.

B2 – Request for medium or low complexity service, without urgency.

C1 – Dispatch center service: referral to another appropriate healthcare professional.

C2 – Dispatch center service: self-care guidance provided directly by the operator.

For an accessible explanation in English about this urgency classification, you may also find the following video helpful: https://youtu.be/F-eYaer9dcg

Ambulance response times (legal framework)

According to Article 7(1) of the Temporary Ambulance Service Act, the standard in the Netherlands is that, for A0 and A1 emergencies, an ambulance must arrive within 15 minutes in at least 95% of cases. This "15-minute standard" consists of 12 minutes of travel time and 3 minutes for call response and mobilization, and serves as a capacity planning standard for coverage and distribution — not as a medical quality standard.

Since the first few minutes of resuscitation are crucial, additional measures—such as calling the fire department—are used to fill this time window.

Calling the Fire Department for Resuscitation

In the Utrecht region (and in many other Dutch regions), the Fire Department works in conjunction with the Ambulance Service in cases of resuscitation. This practice is foreseen in the National Protocol for Lifesaving Actions by Firefighters (version 4.1, 2025). The Fire Department is trained and authorized for this role and can initiate CPR, use an AED, and provide initial support in the first few minutes until the ambulance team arrives.

The Fire Department is called because speed is crucial in resuscitation. Fire stations are strategically located throughout the region, are on duty 24 hours a day, 7 days a week, and can often arrive faster than an ambulance, significantly increasing the chances of survival. For the Fire Department, this implies teams with specially trained personnel, appropriate resuscitation equipment (such as AEDs), and an additional operational role within the emergency care chain.

Therefore, in cases of resuscitation, the dispatch center mobilizes both an A0 ambulance and the nearest fire department unit. The fire department remains on site until the ambulance crew fully takes over the service.

This approach increases responsiveness, reduces time to first intervention, and strengthens cooperation across the entire emergency medical care chain in our region.

2.3 - Lithuania

In Lithuania, firefighters and rescue teams do not provide emergency medical care. There is a separate emergency medical service for this, which was recently created. Before that, the organization of emergency medical care was the responsibility of the municipality. However, I can gather the information you are looking for. If more detailed answers are needed, we can contact representatives of the medical service. If I understand your request correctly, you need information on how and what criteria the operator follows when accepting an emergency call and dispatching a response team. Is that correct?

The following is a summary of the document regarding the response of the Emergency Medical Service (SAMU):

Call type Response category Response time

Urgent call

I 1. A request for assistance is made to SAMU, at which point the SAMU team closest to the incident is dispatched as quickly as possible - the goal is to arrive within 10 minutes, the target time in urban areas is up to 15 minutes and in rural areas up to 25 minutes.

Call postponed II In case of exacerbation of chronic diseases, but in the absence of life-threatening symptoms (if this can be determined at the time of call registration), the emergency medical team, if necessary, is activated after consultation with the emergency medical service assistant within 60 minutes of the end of the consultation, or recommendations are provided, including the option to proceed independently - the call is redirected.

Call forwarding III The call needs to be forwarded to other institutions or assistance from other services is required:

Call for advice IV: The patient only wants advice from an assistant at the emergency medical service or another healthcare professional by telephone. In these cases, an emergency medical team is not dispatched.

In Lithuania, there are two ways to contact the ambulance service.

The first option is to call 112. The operator will collect basic information, such as location, phone number, and type of incident, and, if it is a call requiring firefighters, police, and medical assistance, will activate the firefighters and police and forward the call to the ambulance dispatch center to collect additional information through a medical questionnaire. The dispatch of the medical unit is done by the ambulance service's call and dispatch centers.

The second option is to call 113. The call will be directed to the medical assistance center, where, according to protocol, questions will be asked and, if necessary, an ambulance team will be dispatched.

In Lithuania, we have two types of protocols and procedures for handling calls. Some of our centers use the MPDS ProQA for call handling and dispatch. This is a rigorous set of questions that the operator must ask the caller. Instructions are also provided after the call. If the case is critical, such as clinical death, massive hemorrhage, childbirth, vehicle accident, and similar situations, the operator will also provide instructions before arrival

and will talk to the caller until the emergency responders arrive. Centers that do not use the MPDS ProQA protocols have their own call handling protocols, which are less rigorous.

The decision is made based on questions and answers.

For medical calls, we have four categories:

Category 1 - Urgent dispatch. This includes all serious cases requiring medical assistance.

