

Innovating for Improvement

Developing a Model of Recognition and
Rescue of the Deteriorating Patient
across the Community Setting

NHS Borders



About the project

Project title:

Developing a Model of Recognition and Rescue of the Deteriorating Patient across the Community Setting.

Lead organisation:

NHS Borders

Partner organisation:

SB Cares (Scottish Borders Council)

Project leads:

Mrs Sara Dickson

Dr Nicola Lowdon

Contents

About the project	2
Part 1: Abstract	4
Part 2: Progress and outcomes.....	7
Part 3: Cost impact.....	21
Part 4: Learning from your project	24
Part 5: Sustainability and spread	29
Appendix 2: Project finance	Error! Bookmark not defined.
Appendices	31

Part 1: Abstract

Prior to the inception of this project there was no standardised way of reliable and early recognition of patients who were found to be deteriorating in the community setting and communicating this across the care interfaces.

As healthcare policy increasingly guides our practice towards caring for patients in the community setting, in an appropriate and safe environment, NHS Borders identified a need to provide clear decision making support and a systematic approach to assessing this group.

The early recognition of signs and symptoms of deterioration allow for early intervention and treatment, reducing mortality and morbidity. It also enables more efficient use of health care resources and reduces length of hospital stay.

NHS Borders has four community hospitals where patients with a variety of conditions are provided with rehabilitation, palliative care or step-down care following an acute admission. In addition, the health board runs a community Out of Hours service, led by Nurse Practitioners and GPs.

The Borders General Hospital, our acute facility, has a tried and tested method for recognising the deteriorating patient and responding appropriately to 'rescue' the patient. The National Early Warning Score (NEWS) is used with effect to identify sick patients in the acute setting and potential was seen for reproducing this approach in the community across all teams and, particularly, in the community hospitals. This project involved designing a model adapted to be fit for purpose across the two test sites of a community hospital and OOH service. The model was tested using improvement methodology to gain reliability before embedding and spread.

The aim of the Project was to ensure that 100% of patients in the two test sites receive reliable and timely NEWS as their clinical condition dictates, ensuring that nursing staff respond appropriately and in a timely manner, and are able to follow a reliable escalation procedure by July 2016. The test sites included a community

hospital, the GP out of hours service and a local residential care home.

Following extensive cycles of testing and once established in the test sites, the central part of the project was expanded to include all four community hospitals, all community nursing teams and the out of hours GP service.

There have been many stakeholders involved in the project and, at each stage, opinions have been sought and considered carefully. Throughout this report there will be quotes from some of the many people who made the project a success.

Our core project team came together following a short delay in recruiting a project manager and clinical lead. Both of us have a clinical background and we were seconded from the NHS Borders GP Out of Hours Service. My colleague and clinical lead, Dr Nicola Lowdon, is a GP who also works in the Out of Hours Service.

Successes and Challenges

- Overall the project has revealed a great appetite for change and development both within the project team, the original test sites and in the community setting.
- Opened and improved communication channels as a result of the project.
- As a small project team, we met on a monthly basis to review our progress and discuss any challenges/solutions. The enthusiasm of the team has been a central element of the initial and continuing success of the project.
- As clinicians, we had very little experience of Quality Improvement and so this involved a steep but welcome learning curve and a short period of adjustment. We have found our clinical knowledge to be very beneficial in guiding the work and establishing constructive and supportive relationships with the staff in the test sites.
- Feedback received from each site following introduction has been extremely positive with a strong willingness and commitment to sustaining the development. It was also an asset that we had the support and active sponsorship of senior managers within the organisation.
- Prior to my secondment, I was working as a nurse practitioner in the GP Out of Hours Service. While project manager, I worked reduced hours in a dual

role until early October 2015 because of service provision needs. This delay impacted upon the early collection of baseline data but overall did not hinder the progress of the project and, in fact, we exceeded our aims.

- Our residential care home test site, Waverley Care Home, has been beset with both unforeseen and planned issues that hindered their progress within the first half of the project. Other difficulties within the test sites have challenged the project but ultimately, led to great learning opportunities. Details of these problems and challenges will be addressed later in the report.
- Through using the Patient Escalation Decision Making Record (PEDMR), decision making, particularly during the Out of Hours period, has been streamlined resulting in fewer inappropriate transfers and resuscitation attempts.
- Community Hospital staff and community nursing teams have been up-skilled as a result of the structured approach of NEWS and the training they have received, this has increased their confidence in managing the deteriorating patient and escalating appropriately.
- This project has fostered a more proactive approach to anticipatory care planning which has improved patient safety.
- The opportunistic training program of small informal sessions was extremely successful. 80-90% of ward nurses were trained this way with the remainder completing e-learning modules. Community nurse teams were also approached this way with approximately 90% completed within the project.

Part 2: Progress and outcomes

Description

We compiled a driver diagram (Appendix a) and a project initiation document, pulling together the ideas and expectations of the team and building upon our original proposal. A 'road map' for achieving the aims of the project was agreed:

3 broad aims for the project:

- 1. To improve early identification and rescue of the deteriorating patient in the community by:**
 - a. Introducing NEWS into the community hospital required modification of the existing BGH chart to include a community specific escalation plan for patients who trigger on NEWS.
 - b. Increasing the frequency of measuring observations to twice daily (exclusions and 'accepted parameters' to be documented in patient's notes i.e. COPD or palliative care). Reinforcement that the use of clinical judgment must be in addition to NEWS.
 - c. The development of a community hospital escalation plan that takes into account distance from BGH and skill mix of staff on the ward.
- 2. Improving communication of treatment expectations (patient, family, GP etc.) by use of a 'patient escalation decision making record'. This document will be a record of the patient's wishes and guidance for nursing and medical staff regarding treatment plans. This intervention is planned for the community hospital and residential care home.**
- 3. Promoting the use of a structured communication tool for all verbal and written referrals using SBAR, this will be implemented in the community hospital, out of hours service and residential care home.**

A series of semi-structured interviews were carried out at Kelso Community Hospital to gather a thematic baseline of staff opinion and feelings regarding the implementation of NEWS into their practice (Appendix b).

We knew that it would be essential for the success of the project to establish a good working rapport with all staff involved in the test sites from the outset, especially as we were coming in from a different service. Staff were encouraged to give honest feedback during each of the test sessions. Two examples of our PDSA forms can be found in Appendix c. A great achievement of the project has been the opened and

improved communication channels.

Community Nursing Teams

With our community nursing teams, we used a collaborative approach to implementing NEWS. We had regular meetings, working with them at overcoming the challenges and barriers they identified (e.g. the practical problem of not having enough pulse oximeters). This approach proved successful in engaging their interest and participation.

Sepsis and NEWS

Initially, we had planned that sepsis 6 would be implemented when people appropriately triggered the NEWS. Unfortunately, due to governance issues around antibiotic administration, we have not yet met this unofficial target although the community hospitals and BECS are completing elements of sepsis 6 with a view to working towards it.

