Internal Review of Queen Elizabeth University Hospital (QEUH) and Royal Hospital for Children (RHC)

Recommendations

The Board is asked to:-

1) In relation to the Facilities & Environmental Impact Review –

   a. Note the receipt of the external technical advisor’s report on the facilities available and the environmental impact of the design and build of the QEUH Campus and the scrutiny of their findings by the Board’s Finance Planning & Performance Committee.
   b. Note the on-going programme of work to resolve the issues identified by the external advisor.
   c. Accept the legal advice received and require the Chief Executive to instruct MacRoberts LLP to act on the Board’s behalf to raise appropriate Court proceedings as a matter of urgency.

2) In relation to the Capacity & Flow Review –

   a. Note the receipt of the review into the capacity of the QEUH and the flow of patients through the system and the scrutiny of the review teams’ findings by the Board’s Acute Services Committee.
   b. Note the on-going programme of work to resolve the issues identified by the review team, including the latest review of the configuration of Acute Services across the South Sector.
   c. As members of the IJB’s, ensure priority is given to the work underway in the HSCPs to reduce the demand for unscheduled care in the Acute Hospital Sector as part of their development of commissioning, financial and strategic plans.
3) In relation to the Clinical Outcomes Review –

   a. Note the receipt of the internal review of clinical outcomes since the new hospitals were opened and the scrutiny of the review teams’ findings by the Clinical Governance Forum and the Board’s Clinical & Care Governance Committee.
   b. Note the results of the exercise to benchmark the QEUH and the RHC clinical outcomes.
   c. Note the further reviews of the NHS GGC infection control and clinical governance by the SG Oversight Board, the Independent Review of the QEUH Campus and the Public Inquiry into the Royal Hospital for Children and Young People in Edinburgh and the QEUH Campus.

Purpose of Paper

The purpose of this report is to provide the NHS Greater Glasgow & Clyde (NHS GGC) Board with a report that summarises the findings of three internal reviews commissioned by the Chief Executive in February 2019. These reviews were undertaken in response to a number of concerns that had come to light around the operational effectiveness of the Queen Elizabeth University Hospital (QEUH) and the Royal Hospital for Children (RHC) since it opened in April 2015. The aim of the internal reviews is to provide a strategic overview of key issues and concerns and identify actions and further areas for improvement to address the problems identified by this work.

Key Issues to be considered

The reviews covered three areas central to the delivery of safe, high quality healthcare on the QEUH Campus. These are:

- The facilities available and environmental impact of the design and build of the QEUH and RHC. This review was undertaken by external professional advisors.
- The capacity of the QEUH and the flow of patients through the system. This work included an assessment of the current demand and patient flow against the planning assumptions and business model.
- The clinical outcomes at the QEUH and RHC since the new hospitals were opened. This included benchmarking of the results with other hospitals in Scotland.

This report summarises the position against each of these three areas with recommendations noted above.

Any Patient Safety /Patient Experience Issues

Priority is to ensure ongoing patient safety.

Any Financial Implications from this Paper

Financial implications yet to be determined.
Any Staffing Implications from this Paper
Support for staff remains a key priority.

Any Equality Implications from this Paper
None.

Any Health Inequalities Implications from this Paper
None.

Has a Risk Assessment been carried out for this issue? If yes, please detail the outcome.
Corporate Risk Register updated.

Highlight the Corporate Plan priorities to which your paper relates
Provision of high quality, safe care.

