

SPARC Workshop

Evaluation of Practical Feasibility and
Acceptability of Home Monitoring in a
Residential Home Setting

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Outline

- Need for home monitoring
- Benefits
- Project details (e-Vital)
- Findings/Results

Problem: ageing population

- 16% 65 and older * ↑
- Chronic diseases
- Resource intensive

* Office for National Statistics

** Optimum Population Trust

Remote Patient Monitoring

- Identification of hospitalisations
 - => Early detection of deterioration
 - => Prompt emergency admission
 - => Reduction of unnecessary admissions

Triage

Remote Patient Monitoring

- Hospital monitoring at home

=> Early discharge

Alternative to hospital monitoring

- Effective and efficient provision of care

- Chronic and acute monitoring

=> Better care

Safe and improved outcome

e-Vital Project Design

- EU-funded (eTen)
- 2 residential homes, 1 nursing home
- 1 telemonitor per home
- Aim: Monitoring of vital signs in an acute care environment
- Parameters: 7-lead ECG, BP, SpO₂, HR, temperature, respiration

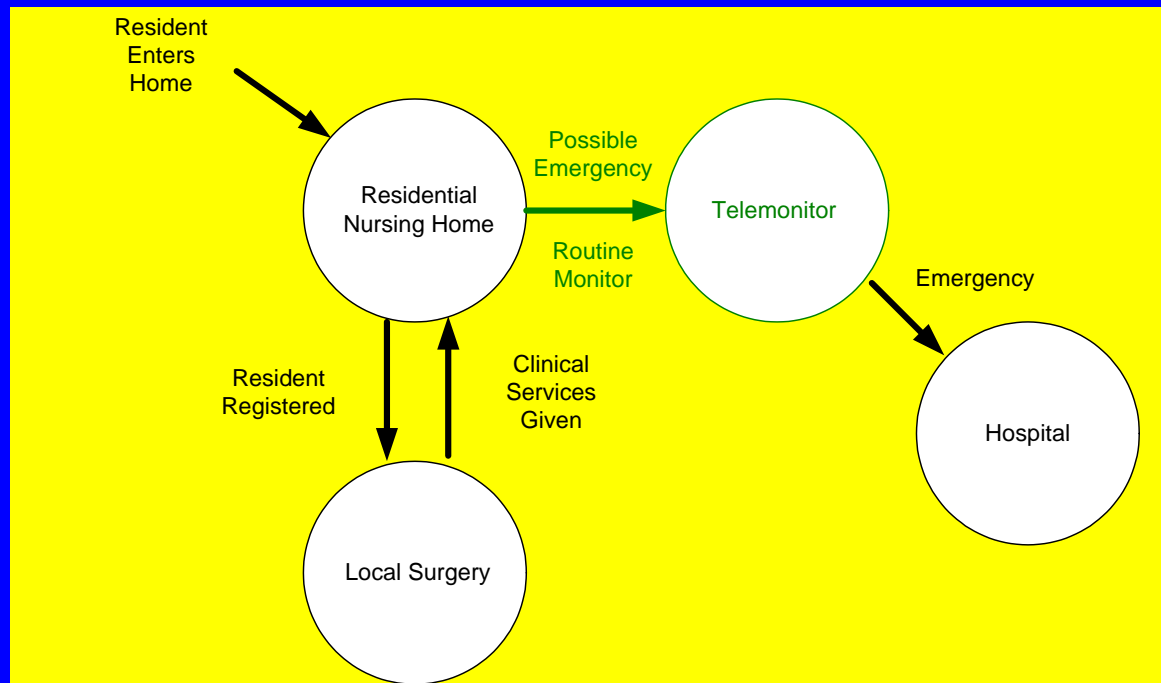
e-Vital Monitoring

- 24 patients monitored (repeatedly)
- Investigate residents who are unwell
- Results from July 2003 – Nov 2004

Conditions Monitored

- Respiratory diseases
- Cardiac problems
- Hypertension, hypotension
- Diabetes
- Renal problems
- *Post OP?*
- *Terminally ill?*

Scenario



Methods

- Phase I: evaluation of practical feasibility and acceptability
- *Phase II: clinical & cost effectiveness*
- Qualitative approach
- Semi-structured one-to-one interviews
- 2 GP's, 4 managers, 1 carer, 1 nurse

Findings: key benefits

- Early detection of deterioration
- Rapid intervention
- Continuous picture of patient's health
- Empowers carers
- Potentially fewer GP visits
- Ease of use
- Communication
- Peace of mind for family

Findings: shortcomings

- Early technical problems
 - Wireless network very short range
 - ADSL
- Extra time (set-up)
- Not all involved (locums)
- User interface
- No 24-hour cover

Case Study

- 80 year old lady with previous history of angina
- Mild heart failure
- Parkinson disease
- Feeling unwell during weekend
- Visit by nurse in morning
- Had not complained of chest pain

