

Draft Report of SIMTEGR8 Project Workshops:

Glenfield Clinical Decisions Unit (CDU)

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1. Introduction

This is the second phase of the Simulation to Evaluate Great Care (SIMTEGR8) project. The first phase was undertaken in 2015 collaboratively between Leicestershire County Council, Healthwatch Leicestershire, Loughborough University and SIMUL8. It evaluated four patient centric service integrated admissions avoidance schemes being piloted through the Leicestershire Better Care Fund (BCF).

Evaluation of up to four further schemes has been built into the BCF Plan for 2016/17. These schemes are:-

- a) Ambulatory pathway at CDU (Glenfield) hospital admissions avoidance scheme for cardio/respiratory patients.
- b) Lightbulb Programme (housing support service).
- c) Help to Live at Home (domiciliary care).
- d) The Intensive Community Support (ICS) Service.

The evaluation is undertaken using facilitated simulation modelling, to support the development of patient centric integrated community services aimed at improving the user experience.

A crucial part of the assessment process is a set of workshops held with project leads. The purpose of the first workshop was to develop an agreed process map (i.e. conceptual diagram) of the pathway with the project leads. The second workshop used the computer model built as a result of the first workshop to facilitate a discussion on how the intervention can be improved. This report sets out the outcomes of these two workshops in relation to the Glenfield CDU.

These initial workshops were conducted as a partnership between staff at Leicestershire County Council and SIMUL8. The workshop participants included staff from the Clinical Decisions Unit, which is one of the services offered by the University Hospitals of Leicester. This report is structured using the methodology designed for the workshops, which will be outlined below. It was found that:

- The selection of the participants led to meaningful discussion about the patient pathways;
- The workshops identified actions that could be taken forward to improve the Glenfield CDU;
- The workshops stimulated collaboration between participants for future work on the Glenfield CDU.

2. The Clinical Decisions Unit

The Clinical Decisions Unit is a busy admissions unit at the Glenfield Hospital in Leicester, specialising in cardiac and respiratory conditions. It accepts patients from GP's, transfers from the Emergency Department, bed bureau referrals and direct 999 calls and is also a self-referral service for patients with respiratory conditions

When patients arrive on CDU they are triaged/streamed by a nurse to determine how quickly they will see a doctor. This is a decision based on clinical need i.e. sick patients will be seen first. Patients initially wait in a chair, dependent upon condition. Patients who require it may be admitted direct to a bed on the main unit. Patients are clerked and have initial tests and diagnostics. Those that require a bed will be transferred onto the main ward area as soon as a bed is available. Patients not needing a bed will wait in a communal seated waiting area whilst test are processed and clinical decisions are made to admit them to the unit or discharge home directly.

The evaluation focused on the effectiveness of the triage pathway for patients, from when they arrived at the Unit to when they are either found a bed on the unit, transferred to a ward elsewhere in the hospital or discharged.

3. Methodology

The *SimLean Facilitate* approach described in Robinson et al (2014) and the PartiSim approach described in Tako and Kotiadis (2015) have been adopted and modified to be used for the purpose of this study.

Simulation models are developed after discussing the pathways with relevant stakeholders in a facilitated workshop. These models are subsequently used in a facilitated workshop environment to generate understanding and discussion around the effectiveness of the pathway and how the user experience can be improved, and to identify potential improvements.

In order to analyse whether the patient pathway is the most efficient for the patient and the service the methodology follows a set of specific steps:

- Stage 1: Initial Pathway Briefing. This involves developing an initial understanding of the pathway and the data needed to inform the process map. The data are then interpreted as an initial process.
- Stage 2: Workshop – Conceptual Modelling. This includes discussion of the planned pathway and reflections on its efficiency. The discussion serves as a basis for developing the simulated computer model in order to evaluate the intervention.
- Stage 3: Model Development. This is a quantitative representation of the qualitative conceptual diagram developed during the previous workshop. Data in the model

may be adjusted to generate a representative behaviour of the system. The detailed complexity of the model is deliberately kept to a minimum to ensure stakeholder and patient participation in the next stages. The model developed aims to provide a good enough representation of the service to show the basic processes involved and to show the capacity and use of resources within the system.

- Stage 4: Workshop – Project Leads’ Perspective. This workshop uses the model to facilitate a discussion on how the intervention can be improved. The discussion involves the following four phases:-
 - Model Understanding, the simulation model developed is presented and shown to the participants to allow them to understand how the simulation works;
 - Face Validation, the participants are asked to consider whether the simulation model reflects what actually happens;
 - Problem Scoping, by taking a helicopter view of the pathway, participants are asked to identify issues which have previously remained hidden because they are normally involved in the detail of only their part of the process;
 - Improvement, during this session the group is encouraged to identify changes that can be introduced to the service to reflect on the ideas produced throughout the session.
- Stage 5: The Patient Perspective. Healthwatch designed a short questionnaire to be used when holding face to face discussions with patients in the CDU department to capture patient feedback at the various stages of the patient journey through CDU. This will also involve speaking to patients on the CDU wards where patients have already been allocated a bed. The questions are designed to allow them to be flexible and be used in the various areas of CDU i.e. ambulatory and cardiology.

4. Workshops

In the next sections, the structure and the outcomes of each workshop are presented separately.

4.1. Workshop 1: Conceptual Modelling

4.1.1. Introduction

The workshop was held on 24th January 2017 at the Glenfield Hospital. It was facilitated by the project manager, Rosemary Palmer (Leicestershire County Council) and Tom Stephenson, consultant from SIMUL8 Corporation.

The workshop participants were 16 key people working in a range of roles at the CDU. The project lead for the CDU service was extremely helpful in ensuring that the workshop was attended by the right mix of professional staff who contributed to all elements of the CDU pathway. This was a key factor to ensure success and on the day contributed to an environment where productive conversations could take place.

The sessions were managed within a tight timeframe of 2 hours to impact minimally on service delivery. The active participation of all attendees and their willingness to commit to action plans was very encouraging.

4.1.2. Participants' anticipated expectations for the workshop

At the beginning of the session the facilitator briefly introduced the overall aims of the SIMTEGR8 project and the four phases of the study followed by a short presentation of the sessions included in this workshop. Participants were then asked to express what they hope to gain from this workshop. The following expectations were identified:

- To improve flow and reduce delays;
- To speed up triage processes:-
 - senior decision making;
 - Clerking;
 - Less documentation;
- To improve the process for transfers (from the LRI) which avoid CDU;
- To improve patient dignity;
- To improve diagnostic and response times (including for chest x-rays);
- To test the impact that more space would have on the triage process (more chairs/beds rather than physical space)

It is noted that the aims relating to patient dignity and reducing the amount of documentation cannot be addressed through the simulation, although at the follow-up workshop there was some general discussion about how documentation could be reduced.

The remainder of the aims would be tested during the follow-up workshop (i.e. the project leads workshop, Section 4.2).

The format of the workshop was as follows:-

4.1.3. The Process Map

Participants were asked to describe the process for the triage element of the process that patients went through when they entered the CDU, from the patient being booked in to the Senior Review. The facilitator drew the process onto a whiteboard (Figure 1). The triage process had not previously been analysed in depth so this was felt to be a useful focus for the evaluation. After some discussion, the process map was agreed by all participants.