Adjustments made to Outcome Measures

Our application form included metrics that proved to be difficult to gather or not as valid for rigorous evaluation as was originally intended. For example:

- Measuring an increase in the number of escalation calls to GPs from the ward was difficult to isolate as there are different routes in for these calls and the information is not reliably collected or recorded.
- The number of unplanned admissions into the Emergency Department and Medical Assessment Unit also proved problematic. There were no data available on direct admissions from Kelso Community Hospital to the emergency department and onward. The most effective way we could collect this information was by using Scottish Ambulance Service figures looking at the frequency people were transferred by ambulance to the Emergency Department.

Despite not gathering this data we were able to successfully measure and evaluate the impact of our project where the innovation was implemented. Our audit sheets were designed to capture data weekly from case notes and observation charts

(Appendix e).

Validity and Reliability of Data

The modifications we made to our measurement plan (Appendix d) at the outset of the project ensured we had confidence in the validity and reliability of the data and information we intended to gather. It was also our intention to combine quantitative and qualitative measurements so that we could adequately evaluate impact in both of these domains. We achieved this effectively.

The staff and patient stories, and their feedback, have been fundamental to not only to measure impact but also for planning sustainability and spread of our approach. The quantitative measures allowed us to track the project's progress and identify any issues about implementation of the intervention. The run charts provide a clear record of project success.

What the data showed us

The data we have collected strongly indicates that there is a need for implementation of the NEWS chart in the community hospitals combined with a robust system of anticipatory care planning and SBAR communication. Initially, we found that some or all elements of anticipatory care planning were absent in the case notes and the staff felt unsure about how or when to escalate the care of a patient. This was a driver for extending the scope of our project. The run chart series below demonstrates a very low or absent level of structured review at baseline and a significant increase when testing of the 'Patient Escalation Decision Making Record' commenced in December 2015. We also monitored presentations of Sepsis to the GP OOH Service and found that there was a fractional difference between a 3 month period since implementation and the same 3 month period last year suggesting very little impact from the intervention.

Structured Review Compliance

Since embedding the 'Patient Escalation Decision Making Record' (PEDMR) at Kelso Community Hospital test site the 5 factors that make up a structured review are now considered by the GP by completing the form. This series of run charts demonstrates the improvement since implementation.

- Risk of deterioration reviewed and documented.
- Limited reversibility of patient's condition assessed and documented.
- Management plan reviewed and updated.
- Anticipatory care plan considered.
- 'Do not attempt cardio-pulmonary resuscitation' (DNACPR) documentation in place.

The Patient Escalation Decision Making Record (PEDMR) is shown below and can also be found full size in appendix f.

PLEASE DO NOT AMEND THIS FORM.
If any of the treatment plan has changed please complete another form and file this form immediately to the back of the case notes.



PATIENT ESCALATION DECISION MAKING RECORD

AFFIX PATIENT ID

HOSPITAL:

WARD:

DATE:

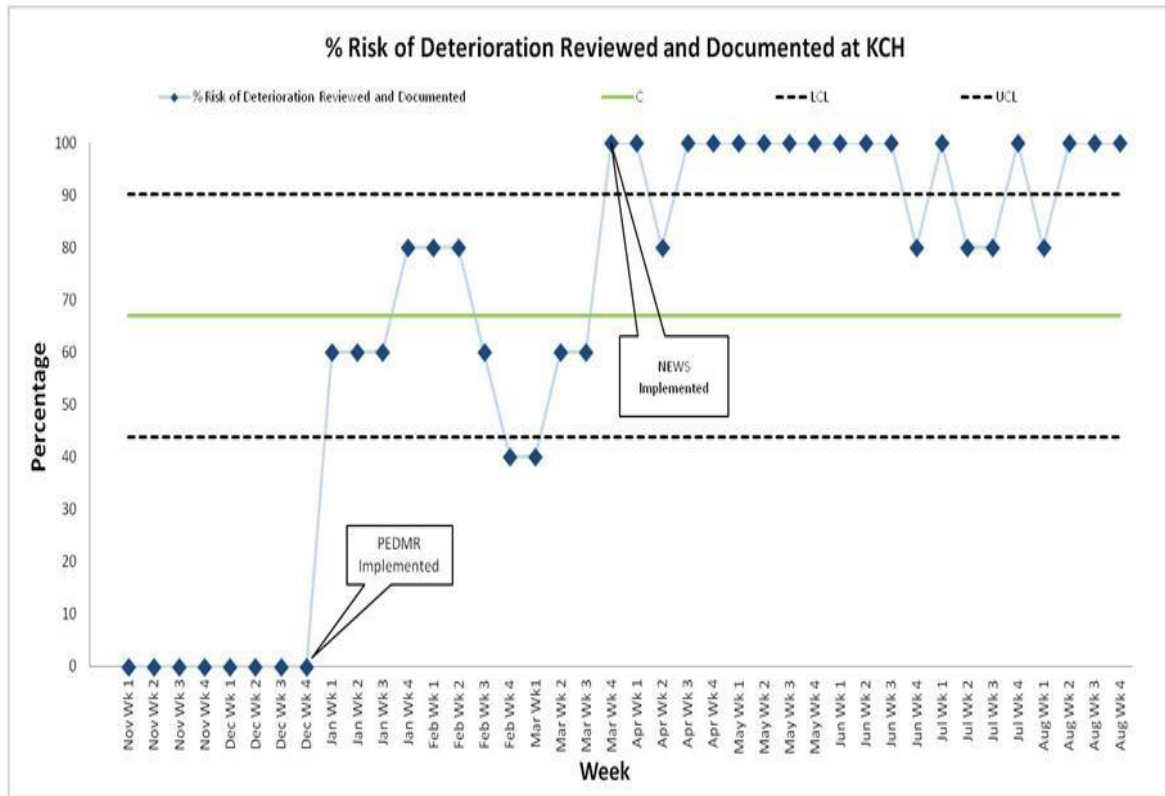
RESUSCITATION STATUS	
Is a DNACPR order currently in place for this patient? If YES: Date decision made: Date of expiry:	YES/NO
ESCALATION STATUS	
Is the patient suitable for transfer to the BGH? If they are NOT for transfer to BGH are there any limits on which treatments should be given to this patient: Further antibiotic treatment? Further monitoring? Comments:	YES/NO/ UNDECIDED YES/NO YES/NO
Is this patient purely for SYMPTOMATIC MANAGEMENT i.e. no active treatment of new medical problems? <i>Expected death documentation should usually be completed in these cases.</i> Discussed with: Family/Patient/Next of Kin/Welfare Attorney or Guardian (Delete as appropriate) - If not, why not?	