Category 2 - Delayed dispatch. This includes non-critical calls and patient transfers between healthcare facilities.

Category 3 - Diverted. This occurs when an ambulance is not needed, but firefighters, police, or other services are required. No ambulance is dispatched.

Category 4 - Guidance. This occurs when our designated consultants provide information or instructions to the applicant. No ambulance is dispatched.

When we talk about Category 1, we can refer to emergencies with sirens and emergency lights or emergencies without sirens and emergency lights.

The arrival time to the location for Category 1 vehicles is 15 minutes in urban areas and 25 minutes in rural areas.

2.4 - Luxembourg

From Luxembourg's point of view, we would be delighted to support the study within our capabilities and we are also very interested in the results. A few months ago, we adopted a similar screening system:

• Red: life-threatening situation → mobilization as quickly as possible with all available resources, including first responders.

• Orange: emergency → mobilization of appropriate relief resources within the national response time of 15 minutes.

• Green: situation is not critical in terms of time, but assistance is needed → mobilization must occur within 2 hours.

• White: non-critical situation and no need for emergency medical services → referral to other services (e.g., family doctor)

We are already realizing that, for example, in the Orange category, an additional sub-level could be useful, mainly to differentiate between the dispatch of Basic Life Support (BLS) and Advanced Life Support (ALS) units. We are currently in the analysis phase regarding this.

Feel free to contact me as part of your project, and I will forward your request to the appropriate colleagues if necessary.

2.5 - Denmark

No ambulances in Denmark are operated by the Fire and Rescue Service (FRS). Ambulances belong to their own independent regional organization and are operated by various providers, some public and others private.

2.6 - Poland

Poland has a State Medical Rescue System (the PRM system), overseen by the Minister of Health, and an emergency notification system, overseen by the Minister of the Interior and Administration.

The State Medical Rescue System was created to fulfill the State's responsibility to provide assistance to any person in a sudden medical emergency. A state of sudden medical emergency, according to Article 3(8) of the State Emergency Medical Services Act, is a state involving the sudden or anticipated onset of symptoms of deteriorating health, which may directly result in serious damage to bodily functions, bodily injury or death, requiring immediate emergency medical intervention and treatment.

According to Article 32 of the Law on Public Medical Rescue Services, the units of the system are the hospital emergency departments and the medical emergency teams, including air medical emergency teams and motorcycle rescue units, which are part of a medical entity that is an independent public health institution or a budgetary unit, or a

capital company in which at least 51% of the shares or holdings belong to the State Treasury or a local government unit.

The PRM system also includes medical dispatch centers, where medical dispatchers receive calls made to the emergency number 999 or redirected from 112, and the medical dispatchers send emergency medical teams to the accident site. Only the dispatcher who answers the call speaks to the caller. Medical dispatch centers use the State Emergency Medical Command Support System to carry out their tasks (SWD PRM - an information and communication system that allows the reception of 112 emergency calls from emergency notification centers, mentioned in Article 3(2) of the Law of 22 November 2013, on the emergency notification system, and 999 incident notifications, dispatch of emergency medical teams, registration of medical incidents, presentation of the geographical location of the incident, positioning of emergency medical teams and support for the performance of tasks by emergency medical teams, the provincial emergency medical coordinator and the national emergency medical coordinator).

In turn, as part of the emergency notification system at Emergency Notification Centers (ETCs), Emergency Number Operators (ONAs) receive calls made to the emergency numbers 112, 997, and 998 and route them to medical dispatch centers, police dispatchers, or fire dispatchers, as appropriate. If a call received by an ONA concerns a medical emergency, it is routed from the ETC to the appropriate medical dispatch center, either electronically or by redirecting the voice call to the caller. In case of a life-threatening situation, the first option should be to call the emergency number 999. This allows you to connect directly to a medical assistant without the need for CPR services.

The medical attendant must follow the guidelines contained in the Regulation of the Minister of Health of August 19, 2019, on the framework procedures for handling emergency calls and incident notifications by medical attendants (Official Gazette of 2019, item 1703) and in accordance with the communication from the Minister of Health on the algorithm for collecting medical history by the attendant (Official Gazette of the Ministry of Health of 2019, item 71).

The medical assistant's tasks include receiving emergency calls (redirected by 112) and incident reports (from 999), setting priorities according to the provisions of Article 27(5) of the Law of 8 September 2006 on State Emergency Medical Services (Official Gazette of 2025, item 91, as subsequently amended), based on the medical history collection algorithm. Based on the medical history, the medical assistant decides:

• Accept the report – if there is suspicion of a sudden medical emergency;

• Reject the report – if no sudden medical emergency is identified.