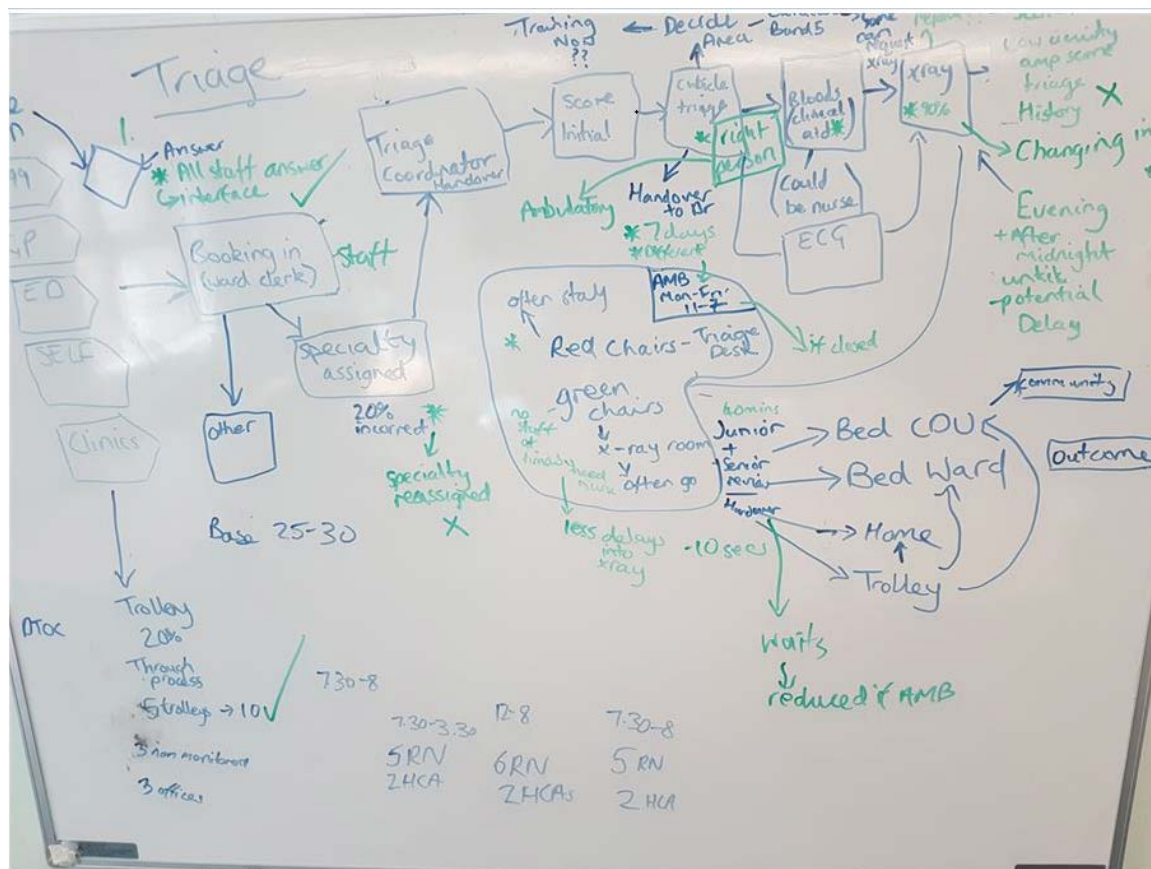


Figure 1. Step up Service Process map drawn during the workshop

After the workshop, the process map was converted into an electronic document, as set out in Figure 2 below

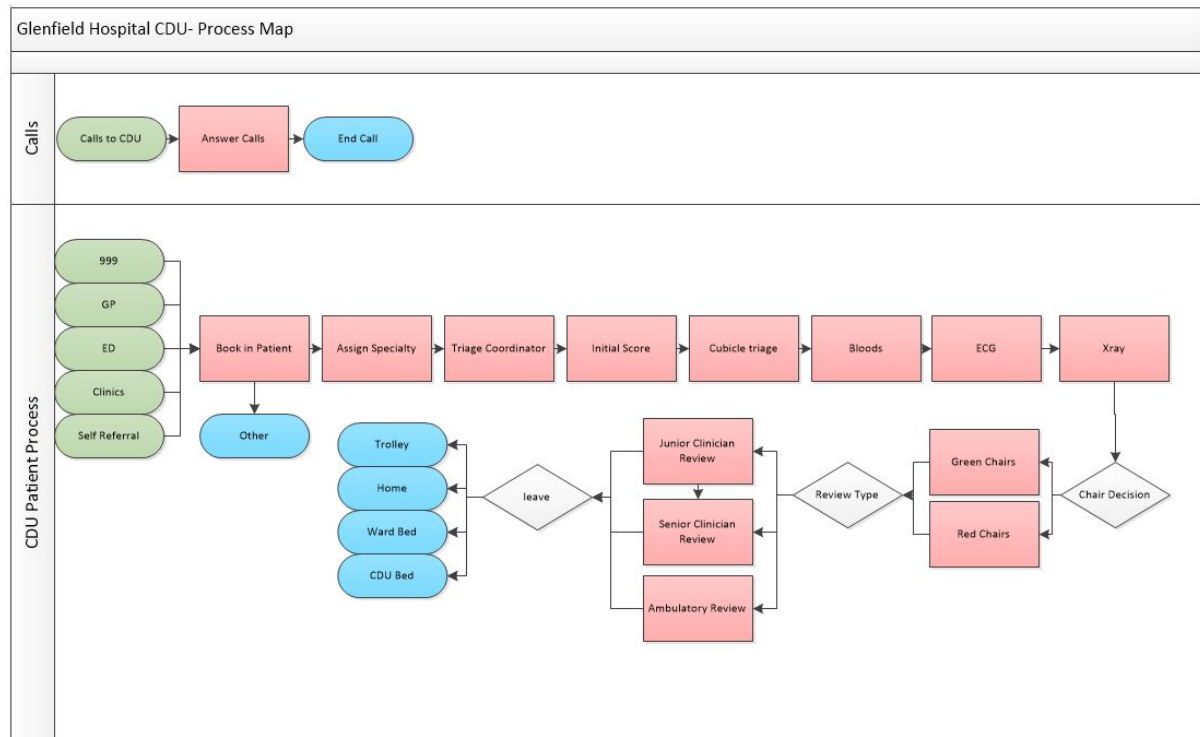


Figure 2. CDU Patient Process Map produced after the workshop

4.1.4. Pathway Effectiveness

Once the process map had been produced, the participants were asked to discuss their views of the effectiveness of the pathway. On the whole, participants were of the view that the process worked well and that staff had upskilled themselves to meet the requirements of the pathway. Improvements that could be made to the efficiency of the process related to increasing the space in the triage area. A paper had recently been submitted to the Trust requesting the following increases in space:-

- base ward would increase from 25 to 30 beds;
- trolleyed area would increase from 5 to 10 trolleys;
- triage and clinical rooms would also increase.

