NHS Lanarkshire

Essential Action 1: Clinically Focused and Empowered Hospital Management

NHS Lanarkshire Case Study:

Testing the ED Capacity Management Guidance document within Hairmyres Hospital

6 ESSENTIAL ACTIONS Unscheduled Care

Healthier Scotland Scottish Government

Background

A consultation paper on 'Emergency Department Capacity Management: Proactive Management of the Admissions Flow through Emergency Departments' was developed by a short-life working group in 2014. The purpose of the paper is to provide hospital sites with guidance on how to safely avoid crowding in Emergency Departments in Scotland.

In July 2015 NHS Lanarkshire offered to test the implementation of the guidance outlined within the consultation paper. NHS Lanarkshire has three acute hospitals with Emergency Departments (ED) in each one. It was decided that initial testing would be carried out within Hairmyres Hospital with spread to Monklands and Wishaw Hospitals once initial processes had been established at Hairmyres.

In past winters, Hairmyres Hospital had struggled to cope with demand and they recognised there was a need to improve systems and processes to ensure safe and timely flow of patients from ED. This case study outlines the process and methodology that NHS Lanarkshire adopted to test the ED Capacity Management Guidance and ensure the safety of patients in the hospital, in the context of a wider programme of improvement work.

Our aim

Our aim is to ensure the safety of patients attending ED by the elimination of crowding and ensure there are steps in place to avoid having to enact Full Capacity Protocol (FCP). This is being achieved through a comprehensive inter-disciplinary improvement plan that spans across the continuum of care. Full Capacity Protocol is considered a 'never' event and is indicative of a system failure. Testing the ED Capacity Management Guidance has provided us with an opportunity to develop structured processes aligned to on going improvement work to avoid crowding, as well as consider contingency plans in the event of crowding to ensure patients are safe at all times.

Improvement method

A short-life working group was established and chaired by the Chief Executive. Membership included senior clinicians and managers from Hairmyres initially, and then extended to Monklands and Wishaw once testing had been established.

Improvement methodology was used to test the guidance and measures for crowding. Multiple tests of change were carried out at each stage of the process within Hairmyres Hospital using the Model for Improvement framework (figure 1)[1].

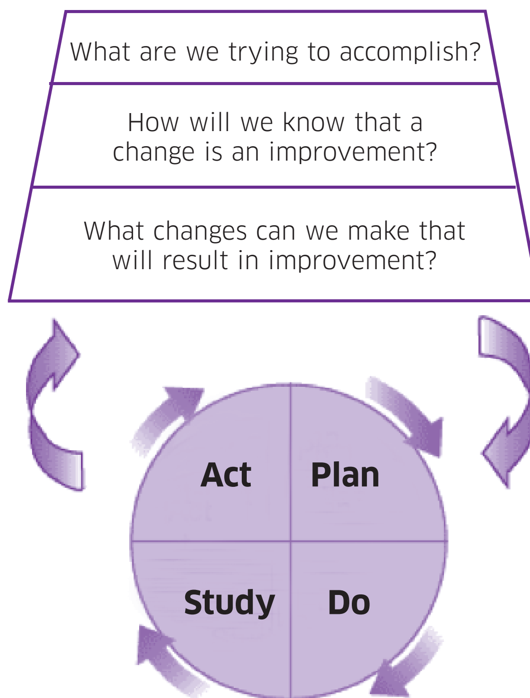

Figure 1: Model for Improvement

[1] Langley G.L. Nolan K.M. Nolan T.W. Norman C.L. Provost L.P (2009) The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2nd Edition). Jossey Bass, San Francisco. ISBN-10 047019210 ISBN-13 978 0470192412 – See more at: http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/plan_do_study_act.html#sthash.djQHarnw.dpuf

Process

In total, it took the improvement team six months to draft and test the ED Capacity Management Guidance and escalation steps. This involved building on previously implemented improvement work to improve safe and timely whole system patient flow. For example, Hairmyres Hospital uses a daily barometer to understand the pressures on the site, with associated management team actions and systematic use of surge capacity. This work was aligned closely to existing escalation steps, with a focus on understanding the early signs of crowding in ED to allow for earlier escalation.