Author    Jane Grant, Chief Executive
Tel No     0141 201 4407
Date       December 2019
Queen Elizabeth University Hospital Campus

Internal Reviews - Summary Report

December 2019
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction</td>
<td>5</td>
</tr>
<tr>
<td>2. Background</td>
<td>6</td>
</tr>
<tr>
<td>3. The Review Process</td>
<td></td>
</tr>
<tr>
<td>3.1 Facilities and Environmental Impact Review</td>
<td>7</td>
</tr>
<tr>
<td>3.2 Capacity and Flow Review</td>
<td>8</td>
</tr>
<tr>
<td>3.3 Clinical Outcomes Review</td>
<td>10</td>
</tr>
<tr>
<td>4. Next Steps</td>
<td></td>
</tr>
<tr>
<td>4.1 Facilities and Environmental Impact Review</td>
<td>12</td>
</tr>
<tr>
<td>4.2 Capacity and Flow Review</td>
<td>13</td>
</tr>
<tr>
<td>4.3 Clinical Outcomes Review</td>
<td>14</td>
</tr>
</tbody>
</table>
1. **Introduction**

1.1 The purpose of this report is to provide the NHS Greater Glasgow & Clyde (NHS GGC) Board with a report that summarises the findings of three internal reviews commissioned by the Chief Executive in February 2019. These reviews were undertaken in response to a number of concerns that had come to light around the operational effectiveness of the Queen Elizabeth University Hospital (QEUH) and the Royal Hospital for Children (RHC) since it opened in April 2015. The aim of the internal reviews is to provide a strategic overview of key issues and concerns and identify actions and further areas for improvement to address the problems identified by this work.

1.2 The reviews covered three areas central to the delivery of safe, high quality healthcare on the QEUH Campus. These are:

- The facilities available and environmental impact of the design and build of the QEUH and RHC. This review was undertaken by external professional advisors.

- The capacity of the QEUH and the flow of patients through the system. This work included an assessment of the current demand and patient flow against the planning assumptions and business model.

- The clinical outcomes at the QEUH and RHC since the new hospitals were opened. This included benchmarking of the results with other hospitals in Scotland.

1.3 The details contained in the reports from the external advisors and the internal review teams have been shared with the appropriate Board Standing Committees. The Finance, Planning and Performance Committee has been briefed on the review of the facilities and environmental impact, the Acute Services Committee received the report on the capacity and patient flow at the QEUH and the Clinical & Care Governance Committee considered the clinical outcomes review. These discussions have been recorded in the minutes of the Standing Committees and reported to the Board as part of the Board’s overall governance system.

1.4 This summary report will be presented to the Board at their meeting on 17th December 2019 and has been shared with key stakeholders, including the Cabinet Secretary for Health & Sport, the Scottish Government, the NHS GGC Oversight Board and the QEUH Campus Independent Review team. The report will be available to the public and staff on the NHS GGC website from 17th December.
2. **Background**

2.1 NHS Greater Glasgow and Clyde have been operating the new QEUH and RHC since April 2015. The campus is one of the largest healthcare facilities in Europe and is unique in the Scottish context in terms of scale, volume of activity, patient acuity and clinical specialism. For instance the hospital is responsible for one eighth of acute adult in-patient admissions in Scotland. It is important to note these factors when considering any assessment of the hospital as this often creates limitations in generating meaningful comparisons.

2.2 Since the QEUH and the RHC opened a number of issues have been identified that have impacted on the seamless delivery of health care.

2.3 From the facilities perspective, problems have been identified with water hygiene, the ventilation system, glazing, fire doors, cladding (internal and external), the heat exchanger and the fabric roof.

2.4 The limitations on capacity and the impact this has on the flow of patients through the QEUH has had an adverse impact on the hospital’s delivery of both unscheduled and scheduled care.

2.5 The management of infection prevention and control has proved challenging throughout this period. In particular, issues have arisen around the impact the problems with the water system and the environment have had on the care of patients whose immune systems are compromised by their underlying conditions. This includes the paediatric haemato-oncology service. Therefore, in addition to the clinical outcomes review itself, the Chief Executive commissioned further bespoke and focused reviews within these areas in order to provide further assurance to patients, carers, families and staff.

