Gateshead Emergency Care Centre
Queen Elizabeth Hospital

A Post-Occupancy Evaluation

Final Report

Ryder | PERFORMANCE CONSULTANCY


Emergency Care Centre
Emergency Care
Main Entrance

Executive Summary

This report is of a post-occupancy evaluation of the Emergency Care Centre (ECC) at the Queen Elizabeth Hospital in Gateshead. The project brought together emergency departments from the hospital, to improve the patient experience and increase effectiveness through facilitation of improved clinical pathways. The design is based around single room provision in a short stay unit, and individual assessment rooms arranged in seven pods, supported by resus and diagnostics. The main entrance to the hospital was re-developed within the project.

The evaluation approach was holistic, involving over 80 members of staff and patients. Activities included: desktop research, questionnaires for staff and patients, interviews with staff, a building performance assessment, observations and on the spot discussions with patients.

The findings are detailed within this report. Conclusions and observations are provided at the end of the report.

Design Process

- Overall, the design process was very effective.
- Considerable research and development of lean design principles was undertaken with patients and staff.
- A strong design brief was developed, which drove the design.
- Some staff would have liked greater input and communication, throughout the duration of the process.
- Involvement of the FM (Facilities Management) team in specifying systems led to an appropriate solution which they are able to operate effectively.
- Senior staff acknowledge that availability and capacity beyond the ECC should have been considered to make the department more effective. Currently backlogs of patients occur within the ECC as there is nowhere to discharge for patients to be discharged.

Building Design and Use

Access and Arrival

- The ECC was easy for patients to find and reception open and welcoming. Steps have been take to make staff feel safer when working on reception.
- There are issues with wayfinding when people were unescorted, e.g. visitors, as they could not identify specific pods.

Spatial Layout

- Separation of visitors and staff through inward facing pods is effective as staff feel less disrupted by visitors, as they have limited access to them in their corridor.
- The pod design is liked by staff, as they are better able to manage their patient case load, which is limited to their eight assessment rooms.
- Assessment rooms and pods are flexible and have permitted easy change of use.
- The layout is a challenge where the use of a whole pod has changed and the spaces of that team are now no longer aligned for supervision and overview.
- The co-location of emergency teams is effective, due to both the design and staff / management support. Collaborative working has increased and staff resources are shared.

Waiting Area

- Size of waiting room is well liked, but it has had to be divided into zones. This is working well in practice.
- A glazed box has been added to the waiting room to keep children separate from other patients. Whilst effective, it could have been more integrated if incorporated at design stage.
- Staff feel that it is difficult to monitor the waiting area.

A*ssessment Pods*

- The pods are liked for size and layout. Lean design is liked by staff and few adaptations have been made.
- It was reported that single rooms could be challenging in terms of monitoring and observation. Internal blinds were not always opened to rooms and patients could leave through the door opposite the staff corridor without being noticed straight away.

Main Entrance

- The entrance is easy to find and welcoming.
- Some patients struggled with wayfinding on leaving the atrium and were confused by the colour coding and ward names.
- The light and space in the atrium were well liked and contributed to patients feeling less stressed as it was a calm environment.
- The main issue was parking which affected patient and visitor moods as they entered the building, they reported being stressed from not being able to easily find a space and park.

Executive Summary

Short Stay Unit

- Patients were very positive about the rooms in the short stay unit.
- Staff reported that the rooms could be more difficult to monitor and that some patients, particularly the elderly, could feel isolated and a little forgotten in these rooms.

Administration and Staff Facilities

- Provision for ward clerks could be improved as they spend the majority of their time at mobile workstations in the corridor.
- Staff would like office space in the ECC for senior staff so that they are on hand to deal with emergencies.
- More storage space in the ECC would be appreciated.
- The Vocera communication system was reported to be essential for working effectively in the ECC.

Internal Climate

- Temperature was reported to be too warm, especially in corridors where staff work within the pods. A lack of fresh air was also noted.
- Noise levels were perceived very positively, and low noise levels contributed to the calm atmosphere in the department.

Facilities Management

- Patients and staff reported that the ECC and atrium were clean and showed little sign of wear and tear.
- Security within the ECC was facilitated by Vocera, but some staff would have liked their office to be in there.

Building Performance

Thermal Comfort

- The corridors within the pods were designated as circulation spaces, as opposed to work areas, which accounts for higher heat loads than anticipated.
- There is minimal ventilation within the pods, leading to low levels of air flow and thermal discomfort.
- Increased use of IT may increase the need for cooling in assessment pods.

Building Energy Load

- The heat energy demand of the ECC is 126 kWh/m^2/ annum, which is significantly below CIBSE benchmarks.
- This is typical of modern buildings which have greater air tightness and reasonable thermal performance.
- The electrical energy demand of the ECC is 131 kWh/m^2/ annum, which is higher than both hospital and clinical research building benchmarks.
- More detailed analysis of the data is required, so that the source of the energy demand can be determined.
- The CHP (Combined Heat and Power unit) largely meets, and sometimes exceeds the buildings energy demands.

Control Issues

- Due to doors being left open or closed, the notional zones for the BMS system to control, keep changing and it is difficult for the building to adapt, especially during the day when more doors are kept open.

Impact

Patient Experience

- Patients were very positive about the ECC and impact upon their experience there.
- Generally they felt it had a positive impact upon privacy and dignity, and that it was a spacious and calm environment.
- Some patients could feel isolated in single rooms, particularly it they were elderly.
- The main entrance had a positive impact on patient experience.

Staff Experience

- Staff liked the ECC and felt it was a calm environment.
- It supported collaborative working between teams.
- The lean design makes their work more effective.
- Some challenges reported were monitoring patients in individual rooms and the need to change ways of working or numbers of staff to address this challenge.
- Some senior staff found it more challenging to supervise their team and the work they were doing.

Pathways and Meeting Targets

- Overall, the ECC was felt to be effectively facilitating the urgent care pathways.
- The main challenge was capacity in the department, partly due to the lack of space in base wards to discharge patients to. This was having an impact upon waiting time targets, which were otherwise being facilitated by the ECC.

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