If the call is accepted, the medical assistant informs the caller that the call has been accepted, assigns an urgency code (1 or 2) to the call, and then forwards the call to the appropriate assistant.

CODE 1 - Immediate dispatch of an emergency medical team with the shortest estimated time of arrival at the scene due to a medical emergency requiring immediate medical rescue measures:

a) the time required for the dispatcher to dispatch the emergency medical team is no more than 30 seconds from the moment the call is received by the receiving dispatcher,

b) The time required for the emergency medical team to reach the scene is a maximum of 30 seconds.

The travel time of the emergency medical team to the scene must not exceed 60 seconds from the moment the dispatcher receives the dispatch;

(c) The emergency medical team must use visual and audible signals while traveling to the scene.

CODE 2 - Deployment of an emergency medical team is necessary for a medical emergency requiring emergency medical intervention:

a) The travel time of the emergency medical team to the location must not exceed 90 seconds from the moment the receiving dispatcher accepts the call;

b) the travel time of the emergency medical team to the scene must not exceed 180 seconds from the moment of dispatch by the dispatcher;

c) The decision to use visual and audible signals by the emergency medical team during the journey to the scene must be made by the dispatcher... 3 - Necessary deployment of an emergency medical team to a medical emergency situation requiring emergency medical intervention:

a) The travel time of the emergency medical team to the scene must not exceed 90 seconds from the moment the dispatcher receives the call;

b) the travel time of the emergency medical team to the scene must not exceed 180 seconds from the moment of dispatch by the dispatcher;

c) The decision to use visual and audible signals by the emergency medical team during their journey to the scene must be made by the dispatcher.

CODE 4 - Dispatch of an emergency medical team is necessary for a medical emergency requiring medical intervention. The medical dispatcher who sends the call, taking into account the reason for the call, the emergency code, the number of people suspected of being in a medical emergency, the shortest possible time for the emergency medical team to arrive at the scene, and the shortest time to transport a person in a medical emergency from the scene to the appropriate medical unit, decides the type and number of emergency medical teams to send. At each stage of the conversation with the caller, the medical dispatcher has the option to accept the call and forward it to the responsible dispatcher so that the emergency medical team can be sent to the scene. All of this occurs during the conversation with the caller.

The following parameters are assumed for the arrival time of emergency medical services (EMS) at the scene of an incident, collectively for incidents classified as code 1 and 2:

1) The average arrival time – monthly – is no more than 8 minutes in a city with a population greater than 10,000 inhabitants and 15 minutes outside a city with a population greater than 10,000 inhabitants; 2) The maximum arrival time cannot exceed 15 minutes in cities with a population greater than 10,000 inhabitants and 20 minutes outside cities with a population greater than 10,000 inhabitants.

2.7 - Latvia

In Latvia, the provision and coordination of pre-hospital emergency medical care is ensured by a single institution: the State Emergency Medical Service (SEMS).

A structural unit of the SEMS – the Operational Management Center (OMC) – organizes and coordinates calls throughout the country, ensuring a rapid response to emergency situations. In Latvia, call handling and ambulance team management are centralized in two centers, which ensure call handling, resource management, and coordination of emergency situations.

Emergency calls are received by dialing the single emergency number 112 or the SEMS emergency number, 113, intended for cases requiring emergency medical assistance. After receiving the call, the operator, who is a healthcare professional , performs medical prioritization using a standardized decision-making algorithm developed by SEMS.

The algorithm is structured according to a system of directed questions. By asking sequential and specific questions to the caller and recording the answers provided, the operator determines the reason for the call and its priority. In this process, special importance is given to the complaints described by the caller, whether spontaneously or in response to the operator's questions.

The algorithm consists of a set of pre-developed and logically structured questions, with a defined decision-making sequence based on medical risk assessment. It can be improved, clarified, or expanded based on medical experience and practice.

The algorithm's operating principle is that, firstly, an immediate threat to life is ruled out by assessing vital functions such as consciousness and breathing. If vital functions are not critically compromised, the attendant continues to ask sequential questions to determine the chief complaint, the nature of the symptoms, their duration, intensity, and any possible additional risks. Based on the information received, the clinical risk is assessed and the urgency, or priority, of medical care is determined.