Insufficient staff numbers were also felt to contribute to the length of time that patients waited to be seen.

Some views were expressed that the pre-loading of investigations was an inefficient use of time, particularly for the ambulatory patients who were less unwell. Representatives of the ambulatory clinic felt that some of the investigations carried out during triage were unnecessary, for example some patients may not require a chest x-ray at this stage. However, on the whole it was agreed that the pre-loading of investigations was more effective than waiting until later in the process.

4.1.5. Performance Measures

Next the group was asked to identify measures that could be used to monitor the performance of the CDU process. The following measures were identified:-

- Initial “triage” by triage co-ordinator completed within 15 minutes;
- Wait for senior review;
- Patient outcome e.g. discharged, either to home or an alternative destination, or being admitted either to the CDU for up to 48 hours or to a base ward as soon as a bed became available. The average length of stay for patients on CDU is 12 hours.

It should be noted that, following the second workshop, it was confirmed that the wait for senior review should be no longer than four hours.

Once the simulation has run, the above measures are available as results which can be accessed by clicking the results button. By running the model with different input parameters the user can see the impact on these results. It would be possible to identify further measures during the second workshop.

4.1.6. Potential Scenarios that could be examined through the Model

Noting that an increase in space for the triage area had already been requested, participants were asked to identify whether there were any potential changes to the service which could be modelled to demonstrate whether or not they had a positive effect on the performance of the service. The following scenarios were identified:-

- The impact that the increase in space would have on patient waiting time;
- The effect of increased demand and the ageing population (projecting forward into the future)
- The effect of the having a designated person to answer the call for referrals to the CDU who had good knowledge and level of experience and was able to speak to the senior decision maker.
- The effect of having the ambulatory clinic available 7 days a week from 10am until 10pm.
- Identifying whether improving the interface with community services would improve the pathway. This included primary care co-ordinators and OTs/Physiotherapists who were not involved with the triage process.
- The impact of the green chair area being staffed.
- Increasing triage staff.
- Increasing the number of people clerking the patients.

It was noted that the rate limiting factor would be how quickly patients could be assessed in the first place.

4.1.7. Participants' Actual Outcomes from the workshop

At the end of the workshop participants were thanked for attending and were asked to express their actual outcomes from the workshop. These are summarised below.

Expectations that were stated at the beginning of the workshop showed that participants generally understood that the workshop could help them to understand the full process of the CDU as it currently operated. However, some of the participants' anticipated expectations were more relevant to the purpose of the Project Leads workshop rather than to this one, for example identifying how processes could be improved.

At the close of the workshop the participants generally felt that they had gained an understanding of the overall process and its interdependencies. They also had a better understanding of the stresses and barriers experienced by other colleagues. A number of participants commented that the process was more complex than they had originally thought. Participants from services such as imaging had also found the opportunity to express their point of view useful. One participant commented that he felt more confused at the end of the workshop.

In addition, participants were pleased that they had identified some areas where improvements could be made, such as using trained staff to undertake the triage process and having a dedicated member of staff to attend the referral telephone. These 'quick wins' could be implemented without the need for a simulation model.

Comparing participants' anticipated outcomes for the workshop to their actual outcomes at the end of the workshop, it can be concluded that their aims had generally been met.

4.1.8. Conclusions from the conceptual modelling workshop

The discussion during the workshop was lively with many contributors and engagement during the drawing of the process map was high. It was also useful to have participants across all elements of the pathway as this contributed to an environment where productive conversations could take place.

The concept of adopting a facilitated mode of practice to stimulate discussion on and create an agreed process map was effective. The discussion in this workshop revolved around the patient pathway, the effectiveness of the service and how the model could be used to test possible improvements to the service.

At the end of the session, participants demonstrated a shared understanding of the entire pathway, Therefore, using facilitated simulation modelling as a means of conceptual modelling has been successful.

4.2. Workshop 2: Discussing the simulation model with the Project Leads

4.2.1. Introduction

The workshop was held on 21 February 2017 at Loughborough University's School of Business and Economics. It was facilitated by the project manager, Rosemary Palmer (Leicestershire County Council) and Tom Stephenson, consultant from SIMUL8 Corporation.

The workshop participants were 10 key people involved in the CDU process. Not all of the participants had been able to attend the first workshop.

4.2.2. The simulation model

A screenshot of the model used for the project leads workshop and outputs page can be seen in Figure 3 and Figure 4 respectively. The model was a simplified reflection of the service and, due to a lack of data, was not completed at this stage. This allowed for a useful discussion around what additional data was needed to get most value out of the finished model.

The purpose of the evaluation was to help the project leads identify areas of potential service/process improvement rather than to show the detail of the service, which was another reason why the model was a simplified version. The model was built to allow users to assess the current patient journey experience. It would also help users to visualise the steps in the process and see how any changes would affect the process as a whole.

Figure 3. A Screenshot of the model used for the patient's workshop

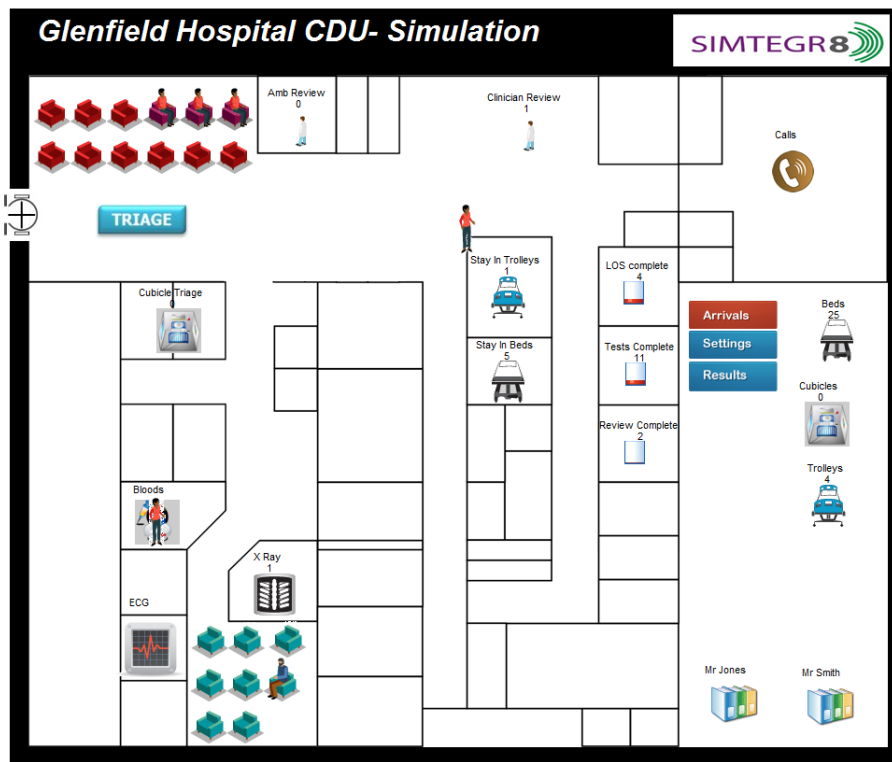


Figure 4. A screenshot of model outputs showing current service performance.

