Initial Trial and User Findings

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Findings cover a range of areas

- Design
- Recruitment
- Provisioning
- Usability
- Acceptability
- Experiences
- What's next

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Design of the SAPHE System

- Should not be disease specific
  - Existing care pathways well developed
- Should support complex patients
  - Co morbidity
  - Social and health care problems
  - Poor self management
- Provide insight into patient lifestyle – activity monitoring
- Provide reassurance – reduce anxiety
- Help target resources – prioritise visits
- Highlight patient events that are off the CM’s immediate radar.

Recruitment

- Community Matrons have been keen to be involved
- Workload issues
  - esp. training
- Difficulty in identifying suitable patients from their caseload (~35/CM)
  - Patients individually approached
  - Time consuming
- Cognitive abilities
- Patient anxiety
- Fluctuations in health
  - Frequent admissions
- Family status
- Patient barriers
- Inconvenience / disturbance
- Family issues
- “Big Brother”

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Recruitment – alternate approaches

- Request for participation across all CM patients
  - High quality briefing material needed
  - System may not be appropriate for all those interested

- Link with secondary care and community discharge
  - Rapid installation required

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Provisioning

- Dedicated local contact needed
  - Liaison with CMs
  - Patient recruitment
  - Ad-hoc technical support
- Installation involves patient engagement and education
- Reduction in installation time needed
  - 4-5 hours from scratch; 2-3 hours with pre-config
- Need for continued education and awareness after install

Usability – Community Matron

- Website has raised few issues
  - co-designed with CMs
- Mobile device has been main source of issue:
  - Battery life
  - Network connectivity (3G) and speed
  - Touch screen interface
  - Weight and size (along with other equipment)
- Mobile access is of value
  - Response to ad-hoc patient contact
  - Sharing data with patients
- Additional features
  - Reading of point values on graphs (hover-over) - *provided*
  - Summary SATS for all patients – *under development*

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Usability - Patient

- Limited engagement needed to date without patient user interface.
- Main issues have been with eAR sensor:
  - Wearability
    - "Floppy ears!", oxygen, glasses, hearing aids
  - Charging
    - Dexterity for mini-USB cables
- Scales – audibility of prompts

Acceptability

- Overall patients have accepted the technology very well
- They have tried to overcome some pitfalls
  - Strapping eAR to chest, use of headbands.
- Activity monitoring has largely blended into background
  - Occasional concern over bathroom monitoring
- Some concern over device calibration (BP)
- Patient interface should help compliance, education and motivation.
  - May raise new concerns once data can be seen

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Experiences

- Reduced initial trial functionality has caused some confusion.
  - CMs and patients expecting features not yet available – e.g. patient interface
- Suggestion that monitoring may affect patient behaviour – *"I'm not staying in bed all day"*
- Activity shown to be of value to CM
  - Behavioural changes picked up that were symptomatic of health problems (sleep patterns and toilet usage)
- Proactive monitoring/alerting of system integrity needed
  - Offline sensors or systems not always picked up
  - Fault reporting by CMs may reduce overall perception

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What's next

- Replacement eAR sensor
  - Belt/pocket worn sensor with finger SpO_2
- Roll-out of patient interface
  - Access to data on TV
  - Messaging from CM
- Enriched CM interface
  - Summary data
  - Thresholds and RAG rating of parameters
- Benefits analysis and process models

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Thank you