2.6 In light of the on-going issues around the systems, processes and governance in relation to infection prevention, management and control at the QEUH and the RHC and the associated communication and public engagement issues, the Board has been escalated to Stage 4 of the NHS Scotland Performance Framework. The Board has fully committed to improving its communication and public engagement processes to ensure that the views of patients and their families are at the centre of the future service delivery. This decision was made by Malcolm Wright (Director for Health & Social Care and Chief Executive of NHS Scotland) on 22 November 2019 in order to support the Board to ensure appropriate governance is in place to increase public confidence in these matters and strengthen current approaches that are in place to mitigate avoidable harms. An Oversight Board, chaired by NHS Scotland’s Chief Nursing Officer Professor Fiona McQueen, has been put in place to take this work forward. In addition, responsibility for infection prevention and control has been removed from the Medical Director and Professor Marion Bain, Co-Director of the Delivery Group for Public Health Reform and former Medical Director of NHS National Services Scotland has been appointed to lead this service at NHS Greater Glasgow and Clyde.
2.7 Prior to this, an Independent Review of the QEUH Campus was commissioned by the Cabinet Secretary for Health & Sport. In March 2019, Dr Brian Montgomery (former Medical Director and interim Chief Executive of NHS Fife) and Dr Andrew Fraser (Director of Public Health Science, NHS Health Scotland) were appointed to undertake the Review as co-chairs. A review team is in place to research, co-ordinate and manage the work of the Review. The aim of the Review is to address concerns about patient safety, and specifically look at the buildings’ design, commissioning and construction, handover and on-going maintenance and how these matters contribute to effective infection control. The review team’s remit is described as: ‘To establish whether the design, build, commissioning and maintenance of the QEUH and RHC has had an adverse impact on the risk of Healthcare Associated Infection and whether there is wider learning for NHS Scotland’.

2.8 In September 2019, the Scottish Government announced a Public Inquiry into the Royal Hospital for Children and Young People in Edinburgh and the QEUH Campus. This followed concerns from affected parents over safety and wellbeing. Lord Brodie QC has been appointed the Inquiry Chair and although the terms of reference have yet to be finalised, it is expected that the inquiry will determine how vital issues relating to ventilation and other key building systems occurred, and what steps can be taken to prevent this being repeated in future projects.

2.9 It is obvious from the above that there is a consensus around the need to better understand what has gone wrong with the introduction of the QEUH Campus into the NHS GGC Acute Services system. Clearly, the combination of the internal reviews, the Independent Review and the Public Inquiry will come to conclusions on what happened, what was the impact on patient care and who was responsible for creating, identifying and resolving the challenges NHS GGC now faces. However, it is important that the Board adopts an open and transparent approach to taking this forward and the following paragraphs in this report aim to share as much information as possible, as soon as possible.

3. The Review Process

3.1 Facilities and Environmental Impact Review

3.1.1 To review the facilities available and the environmental issues involved the Chief Executive commissioned an external technical advisor to review those elements of the QEUH and RHC buildings that were cause for concern.

3.1.2 An initial scoping plan was developed and considered a range of points including the initial contract, design, commissioning and maintenance programme of the QEUH and RHC. As the review progressed the scope was widened to include the laboratory block.

3.1.3 The review was completed in October 2019 and the findings and recommendations were discussed at the Board’s Finance, Planning & Performance Committee on 3 December 2019.

3.1.4 The report from the external advisor describes the background to the project, the parties responsible for delivering the project, and how it was
delivered. It also describes a number of technical issues and gives the advisors’ key findings as to how they have occurred.

3.1.5 The Board has taken legal advice on what action NHS GGC should take in light of the outcomes of the facilities and environmental impact review and have been advised that Court proceedings should be raised as a matter of urgency. The Board has accepted that advice and instructed MacRoberts LLP to act on its behalf.

3.1.6 The decision to take legal action means that the external advisors report cannot be published at the moment as this would be premature and potentially cause significant prejudice to NHS GGC.

3.1.7 In the meantime, the technical review of the facilities and the environmental impact at the QEUH Campus by the external advisors has provided NHS GGC with the information required to develop and implement a significant programme of activities and projects to resolve the issues identified in their report.

3.1.8 This work programme is being directed and managed by the Director of Estates & Facilities and progress is reported to the Finance Planning & Performance Committee and the Board at regular intervals.