The high level process steps the team followed throughout the six months are described below:

1. Set up short life working group

The first step in developing and testing the guidance was to set up a short life working group. This group was made up of clinical leaders, managers and directors and chaired by the Chief Executive. This provided strong leadership and support for the work and helped to maintain focus, direction and momentum.

2. Tested operational definitions

The group considered what measures should be used locally to trigger escalation steps in response to crowding. The principles required locally for measures included:

- Can the measure be easily monitored?
- Is it meaningful?
- Does it lead to focused action?

The improvement team developed a tool to assess capacity within the ED and carried out four test of change cycles to refine the tool, measuring activity in the department at different times in the day to establish their triggers for escalation (see to the right).

Date	Hospital:						Hairmyres / Wishaw / Monklands													
Time																				
Resuscitation Bays occupied																				
% of bays full																				
Majors Cubicles occupied																				
% of cubicles full																				
Minors cubilces occupied																				
Time to first assessment in minutes																				
Delays to offloading ambulances.																				
Time in minutes in delay for paramedics to handover patients.																				
If 80% capacity in either Majors or Resuscitation ask both Nurse-in-Charge and Senior Doctor the questions below?																				
Are there patients who can be safely moved to another location within ED, such as step down from Resus? Yes/No/NA																				
Are there patients who are ready to move to the speciality required? Yes/No/NA																				
Is there a plan for these moves within the next hour, eg speciality referral or bed availability? Yes/No/NA																				
If yes, in How many minutes is the move likely to happen?																				
Overcrowded is when the department is over 80% capacity in majors and/or resus, but the department is not yet full.																				
Would you define your department as overcrowded at this time? Yes/No/NA																				
Overcapacity is when the department is full with no capacity to either assess or treat patients who attend.																				
This is a clinical decision by both the nurse in charge and consultant.																				
Would you define your department as overcapacity at this time? Yes/No/NA																				
Additional areas in use																				
Number of patients in the Waiting Room																				
Number of patients in the corridor																				

Once triggers for escalation had been identified, the next step was to agree algorithms and create Action Cards linked to each trigger point, providing a structured decision making process and steps to work through to safely reduce the risk of crowding in the Emergency Department (see below).

NHSL Emergency Department Crowding Tool

ED Crowding – IS the ED Crowded? – Step 1

A.
1. How many bays are available in resus if only one **resus is crowded.**
   Action – Move patients who do not require resus care to other appropriate clinical area
2. How many bays in majors/resus are occupied
   If 80% or more spaces occupied – review use of cubicles
   Action – move patients who do not currently require cubicle into waiting area.
   Patients cannot be moved to be on a trolley in corridor.
3. If unable to clear space and majors patients still in waiting room or awaiting ambulance offload = ED is crowded – **escalate to Action Card 1**

B.
1. Are there patients waiting > 2 hours from time clinically ready to move
2. How many? – if 5 or more patients = ED Crowded – **escalate to Action card 1**

ED is Crowding – IS the ED at Full capacity? – Step 2 (cannot reach step 2 without having been at Step 1 previously)

A.
1. All bays in majors occupied & only 1 space in resus available (Despite actions at Step 1)
   Action – Immediately free ED cubicles by moving patients who do not currently require cubicle to other area of the ED. Patients cannot be moved to be on a trolley in corridor.
2. If unable to clear space ED at Full capacity – **escalate to Action Card 2**

B.
1. Are there patients waiting > 4 hours from time clinically ready to move
2. How many? – if 5 or more patients = ED Crowded – **escalate to Action Card 2**

C. Are there delays in offloading ambulances > 15min – **escalate to Action Card 2**

NHSL Emergency Department Crowding Tool

ED is Crowded – Is the ED Overcapacity? – Step 3 (cannot reach Step 3 without having been at Step 1 & 2 previously)