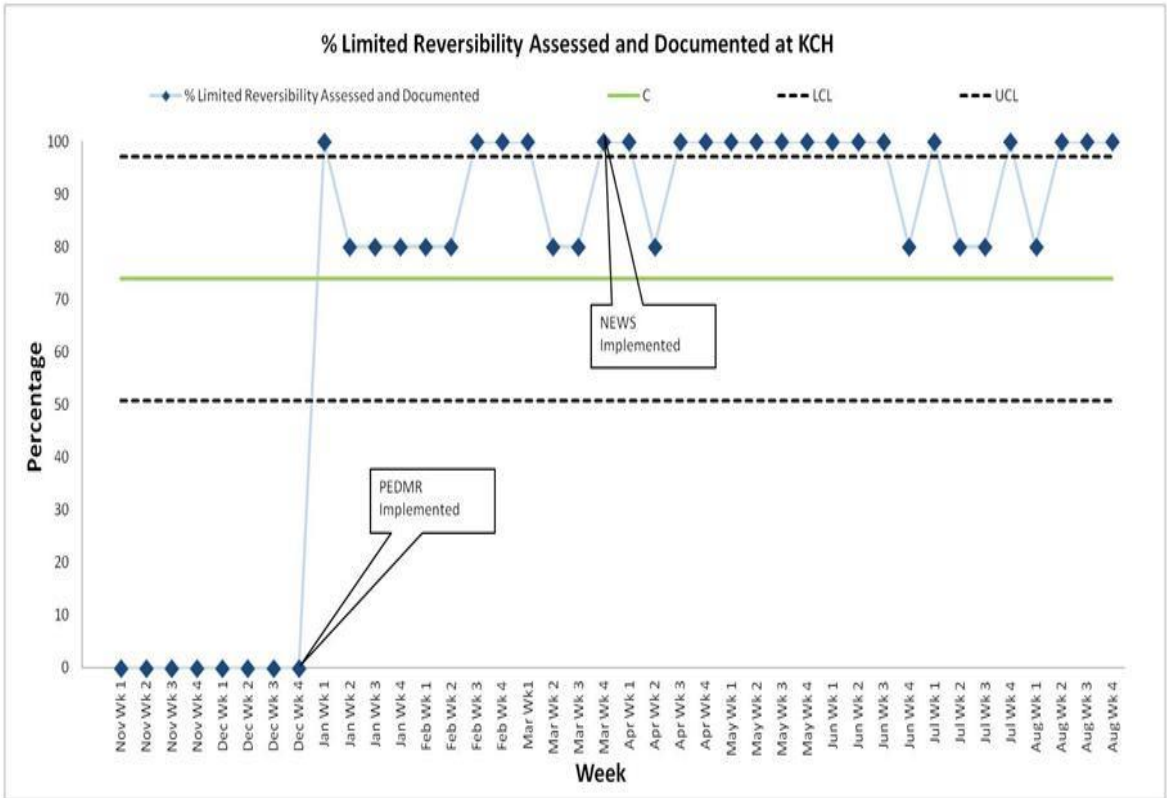
Name of doctor completing form:
Signature:
Name of nurse completing form:
Signature:

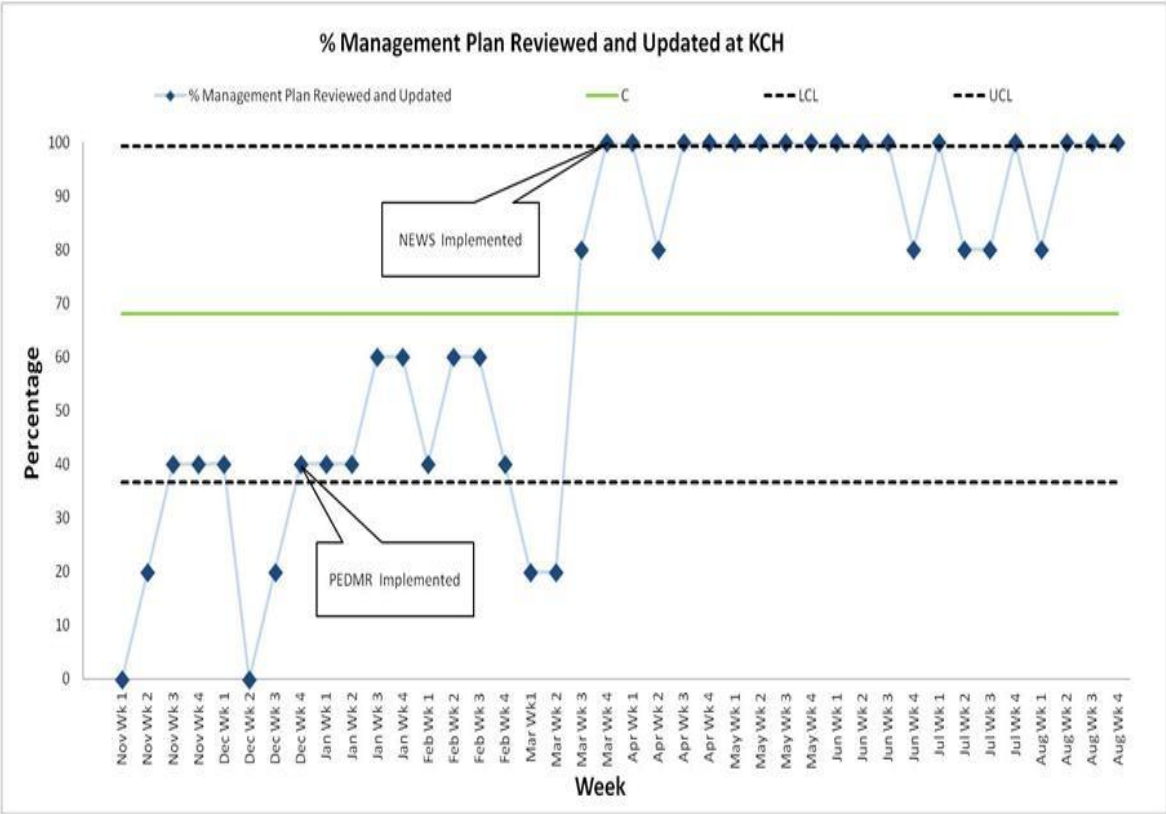
Date of form review:

