

The COncORDE partners have analysed the general work flows related to patient needs from the moment of an incident occurring, to the handover from Emergency Medical Responders to the First Receiver. Based on the 5 different spaces in which work flows occur during a response, the process was divided in 5 main elements:

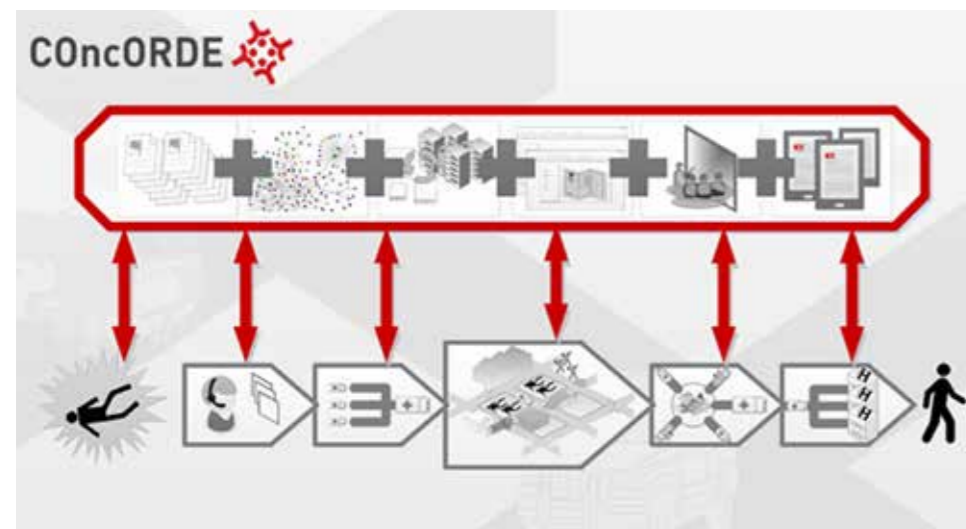
1. Initial alert (Phase 1)
2. Emergency medical response (Phase 2)
3. Field management (Phase 3)
4. Patient transport (Phase 4)
5. First receiver (Phase 5)

The primary actors (responders) and their actions in each space have been assigned. The overarching simple responder tasks related to patient needs which could be supported by technology solutions have been defined as Use Cases and prioritised according to a set of medical, technical and practical criteria. Extensive review and analysis on available technologies has been

performed, while also sets of functional requirements, interoperability, trust and security issues, knowledge base issues and more have been considered. Stakeholders have been identified at the onset of the project and dissemination and exploitation activities are already underway. The current stage of work involves trans-disciplinary technical modeling of the use cases in parallel with scenario development, as well as development of the decision support cases and models. The second half of the project will focus more on the development of the infrastructure for testing of the use cases and scenarios and ongoing testing and adjustments.

The project will culminate with two iterations of two large-scale simulation pilots to demonstrate the platform in a simulated operational environment, complemented by evaluation and training activities.

The COncORDE partners welcome input from domain experts, users and stakeholders.



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COncORDE



Coordination Mechanisms For Medical Emergency Response

ACT FAST

BE SMART

SAVE LIVES

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Further information:
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Coordination Mechanisms For Medical Emergency Response



CONcORDE is an EU funded project in which 14 international partners led by Cambridge University Hospitals tackle the task to improve coordination of health system response in emergencies through integration of existing solutions in a back-end Web platform, building an intelligent one-stop-shop tool box. More specifically, the project implements a web-based, task-driven platform that will offer a set of functionalities, such as communication (linking users) and visualisation solutions, as well as algorithms for decision support.

CONcORDE takes an innovative holistic approach to providing user-driven tools by analysing needs and gaps in emergency medical services and exploring how best to use existing technologies and link them to general emergency response arrangements. To overcome the challenges posed by the fragmentation across the EU, the requirements of the emergency medical services are analysed from a patient-centred perspective, mapping the responder tasks related to the patient during the entire emergency response process—from the Alert to First Receiver.

Solutions will be provided to emergency medical services to better “do what they usually do”, aiming to save time, better match the response provided to the patient’s needs, improve the effectiveness of using available resources and enlist the support of resilient

communities to increase the capacity for response beyond the resources available in a given health system. This involves not only testing of solutions for integration of bystanders in emergency response but also utilising the potential for social intelligence to contribute to the resilience.

Linking the operational features of the platform with the ability to capture the flow of an incident for the purposes of evaluation, audit and training adds value to the potential of the CONcORDE platform to become an ubiquitous emergency management tool.

The final validation of the operational platform is planned for April 2017, full results will be published thereafter. Intermediate outcomes may become available sooner through the project website.

The **CONcORDE** project will develop a Decision Support System (DSS) to improve preparedness and interoperability of medical services during an emergency which affects the health of the population at local, regional or cross-border level. The project will incorporate existing operational assets related to security, trust and infrastructure and leverage them within the DSS.

Gaps in coordination during response to emergency situations have been a hot button issue in the public space after each incident that has threatened public health. The management of response to natural and man-made disasters, such as earthquakes, hurricanes, fires, explosions, terrorist attacks and others is still raising a number of concerns regarding the interoperability between emergency response units.

The first step towards facilitating interoperability of emergency response teams is to optimise operability within each responder service. Solid coordination within each service is a prerogative for improving coordination between all services. That is why CONcORDE focuses on solutions that will specifically optimise coordination within the emergency medical services. It places particular importance on identify-

ing the technologies that can be safely embedded in routine work flows and that will be easy and familiar to use in large scale emergency situations.

The CONcORDE solution serves a dual role:

1. Addresses the security research dimension, aiming at developing methodologies, models and processes towards **wider standardisation across the EU** in a range of problems of the medical system’s response to large-scale emergency situations.
2. Addresses the technology research dimension, primarily aiming at developing a platform of ICT tools and services that will make **the best use of existing technologies** for medical emergency management during small and large scale emergency situations.

The use of technology in CONcORDE is patient-centred: it is there to enable responders to better meet the needs of a person requiring emergency medical team assistance.



Putting the patient needs in the centre of the work enables the CONcORDE solution to be valid across different health systems and their local specifics. The project will provide customisable, interoperable solutions to support the principle tasks that emergency medical responders perform, irrespective of which health systems they work in and what the locally preferred approaches and algorithms are.

CONcORDE will serve the purpose to support emergency medical professionals during emergencies of any scale - from every day small incidents to large scale disasters and to do this while using the tools and the rules they usually work with.

There is a myriad of technology solutions that are used in other fields, such as aviation, military or leisure, which could significantly improve information flow, coordination and decisions in emergency response and contribute to saving lives. The challenge is to identify which existing technologies and approaches can be integrated in an innovative way to seamlessly fit into existing work flows and subsequently help responders “better do what they usually do”.

In parallel to improving health outcomes, the CONcORDE solutions will also ensure that the resources available to a given health system for emergency response are used more effectively and efficiently. The system takes coordination of resources to an even higher level by employing smart approaches to harness the power of resilient communities and increase the capacity for response beyond the resource provided to a given health system.

Finally, CONcORDE also aims to enable capturing how each emergency situation unfolds. It will store the incoming information, the emergency response and decisions made as well as an audit trail of the status of the affected people for the purposes of evaluation, audit and training and collection of real-life evidence of best approaches which is difficult to gather at present.