The algorithm's objective is not to establish a specific diagnosis. Its function is to identify the patient's complaints in the pre-hospital phase, assess the urgency of the situation, and decide whether it is necessary to send an ambulance, what type of team is needed (almost all of our ambulances operate at the Advanced Life Support level), and what the call priority should be. This approach ensures a unified, transparent, and risk-based assessment of calls, while preserving the healthcare professional's professional judgment as an essential part of the decision-making process.

The algorithm is primarily based on the patient's typical complaints and symptoms. Atypical complaints are not defined as primary decision-making criteria; however, they may be considered and recorded if the applicant mentions them spontaneously.

Within this algorithm, three priorities are assigned to medical emergency calls.

Priority 1 is assigned to situations involving a direct threat to life, for example, in cases of unconsciousness, respiratory or circulatory arrest, or severe trauma.

Priority 2 is assigned to critical health conditions with a high risk of worsening and risk of death, where there is a possibility that the patient's condition will deteriorate rapidly and require urgent medical assistance.

Priority 3 is assigned to situations where there is no immediate threat to life, but the patient still needs urgent medical assistance. In certain cases, the assistant may decide not to send an ambulance, but instead offer a telephone consultation or recommend contacting a specialist. These consultations are carried out by assistants or consulting physicians.

Call center operators are also subject to a time limit for deciding call priority. After the priority is determined, the Emergency Medical Center (EMC) resource manager selects the most appropriate ambulance team, taking into account its availability, location, and composition. Time criteria are also established for this decision in order to ensure the fastest possible response.

At the end of the call, the operator provides the caller with instructions on how to administer first aid until the team arrives and, if necessary, informs them of the next steps. If the patient's condition changes or deteriorates, residents are encouraged to call back.

In accordance with regulatory requirements, the on-duty healthcare professional at SEMS records all medical emergency calls, including requests for urgent patient transport.

Legally, the Council of Ministers Regulation No. 555, of August 28, 2018, "Procedures for the Organization and Financing of Health Services", stipulates that SEMS ambulance teams be deployed throughout the country, taking into account population density, the size of the service area and other factors that affect the speed of service.

such as road quality. The goal is to ensure that, after receiving an emergency call, emergency medical care is provided within the following timeframes in at least 75% of cases:

• In state cities – a maximum of 12 minutes from the moment the call is received;

• In the cities of the municipalities – a maximum of 15 minutes from the moment the call is received;

• In other territories – a maximum of 25 minutes from the moment the call is received.

Currently, SEMS is evaluating proposals for changes to the regulatory framework.

2.8 - France

In France, medical emergency calls (15), as well as general emergency calls (112/18), are managed through a dual, coordinated system involving:

1. SAMU (Emergency Medical Assistance Service)

• Medical regulation is ensured by medical regulators in the Centers 15.

• Each situation benefits from a clinical assessment that allows for the definition of priorities, timelines, and necessary resources.

• SAMU mobilizes specialized medical resources (SMUR) or provides support to first responders.

2. Fire and Rescue Services (SDIS)

• The CTA-CODIS handle 18/112 calls and dispatch fire department ambulances (VSAV) according to the nature of the emergency situation.

• Firefighters are very often the first operational response in life-threatening emergencies or suspected serious situations.

• Ongoing coordination with SAMU's medical regulators is ensured during joint interventions.

French model of triage and prioritization

The French system is based on real-time medical assessment, carried out by a SAMU (Mobile Emergency Care Service) doctor, who evaluates the severity based on the information provided during the call and determines the most appropriate response. Unlike other countries, France does not use a standardized five-level system identical to hospital triage, but rather a model based on the clinical assessment of the regulating physician.

This model is complemented by an important French specificity: the use of firefighter nurses for a gradual and adapted response.

In many departments, firefighters have fire nurses (ISPs) capable of providing an intermediate response between first-level first aid (VSAV) and the deployment of a medical team from the Emergency Medical Service (SMUR).

These nurses intervene according to established care protocols, allowing for:

• an advanced approach before the eventual arrival of a doctor,

• a progressive response adapted to the clinical situation,

• Optimization of medical resources, particularly in rural areas or during periods of high operational pressure.

This device contributes to the effectiveness of the French model, offering a wide and flexible range of pre-hospital responses.

Towards the widespread adoption of common call handling platforms.

France is committed to a dynamic aimed at strengthening operational cooperation between SAMU (the emergency medical services), firefighters, and police forces, through common platforms for receiving and handling emergency calls.

These unified platforms enable:

• a shared handling of calls,

• smoother and faster guidance,

• better coherence in the mobilization of resources,

• a concrete rapprochement between the Centers 15 and the CTA-CODIS.