Timing Results	Results	Previous Run
Average Time in Triage (Min)	17.38	17.38
% Triage Within 15 mins	31.71	31.71
Average Arrival to Review (Mins)	126.01	126.01
% Seen by a doctor within 240 mins	84.85	84.85
Average Time in System (Hours)	20.70	20.70
Utilization Results		
Bed Utilization	72.07	72.07
Trolley Utilization	78.21	78.21
Cubicle Utilization	37.20	37.20
Average Time Waiting (Hours)		
Time Waiting for Tests or Review	0.66	0.66
Time Waiting for Review or Clinical LOS	9.66	9.66
Time Waiting for Tests or Clinical LOS	7.73	7.73

4.2.3. Participants' anticipated expectations for the workshop

At the beginning of the session the facilitator briefly reminded the participants the aims of the SIMTEGR8 project and the four phases of the study. She then explained that the purpose of the second workshop was to use the simulation model as a basis for the analysis of the intervention and the participants to work together to find ways that the simulation model could be used in the development of the CDU triage process. After introducing the sessions included in this workshop, the participants were asked to express what they would like to gain from this workshop. The following were identified:-

- To use the model to help inform discussions about the future of the ambulatory service;
- To use the model to identify whether the skill mix in the CDU was delivering the best outcomes for patients or whether it could be made more efficient;
- To identify where delays occurred in the process.

It is noted that all participants' expectations are relevant to the purpose of this workshop and are captured in the model.

The workshop sessions included the following sections:-

4.2.4. Model understanding

The approach taken to address model understanding was to check that both the basis for building the simulation models was considered accurate and that the participants understood how it had been transferred into the simulation software. This involved an initial "walk through" of the process map which had been developed at the previous workshop. The discussion identified a number of changes which needed to be made to ensure accuracy. A number of the participants at the workshop had not been present at the first workshop and therefore had not previously had the chance to provide input into the development of the process map. The updated process map is shown in Figure 5 below.

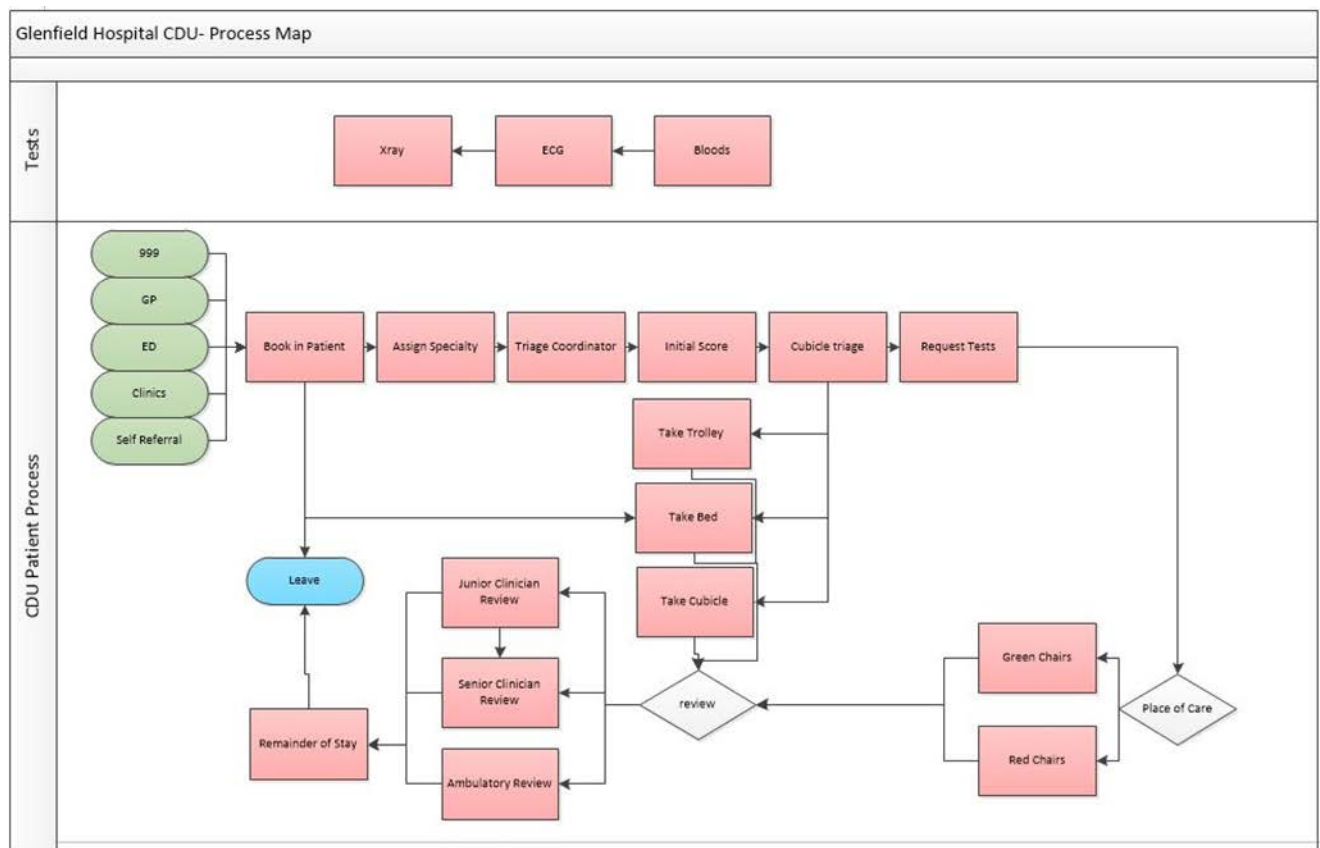


Figure 5: Process map following amendments made during Workshop 2

The workshop continued by demonstrating how this was built into a SIMUL8-based model and then the outputs of a simulation run were presented using graphs. Workshop participants were asked to take following points into account when considering the results of the model:-

- The data in the model regarding the time taken to senior review only reflected the amount of time after the junior reviewer requested the senior review, not the complete amount of time taken to review.
- The model does not show the difference between respiratory, cardiac and thoracic patients as the numbers of thoracic patients are low and it was decided that splitting the patients into different types was not necessary.
- The percentage split between the number of patients in beds and trolleys is not shown as this data is not currently counted.

The general conversion of the process map into a simulation model appeared to be understood by all participants.

4.2.5. Face validation

Having confirmed the understanding of the processes within the system the simulation was run through to allow the participants to view a top-down perspective and to study model outputs. Unfortunately the model could not be displayed on the big screen and so was passed around for participants to view on a laptop. The aim was to validate that the simplified simulation model was acting along the same lines as the real system. This wasn't intended to be a detailed validation to assess statistical accuracy, but instead for the participants to gain trust in the model, that it was performing as expected.

In terms of target times incorporated into the model, it was noted that the target for time taken to senior review was 120 minutes. However, it was confirmed that the target should be 4 hours. The target of 60 minutes to first review, where the patient would be seen by a Doctor or Advanced Nurse Practitioner, was confirmed to be reasonable.

