

Lifeline

— a lifeline in distress when
distances are too great



Summary

In remote areas such as at sea, situations can arise in which immediate medical attention is necessary in order to assist and diagnose issues. This solution is used in extremely remote settings i.e. ships at sea and connects the crew on off-shore vessels with doctors at the Akureyri Hospital. On board there is equipment to monitor ECG, oxygen saturation, blood pressure, blood sugar and temperature, as well as a remote-controlled camera with a large optical zoom to enable the doctor to visually evaluate the situation in real time. Used on board a vessel, the system has been built into the satellite network that Icelandic vessels use to ensure priority and a reliable connection.



Pictures of the Lifeline solution in use

Main effects of the solution

Provides access to health care in locations it was not previously available due to remoteness. It also ensures that healthcare professionals have real data in order to evaluate the situation and make decisions based on such data.

Users

- Crews on offshore vessels
- Specialists at Akureyri Hospital

Quotes/Testimonials

"Crew members on these vessels have shown a huge interest in conducting regular exercises and great interest in this solution. It is a huge step for them to have support as opposed to regular phone calls, which were sometimes not even possible before when an emergency occurred. These users are well aware of the distance and lack of real support in an emergency and make a real effort in their own role in the project".

– Developer of the satellite network used on board.

Elaboration

Needs and challenges

In remote areas such as at sea, situations can arise in which immediate medical attention is necessary in order to assist and diagnose issues. When there is no health professional on board, it can be difficult to describe and assess whether the ship needs to return to shore in order to seek medical assistance or whether the situation can be monitored on board, as well as whether a helicopter is required to airlift a patient.

The solution needs to be fully set up and there must be personnel on board who have been trained to use the equipment. The main challenge is to secure a flawless internet connection.

Solution and function

A solution with a secure connection via satellite has been developed and also configured to save data directly into the national EHR. This means that connection can be established independent of location, i.e. in extremely remote areas. Also, data transfer is safe and in accordance with rules and regulations, including the GDPR.

Implementation

Monitors with a Lifeline connection have been placed in two trawlers and also in Akureyri Hospital Child Psychiatric department. The solution can also be used in other remote locations with 3G/4G or xDSL services and with a variety of cameras and other equipment for more secure support.

Economy

The cost for monitors, camera and computer for each location is around USD 4,500. Running costs have not been established yet but will form part of the communication cost of the vessel in the future.

Process

After the solution has been approved as being safe and in accordance with laws and regulations, it can be used following an agreement between the service provider (Siminn) and healthcare institutes.

Organisation and politics

The solution must comply with acts and regulations regarding the handling of healthcare data.

Follow-up/monitoring

Anecdotal data is available but a follow up will be conducted via surveys sent to patients and healthcare staff working with the service.

Communication

The solution allows secure communication between patients and healthcare workers and also amongst healthcare workers. Data, including video data, can be obtained and saved directly in patients' EHR.

More about effects

The solution can be used to increase the quality of healthcare services, especially in remote areas. It can introduce services into areas which previously had no service. This means remote professionals have a critical role in making a decision based on real data plus a visual overview of the situation.

Learning and tips

The monitor is operated as a self-care unit and the user follows instructions on the screen. The specialist at the hospital has a live view of the patient and can assist and ensure that measurements are taken correctly to protect the results that the device transmits to the EHR system.

Context

This solution can be used anywhere. It only requires a stable and secure data connection to be operated.

Name of the service

Lifeline

Service provider

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