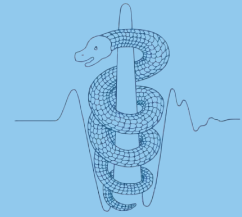


European Federation of Societies for Ultrasound in Medicine and Biology



Handheld Ultrasound devices (HHUSD): A short review of the equipment available on the market as of September 2017

Michael Bachmann Nielsen
Department of Radiology, Rigshospitalet,
DK 1302 Copenhagen,
Denmark
mbn@dadlnet.dk

The handheld ultrasound devices (HHUSD) equipment included in this short paper are devices with a screen size of a mobile phone or a small tablet up to 7 inches. This it to separate the devices from those sold as portable. One of the many advantages by HHUSD is that they can be easily carried for use in any clinical situation they may be needed.

The websites of more than 25 ultrasound manufacturers were searched by the author in September 2017 and while almost every-one listed portable devices only six were found to have HHUSD by the definition above. They are listed below in random order.

GE Healthcare's Vscan series has been available for several years and now covers several pocket-sized models with a screen and a (cabled) transducer. Dual probes are available with options for Doppler and DICOM connectivity.

Philips Lumify was launched in the US in 2015 and from 2017 it is also available in Europe, in some countries on a subscription basis. The transducer connects via USB to your own phone or tablet (only android). Several transducers are available. The system includes Doppler and DICOM connectivity.

Clarius has two probes available, each with wireless connection to your own smart device using an app. The system includes Doppler and DICOM connectivity.

Mobisante has two systems, one that comes with a screen and one where the probe can be plugged into your own device. DICOM is supported.

Signostics works with android devices only, one selling point is accurate bladder volume measurements and point-of-care ultrasound (POCUS).

The iViz from Sonosite has a 7.1" display with a one-handed interface and two cables transducers are available. Doppler and export to DICOM is available.

This overview is based on a presentation I updated for the EUROSON Congress in September 2017. I looked at international websites of selected ultrasound manufacturers, I apologize if I have overlooked some. Those without HHUSD on their website may well be about to launch such a device so it is always a good idea to attend the technical/commercial exhibition in larger congresses for the latest developments on the market. Please also note that the author is not associated with any of the companies listed above and does not own any of these devices. Therefore, this short report is not about my preferences, only a quick survey of the available market as of September 2017.

Currently EFSUMB is finalizing a position paper on HHUSD focused on the published literature on their use. For most of the devices the manufacturers highlight POCUS as their intended use.

| Manufacturer | Type | Website |
|---------------|-----------------------|--|
| GE Healthcare | Vscan series | www.gehealthcare.com |
| Philips | Lumify series | www.lumify.philips.com |
| Clarius | Clarius | www.clarius.me |
| Mobisante | MobiUS SP1, MobiUS PE | www.mobisante.com |
| Signostics | Uscan | www.signosticsmedical.com |
| Sonosite | iViz | www.sonosite.com |