New dimensions in telecare

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What is telecare, what can it do and how far has it been deployed?

Implementation challenges

Conclusions
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  - Implementation challenges
  - Conclusions
ICT enabled care delivery:

- Telecare is a ‘B2C’ service: between the patient / client and the care system
- Telemedicine is a ‘B2B’ service: between health professionals

Our focus today is on telecare
Telecare involves ...

- Enhancement of existing community alarm service
- Blurring with EAT
- Blurring with 'smart homes'
- Distinction between AT to improve functionality of the home and services to mitigate risk or provide support / advice
Telecare to manage risk: model

Events record

EPR

Response protocol

Record event

Alarm!

Check status: VDI

Response: home visit, emergency services, remote change

Response service provider:
HCA, neighbour, relative, ambulance, GP practice nurse, fire, police

Sensors: in home, on body
Telecare in the home
Telecare drivers

- **Policy:**
  - Targets for telecare: full availability by 2010
  - Wide range of policy documents see telecare as instrumental to achieve modernisation aims

- **Business:**
  - Care and housing service providers want to diversify
  - Smart homes industry beginning to emerge
  - Telecoms networks searching for new services

- **Technology:**
  - Sensors
  - Information processing
  - Availability and cost of communications
Progress towards telecare services

- Community alarms services serve 1.5m people
- Several telecare demonstration projects, but only West Lothian can be described as a mainstream service
- 6m calls per year; 500,000 web hits per day; multiple delivery channels; 10m patient records
- c.4000 users of NHS-provided EAT in England and c.400 net new installations annually
Agenda

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Implementation challenges

- Structural & operational complexity – deploying telecare in the care system
- Evidence base – showing telecare makes a difference
- The human interface – how end-users relate to telecare
- Technophiles or technophobes – the dangers of telecare
Large number of stakeholders, incomplete understanding of care process by staff

Need to accommodate differing perceptions of risk and different value systems in different parts of the care system

Evolving policy priorities
An example of complexity 1

- **100 referred patients (2/week)**
- **Assessment:**
  - 30 patients (0.6/week)
  - 70 patients (1.4/week)
- **4 bed Rehab Unit**
  - >6 week stay
- **24 people 80%**
- **6 people 20%**
- **Own home:**
  - care package + telecare
- **Residential homes**
  - 76 people
An example of complexity 2
It’s not the technology!
Telecare (and AT, home adaptation) outcomes are hard to verify and difficult to refute

Need for a more pragmatic approach to evidence than permitted under RCT structures,

Quantifiable data – before and after telecare introduced – is still critical

Need to disentangle complex relationships between indicators of change through self-assessed and measured indexes

- Housing, support and care needs
- Health assessment
- ADLs and other measures of capacity and competence
- Quality of life and morale
- Resources and other socio-economic factors
- Social networks and inclusion
Two kinds of interface:

– The *built interface*, how technology fits into the domestic setting

– The *human interface*, how the technology relates to its various users
Telecare can’t turn a poor quality home into a good one – there is no point in installing it in a home that is generally unsupportive of its older occupant.

There is therefore a need to deploy telecare in conjunction with an assessment of the suitability of the home in terms of:

- size, condition, comfort, location, security, costs,
- the impact of the internal and external environment on people’s ability to manage at home, independence and well being.

Telecare may *increase* the need for expenditure on physical adaptations and AT.
The human interface
The Japanese approach?

AIBox will enjoy interacting with you
There is no point in installing the technology if the older person for whom it is destined (and her ‘support convoy’) does not want and welcome it.

Interface problems are probably more important in EAT and smart homes than in telecare because:
- Telecare devices are generally passive, operating in the background
- Telecare is an extension and enhancement of existing services and user needs are generally understood

However, there is a wide variety of users / stakeholders, with different agendas, requirements, expectations, motivations, likes and dislikes – how to reconcile these?
Technophiles and technophobes

- “We feel there’s going to be a need later for a small office in each house, because of the computer. It’s going to be almost as essential as a bathroom.”

- “I don’t want them things. I manage without them. I’ve adjusted to the fact that I won’t be able to read no more, so I’ve accepted it, let’s put it like that.”
Creating a generation of technohermits or enhancing the role of carers?

- Telecare is not intended as a substitute for face-to-face care, but is this how it will work out in practice? Are there dangers of:
  - Technology overkill: too much technology and/or inappropriate technology to meet non-existent needs
  - Big Brother: dehumanising and anonymous care
'Thanks to the smarter home, a home help is required only once a year, to adjust the clock'
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- Telecare has the potential to change the housing & care pathway for older people but ...
- ... telecare's impact on QoL is only just beginning to be understood at the individual level
- ... and its impact at the care system level has yet to be evaluated
- The purpose and fit of telecare services in the wider care system should drive its introduction – not the technology