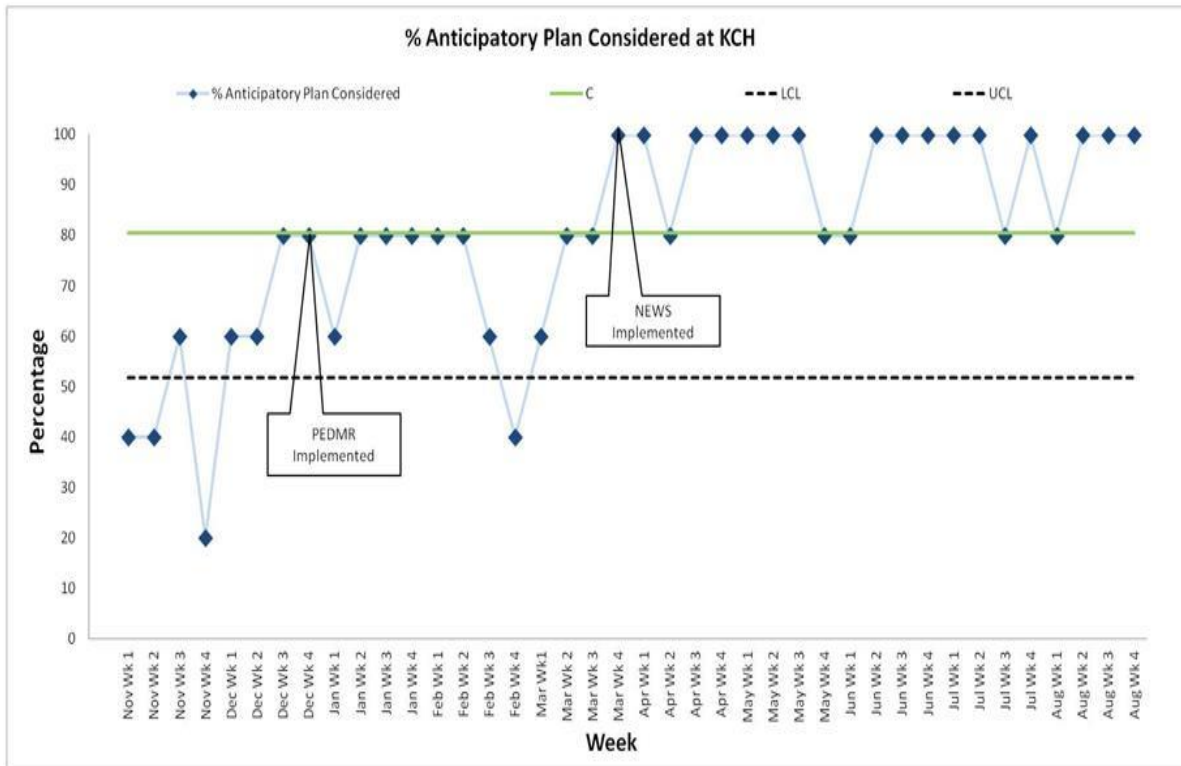
v7.

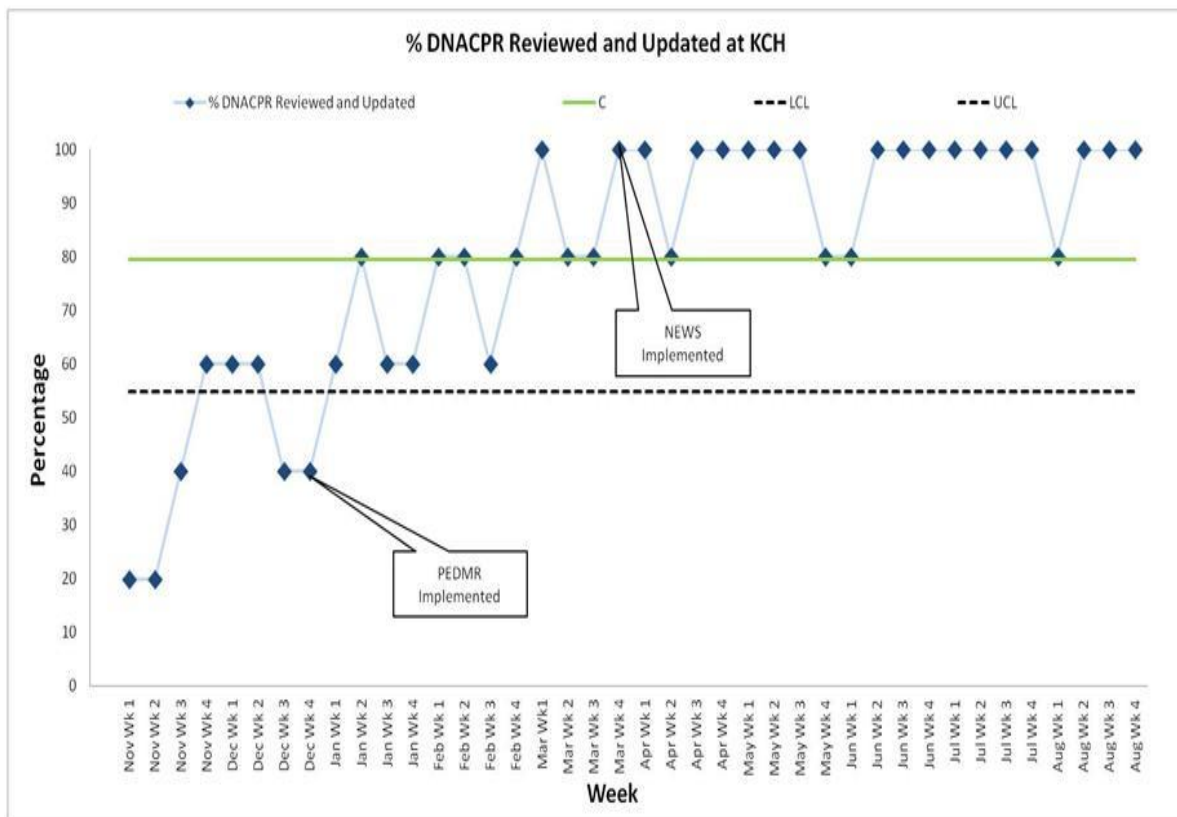
Run charts demonstrating the improvement in the undertaking of a structured review according to use of the Patient Escalation Decision Making Record











The NEWS tool was tested on a small scale and staff then began to use the scoring system to refer patients. This was an unexpected impact that had an immediate positive effect on patient management.

NEWS Training

We first provided small informal sessions and have since given ongoing support throughout the period of familiarisation. This has ensured consistency and increased compliance.

Staff Feedback

The interviews of staff revealed a common theme, they generally concluded that a more structured and systematic approach to identifying the deteriorating patient was essential and that the NEWS tool empowered them in decision making and referral. The questionnaire also revealed that staff felt strengthened in their confidence not only in assessment but also in the way they were able to communicate with GPs when escalating a patient's condition. Another frequent concern experienced by staff prior to the introduction of NEWS was being unsure when and how to escalate

patient care. Statements from the semi-structured interviews can be found in Appendix i.

The questionnaires supplied to the trained staff at Kelso Community Hospital provided very encouraging qualitative data regarding how well NEWS has been received and adopted on the ward (Appendix g).