It was suggested that the model could be amended to include outflow to the following:-

- Base ward;
- Discharge;
- Discharge via discharge lounge.

The data output from the simulation models in terms of the increased usage of the service and time taken for patients to complete the pathway matched expectations. A graph was produced using past data and projecting the same trend forward to show how average weekly arrivals would increase over time. At the request of participants, this graph was subsequently amended to include seasonality. The graph is set out in Figure 6 below

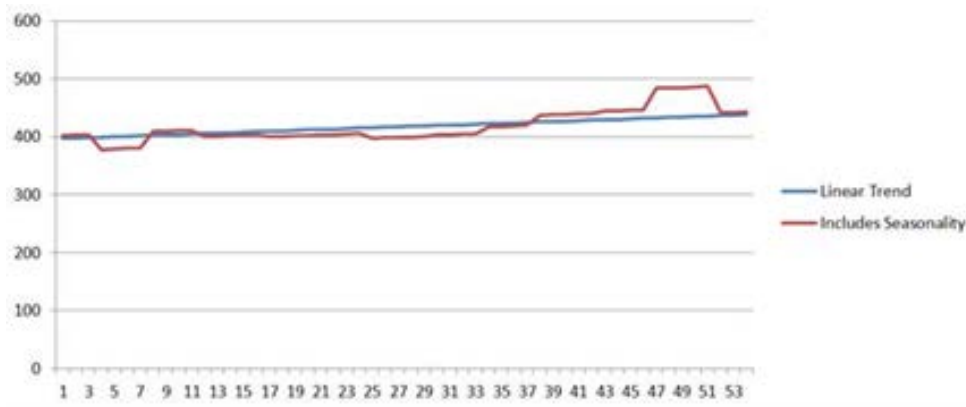


Figure 6: Average weekly arrivals with expected linear trend

In terms of improving the amount of time taken during triage, it was noted that the 15 minute target was not always met. Figure 7 below shows the time taken for each category of patients to be triaged. The categories of patient related to their 'Dynamic Priority Score' with 1 being the most unwell and 3 being the least unwell. Most patients were category 3.

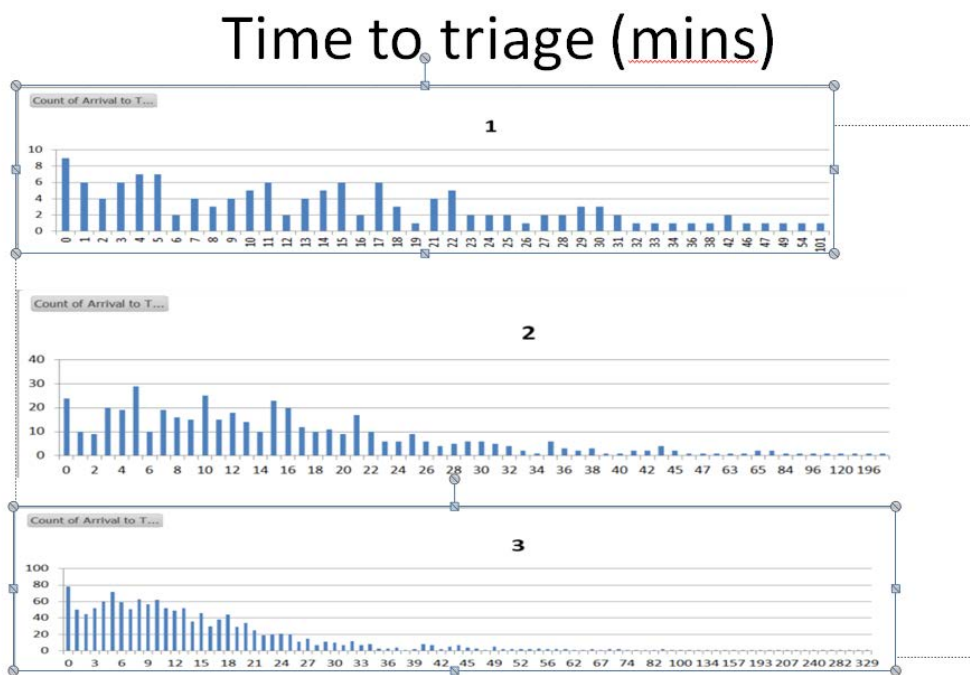


Figure 7: Graph showing time taken to triage for each category of patients

The model showed that the time taken to triage was not significant in terms of the overall performance of the CDU and did not cause a bottleneck. A 'time in motion' type test would show where there were opportunities to improve the time taken for the various elements of the triage process. This would also clarify the percentage likelihood of meeting the target

and the average amount of time spent in triage. From the data that had been provided, the average time taken to get through the triage steps was just over 15 minutes.

It was noted that the average number of patients classed as ambulatory was 19%; however there were big fluctuations in these numbers. Increasing the number of ambulatory patients could have a significant impact on the overall amount of time patients spent in the CDU. It was requested that use of the ambulatory pathway be presented in a graph, also showing when a GP was present to support the pathway. The graph is shown as Figure 8 below. The data did not show ambulatory patients so an assumption was made that the triage score related to the appropriateness of classing patients as ambulatory.

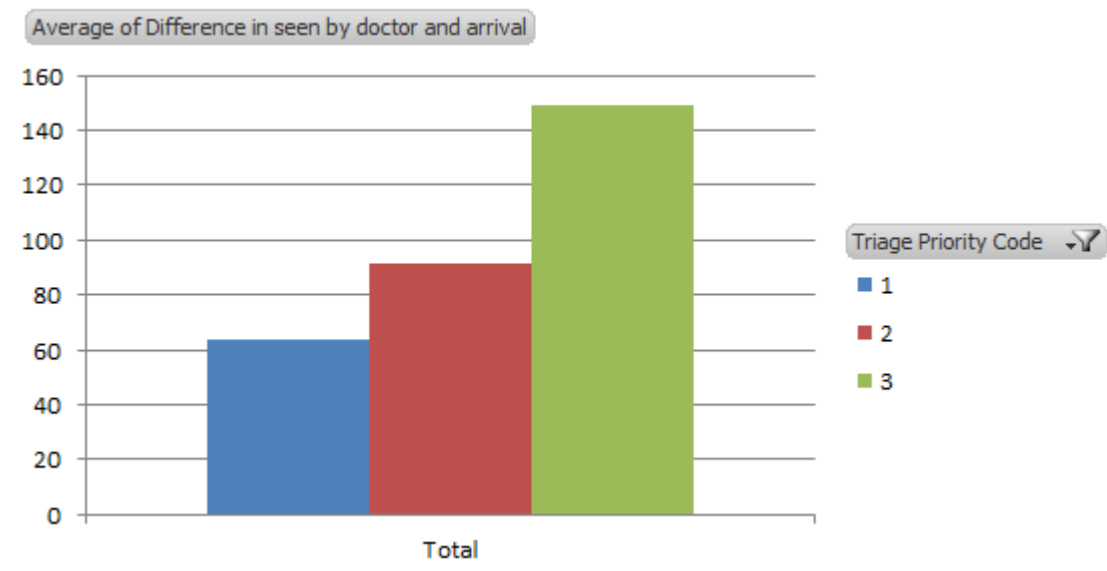


Figure 8: Graph showing difference in wait time depending on triage priority score.

