Remote Monitoring of Patients Suffering From Early Symptoms of Dementia

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Outline

- Introduction
- Telecare Pilot
- Body sensors
- Conclusions

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Introduction

- Government green paper "Independence, Well-being and Choice" (March 2005)
- Key proposals include "*harnessing technology to deliver the right outcomes for adult social care*"
- Recognises telecare as having huge potential to support individuals to live at home and to complement traditional care
- Direct reference of the Liverpool telecare trial

- Case study…

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Background

- Dementia – a state of progressive mental deterioration
- A dysfunction which restricts an individual's ability to live independently in their own home
- Most common form – Alzheimer's Disease (AD)
- Increasing risk with age
  - 5% age over 60
  - 20% age over 80
- Early symptoms may include mild forgetfulness

Statistics from www.alzheimers.org.uk

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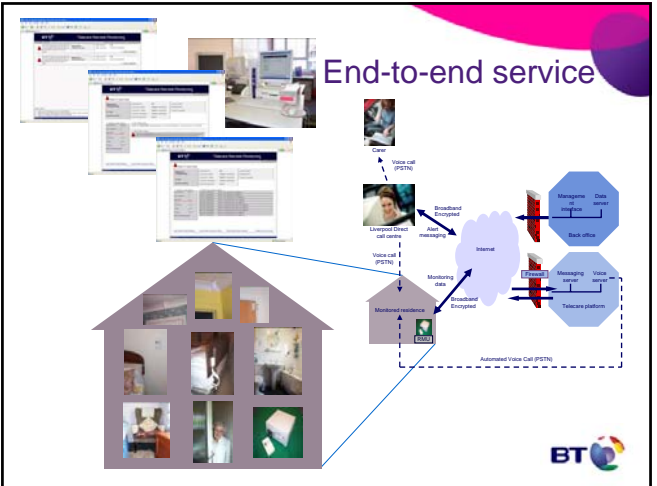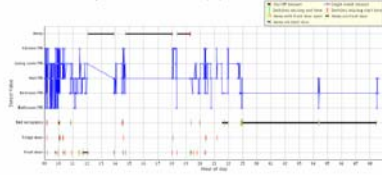
Slide 1: Telecare Pilot

Telecare Pilot

- Use of ICT to promote and enable independent care in the community and home settings.
- Provision by Liverpool Direct Limited (LDL) to Liverpool City Council (LCC)
- Situations of concern - raise alarms
- 21 elderly Liverpool residents
- Two DTI "Care in the Community" Centre clients
  - Enhanced sensor set
  - Activities of daily living (ADLs)
  - Additional information for care professionals

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Slide 2: End-to-end service

End-to-end service

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Slide 3

- Example showing typical activity
- Client in bed between 11pm and 8:30am

- Example of cause for concern
- Client leaves dwelling at 10pm and does not return till 3am

Slide 4: Additional benefit

Additional benefit

Compiled from carer comments:

- Convenient daily behaviour charts
- Check status of his wandering
- Consider wandering triggers
- Peace of mind (safe)
- Reassurance for client
- Optimised care routine
- Maintain client freedom and independence

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BSN ideas…

- Limitations to ambient sensors
- Wearable communication
- Location/context

- Physiological - possible triggers for wandering
  - Stress
  - Depression
  - Anxiety

"*… it should not be taken for granted that his or her need to wander is simply a matter of pathology that requires management rather than understanding.*"
– BMJ "Electronic tagging of people with dementia who wander" (2002)

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Conclusions

- Integration of ambient and body sensors – potential to provide an enhanced level of care
- Provided an example based on deployed system
- Suggested contributions body sensors could offer
- More information/discussion – exhibition/paper

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Acknowledgements

- Liverpool City Council (LCC)
- Liverpool Direct Limited (LDL)
- Telecare pilot clients and carers

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