



## Briefing for the Public Petitions Committee

**Petition Number:** [PE 01482](#)

**Main Petitioner:** John Womersley

**Subject:** Isolation in single room hospitals

Calls on the Parliament to urge the Scottish Government to ensure that patients in new-build hospitals are given a choice to share a multi-bedded room with other patients or offered a single room; and to subject all the evidence on the single room policy to independent scrutiny.

### Background

The petitioner is concerned about the apparent lack of evidence and public support for the policy of ensuring that new-build hospital accommodation and hospital refurbishment provides single-room accommodation for all in-patients. The petition asserts that the evidence base for such a policy is not robust and that a balance between single and shared accommodation in four-bedded bays would be the optimum option for necessary infection control and patient choice, as well as allowing better scope for future internal structural modifications.

### Research and Evidence pertaining to single-room provision

See Appendix 1

### Scottish Government Action

#### Single Room Provision Steering Group

The starting point for considering the issues around single-room provision was a report commissioned by NHS Estates in England in November 2004 entitled [Hospital Wards Configuration: Determinants Influencing Single Room Provision](#). This report was produced by the [EU Health Property Network](#) (EuHPN)

It was decided, given the significant capital investment programme underway in Scotland, that the Hospital Wards Configuration report should be peer reviewed by a group of professionals. This group included the authors of the report. The peer review was sponsored and facilitated by the Scottish Executive and NHS Education for Scotland. A Peer Review event was held over two days in November/December 2005 at which the authors made presentations. The review considered the matter of single room provision in relation to four concerns: Hospital Acquired Infection, environmental issues, operational issues and costs and value for money.

One of the review recommendations was to establish a steering group whose remit was:

To consider the evidence supporting the establishment of the future level of single room provision within new-build hospital facilities and in the refurbishment of major hospital facilities in Scotland.

Members of the steering group were drawn from those who participated at the Peer Review event, with the Health Department providing the Chair and secretariat support to the Group. Members were selected from a range of professional interests including Directors of Nursing, Directors of Finance, the Scottish Microbiology Forum, the Chief Medical Officer, Health Analytical Services and Property and Capital Planning interests both from the Department and NHSScotland.

The Group considered the matter of single room provision under similar headings to those used in the Peer Review Event:

### ***Control of Infection***

Members of the Group accepted that, from a Healthcare Associated Infection (HAI) perspective, there was a generally held view that a high level of single room provision assists in managing the spread of infection, but that there was very little reliable evidence supporting a direct link between the incidence of HAIs and the level of single room provision. The Group agreed to undertake a literature search to augment the literary evidence produced as part of the EuHPN Report.

### ***The Patient Environment***

The Group decided that a Public Attitude Survey should be commissioned to help identify hospital accommodation preferences.

### ***Operational Issues***

The level of nurse staffing was recognised as being an area of concern. To establish the impact of any proposed increase in the level of single room provision on nurse staffing ratios, the Group agreed to commission a report based on input from the nursing community across NHSScotland, including input from Nurse Directors.

### ***Financial Issues***

The impact of high levels of single room provision on both the initial capital cost of providing new or refurbishing an existing healthcare facility, and the revenue costs in maintaining these facilities over the building's lifetime, were identified as other major areas of concern.

On 21 February 2007, an [interim statement](#) was issued to health boards, based on the principles and recommendations of the EuPHN report above. This states that:

in planning for the construction or major refurbishment of healthcare facilities it is appropriate to provide an overall single occupancy room level

of between 50% and 100%. The appropriate level within that range is a matter for each individual NHSScotland Board to consider based on the following broad criteria.

- Science-based decisions relating to the clinical and nursing care of patients and overall hygiene standards;
- Value-based judgements about the nature of personal services and responsiveness to the local community and generational cultures;
- Operational needs, for example managing volatility in demand or changing clinical needs and priorities; and
- The need to balance these against economic considerations.

The Steering group report contains a collation of documents, including a report on single room provision published on behalf of the Executive Nurse Directors' Group, a [Public Attitudes Survey](#), a [literature review](#) and the [membership of the steering group](#).

### **Further consultation and recommendations**

In November 2008, the Chief Nursing Officer issued a [Chief Executive's Letter \(CEL 48\)](#) to all health boards setting out the conclusions drawn from the Report. It states that for all new-build facilities 'there should be a presumption that all patients will be accommodated in single rooms, unless there are clinical reasons for multi-bedded rooms to be available.'

It also states that 'in developing proposals for substantially refurbishing healthcare facilities NHS Boards should seek to provide the maximum number of single rooms consistent with the approach for new-build, i.e. 100%. In developing proposals for single room provision in refurbishments, recognising the constraints posed by existing buildings, it has been decided that the overall level of single room provision should be 50% as an absolute minimum, with due regard to the clinical needs of specific patient groups.

A further CEL was issued in July 2010, [CEL 27 2010](#). This followed an expert Delphi<sup>1</sup> consultation exercise drawing on experts from the Chief Medical Officer's clinical specialities advisers, and this letter states more emphatically, on the basis of the consultation, that:

'the current provision of single room accommodation is not sufficient across NHSScotland and 100% single room provision is clinically appropriate in most clinical settings.' It goes on to instruct that if there are clinical reasons for not adhering to this, then a Business Case is to be made in each circumstance.

### **Delphi Consultation Exercise**

See Appendix for full report of the Exercise.