Several departments are already experimenting with these organizations, and the progressive generalization of these platforms is a national objective.

The crucial role of Health Officers

In these integrated organizations, Health Officers occupy an essential role. They ensure a strategic interface between firefighters and SAMU (Mobile Emergency Care Service) doctors.

Your role consists of:

• to facilitate dialogue between operational and medical stakeholders,

• Ensure that teams use a common language, particularly in crisis management,

• to contribute to the fine-tuning of resources according to identified clinical needs,

• To reinforce the coherence of the response in large-scale events or complex situations.

Thanks to them, interoperability between emergency services is considerably improved.

Participation in the CTIF initiative

France fully supports the initiative of the Portuguese Firefighters League and CTIF, which aims to compare European models for triage and distribution of emergency resources. We remain available to provide further information, share experiences, or participate in technical exchanges within the scope of your study.

2.9 - Estonia

In Estonia, emergency calls are received through the single emergency number 112. Call handling, risk assessment, and ambulance dispatch are coordinated by the Emergency Call Center. Call processing is based on criteria and follows guidelines approved by the Health Council. In practice, this means that the 112 operator assesses the severity of the situation based on the information received during the call and assigns the appropriate priority level.

The Estonian call processing system uses 37 ambulance-related case types, based on which the situation is assessed and priority is determined. The system's objective is to ensure that ambulance resources are quickly directed to cases where the need for assistance is most critical, while maintaining a logical and consistent approach to handling less urgent cases. The system's basic principles are based on the Scandinavian Index used in Nordic countries, but the Estonian solution has been adapted to the needs of the local ambulance and healthcare system. In Estonia, four priority levels are used for ambulances: A, B, C, and D. These priorities are based on the severity and urgency of the patient's condition.

Priority A (Alpha) means that the patient's condition is not urgent, is stable, and there is no immediate risk to life, but the need for an ambulance has been identified based on the type of case. In these cases, the ambulance team can be dispatched within two hours. If the patient is in a public place and there are no higher priority calls at the same time, the team is dispatched as soon as possible. The ambulance team's response time is up to 10 minutes from the moment the Emergency Call Center transmits the call information.

Priority B (Bravo) means that the condition is not urgent and does not require immediate intervention, but the illness or trauma may require diagnosis and/or treatment, or the report comes from a person who cannot provide sufficient information about the patient's condition. If there are no Priority D or C calls at the same time, the ambulance team is

dispatched as quickly as possible, but at most within one hour. The ambulance team's travel time is up to 5 minutes.

Priority C (Charlie) means that the condition is urgent and potentially fatal, or that there is an increased risk to the life or health of the rescuer on site. In these cases, the ambulance team must be dispatched within 4 minutes, with a travel time of up to 3 minutes. If no suitable team meeting the necessary response criteria is available, the Emergency Call Center should interrupt a previously assigned Priority A or B response and redirect the team to the Priority C incident.

Priority D (Delta) is the highest priority level. This means the patient's condition is life-threatening and there is an immediate danger to life. In these cases, the ambulance crew must be dispatched within 1 minute, and the crew's response time is also 1 minute from the moment the Emergency Call Center transmits the call information. If no suitable ambulance crew is available, a lower priority response should also be aborted and resources redirected to the Priority D incident.

In Priority D cases, the role of the Emergency Call Center is not limited to answering the call and dispatching resources. When necessary, the 112 operator remains on the line and provides telephone guidance to the caller or the person with the patient until help arrives. This allows for immediate first aid instructions to be given during the critical initial phase. The Emergency Call Center can also see the location, movement, and estimated time of arrival of the dispatched ambulance team in real time, allowing for up-to-date arrival information to be provided to the caller when needed.

The Estonian system is based on a medical ambulance model. An ambulance call is always answered by an ambulance crew. In most cases, the ambulance crew is led by a nurse. In addition, Estonia has a medical support unit that assists other ambulance crews when necessary in attending to critically ill or life-threatening patients.

If the nearest ambulance crew is busy or help is coming from further away and the situation is life-threatening, the nearest rescue team may also be dispatched as the first response to provide first aid. Once the ambulance arrives, the ambulance crew takes over the patient's care.

In summary, the Estonian system is a national model, based on the 112 number, for handling medical emergencies, where call processing is carried out by the Emergency Call

Center and priorities are defined according to uniform guidelines. The system relies mainly on ambulance teams led by nurses, with the support of other professionals.