- 100% of respondents strongly agreed with the statement '*NEWS gives me clear instructions on what to do should a patient trigger*'.
- 80% of respondents strongly agreed with the statement '*Using the escalation criteria, I get a better response from the doctors*'.
- 90% of respondents strongly agreed with the statement '*NEWS helps me make decisions whether or not to call the doctor to review patient*'.
- 20% of respondents strongly agreed with the statement '*NEWS only makes extra work for me*' while 60% disagreed with the statement and 20% strongly disagreed. Statements such as '*Agree, but still is important and must be done*' were written next to the question and this was a common viewpoint.
- 70% of respondents strongly disagreed and 20% disagreed that '*NEWS takes away my clinical judgement skills*'. 10% agreed with the statement.

Staff from the community hospitals were also encouraged to make anonymous comments in a free text box. Examples were.....

“NEWS has improved the way that patients are monitored in the hospital, it has also added time and work to what we already do but I can see that it is worthwhile and has made the ward safer”

“I work at night and using NEWS has made me feel much better about ringing for help and giving the information that the GP will ask me for, the escalation document is good for knowing what has been agreed for a patient”

“Feel much better supported now that NEWS is being used”

“I like the NEWS charts – much clearer and better organised to show what’s happening with a patient and what we need to do next”

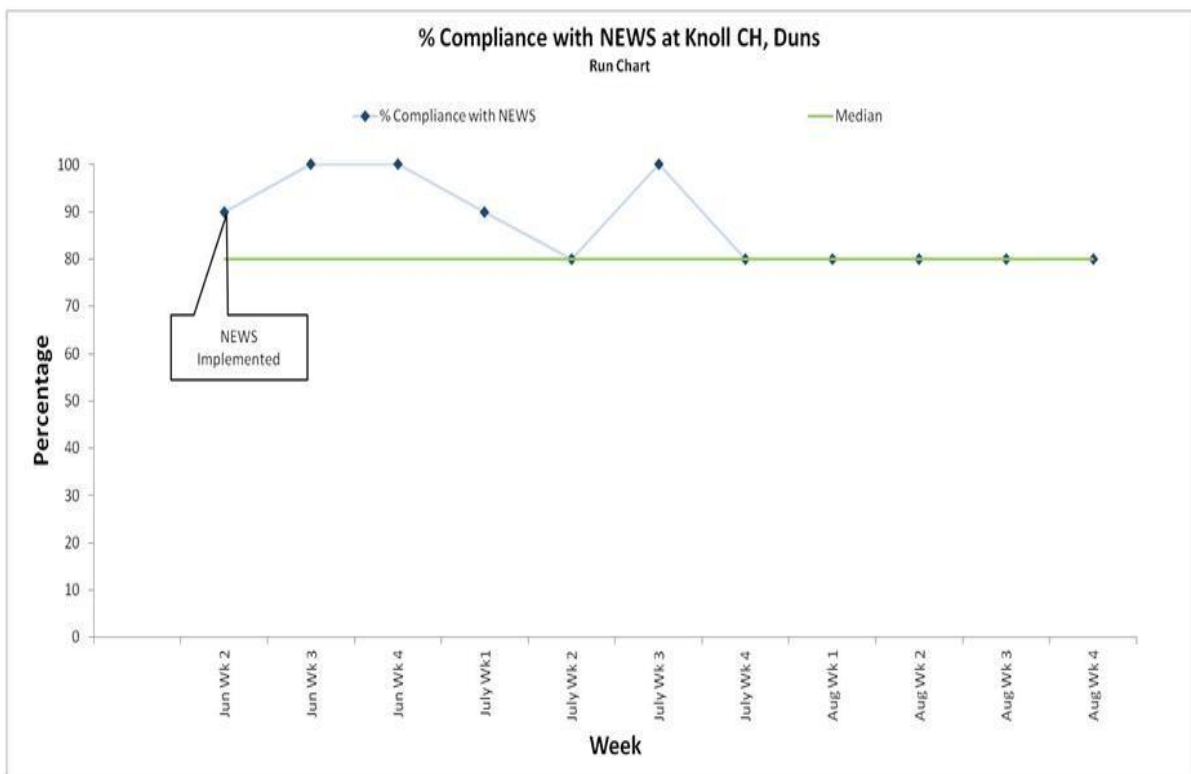
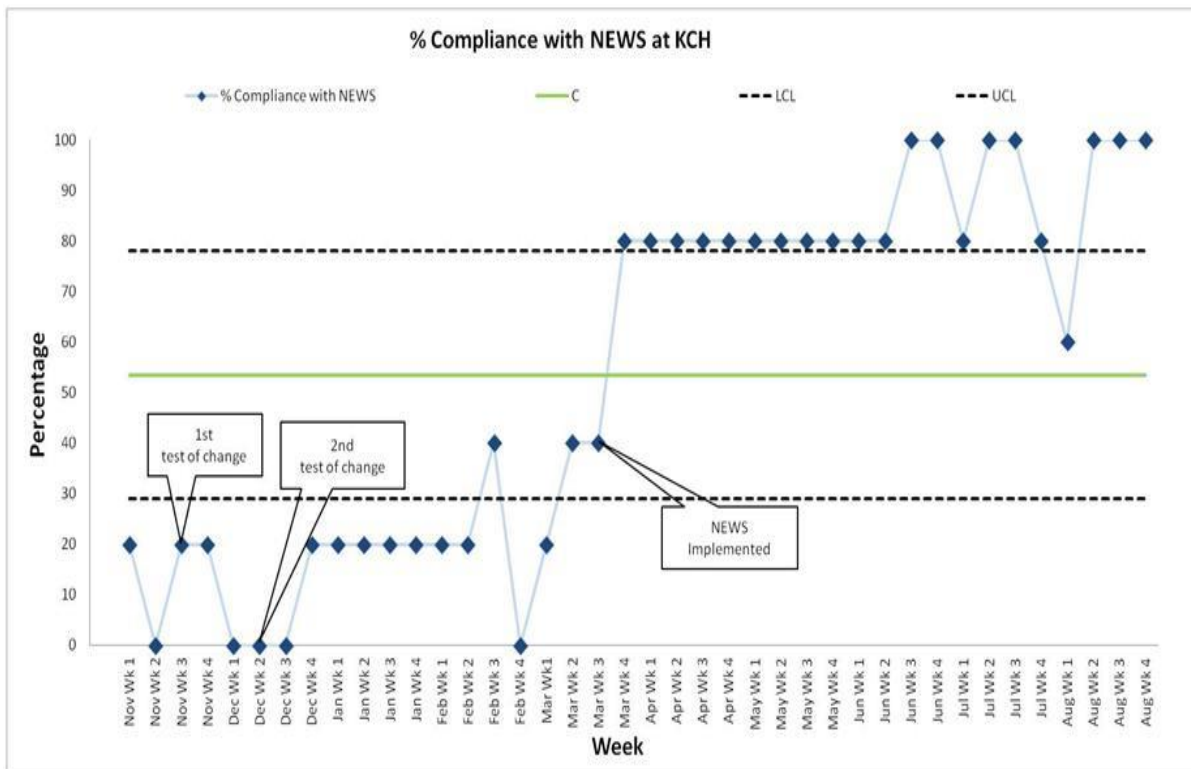
We also wanted to know what patients, their relatives and carers thought about the development we were planning to introduce to Kelso Hospital. We felt that a formal approach to collecting this information such as a questionnaire might not be effective and could exclude certain people. We therefore approached patients and their visitors on the ward, explaining the project concisely and giving information mainly on how it would benefit or affect them. The feedback we received this way was completely positive and this gave us a real boost.

