
Technology for Medical Emergencies at Sea

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Is it true is telemedicine here ?



THE 100% RADIO MAGAZINE



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YES – it is here - finally

Why – because accidents do happen and we want to ensure a similar quality of care on board a ship as onshore.

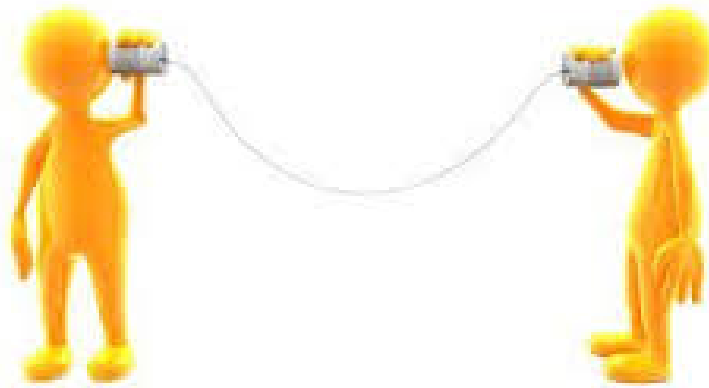
So how do we deal with injuries and diseases at such remote locations ?



Well; the current situation is

- Telephone consultation
- Email
- And the option for providing still pictures via email

Not quite the same as onshore.



We are missing:

- Video

Constant online transfer of physical personal data such as:

- 12 lead ECG
- Pulsoximeter
- Blood pressure
- Temperature
- CO2
- Glucose
- Logging of communications



What are the challenges we need to solve with a telemedicine solution ?

Well;

- There is no physician onboard
- It is a challenging situation for helpers
- Lack of training and education
- No possibility to make the right diagnosis
- Wrong decisions may have fatal outcome

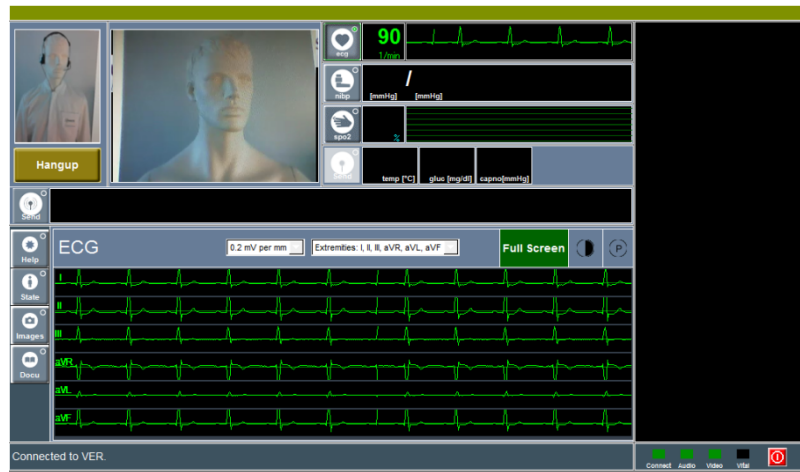


So what is offered ?

Onboard a set of equipment fulfilling all the requirements:

- Software
- PC with video
- Diagnostic module
- Blood pressure
- Glucose
- Temperature

Packed in a suitcase for moving to the place of the accident



And the backend ?

- Service delivery by a clinic with experience in emergency medicine (e.g. Trauma Clinic Berlin)
- 24/7 high level telemedical emergency support by an experienced emergency physician
- Guaranteed response time 2 minutes
- Immediate analysis of all transferred vital data (e.g. ECG) and pictures etc
- Real-time audio-video communication between first responder and physician
- Teleradiology by the physician
- Therapeutic instructions and support by the physician
- Monitoring of the patient, also after acute phase

And the backend ?

Or await as we are to starting a 3 month trial/test with Radio Medical Denmark and a major nordic passenger line.

The purpose is to have a 2016 solution offered in the market this year.

