

As part of the current (2007) update of HBN 4 'Acute in-patient accommodation' (1997) the

Department of Health Estates and Facilities division commissioned research into the size and layout of en-suite WC and shower rooms for single rooms to identify a space-efficient design that would meet the needs of most patients.

En-suite design

The design provides an accessible WC and shower room that can be used by independent wheelchair users and patients requiring assistance from staff, within the existing space allowance of 4.5m². The key to the success of the design is the double door entrance. The doors can be folded right back, enabling staff to 'borrow' space from the bedroom when manoeuvring patients into the en-suite and onto the WC or into the shower. Without this borrowing of space the en-suite would need to be around 2m² larger.

The provision of hand-wipes next to the WC enables independent wheelchair users to cleanse their hands before transferring back onto their wheelchairs.

This solution provides considerable potential cost savings on a whole hospital development where increased space standards are being imposed as patients become older, frailer and more acutely ill. The research has informed the DH best practice guidance on the physical environment (Health Building Notes) that are available for trusts embarking on capital schemes.

Collecting data

The project involved a number of stages:

- Desktop design study combining ergonomic data in the form of various movement configurations together with a detailed space planning exercise to explore options.
- Design of a demountable mock-up that would enable live trials for different plan configurations and different levels of assistance, and fine tune the location of wall-mounted components and en-suite fittings.
- Mock-up constructed at a host Trust site with sponsorship from the construction industry.
- Live trials were filmed and data recorded empirically with the assistance of volunteers.
- Production of detailed layout drawings for use in new design guidance (HBN 04 and HBN 40)

Results of this research can on the DH website:

<http://estatesknowledge.dh.gov.uk/hbn4/>

Application

Final layouts produced a generic solution that can be applied in alternative en-suite positions (inboard, outboard and in-between). These three applications will be incorporated into the live project "The Hillingdon Hospital Single Room Pilot Ward" a DH supported initiative to build a 24 bed nursing unit comprising 100% single room accommodation and a continuing programme of evidence based research. The unit will be evaluated in use with different patient groups and differing clinical needs. The project will enable the Trust to make informed decisions on it's development of proposed nursing units in it's future facilities. It will also provide evidence to support the Department of Health's (DH) Policy direction on single room accommodation and feed into its best practice guidance, HBN04 Inpatient Accommodation.

Images are included of the Single Room Pilot Ward to illustrate how this piece of research is informing another.

Client:

Estates and Facilities Division
Department of Health

Research Consultants:

MAAP Architects
John Temple Associates
Robert Feeney associates

Hosts:

The Hillingdon Hospitals NHS Trust