We gathered informal feedback from Borders Emergency Care Service (BECS) about how they felt about the introduction of NEWS. Our initial attempt to use questionnaires was less successful than Kelso as we had too few returned but ‘real-time’ dialogue was extremely successful and again we were able to achieve a great deal of positive feedback and suggestions.

Auditing

Auditing was considered an essential part of implementation to measure effectiveness of the intervention and training, also promoting the maintenance of standards. At the time of writing, Kelso and The Knoll hospitals are being audited on a weekly basis (5 random patients each week). The run charts showing compliance figures for Kelso and The Knoll Community Hospitals can be found below.

Run Charts indicating Compliance Following Introduction of NEWS into Kelso Community Hospital and The Knoll Community Hospital.



Part 3: Cost impact

The project spend has been in line with the budget and this has been signed off by our finance department. The majority of the project spend has been on staffing, particularly the project manager and clinical lead. The other main cost has been the purchase of 15 pulse oximeters for the community nurses to be properly equipped during the weekend when calculating NEWS for their patient referrals. The cost of printing of 300 plastic cards with the NEWS, sepsis screening and escalation information on them was supported by NHS Borders – these are for community based staff to carry with their identification.

The cost of the intervention has been calculated mainly on the predicted cost of staff working on the project. This prediction has been accurate so far with costs being as anticipated. As the intervention has been introduced to clinical teams as part of their day-to-day duties in planning and managing patient care, the model has incurred very little extra cost. The overall aim of the project was to embed an improvement in the quality of practice and communication, it was never intended to reduce costs or improve the cost effectiveness of services.

Staff training sessions (one to one) have taken place during shift times and did not incur extra cost, and providing training in this way proved to be efficient and did not require any back-fill costs. The cost of sustaining the project following the end of the funding period will easily be absorbed into the usual budget. The improvement measures will continue to be sustained under the supervision of the Senior Charge Nurses in each site. The stationery will be provided from the site budget.

We anticipate that this project has the potential to reduce unnecessary and extended hospital admissions, treatment times, adverse events and complaints through proactive, good quality care planning and managing patient deterioration through early recognition and timely intervention. However, a number of confounding factors make it difficult to assess cost impact on a broader scale:

- Impact on GPs: it is intended that when deterioration is identified and

requires escalation, the GP will be contacted promptly. It has not been possible to identify within the timeframe of the project whether there will be a significant impact on GP workload in the longer-term. It may be capacity-neutral given that the GP would be referred to at some point in the deterioration process in any case. However, there may be fewer patients overall referred for GP intervention as the NEWS process is intended to pre-empt unnecessary referrals and the quality of the communication in the referral process now includes a more robust assessment on which the GP can make a better-informed decision.

- Impact on the Emergency Department (ED): It should be acknowledged that many of the patients who are now subject to the NEWS approach are in poor health and bound to require hospital admissions. The intention of the project has been to ensure patients are transferred to ED for assessment promptly and possibly earlier than would have been the case previously. The effect in the long-term may, therefore, be neutral. However, one variable is that when deterioration progresses, in some cases rapidly, patients may not survive long enough to be transferred. Another variable is, on the other hand, when patients can be successfully treated in the home or community hospital / care home through early intervention by the GP, thus avoiding referral to the ED and likely admission to hospital (see example case study in next section below).
- Impact on length of stay: The intention of the project is to have patients admitted to hospital as early as possible in the deterioration process, thus allowing for prompt medical intervention, reversal of deterioration and timely return back to home or community hospital. However, the outcome of this process is determined by the patient's clinical presentation, underlying pathology and prognosis, which means that it has been difficult, especially within the limits of the project timeframe, to determine any significant impact on length of stay and this would require analysis over a much longer period of time.
- Patient factors: As already indicated, patient factors in this clinical context such as ill-health, prognosis, underlying conditions, CPR status, have made it difficult to assess cost impact in the time available within the project.

Our project has achieved the core aim of improving the quality and safety of patient care across a range of clinical settings in NHS Borders. Achieving sustainability of our innovation will not require any additional funding. However, whether this approach results in any longer-term savings or additional costs would require a detailed economic assessment, such as through a cost / benefit analysis.

Part 4: Learning from your project

The implementation of the NEWS chart in the first test site, Kelso Community Hospital took place in March 2016. Our second test site, the GP out of Hours Service (Borders Emergency Care Service) handover sheet was implemented on the same day. We trained a significant number of staff before going live with NEWS in the community setting and encouraged regular feedback to ensure everyone was adequately prepared. We learned that a thorough approach to engaging staff and supporting them through the preparation process was essential to successful implementation.

We also recognised early that we needed to involve all relevant stakeholders affected by the intervention and we subsequently received positive feedback from both the ambulance service and the Emergency Department regarding this development.

The SBAR communication tool was promoted and tested in three test sites (nb Waverley residential care home had no prior experience of this format; the chart they used was modified to be relevant to their environment and is shown in Appendix j). The version we implemented in the community hospitals is shown in Appendix i. From introducing this we saw that SBAR provided an effective and efficient method for communicating concerns about patients and was applied consistently with staff finding it a helpful tool that strengthened their confidence.

During testing of the NEWS chart in Kelso Community Hospital, both the staff and the project team found that practice was immediately improved by adopting a more structured and systematic approach, especially around the quality of patient assessment and anticipatory care planning/communication. This was made very clear to us from the overwhelmingly positive staff feedback. This also highlighted a possible risk that other community sites, in not using this model to manage deteriorating patients, may be not providing adequately safe services. The team felt a conflict between thorough testing/refining and extending the scope of the project to 'roll out' the model.

As we worked to perfect the model through testing and refining on a small scale, we felt confident that our work could be reproduced and expanded to other sites within NHS Borders. The remaining 3 community hospitals were informed of the success achieved so far in our test sites and we instilled a healthy competition amongst them that definitely stimulated their interest and participation! This approach has resulted in the project being successfully rolled-out into all of the community hospitals and community nursing teams consistently. Throughout this process, it was the staff members that have determined each element and the whole project to be successful but we learned that the timing was particularly effective in seizing the opportunity while we were still involved and able to provide direction and support rather than possibly be less successful in spreading the approach after the end of the project.