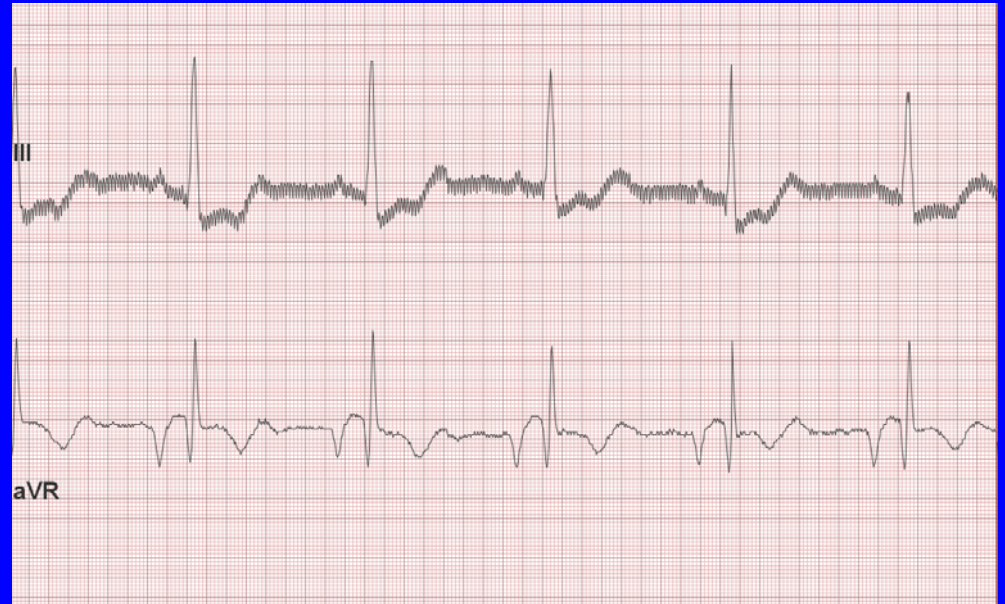
Equipment



ECG

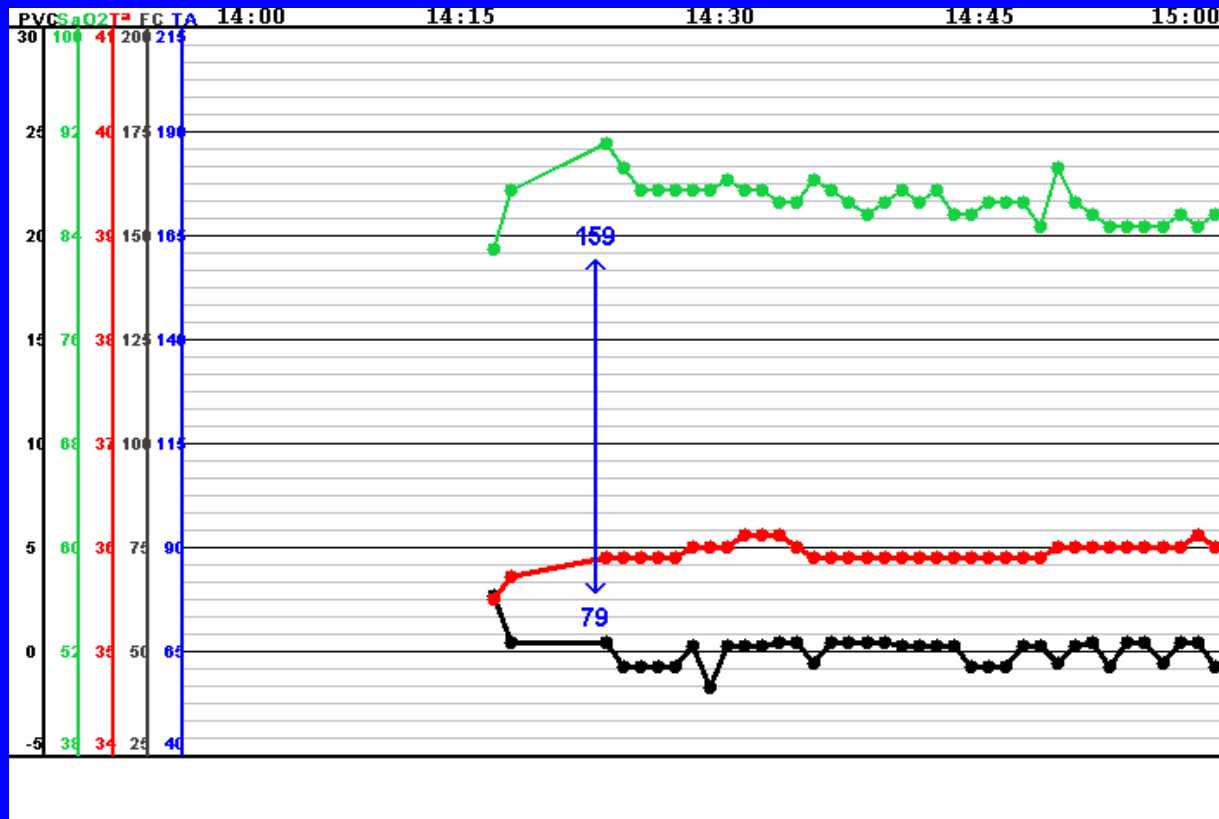


7 Lead ECG 14:15
(III and aVR only shown)



7 Lead ECG 14:55
(III and aVR only shown)

SpO₂



SpO₂ Temperature BP and HR

Conclusion

- Good acceptability
- Concept feasibility demonstrated

Lessons learnt:

- Resolve technical issues before going live
- Clinical champions essential

More information

Project website:

- <http://crnettest.arbonaut.com/evital/>

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Thank you!