4.2.6. Problem scoping

The facilitators and Project Leads were keen to understand whether any scenarios could be tested through the model to identify ways in which the service could be improved.

The following scenarios were identified:-

- Using the model to show an unconstrained run; from this the maximum number of beds that the service would ever need could be identified. The results of this are shown in Figure 9 below.

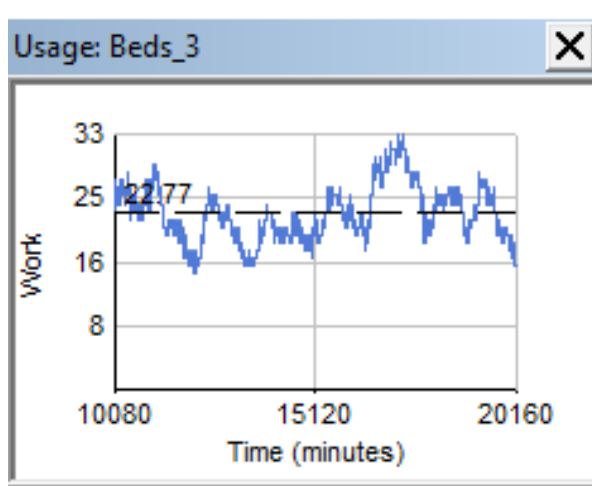


Figure 9: an unconstrained run from December 2020

- Identifying whether non-priority (category 3 patients) were waiting a long time to be seen and testing whether increasing the number of Advanced Nurse Practitioners specifically looking at these patients would have an impact on meeting the targets for category 1 and 2 patients. This would help to show whether more staff were needed. Figures 10 and 11 below show the results of these outputs.

Queuing Time:		
Segregation Category:	3	Non-Zeros
Minimum:	0.00	10.00
Average:	149.43	151.13

Figure 10: Wait time for category 3 patients

Queuing Time:		
Segregation Category:	1	Non-Zeros
Minimum:	10.00	10.00
Average:	72.14	72.14

Figure 11: Wait time for category 1 patients

- Examining the handovers between the day team and evening handover cardiologists, as delays in handover anecdotally resulted in further delays. Figure 12 shows the queue times at different times during the week, which appear to correlate more to arrival spikes than delays in handover.

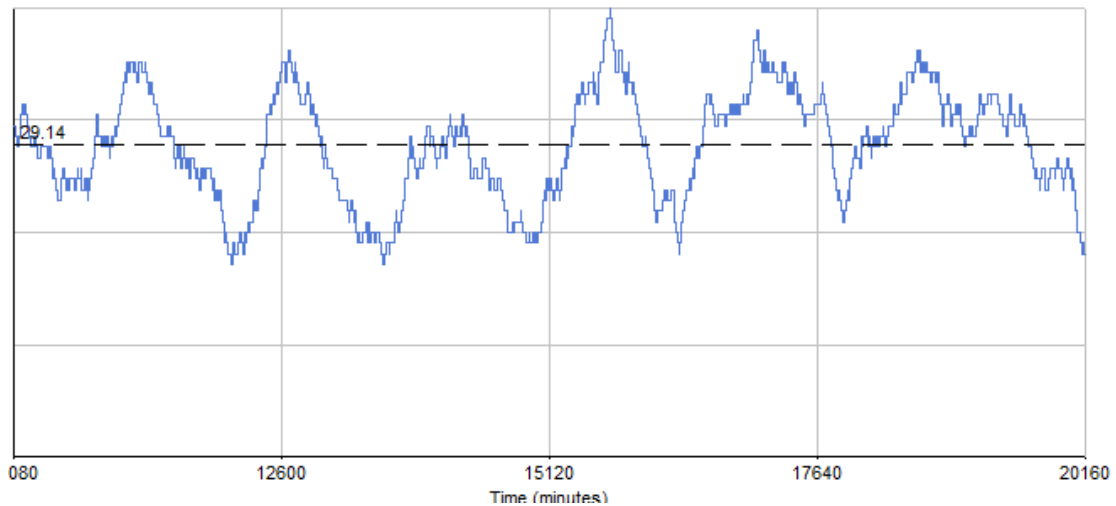


Figure 12: Queue size at different times during the week.

- Making an additional member of staff available for triage. Figure 13 shows the output from this test, where the additional member of staff results in a reduction of average treatment times in triage.

Triage Timings (Mins)			
Activity	Shortest Time	Most Common Time	Longest Time
Book in Patients	0.4	2	15
Assign Specialty	0.4	2	5
Triage Coordination	0.4	2	5
Give Initial Score	0.4	1	5
Request Tests	0	1	2

Figure 13: Reduction in average treatment times equating to an additional member of staff

It was suggested that it would be helpful to test whether more physical space would improve the functioning of the service. However, it was acknowledged that this would be difficult to do through the model. It was also confirmed that, due to a lack of data, it would not be possible to model the difference in performance between the cardiac team and the respiratory team.

The following limitations to the simulation model were also clarified, so that participants were aware of what would not be possible to test through the simulation:-

- The simulation only showed direct patient facing time staff spend with patients, it did not show other tasks. This made it difficult to see where staff were a limiting factor.
- There was no data showing when patients were in CDU beds
- The timings of individual triage steps were not available so had not been included in the model.

4.2.7. Improvement

The findings of the model generated discussion by participants on improvements that could be made to the triage process and CDU process without additional staff or space within the department.

One issue identified was that doctor roles were not sufficiently defined. For example, a doctor was not assigned to priority patients with another doctor being assigned to non-priority patients. In general, the doctors clerking patients tended to pick up the priority patients.

The amount of time taken looking for patients notes was also felt to add about an hour's delay for staff, particularly clinicians, during a shift. This could be modelled and would suggest the likely impact that the roll of Nervecentre, a piece of software that would replace the need for paper notes, would have on productivity. Prior to the rollout of Nervecentre, it was suggested that the CDU could do an exercise with staff to look at reducing activity which did not add value, such as looking for paperwork.

4.2.8. Participants' feedback on the workshop

At the end of the workshop, participants were thanked for attending and asked what they had learnt from the discussions during the workshop. Responses were that the workshop had highlighted the following:-

- the high workload and constraining factors within the CDU;
- the complexity of the interdependencies within the service and the constraints of the simulation, which needed further data to enable participants to get full value from it;
- the patient pathway through triage on CDU and the problems encountered.

The participants were also asked what, in their opinion, should be the next steps taken within the CDU service. The following were suggested:-

- more staff;
- increasing the physical space for the service;
- increasing the number of patients directed to use the ambulatory pathway;
- a time and motion study to identify how much time nurses were able to be 'patient-facing' in their role.