Fifty seven clinical speciality advisers were approached to take part in a Delphi exercise. Thirty six responded to the first round. Seventeen thought that single room accommodation was appropriate for all their patients, 19 did not. Twenty five advisers responded to the second

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<sup>1</sup> See [here](#) for explanation of Delphi method.

round. After consideration of first round feedback, 14 of these thought that single room accommodation was the most appropriate (8 had changed their mind on reflection) leaving 11 who still did not feel that 100% single room accommodation was appropriate for their patients. Reasons given included: patient mobility, patient visibility, rehabilitation, isolation, hygiene as opposed to single rooms being the solution to HAIs, and re-integration, following, for example, reconstructive surgery.

### **Scottish Parliament Action**

There have been a number of Parliamentary Questions on the provision of single rooms, and about hospital acquired infections in relation to single rooms which can be found [here](#).

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**Senior Researcher**  
**30 July 2013**

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## APPENDIX

### Research relating to single room provision

It was noted by EuHPN in 2004 that there was little recent robust research evidence available on the benefits of single rooms in hospitals, especially from the UK. Other reviews and studies have been carried out since. These are discussed below.

### Hospital acquired infection

The starting point for EuHPN in their literature search was the link between hospital acquired infection (HAI) and hospital design, since that 'seemed to be the most relevant factor in the 'push' towards single-bed rooms (p4)'. They concluded, along with colleagues from Erasmus University who had conducted a similar review, that: 'there is a distinct lack of high-quality, peer-reviewed studies on the effects of ward design on rates of healthcare acquired infection' (p5). A further literature review was carried out in 2007, [Do patients in hospitals benefit from single rooms?](#) which concluded that conflicting results were found on hospital infection rates, and that there were too few sound studies. This was again borne out by the literature review for [Hillingdon Hospital evaluation](#) of a single room ward. Most recently, in an [article](#) published in the American Journal of Epidemiology in April 2013 on the effectiveness of isolation and decolonisation measures on the transmission of MRSA in hospital wards, the authors conclude that: 'Isolation measures *combined* with decolonization treatment were strongly associated with a reduction in MRSA transmission in hospital general wards. These findings provide support for active methods of MRSA control, but further research is needed to determine the *relative* importance of isolation and decolonization in preventing transmission.'(my emphasis)

In 2008 HERD (Health Environments Research and Design Journal) published a [wide-ranging review](#) of research literature, which surveyed and evaluated 'the scientific research on evidence-based healthcare design and extracts its implications for designing better and safer hospitals. Results were outlined:

according to three general types of outcomes: patient safety, other patient outcomes, and staff outcomes. The findings further support the importance of improving outcomes for a range of design characteristics or interventions, including single-bed rooms rather than multibed rooms, effective ventilation systems, a good acoustic environment, nature distractions and daylight, appropriate lighting, better ergonomic design, acuity-adaptable rooms, and improved floor layouts and work settings.

This study concludes that single-bedded rooms 'are the design intervention that positively affects the largest number of outcomes in a hospital setting' especially in terms of HAIs, improved patient sleep, privacy, patient satisfaction and communication with family members.

However, this research does not address issues raised by the petitioner in relation to patient to patient communication and assistance, nor does it address concerns about patient isolation.

### **The Patient Environment**

The Scottish Government commissioned a public attitude survey (see [Annex 7](#) of the Steering Group Report) in 2008 in which 990 interviews were conducted. The petitioner [cites](#) figures from this survey. 63% of the sample had not stayed in hospital as an in-patient in the past 5 years, but 76% had at least visited someone in hospital in that period. Although most had not experienced staying in a single room, 41% of the sample said that they would prefer to. 22% preferred a multi-bedded room and 27% did not mind. Fig. 2.7 shows that the preference for a single room is lower in those with experience of hospital, than those without, and similarly, of those who have stayed in hospital, the preference for a multi-bedded room was higher. 'Company' was the main reason for the preference for a multi-bedded room, and 'privacy' was the main reason given by those preferring a single room.

The Scottish Medical Journal published an [article](#) in May 2009 on the results of a study done in Dumfries and Galloway Royal Infirmary. The researchers were surprised to find that out of 80 inpatients with a median age of 64 who had been in hospital for a median of 4.5 days, 70% of patients in shared accommodation and 40% of those in single rooms said they would prefer shared accommodation during a future admission. The authors cite two other preference studies from the UK from [2002](#) and [2005](#). In the first study undertaken on a palliative care ward, 68% wanted to be in an open area, 20% expressed a preference for a single room and 12% did not mind. 'Company' and 'time passing quicker' were reasons given for shared accommodation. The second study was a postal questionnaire of 2200 recently discharged patients with a 37% response rate. 52% of those in two – four-bedded bays and 68% of those in single rooms were 'completely' or 'very satisfied' with their experience. Privacy was less of an issue than restricted bed views and lack of bedside entertainment.

### **Operational issues**

See [Annex 6](#) of Steering Group Report

### **Financial issues**

See [Annex 8](#) of Steering Group Report

Cost indications given suggest that the capital cost of switching to single-room accommodation would be an increase of 1.6 – 3.1%

It appears that there remains a gap in the availability of consistent evidence that shows an overall benefit to fully support from 100% single-room provision when all factors are taken into account.

## **Delphi Consultation Exercise Report**

<http://www.pcpd.scot.nhs.uk/PDFs/DelphiReport.pdf>