3.2 Capacity and Flow Review

3.2.1 In order to assess the demand profile and throughput of patients through the QEUH, a full capacity and flow review has been undertaken.

3.2.2 This review has focused on two distinct areas. The first area was a look back to assess the original expectation of demand as outlined in the Full Business Case (FBC) for the QEUH, comparing this to the current demand for services and the existing capacity to meet that demand. The second element involved commissioning a specialist external review team, the NHS North of England Commissioning Support Unit (NECS), to review how the current demand is managed, including assessing capacity and modelling patient flow processes within the QEUH.

3.2.3 The NECS work included a major in-depth review of patient flow during a 15 week period to identify specific patient pathways and involved a number of face to face interviews and on site process observation and mapping.

3.2.4 Overall, the capacity and flow review specifically considered:

- Issues related to the original demand profile of the Emergency Department, including minor injuries patients
- The current Emergency Department and minor injuries demand compared to the assumptions in the FBC
- The Immediate Assessment unit demand compared to the assumptions in the FBC
- The current conversion rate for admission to emergency inpatient beds compared to the assumptions in the FBC
- The current length of stay rate compared to the assumptions in the FBC
- The geographical origin of additional service demand
Additional clinical specialties located within the QEUH site not originally included in the FBC

The changes required to deliver the NHS GGC Waiting Times Improvement Plan

The impact of proposed service redesign as a result of West of Scotland Regional Planning, including the introduction of the Major Trauma Centre

The impact of the NHS GGC transformation programme - Moving Forward Together

This detailed analysis has enabled the development of a refreshed and revised future bed profile for both elective and emergency patient flows at the QEUH.

3.2.5 The review was completed in September 2019 and the findings and recommendations were discussed at the Board’s Acute Services Committee on 19 November 2019.

3.2.6 The report confirmed that the QEUH was built with 1121 inpatient beds, with 22 beds within the medical day unit, giving a total bed complement of 1143 beds. The configuration of the ground floor ‘Emergency Complex’ was designed to optimise early access to specialist care where required through the Receiving Wards (ARU) and the final design facilitated this pathway profile.

3.2.7 The specialty configuration changed during the development of the bed model and this led to the inclusion of Infectious Diseases and the Regional Bone Marrow Transplant Service with some additional beds being provided at Gartnavel to offset the Infectious Diseases changes. There has been minimal change to the service configuration since the hospital opened in 2015.

3.2.8 The Emergency Complex now consists of the Emergency Department and the Immediate Assessment Unit, the Clinical Decision Unit and the Acute Assessment Unit. The total bed complement in this area equates to 118 beds.

3.2.9 The detailed report of the capacity and flow review includes the following key findings:

- The Emergency Department was designed for 116,000 patients per annum, with the 2008 planning assumption of 108,500 ED / Immediate Assessment Unit attendances. The current level of demand on the QEUH is significantly higher than was originally planned, with 133,180 attendances in 2018/19.
- There is national evidence that at least 40% of people who attend ED do not require emergency intervention and could have been treated by an alternative service.
- The increased emergency attendances and admissions have provided a significant challenge to the hospital. Despite this, the hospital has performed at, or above, the peer average efficiencies that were proposed in the Full Business Case.
- The actual admission rates in relation to the percentage of patients
being admitted to a hospital bed have been below the anticipated levels, however, with the increased attendances, the overall number of admissions are in excess of those planned, with 11.8% more patients being admitted than originally planned.

- The planning assumptions relating to length of stay are similar to those originally anticipated, with an overall target of 5.2 days, and 5.3 days being delivered in 2018/19.
- The increased demand has led to an occupancy rate of 90% at QEUH, with between 82 and 85% being regarded as optimal to ensure efficient patient flow. This has led to considerable operational issues which the team have sought to address through redesign and efficiencies.

3.2.10 In summary, the QEUH is treating considerably higher numbers of patients than originally anticipated in the FBC. An improvement programme has been developed to address these issues and further improve the patient flows to optimise the efficiency of the service.