A. All ED cubicles are full (and used appropriately) & patients are in non clinical areas
i.e. Patients on trolleys or chairs in corridor, patients in waiting room with conditions requiring trolley +/- monitoring)
Action – Department is over capacity – **escalate to Action Card 3**

B. 1. Are there patients waiting > 8 hours from time clinically ready to move
2. How many? – if 5 or more patients = ED Crowded – **escalate to Action Card 3**

C. Delays in offloading ambulances > 30min – **escalate to Action Card 3**

NHSL Emergency Department Action Card

Action Card 1

1. Site/Duty Manager informed
2. Ensure resus capacity maintained
3. Senior nurse attends ED to support ED Senior nurse
   Are beds available within 1 hour?
   - Yes – Why not available now? – prioritise measures to move patients to these beds & de-escalate ED crowding
   - No – high risk of situation escalating to full capacity, ED Consultant to complete department board round with the Senior Manager on site
4. Ensure that actions from Dashboard are being carried out
   - Downstream ward Senior review
   - Identify and rectify blocks to flow
   - Optimise ambulatory care and use of discharge lounge
5. If cannot rapidly de-escalate
   - Divert GP expects to other NHS Lanarkshire sites
   - Inform Director of Acute Services
6. If extra capacity not already in use make plans to open & staff

NHSL Emergency Department Action Card

Action Card 2

1. Ensure resus capacity maintained
2. Conference call –
   - COTE, Medical, Surgical, ED Consultants & Site Manager
   - Meet in ED during day – Conference call OOH
   - Within 15 mins
3. Ensure that actions from Dashboard are being carried out
   - Downstream ward Senior review
   - Identify and rectify blocks to flow
   - Optimise ambulatory care and use of discharge lounge
4. Ensure pre-identified extra-capacity is staffed and now in use
5. Identify patients who can safely be boarded
6. Consider cancelling day case procedures to free up this area for appropriate patients if not already done so
7. If GP referrals not already diverted – must occur unless other hospitals at same level of crowding
8. Executive on-call informed of critical nature of situation

NHSL Emergency Department Action Card

Action Card 3

1. Invoke full capacity plan
   - Immediately contact Director of Acute Services (in hours) or the Executive on Call (out of hours)
   - Director of Acute Services and or Executive on Call will escalate to the Chief Executive
   - The Chief Executive confirms action to FCP
2. Move pre-indentified patients to be 5th patient in 4 bedded area
   a. 1 patient each to the identified wards
   b. All attempts must be made to find capacity and bed so this lasts for minimum amount of time
3. Ensure diverts remain in place
4. Expedite any discharges/investigations etc. that will free capacity and allow de-escalation
5. Review all elective activity for following day

These Action Cards have been printed and are available in the ED and in a duty manager box file available in the management suite. This box file also contains copies of 'business as usual' escalation including an SOP for managing every patient, every time in ED (which is displayed in the ED), the hospital barometer and associated escalation steps, and guidance on FCP.

3. Clinical decision making

Full Capacity Protocol is considered an exceptional response to untoward and unexpected circumstances. The decision to implement this step must be clinically-led, however, final authorisation should come from the Chief Executive. Therefore, it was crucial that clinicians from all specialties were involved in developing the decision matrix that included the possibility of having to enact Full Capacity Protocol and understanding risks and consequences of this decision. This was helped by senior, clinical leadership. Clinical leads from across all areas of the organisation had membership on the working group, ensuring that progress was clinically-led and understood across the whole hospital. This also helped create a sense of shared responsibility across the hospital in ensuring that all steps were taken to proactively manage patient flow, eliminate ED crowding and avoid having to enact FCP.

4. Managerial and executive decision making

To support the clinical decision making matrix, the team developed managerial and executive decision making matrixes and action cards. This includes question prompts, information metrics to monitor and system wide actions i.e consideration of cross-site ICU cover, communication with GP, Out of Hours Service & Director for Primary Care to scope out support from district nursing services etc.