The participants were also asked to complete a questionnaire stating in a scale of 1 to 5 whether they agreed or disagreed with a number of statements about the workshops' communication, commitment, consensus and usefulness. Eight participants completed the questionnaire. The results of the questionnaires are presented below:

Communication	Average Score 1 = Strongly Disagree 5 = Strongly Agree
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1. The workshop provided me with an improved understanding of the CDU process	4
2. The model helped me gain a better understanding of the CDU process	4
3. There was open communication in the workshop sessions	4.5
4. I understood the model findings	3.75
5. I understood the opinions of others	4.125
6. The session leaders paid attention to my ideas and opinions	4.25
Commitment	
7. I was personally willing to involve myself in the interactive sessions	4.125
8. I had ample opportunity to participate in the workshop sessions	3.375
9. The topics discussed at the workshop are of importance to me	3.875
10. Providing a timely service is important to me	4.375
11. I identified activities that I could change as part of my day-to-day job	3.25
Consensus	
12. An integration of opinions was reached in the workshop sessions	3.625
13. The workshop sessions built a shared vision	3.375
14. Consensus about the next actions to be taken was reached as a result of the workshops	3.75
15. I agree with the conclusions reached	3.25
Workshop usefulness	
16. The workshops had a clear focus	3.75
17. All in all, I found the workshops useful	4.00
18. The model gave me a different perspective of the CDU process	3.75

4.2.9. Reflections on the project leads workshop

There was a good level of discussion at the workshop and the majority of participants were well engaged. It was unfortunate that the model could not be viewed on the big screen as this had a negative effect on how well the participants engaged with the model.

An additional issue was that the workshop had been held before all the data had been received and as a result the model was incomplete. However, this ultimately turned out to

be useful as it enabled the participants to identify further areas which they wanted to test to inform the final version of the model.

The identification of improvements to the service that could be made without additional staff or physical space was particularly positive as additional resources had not yet been confirmed.

The results from the survey given at the end of the workshop were positive with regard to communication and the usefulness of the workshop. Participants all agreed that the workshop provided them with an improved understanding of the CDU process and that there was open communication.

In terms of commitments, most participants were positive but some were undecided about their opportunities to participate and whether they identified activities they could change as part of their day to day job. Some participants were also undecided about how much consensus was achieved during the workshop. One participant who had not attended the first workshop felt that the workshop did not result in an integration of opinions or a shared vision.

It is possible that the consensus questions received the least positive responses in the survey because the model had not been finalised and still required more data.

4.2.10. Conclusions

The concept of using a process map and computer simulation of a patient pathway in order to stimulate discussion was effective. The discussion in this workshop revolved around the patient pathway, the service and the representation of the pathway in the simulated model. Participants demonstrated a shared understanding of the entire pathway, despite many participants only being involved in a small part of the service.

Actions were identified in order to finalise the model and make it useful as an ongoing tool for the CDU service to use. This would include modelling the effect of additional staff in order to inform future developments to the service.

It would have been useful to have had more of the same participants present at both workshops to give a degree of continuity. In addition, discussion was constrained due to the lack of visual display equipment for the model and the fact that it had not been finalised.

Overall, it can be concluded that, in this case, using a computer model of a patient pathway as a vehicle for improvement, change and development through a workshop with the project leads has been relatively successful. However, the true success of the process will come from a finalised version of the model which can be used with the project lead to inform future developments to the service.

4.3. The Service Users' Perspective

4.3.1. Introduction

The intention was that, once the simulation model had been built, a workshop would be held at the Glenfield Hospital.

Unfortunately, due to the frailty of patients who attended the CDU, it was very difficult to identify patients who were will willing or able to attend a workshop. It was therefore decided that instead of the workshop, a questionnaire would be used to gather feedback from patients whilst in the department and on the ward.

4.3.2. Designing patient feedback

On Wednesday 26 April 2017, Healthwatch Leicestershire and CDU service lead scheduled to listen to patients on the CDU department and on the wards, in order to gather feedback about the service they are currently using.

Seven patients in various stages and areas of the CDU process were spoken to on the afternoon of the visit to the department. We engaged with four male and three females. Before the visit, a list of questions was prepared in order to provide a consistency to how feedback was gathered. The questions along with the answers can be found in the following section.

4.3.3. What we learnt from the discussions during the home visits.

Building on the questions that were prepared for the patient workshop (as shown in the appendix) a more comprehensive script/ set of questions was developed in order to capture patient feedback. Below are the questions and a summary of the answers that were asked and gathered.

Who advised/ referred you to come to the Clinical Decisions Unit (CDU) at Glenfield Hospital?

From the patients we spoke to, the majority of them were referred to the department by their GP. See the list below for full breakdown.

GP referral = 3

Ambulance 999 = 2

A&E = 1

Other = 1

Some of the comments that were received around this question are as follows:

- “We rang the GP for an appointment and they said to call an ambulance. We drove to the new ED instead of calling an ambulance, we waited an hour to be seen and was then told to come to CDU at Glenfield”.
- “I went to the GP Hub at the Westcotes Centre and they made me a referral for the next day to attend CDU”.

- “I had an x-ray and had my x-rays presented to me by my GP. Within 30 minutes of me leaving the GP appointment, I was called and referred to CDU”.

Is this your first visit to CDU? When were you here last? How did you arrive?

Most people were attending the CDU for the first time apart from two who had been to the unit before.

One of the comments received around this question was as follows:

- “I spent 2 days on CDU then spent a further month on a ward. This time, I felt anxiety about coming on to the ward again and having to stay. I felt slightly institutionalised after spending 4 weeks on the ward and struggled when I went home”.

Once you arrived at the hospital, did anyone explain to you what is happening with your care?

There were a couple of patients that had received a phone call prior to arriving at CDU. The call explained where they should attend and a bit about what would happen once they arrived. The patients that received these calls felt more reassured about their care than others.

On arrival, all others patients mentioned that they had received very clear information and in most cases, were sent straight in to a cubical to have bloods taken.

Did you understand the information that you were given?

Everyone that was spoken to understood the information that was provided to them. Patients that had been waiting a while would have liked further information as to the progress of their care.

Can you tell me what illness you are here for?

Everyone that was spoken to knew why they were at the CDU, and most could explain in detail a deeper understanding as to why they needed to be in the department.

Some of the comments that were received around this question are as follows:

- “I had a heart transplant 15 years ago and recently went to see my GP who referred me straight to CDU”.
- “Severe chest pains with a numbing arm”.
- “I had a swollen finger which had turned slightly black overnight. I was told that it could be connected to my heart”.

Do you know which healthcare professional first provided your care and treatment? Does it matter to you who treated you?

Everyone that was spoken to said that they did not mind who treated them as long as they were seen and dealt with correctly. Some of the positions within the department are as follows:

- *Advance Nurse Practitioner*
- *Specialist Nurse*
- *Nurse*
- *Junior Doctor*
- *Doctor*

Have you had long waits? If so, can you tell us about these?

When patients entered the CDU, they were seen very quickly, usually to take a blood test, making the initial waiting time very short. After this point, the waiting times varied.

Some of the comments that were received around this question are as follows”:

- “I came at 12pm and did not have any waiting time, I was seen straight away”.
- “I have been waiting 4 hours and was offered a sandwich and drink”.
- “I have been waiting 3 hours and was offered a sandwich and drink”.