3.2.11 This work programme is being directed and managed by the Chief Operating Officer for Acute Services and progress is reported to the Acute Services Committee and the Board at regular intervals.

3.3 Clinical Outcomes Review

3.3.1 The Board fully recognises the seriousness of the current situation and the implications of its escalation to Stage 4 of the NHS Scotland performance framework, and is absolutely committed to providing a high quality service to all patients throughout NHSGGC. This aspect of the Internal review concentrates on the quality outcomes on the QEUH Campus. In order to ensure a robust assessment of the overall clinical quality and safety provided at the QEUH Campus, a review of clinical outcomes was commissioned by the Chief Executive. This review considered the following:

- The current Clinical Governance arrangements in NHS GGC
- The Hospital Standardised Mortality Ratio (HSMR) at QEUH
- Infection Control reports with comparison to external reports over the period, including Health Protection Scotland reports
- Patient and Carer experience feedback reports with benchmarking to NHS Scotland outcomes
- Clinical Quality publications with benchmarking against national standards

3.3.2 The review was completed in October 2019 and the findings and recommendations were discussed at the Board’s Clinical & Care Governance Committee on 3 December 2019.

3.3.3 Taking into account the wide range of parameters as outlined above, the review concluded that NHS GGC has maintained an appropriate set of clinical governance arrangements within services responsible for patient care in the QEUH and the RHC. These arrangements provide a clear
escalation and reporting pathway connecting the services on site with the Acute Services Division and the Board’s reporting and assurance arrangements.

3.3.4 The NHS GGC Clinical Governance Forum has confirmed it is satisfied that there are no areas or issues of serious concern evident in this review, and that the prevailing clinical governance arrangements are appropriate in ensuring issues are recognised and resolved. The Clinical Governance Forum also stated that there are numerous examples of good practice and quality in the content of these reports.

3.3.5 There is no indication of excess mortality in Standardised Mortality Ratio (SMR) for acute adult services at the QEUH, which is consistent with the national SMR.

3.3.6 Both internal and external review of available data indicates the QEUH and the RHC are not outliers in terms of rates of Healthcare Associated Infection (HAI) or practice.

3.3.7 For Significant Clinical Incidents (SCIs), there was an increased level of patient related incidents reported via Datix at the QEUH when compared with aggregated experience of hospitals migrating to the new building. These were previously reviewed and attributed to the impact of improvement programmes in encouraging more reporting. The Datix reporting rates at the RHC remain consistent with the past. The frequency and form of Significant Clinical Incidents (SCIs) is broadly comparable to expected patterns. There were a small number of SCIs in the period after opening of the new hospital, in which the contributory factors were potentially related to the establishment and integration of services at the QEUH and RHC.

3.3.8 Within the QEUH and the RHC, the experience and feedback from patients, carers, relatives and friends is generally positive, with 97% of respondents indicating that they would be likely, or extremely likely, to recommend the ward they had stayed in to a family or friend. Approximately 50% of feedback arising from the online systems contained an area for improvement, and approximately 50% of these are related to facilities (catering, smoking, premises and cleanliness).

3.3.9 The less favourable feedback relating to clinical quality was focused around communication, staff attitude and behaviour and clinical treatment. This is consistent with the feedback themes received across all NHS GGC hospitals. The variance in the specific feedback issues, coupled with the comparatively low numbers, suggests a reasonable level of reassurance that there are no significant systemic or recurring quality of care issues apparent from patient and carer experience feedback through these online methods.

3.3.10 The performance of the QEUH within the national publications reviewed indicates that services exceed, or meet, expectations for two thirds of the prevailing indicators/standards. For every indicator below the expected level, there is an action plan in place to improve clinical quality. There were no significant concerns over the quality of care highlighted within the corporately led review process for these publications.
3.3.11 Although the internal review has reached positive conclusions on the clinical outcomes at the QEUH and the RHC, there is clearly a considerable amount of public concern about the management of infection prevention and control on the QEUH Campus, particularly in the paediatric haemato-oncology service. These concerns are subject to an Independent Review and will also be considered by Lord Brodie’s Public Inquiry into the building of the Royal Hospital for Children and Young People in Edinburgh and the QEUH Campus in Glasgow. NHS GGC has allocated a dedicated resource to supporting both these inquiries and is committed to learn from their findings and implement any recommendations as quickly as possible.

