The King’s Fund: Harnessing Innovation in the NHS

How design thinking can support and influence innovation in healthcare

Professor Jeremy Myerson
Director

Royal College of Art
THE HELEN HAMLYN CENTRE FOR DESIGN
1963
RCA Design Research Unit
1991
Helen Hamlyn
THE LANDSCAPE OF INNOVATION

Technology
WHAT IS FEASIBLE

Business
WHAT IS Viable

People
WHAT IS DESIRABLE

Innovation sweetspot
AN ITERATIVE PROCESS

DISCOVER

DEFINE

DEVELOP

DELIVER
WORLD OF IDEAS
(abstract)

NOW
(analyse)

REAL WORLD
(concrete)

FUTURE
(create)
NOW

CONCRETE

ABSTRACT

WORLD OF IDEAS

Synthesise + Frame
WHAT IF WE DO THIS?

Vision + Opportunity
HOW CAN WE ACHIEVE THIS?

Observe + Learn
FROM THE REAL WORLD

Solve + Realise
MAKE IT HAPPEN

REAL WORLD

FUTURE
The Anthropologist

The Experimenter

The Cross-Pollinator
Anthropologist
Experimenter
Cross-pollinator
clinical care

patient needs
Your journey through A&E

This map shows the 4 different stages of your progress through the A&E Department: Check-in, Assessment, Treatment and Outcome. You can expect some waiting time between each stage. Please use this map to keep track of your progress.

You will find information points throughout the A&E Department. These explain what happens in each area of the department.
INTOXICATED

Individuals who are drunk or otherwise intoxicated and may have diminished self-control or perception of the consequences of their actions.

Drinking alcohol and taking some drugs can reduce people's social anxieties and make the drinker less likely to worry about the consequences of his or her actions.

The effects of alcohol on cognitive functioning may reduce the individual's ability to process or remember even basic instructions or solve simple problems.
An A&E toolkit to help you:

This toolkit is for NHS managers, clinicians and designer and healthcare planners who want to develop and deliver a better service in effective and inspiring environments. It will help you understand how to use design to develop integrated QIPP plans and improve performance against A&E clinical quality indicators.

- Find out why design is a process that could help you shape patient-centred and cost-effective services and environments
- Learn more about design solutions you could retrofit in your A&E
- Procure design projects that deliver a better patient experience

You can also take a journey through A&E from the patient’s perspective. Click on the pictures above to find out how design could help you improve different parts of the patient experience.

The issue

Find out more about the issue, the perpetrators and triggers of violence and aggression in A&E which costs at least £69 million a year.

Why design?

Good design is a process that generates innovative ideas and deliver new products and services. It can help you shape patient-centered and cost-effective services and environments.

Improving the A&E experience

Procuring design information and services

Want more info?

Interested in using design to improve patient experience? Find out more about how to procure design

Interested in implementing design solutions?

Contact us
Fail early to succeed sooner
virtual prototyping
Dirty scalpels bring 5,000 ops to a halt

Surgery is being cancelled, sometimes as patients lie anaesthetised, after outside cleaning firms return theatre equipment unsterile and broken

by Denis Campbell
Health Correspondent

THOUSANDS OF hospital operations are being called off because surgical instruments are dirty, missing or broken. In some cases anaesthetised patients have been woken up and returned to the ward, says the organisation representing many of Britain's senior surgeons.

Problems have emerged since hospitals began outsourcing sending surgical instruments such as scalpels, forceps and microscopes to be sterilised at new cleaning centres.

'Around 5,000 patients a year turn up at the hospital expecting to be operated on but are told before they make it to the operating theatre that their procedure can't happen because the hospital doesn't have the instruments,' said Andrew Thomas of the British Orthopaedic Association, which represents over 1,000 orthopaedic consultants.

'In addition some people are being anaesthetised and then the hospital staff are finding out that the instruments aren't right in some ways, for example, that some pieces are dirty or unavailable, or that they've been given the wrong instruments because they've been mislabelled [after external cleaning].' Thomas said.

Leaders of Britain's 8,500 theatre nurses last night claimed that patients' health was at risk because of the problems. 'We can't rely on the very tools of our trade to be back, complete and clean in order for operations to go ahead,' said Diane Gilmour, of the Association for Perioperative Practice.

'Theatre nurses describe their own experiences:

- Following outsourcing we experienced instruments being returned still with blood and bone clearly visible.

- A surgeon had to change the procedure he was carrying out twice because of lost or broken instruments.

- Nobody can follow the order of the operating list. It is dictated by which instruments are available.

- We should have asked for a lot more instruments, but we were told the fast-tracking process would be eight hours. We are lucky if this is within 24 hours.'

A new survey by the association has highlighted problems including patients waking up to learn that their surgery did not happen because surgeons discovered too late that they had not been given the equipment they needed because it had been wrongly labelled after being cleaned off-site.

In other hospitals lengthy turnaround times involved in getting specialist equipment back from the cleaners reduces the frequency of the number of procedures that can be carried out and therefore in some cases patients are cancelled,' theatre nurses disclosed.

All hospitals used to clean their surgical equipment on the premises. But fears over hospital superbugs, the possible spread of variant CJD, the human form of mad cow disease, and growing commercialisation in the NHS means about a quarter of hospitals have now contracted out the process to outside firms, and others are planning to follow suit.

Last March Aberdeenshire man Alan Paterson's 12-hour operation to remove a blood clot was cancelled when he was already lying on a trolley and connected to monitors. Surgeons at the Aberdeen Royal Infirmary had noticed that three sets of instruments they planned to use were not sterile and so had to be discarded.

There were around 3,000 decontamination clinical incidents involving the cleanliness or availability of instruments at Sandwell Hospital and City Hospital, both in Birmingham, between April and September 2007 alone. That included 283 cases of protective paper wraps around sterilised instruments being broken, which rendered them unuseable. Department of Health rules state that two sets of instruments must be available before an operation goes ahead, for safety reasons.

A surgeon at City Hospital, where at least one patient has awoken to find their operation cancelled, said: 'When the cleaning of our instruments was outsourced, we were assured that the company who were going to do it were experts and highly trained, but it was a shambles. There was meant to be an eight-hour turnaround and a fast two-hour turnaround to get instruments back, but in reality sometimes things weren't coming back for three, four or five days.'

'The firm was also having such problems reassembling microscopic instruments used in keyhole surgery that we had to send staff there to show them how to put pieces of equipment back together properly,' he added.

The latest bulletin from the NHS Decontamination Programme admits there have been 'teething problems around instrumentation and tray processing which required resolution'. Steps have been taken 'to ensure maximum patient safety and minimum service disruption', adds the scheme's February 2008 update. In a survey last year a minority of health trusts admitted that 1,500 operations had been cancelled at the last minute in 2005-06 because of instrument problems.

The Department of Health said it was helping primary care trusts in areas where problems are most acute to draw up action plans. 'Trusts and other health-care providers make their own decisions on decontaminating their instruments, and decontamination can be carried out locally or remotely. However they elect to decontaminate their instruments, trusts must ensure that they have adequate instrument supplies to maintain services,' said a spokeswoman.
Redesigning the Emergency Ambulance
Improving Mobile Emergency Healthcare
Current ambulance design
The 10 Key Design Challenges

1. Hygiene and cleanliness
2. Patient experience
3. Stock control
4. Technology integration
5. Standardisation of equipment
6. Diagnostics
7. Treatment processes
8. Future proofing
9. Longevity and carbon footprint
10. Functionality
Interior concept
Demonstrator build
Demonstrator unit
Clinical evaluations
Thank You

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