We have achived:

- Thumbs up from Radio Medical
- Thumbs up from the maritime authorities
- Thumbs up from the passenger line
- Tested network in the hospital and surroundings
- Is to train crew of Radio Medical and the crew of the passenger line

The connection requirements are :

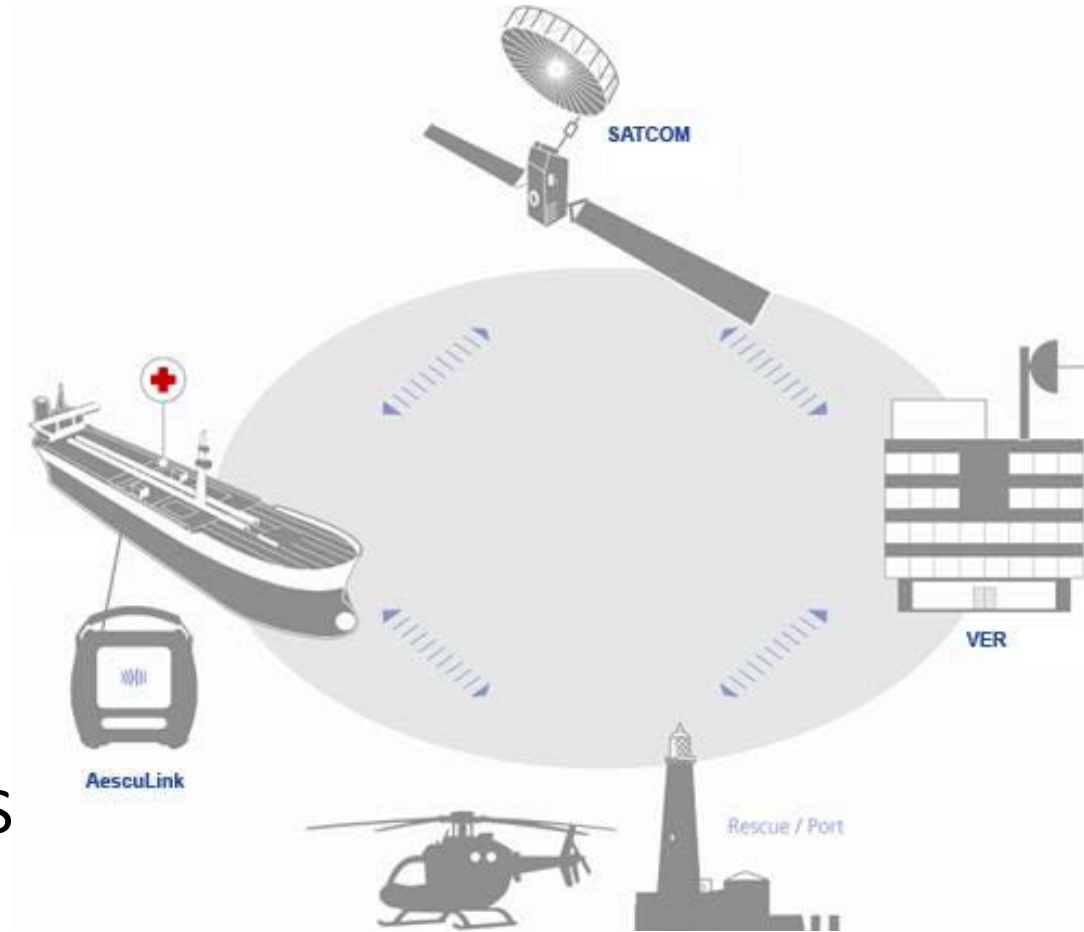
Minimum: 128 kbit/s

Optimum: 512 kbit/s

Inmarsat FBB 500 with
Streaming IP 256

VSAT Ku Band with QoS

3G/4G/NMT



Some of the current users are :

DGzRS and German MRCC (Maritime Rescue Coordination Center), Bremen, Germany

The City of Greifswald, Germany

TenneT Offshore GmbH, Germany

Seaways Heavy Lifting, Rotterdam, The Netherlands

E.R. Offshore, Hamburg, Germany



Who are we

- **AescuLink/GHC at a Glance**
- System house, specialized on emergency telemedicine
- Founded in 2001 as technology-spin-off of the Charité
- Partners: BMW, Charité, DGzRS, DTAG, ESA, HAPAG, Inmarsat, Lufthansa, Johanniter, ...
- Competences: emergency telemedicine, medical engineering, telecommunication

- **Brandemann**
- System reseller of AescuLink
- Advisor and consultant of communications technologies
- Advisor and consultant of IT technologies

Thank you for your attention

Questions