3.3.12 The senior leadership team is currently working with the Oversight Board to ensure that their programme of work in relation to infection, prevention, management and control at the QEUH and the RHC and the associated communication and public engagement issues are addressed in a timely and appropriate manner.

4. Next Steps

The work of the Oversight Board, the Independent Review and the Public Inquiry should assist in increasing public confidence in NHS GGC’s clinical governance and the overall clinical quality and safety provided at the QEUH Campus.

4.1 Facilities and Environmental Impact Review

4.1.1 The development and implementation of the work programme to resolve the issues identified in the external technical advisor’s report continues under the oversight of the Director of Estates & Facilities.

4.1.2 The outcome of the legal action will be reported to the Board and the detailed report of by the external advisors will be made available to the Independent Inquiry and the Public Inquiry, subject to further legal advice.

4.1.3 The full report will be published as soon as possible after the Court action. The Board will be kept appraised of the timescale for the publication of the report.

4.2 Capacity and Flow Review

4.2.1 The Chief Operating Officer for Acute Services is managing a programme of work to implement the recommendations of the capacity and flow review.

4.2.2 In relation to unscheduled care demand this work includes:
   - Alteration to the triage model and the introduction of new clinical streaming models in the Emergency Department. This is expected to reduce the time to first assessment.
   - Improvements to the provision of the Resuscitation Department.
   - Changes to the ambulatory care pathways and their presence in ED
   - Reconfiguration of the bed profile within the Emergency Complex, particularly in relation to Care of the Elderly patients.
   - Further joint working with NHS 24, Out of Hours providers and the Ambulance service to support early and appropriate clinical triage and
direction.
- The introduction of a dedicated minor injuries facility at QEUH to reduce the demand in the main Emergency Department.
- Development of a more robust redirection policy to ensure patients are treated by the appropriate service.

4.2.3 The work on the review by the NECS team included the development of a modelling tool that provides a detailed analysis of capacity against forecast levels. NHS GGC is now using this tool to support scenario planning and the development and evaluation of the Moving Forward Together change programme.

4.2.4 In developing the response to the capacity issues at the QEUH, a review of the configuration of Acute Services across the NHS GGC South Sector has been initiated with a view to identifying what additional services could be provided from the Gartnavel Hospital Campus. Work is underway to define the precise nature and configuration of future services on the Gartnavel Campus. It is expected that this will play a significant part in alleviating the capacity issue at the QEUH.

4.2.5 In addition, work is underway with colleagues in the HSCPs to review patient pathways, as a key Scottish Government priority for integration relates to the provision of local ‘out of hospital’ services to support patients in their local communities. This work is viewed as key to shifting the balance of care from secondary to primary care and as a result reduce the demand for unscheduled care in the Acute Hospital Sector.

4.2.6 An increase in the pace of integration is required to ease the strain on Acute Service delivery. Therefore, the Joint Integration Boards have been asked to specifically consider this aspect of health and social care integration as they further develop their service commissioning, financial and strategic plans.

4.3 Clinical Outcomes Review

4.3.1 While the internal review has provided some assurance around the overall clinical quality and safety provided at the QEUH Campus, work continues to investigate and report on the clinical governance in respect of infection prevention management and control.

4.3.2 The Clinical & Care Governance Committee and the Board will continue to receive progress reports on the various activities and reviews around clinical governance and infection control over the coming months.

Finally, I’d like to thank all of those involved in completing the reviews into the concerns around the operational efficiency of the QEUH and the RHC. I’m grateful for their committed and thorough approach to delivering this important piece of work on my behalf.

Jane Grant, Chief Executive

NHS Greater Glasgow & Clyde