

MobiMed pre-hospital eHealth supporting care, documentation and logistics in Kronoberg county, Sweden

The Ambulance Service of Kronoberg county in Sweden equipped it's 26 ambulances with Ortivus' MobiMed in 2007. Already from the beginning the decision was to implement the full MobiMed package, i.e. monitoring, telemedicine and electronic patient record. One major driver for the decision was to replace the old inefficient way of using handwritten ambulance patient records. Another driver was to establish an ICT platform supporting a continuously more process-oriented ambulance service with new and increasing demands on providing care at various levels in the society.

The Ambulance Service in Kronoberg County serves an area of 8 458 square kilometers and a population of approximately 182 224 inhabitants. The number of yearly calls is around 17.000. Jonas Löf is head of emergency services, and these are his comments and answers regarding the MobiMed solution deployed.



Jonas Löf

An important issue behind your decision was the ePR handling, can you comment on that?

- We needed an ePR-platform that was easy to use, scalable and had the ability to connect to a reporting tool. One of the most important aspects we had in mind while scrutinizing different options was that our ePR should be able to share the same information platform as the rest of our healthcare-organization. An ambulance-crew on a mission is collecting a large extent of patient data, but we are not collecting this data just for ourselves. The data in the ePR must be accessible for all relevant stake-holders involved in the care of a patient both during and after the call. By selecting Ortivus MobiMed we can achieve exactly that.

And what about vital signs, ECG monitoring and telemedicine?

- Another important aspect contributing to our decision was the clinical parts of the MobiMed solution. MobiMed handles transmission of vital signs in a quite different way comparing to all other actors on the market. The "MobiMed"-way of continuously and regularly sending batches of data, without user interaction, together with the distortion free averaged 12-lead ECG reports automatically assembled during monitoring, gives us access to high quality ECG:s and vital signs without adding any extra workload on the EMS-crew.



Interior view of a MobiMed equipped ambulances in Kronoberg County, Sweden

In many ambulance services “big” defibrillators are the preferred choice, what is behind your alternative reasoning?

- In our opinion a defibrillator should not be a part of an ambulance organization’s Telemedicine/Documentation-solution. The main reason is that the defibrillator is very rarely used. Counting in all our calls last year, the defibrillator was used to deliver a shock (VF or other “shockable” rhythm after analysis) in around 2 ‰ (pro mille) of the calls. Another reason for keeping the defibrillator apart from the Telemedicine/Documentation package would be that we consider a defibrillator to primarily be a therapeutic device that we felt were suboptimal to build a prehospital e-health and telemedicine platform around. Therefore we have decided to use MobiMed together with an AED. This setup covers all clinical needs occurring in an ambulance and gives us an improved functionality over a concept where we would use a large monitor defibrillator. We also achieve ergonomic advantages for the EMS-crew with a workflow where we don’t need to bring a 10+ kg defibrillator every time we need to transfer an ECG or other vital signs, or in another situation; if we have to make a quick defibrillation we only need to initially bring the AED.

You are running your service in a rural area with one major hospital and a population spread over a fairly large geographical area, how can MobiMed support you with respect to this?

- MobiMed plays an important part role in handling our patient logistics. By using the Clinical/Telemedicine/ePR-features of MobiMed, and at the same time let every stake-holder involved in the care process have access to patient data, we can now treat patients at an accurate level of care and at the right place. Last year for instance we left 650 patients at home under a “treat and leave”-concept that was enabled by using MobiMed. We also transport a fair amount of patients to other hospitals than our own, even outside our county. PCI-patients are a good example of this. Before the days of MobiMed, we needed to bring specialist staff from the CCU for these transports, by using MobiMed we have eliminated that need since everyone on the CCU can follow the action in real-time anyway.

Training is an important issue during deployment; what was your strategy?

- We deployed MobiMed in 2006 by training ambulance-crews in small groups, implementing a Super User organization, and then deploying vehicles on a rolling schedule. The planning was carried out in close collaboration with the Ortivus’ deployment team.



One of the MobiMed equipped ambulances in Kronoberg County, Sweden