2.10 - United Kingdom

In the United Kingdom, emergency medical services (EMS) are run by an independent Ambulance Service, which provides emergency medical services through agreements with institutions that are part of the UK's National Health Service (NHS), and not with the Fire and Rescue Service (FRS).

Structure of the UK Ambulance Services - aace.org.uk

2.11 - Spain

In Spain, the 112 emergency service is managed by each autonomous community, and each has its own protocol, although they are generally quite similar. For example, in the Community of Madrid, calls received by 112 are routed to the Police, Fire Department, and Health Services, with the latter being responsible for triage.

A similar process is followed in the Autonomous Community of Andalusia, but I was given the email address of the official in the province of Cádiz, António Ramírez, should I wish to contact him directly.

2.12 - Bulgaria

Information regarding the conditions and prioritization order of calls in the emergency medical care system.

According to the Law of the National Emergency Call System with the European Emergency Number 112, the European Emergency Number 112 (EEN 112) is used in cases of emergency assistance in situations that pose a risk to the life, health, safety and property of citizens, as well as in cases of threats to the environment. According to the law, the emergency call reception centers for EEN 112 are territorial units of the Directorate of the "National System 112" attached to the Ministry of the Interior.

Upon receiving a signal requiring intervention from the emergency medical services system, officials from the "National 112 System" Directorate of the Ministry of the Interior transmit the signal to the regional coordination center (CCR) of the nearest emergency medical services center (CAME), which can then provide the necessary volume of diagnostic and treatment services to patients.

Upon receiving the call, RCC assistants perform telephone triage, in accordance with the Medical Standard "Emergency Medicine", approved by Regulation No. 3 of 06.10.2017 of the Ministry of Health.

Medical triage is a fundamental element and a practical tool in the diagnostic and treatment process within the specialty of "Emergency Medicine," whereby all patients in emergency situations are grouped into categories (groups) using a standard medical triage system.

The application of medical triage aims to guarantee equal access to the emergency medical care system and to the diagnoses and treatments it offers, based on the degree of urgency of the patients and the human resources and equipment available, in order to achieve maximum efficiency, effectiveness and safety of medical care within the specialty of "Emergency Medicine" and to guarantee the quality of diagnosis and treatment, based on subjective and objective clinical criteria.

Medical triage involves assessing the urgency level of each patient in an emergency situation, defining a triage category. According to medical standards, the triage categories are as follows:

- Patient in critical emergency condition (code red - A1) - the patient presents life-threatening signs and symptoms due to an illness or injury with a high probability of fatal outcome if immediate interventions are not performed to prevent subsequent instability of respiratory, circulatory and/or neurological function. A patient in an emergency condition with a specific screening category A1 requires the immediate provision of maximum diagnostic and therapeutic resources in the area and scope of the specialty "Emergency Medicine", through the application of advanced life support techniques (Advanced Life Support) and all other available resources by a highly competent medical team or by a less competent team under medical supervision.

- Patient in unstable/potentially unstable emergency state (code yellow - B2) - relative urgency - the patient presents a suspected and potentially fatal risk, with signs and symptoms due to an illness or injury that may progress in severity and lead to complications

with a high probability of serious consequences for vital functions, systems or organs if treatment is not rapidly secured within a given timeframe, given the relative urgency of the condition.

- Stable patient in an emergency situation (green code - C3) - minimal urgency - the patient presents signs and symptoms resulting from an illness or injury with low potential and risk of serious consequences or complications and progression to a more serious condition.

2.13 – Lithuania

There is short version of document about Emergency Medical Service (EMS) reaction:

Call type	Response category	Response time
Urgent calls	I	An EMS assistance request is made, and the EMS team closest to the incident location is dispatched as quickly as possible—the goal is to arrive within 10 minutes; the target timeframe in urban areas is up to 15 minutes, and in rural areas up to 25 minutes.
Non-urgent call	II	In the case of an exacerbation of chronic diseases, but in the absence of life-threatening symptoms (if this can be determined at the time the call is registered), the SMU team is dispatched, if necessary, after consultation with the SMU operator within 60 minutes of the end of the consultation, or recommendations are provided, including the option to proceed independently — the call is redirected.
Call forwarding	III	The call needs to be forwarded to other institutions or assistance from other services is required.
Counseling call	IV	The patient is only seeking advice by telephone from an emergency medical service operator or other healthcare professional. In these cases, an emergency medical service team is not dispatched.

Lisbon, April 18, 2026

Marco Martins