We deliberately chose Kelso Community Hospital because they were enthusiastic about the project and had strong leadership. Senior Charge Nurse Andrea Johnstone and her team had a positive ward culture cultivated through hard work but also driven by a previous adverse event surrounding the monitoring of a patient. The staff strived to improve practice around monitoring and deteriorating patients and now results can really be seen – particularly from the qualitative feedback. Scottish Intercollegiate Guidelines Network (SIGN) 139 Care of Deteriorating Patients is a document that has been pivotal in guiding our decisions throughout this project.

Challenges

- Our residential care home site, Waverley Care Home, encountered a major challenge during implementation. Refurbishment of their building was planned for 2015/2016 and client numbers were reduced to approximately half. Unfortunately, severe flooding of a Scottish Borders nursing home meant that Waverley was used as emergency accommodation for these people. Although this meant more clients and potential for data collection overall, the amount of time the manager was able to commit to the project reduced drastically and more focus was subsequently concentrated on the community teams and hospitals. Fortunately, this setback did not affect the project in the long term as we have now moved forward with the inclusion of the SBAR tool

into SB Cares documentation bundles.

- Anticipatory care planning and communication of treatment decisions was patchy in Waverley Care Home with staff generally unaware of individual escalation plans. We had planned to trial the 'Patient Escalation Decision Making Record' with Waverley Residential Care Home with a view to spread if beneficial but unfortunately, with some deeper investigation we found that the way GPs currently work with homes such as Waverley was incompatible. As approximately half of the residents in Waverley are temporary intermediate care clients this would mean a frequent burden of work for the GPs who felt unable to commit given their present caseload. This is a critical area of work that we will continue beyond the project. We aim to improve anticipatory care by influencing private care home providers with permanent residents to pursue use of the PEDMR.

Different Perspectives on NEWS in the Community

The responses of our other clinical stakeholders to our project was positive. Here are examples:

GP Partners at Kelso Medical Practice

- *'The NEWS is helpful in assessment and regular observations give a clearer picture of a patient's overall condition and deterioration'.*
- *'The escalation chart is very helpful for decision making in the Out of Hours period'.*
- *'We need to ensure that it is being used appropriately in the case of palliative care patients who may not need such close monitoring'.*

Borders Emergency Care Service Nurse Practitioner

'Since using the BECS NEWS assessment sheets, I have found referring a patient onto acute care much easier as the sheet is structured and leads you through what you need to think about. The SBAR section is good as you can be sure you

have remembered everything. The NEWS chart on the front is great as I can circle the sections and know that the score is totalled up accurately, even in a rush. I like the escalation guidance too.'

Paramedic

'When we get this handed to us with a patient (at home) with all the information filled out, it's really helpful and saves time so we can get on the road and get the patient to the hospital quicker.'

Community Hospital Ward Staff Nurse

'Before the NEWS charts, we used basic charts and carried out observations once weekly or if a patient was unwell. I often felt unsure about when to do observations and if the monitoring was enough as where I worked previously, we did much more. With the NEWS charts everything is laid out – all the information is there and we feel much more supported, particularly at night when only one trained is on. The escalation forms are great too – we know exactly what to do when a patient takes unwell. Although it is more work, it feels safer - I'm really pleased with the new way and think it's improved our practice'

Patient Story

Mrs A is a patient with a background of COPD (a long term lung condition), she was admitted to the community hospital following a fall at home 6 weeks previously to have OT assessment and rehabilitation with a view to returning home when ready. Mrs A's monitoring was twice daily using the National Early Warning Score (NEWS) charts – her SpO2 (blood oxygen level) was 94-95% and other readings were consistently within normal limits. One morning, her SpO2 was found to be 92%, temperature 37.9c, respiratory rate 24 and heart rate 96 beats per minute. The NEWS was 5. The staff nurse looking after Mrs A immediately recognised a deviation from the regular pattern that had developed on the NEWS chart and arranged a GP visit for her. The GP assessed her straightaway and diagnosed an exacerbation of her COPD, courses of antibiotics and steroids were commenced and Mrs A continued to be monitored in the community hospital without a transfer to the Borders General Hospital. The exacerbation was diagnosed early and a transfer was avoided, Mrs A and her family were pleased.

The project team feels delighted by the progress that has been made and the extent

of our achievement in a relatively short time. Despite a slow start, the project has exceeded all expectations and has now made a real and sustainable change that has improved patient safety and staff morale.

By using the original NEWS tool and adapting it to all community based environments, the project has been innovative and has brought the standardisation of acute care assessment to the community setting, ultimately improving patient safety – our number one corporate objective in NHS Borders.

Part 5: Sustainability and spread

The NEWS and anticipatory care developments implemented during the project have always been intended to be embedded and sustainable changes to practice. Since the inception of the project, we have worked to ensure that sustainability is paramount and we considered carefully how this could be achieved within the timeframe of the project. We are confident that the developments, now embedded in day-to-day routine care, will be sustained. Each location will have added the cost of the new documentation in their budgets but this is not financially significant.

Central to the success of sustaining our innovation was communicating effectively and constantly with key stakeholders and involving them, taking on board their opinions and ideas, particularly Senior Charge Nurses (SCN) and clinical leads. They have been very supportive in introducing NEWS and anticipatory care documentation in our community hospitals and teams and are key to sustainability. Taking time to ensure that these key stakeholders fully understood and believed in the rationale behind the introduction was vital and was a successful approach to cascading the approach to all staff. Overall, staff members have been very receptive to these changes and keen to adopt NEWS with a clear understanding of why this change promotes an improvement in identifying and managing the deteriorating patient. Despite an overwhelmingly positive culture and appetite for the development, there were small pockets of resistance, some staff who felt that the monitoring was unnecessary or more work for them. This constitutes a risk to sustainability but we are working to overcome this by encouraging individual feedback and debate to overcome resistance that was always anticipated. In addition, we have emphasised the importance of the local management structure as being vital to monitoring and quality assuring the ongoing high standards of compliance that are needed.

Our project has many reproducible elements that are transferrable to other areas of practice and other localities. The 'Patient Escalation Decision Making Record' (PEDMR Appendix f), can be used in nursing and residential homes to enable a

clear record of anticipatory care planning valuable to both out of hours and GP practices. There is also potential to use this tool in the community for patients with complex needs and frequent admissions. There are also areas within the acute setting where the record could be used to great benefit too such as the mental health setting or wards with long stay patients.

The NEWS chart, designed with community hospital practice in mind, has now been thoroughly tested, as has the Borders Emergency Care Service (GP Out of Hours Service) assessment sheet (Appendix k). We have gathered evidence of its benefits through the wealth of positive feedback from the Emergency Department, Scottish Ambulance Service and clinicians involved in its use. District and Community Nursing teams have also adopted a similar assessment sheet (Appendix l) that could be used in another locality with some small changes.