Can you rate the overall care that was provided during your visit, on a scale of 1 to 5?

1 being poor and 5 being excellent.

In terms of the overall care that patients received, 5 out of 7 rated their care as 5 out of 5. The remaining two rated the service as a 4.

Do you have any feedback on what could the CDU do differently in the future to make things better for you and the other patients?

Please see below some of the comments around improvement of the service:

- “They kept me informed about my care after a bad infection”.
- “Waiting area is not suitable for the amount of people that use it at one time. The unit did not know I was coming in even though my GP had rung ahead”.
- “Poor Wi-Fi service”.
- “Better communication, being kept informed”.
- “To be told how long I would be expected to wait and what the next steps are in regards to my care. At times, there seems to be a cluster of staff and I am not sure

what they are doing, the public are told how busy the hospitals are and I appreciate that, can things be done more efficiently?

4.3.4. Conclusion

On reflection, there are some reoccurring trends during the CDU visit as well as observations, which were:

- There was an obvious improvement needed in the entrance to the CDU department. Patients commented that this waiting area felt very crowded and staff commented that this area can often be standing room only.
- Improved communication between staff and patients that have been waiting for some time.
- How does the system continuously review they are receiving the right patients from referrals? Are there enough cardiologists per shift as opposed to GPs?

It would be useful to understand the number of patients that arrive in the department after being referred from elsewhere, for example, Leicester Royal Infirmary, in order to receive cardiac treatment: In relation to those who do not see a cardiologist but instead see a GP. The question is, could these patients have been seen somewhere else in the first place?

There was an observation made by Healthwatch and the service lead that some patients could have arguably been seen by the ambulatory GP instead of waiting for a cardiologist to review them, which would have saved time.

Patients on the day of the visit were very approachable and commented positively on the service that they were receiving.

APPENDIX: PREPARATION FOR THE PATIENT WORKSHOP

Given that preparation was undertaken for the patient workshop before it was identified that it would not be possible for patients to attend, the preparatory work is included here for completeness sake.

Healthwatch created an invitation that could be sent to potential participants. It was designed in a style that would be easily understood and explained why they were being invited to a workshop, when and where it was being held and what would happen as part of the workshop. See example in figure 1 below.

Figure 1. Invitation to participants



The project investigator used the questions designed by Healthwatch to inform a presentation that would be delivered to workshop attendees. See Figure 2 below.

Figure 2. Powerpoint Presentation for scheduled workshop.

Patient Journey: Your experiences

- Have you had similar experiences to the patient cases presented in the computer model?
- What do you think of the service? (Discuss)
 - Is the service as good as going to hospital?
 - How did you arrive at the hospital?
 - Person that provided you care, the standard of care.
 - Did you experience a delay in your care/discharge?
 - Layout of the Unit



Also, as part of the workshop preparation, service leads and Healthwatch produced case studies (figure 3 and figure 4) that would be used to support the demonstration of patient experience.

Figure 3. Case Study 1

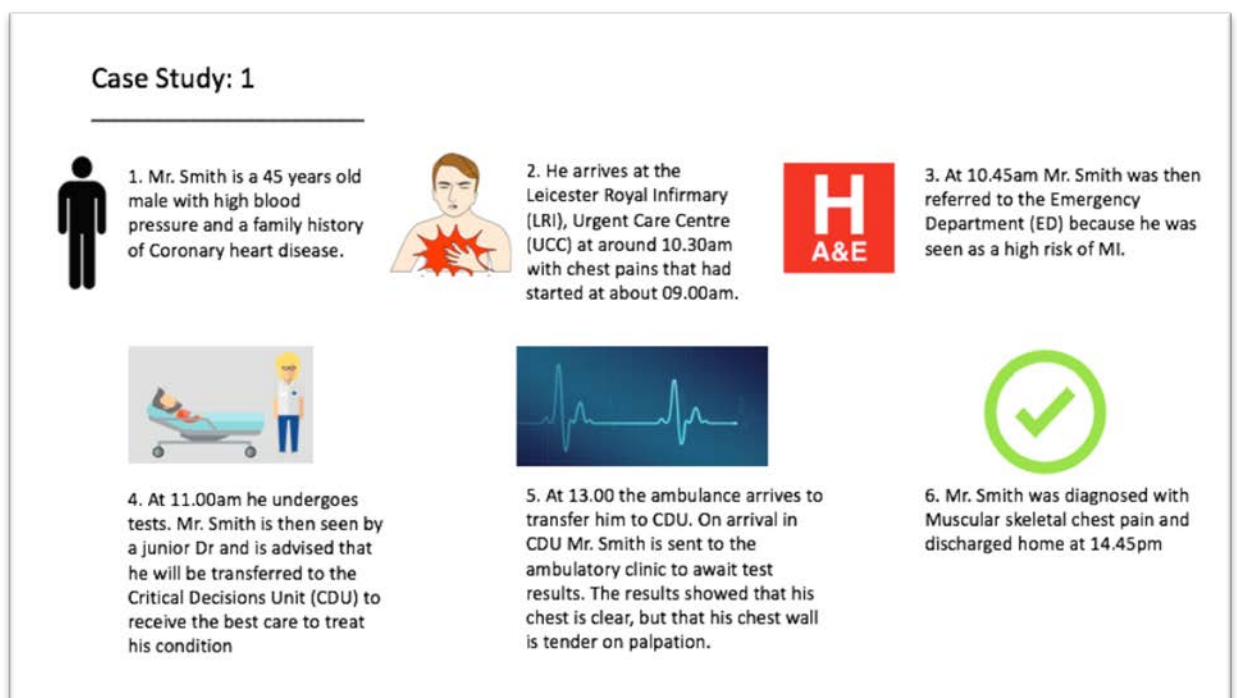


Figure 4. Case Study 2

Case Study: 2



1. Mr. Jones is a 62-year-old gentleman who complained about a sudden onset of chest pain, which had started the previous day about 3pm. The pain lasted for about 2 minutes. Mr. Jones had a little bit of sweating and thought that he looked off colour.



2. At about 6.30pm, he had another episode which lasted for 5 minutes along with some sweating. It was at this point Mr. Jones called an ambulance.



3. The Paramedics checked Mr. Jones and decided to contact the CDU however there were no beds. Mr. Jones refused to go to the Emergency Department (ED) at Leicester Royal Infirmary (LRI) therefore the paramedics left him at home.



4. The next morning, Mr. Jones visited his GP who advised him to attend the LRI ED. This time he decided to attend, where they referred him to the CDU without any blood tests.



5. Mr. Jones arrived at the CDU at 1.00pm where they performed blood tests and was later discharged at 2.15pm with non specific chest pain.

A screenshot of the model that was to be used for the patient workshop can be seen in **Figure 5**. The user mode model was particularly developed in a user-friendly format, compared to the simulation model used for the project leads workshop. Simplified and improved graphics were added on the model to ensure that the visual impact of the model draws users' attention. In light of not being able to bring users to a central workshop, the model was never shown.

Figure 5. Patient Model Simulation