5. Table top exercise

Two table top exercises, held in November 2015 and January 2016 helped the team to work through and fine tune the process, working through all escalation steps and Action Cards to ensure everyone knew what their role should be and what would be expected of them. These table top exercises included the Chief Executive, lead clinicians and teams from across the three hospital sites and allowed them to simulate the steps from recognising escalation trigger points and working through all clinical, managerial and executive decision making steps.

Outcomes

In Hairmyres Hospital, the team use their SOP for managing every patient every time and the hospital barometer daily to identify early signs of pressure in the system. This allows them to monitor and alleviate pressure hotspots within the hospital on a daily basis.

Throughout the month of January, 2016, Hairmyres used the escalation tool daily to monitor the risk of crowding in the ED and alleviate pressure by following their step by step action cards. The result was proactive management of patients with improved patient experience. Prior to this process being in place FCP was seen as an option however, this winter, there was only one occasion when they enacted FCP and moved some pre identified patients to downstream wards where there were no beds currently available. The following day, Hairmyres Management Team met with lead clinicians to debrief steps taken and ensure that no patients had come to harm. Additionally, the team reviewed all actions to ensure no alternatives had been averted.

Managerial and clinical staff have commented that although winter was challenging this year, having the refined SOP, step by step guidance and clear escalation plans and action cards to follow has meant it felt safer than years previous:

"There was one particular week in January where we could see the pressure building but it felt more planned. Knowing the step by step guidance is there is reassuring as a Duty Manager. We have a structured process to follow to avoid the department becoming crowded, as well as a structure to de-escalate and avoid having to go to FCP."

(Graham Simpson, Duty Manager)

"Along with other improvements we have made such as daily huddles and our daily 'onion' (newsletter), the process of working through the ED Capacity Management Guidance has helped us to create a sense of shared responsibility across the organisation. It has challenged perceptions that ED causes problems elsewhere in the system by promoting conversations across hospital teams and providing a structured way to provide an awareness of the whole hospital and how teams can support each other. This work has also allowed us to define what we mean by overcrowding and overcapacity and develop measures and a tool to identify triggers, meaning we can escalate and take immediate action. It has provided a structure to manage crowding in a way that we didn't do so before. Having a structure means that we can not only eliminate crowding when it happens, but we proactively predict and escalate before we become crowded."

(Karen Morrow, Service Improvement Manager)

> "It has given us a structure and a process to follow that is standardised. This Winter felt very different to last year; it felt safer."
>
> (Neil Ferguson, Duty Manager)

Learning Points

Involving all clinicians:

Having clinical leads from across all areas of the organisation on the working group helped the team to ensure that progress was clinically led and understood across the whole hospital, including nursing staff. It helped to evoke a sense of shared responsibility and ensure there was a whole system response to avoid crowding in the ED. It was also crucial in developing contingency plans in the event that steps to avoid crowding are not successful, to ensure that patients are kept as safe as possible at all times. It is vital that clinicians from across the hospital were involved in those conversations to ensure in the event that the site did have to go to FCP, there is a clear understanding of where the clinical responsibility for individual patients lies. It therefore proved crucial to have strong clinical leadership and engagement from clinical leads across the whole organisation when developing escalation plans.

Testing local definitions of crowding:

Measures for crowding need to be agreed and tested at a local level. Having a Quality Improvement lead working alongside a clinical lead helped the team at Hairmyres to ensure there was a robust process to track and measure cycles of change whilst testing these measures, local definitions and trigger points. It helped us to refine our SOP for managing every patient every time and review how ED escalation steps fit into wider hospital escalation within the Barometer. Testing local definitions also helped challenge myths around crowding and put some robust triggers and definitions in place.

Who declares overcapacity?

The ED Capacity Management Guidance document advises that the decision to enact Full Capacity Protocol should only be made by the Chief Executive, Medical Director or formal deputy. In testing the guidance, NHS Lanarkshire are in agreement and believe this decision should be clinically led, however final authorisation should come from the Chief Executive.

Key Contacts

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ISBN: 978-1-78652-307-5

This document is also available on The Scottish Government website:
www.gov.scot

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS73065 (06/16)