AGENDA - Wednesday 8th June

1. Confirmation that having the VS cart dock to the COW is beneficial.
   [Complete: 10th June]

2. Find out if any companies are already offering ‘automatic upload’ solution.
   [To complete: 10th June]

3. Initial user testing into the ‘umbilical cord’ concept to confirm that it is the right solution.
   - User Research
   - Cable rewind
   [To complete: 3rd June]

4. Component parts.

5. AOB
   - Prototyping plan
   - Agree on deliverables for next call
Do nurses/healthcare assistants ever measure Vital Signs without documenting the results, or do they always need the COW?

Is there another way to transfer data e.g. wireless, and if the hospital wireless is unreliable can this be done another way e.g. bluetooth?

Would be useful if HS could map out Vital Signs process as it happens in the US so we understand this more clearly

**Actions:**
- Call arranged with nurse in US
2 Find out if any companies are already offering ‘automatic upload’ solution

**Welch Allyn**
- **Spot Vital Signs**
- **Basic Vital Signs Monitor**
- **Connex Vital Signs Monitor (CVSM)**
  - advanced, touch-screen monitor
- **Connex® VM**
  - Software that integrates with EMR.

**Philips**
- **Suresigns**
- **Basic Vital Signs Monitor**
- **Intellivue**
  - Advanced Vital Signs Monitor
- **IntelliVue Information Center**
  - Wireless monitoring software

**Accutorr**
- **Accutorr V**
  - Vital Signs Monitor
- **Accutorr CS Charting Solution**
  - Software which enables wireless connectivity

**Fukuda**
- **DS-7100 Series**

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For hospitals, working with Connex VM software, clinicians can improve workflow by wirelessly sending patient vitals directly to the EMR from the bedside. US and Canada only

Wired and wireless networking for continuous connection, no matter where patients are located on the network

Compatible with IntelliVue MMS X2, MP2, and higher

With Accutorr CS Charting Solution software, wirelessly link the Accutorr V at the point-of-care to the clinician and to a hospital information system’s EMR

Built in wireless communication
Most of the monitors have the options:

**Saturation Probes:**
Masimo SpO2  
Nellcor SpO2  
DPM SpO2

**Thermometers**
DPM SmarTemp™ temperature  
Welch Allyn SureTemp

**Other Vital Signs**
Some have the function to enter the other vital signs e.g. respiratory rate.

**Bar code scanner**

**Wireless**
Wireless connectivity option to transmit vitals directly to your hospital EHR (option mostly only available in U.S. and Canada)

**Screen**
Some of the more expensive options offer a touch screen
Initial user testing into the ‘umbilical cord’ concept

Always tend to work in this order:
1. Blood Pressure
2. Oxygen Saturation
3. Temperature

They take BP and Sats together and then take temperature in the ‘dead’ time whilst waiting for the cuff to inflate.

- Overall thought it was a great idea
- Really liked the retracting cable idea
- Thought it would be a good idea if everything was on one screen

- Thought the temperature probe should be separate:
  - being connected means it dangles and it needs to be hygienic as it goes in the mouth
  - Often just take temperature
- Becomes unclear when to take temperature - they like to take temperature whilst the cuff is inflating
Spoke to a contact at a ‘reputable UK vacuum cleaner manufacturer’. Their advice was:

- **Durability**
  - should be OK. They test their re-winds 6500 and they need to be 95% reliable
- **Main issues to consider are:**
  - cable wear
  - bearing wear
  - spring fatigue
  - slip ring wear
- **Solution is overspecing**
  - which will mean better durability. Also make the mechanism accessible so they can be replaced (by EBME)
- **Infection Control**
  - Dirt can get inside the drum
  - a solution would be to not enclose the cable so it could be easily cleaned, which would be as clean as the current solution.
  - bearings, spring and breaking mechanism could be sealed inside a hub so dirt could not get inside the drum
4 Component parts

- **Touchscreen**
  - Off the shelf PC tablet (e.g. Toshiba)
  - iPad for the prototype?
  - Own battery

- **Shallow tray**
  - Blood pressure cuff
  - SpO2

- **Main module**
  - Pump (OEM supplier such as OMRON to ascertain smallest and best-value blood pressure kits.)
  - Circuit board
  - Removable lithium ion battery
  - Umbilical cord rewind mechanism (1.5m umbilical cord, 0.5m split cord)
  - Temperature probe

- **Wheel base**

**Power cable?**
Component parts

- Touch screen
- Main module + tray combined
- Main module + screen combined
- Tray
Component parts - combining with COW

- **OPTION 1**: module permanently attached to COW
- **OPTION 2**: VS docks to COW
- **OPTION 3**: Wireless transmission of date