We have been promoting spread of the SBAR tool (Appendix j) and it is currently being included in the new documentation bundle being designed by SB Cares (a part of Scottish Borders Council) for use in all of their 5 residential care homes. We envisage that sustaining the development will be taken on by the Senior Charge Nurse and staff in each setting.

The most important aspect of spread to any area is communication of what is possible and available with support. At the conclusion of the project we will write a 'NEWS story' for NHS Borders corporate news site to disseminate information about the project, the outcomes and the learning.

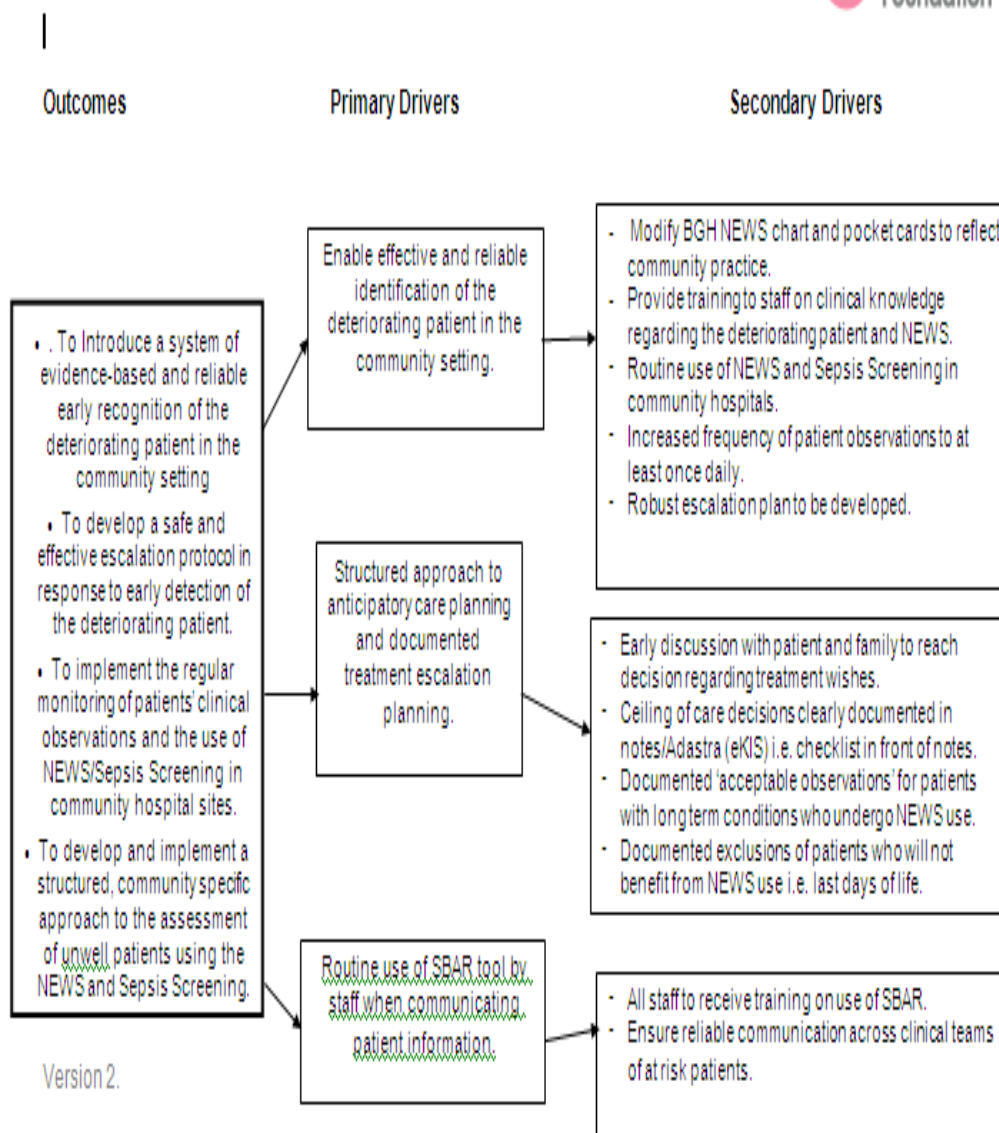
While the secondments that Nicola and I embarked on are coming to a close with the culmination of the project, we are very excited about the opportunities created and the potential for taking our initial work forward with the effect and interest that this project has created in the community setting. Other areas and departments including a mental health ward have expressed an interest for implementing NEWS for the older adult in NHS Borders.

Appendices

Appendix a Driver Diagram

The Health Foundation Deteriorating Patient Project

Aim: To Develop and Implement a Structured Approach to Identification and Rescue of the Deteriorating Patient in the Community Setting.



Version 2.

Appendix b

Semi-Structured Interview Questions

Kelso Community Hospital – Safety Questions

Job Title _____



Questions

- What do you think about how the deteriorating patient is currently identified and managed at KCH?
- What are your concerns surrounding assessment of patients, recognising deteriorating patients and subsequent referral overnight?
- What do you think about the introduction of a structured approach to assessment with a scoring tool to identify the deteriorating patient in your workplace?

Other comments:

Appendix c

Examples of PDSA Forms

PDSA 1 –

Aim: To introduce the National Early Warning Score in the community setting to 2 test sites (KCH and BECS) using a PDSA approach.

Describe your first test of change:	Person responsible	When to be completed	Where to be completed
Testing the modified NEWS chart with one patient and the charge nurse at KCH.	SD VT	10/11/2015	KCH

Plan:

List the tasks needed to set up this test of change:	Person responsible	When to be completed	Where to be completed
<ul style="list-style-type: none"> Use early version (V1) modified NEWS chart. One patient chosen at random – general deterioration in condition over past 24hrs. Band 6 Charge Nurse Victoria Thompson and Sara Dickson to carry out assessment using chart. 	SD VT	10/11/2015	On ward, KCH.

Predict what will happen when the test is carried out	Measures to determine if prediction succeeds
<ul style="list-style-type: none"> A score will be calculated that accurately reflects the patient's condition and, when followed, the escalation is deemed to be safe and appropriate. 	Informed opinion of GP, Nurse and Project Manager.

Do:

- The patient was felt to be less well than in the previous 24hrs, staff were concerned and had arranged for a GP to visit the patient on the ward. GP had recommended transfer to BGH but patient declined. The NEWS was calculated using the chart and found to be a score of 8. The observations had been measured three times in the previous 24hrs (around 6 hourly). The escalation protocol was followed and the GP was contacted and asked to visit again. Patient again declined transfer. DNACPR found to be current and in place. No other anticipatory care planning noted. NEWS score triggered conversation around palliative care, GP verified patient's wishes to stay at KCH and ascertained full capacity. Patient was moved to a quiet side room, anticipatory medications prescribed by GP and further monitoring instructed to be BD.

Study:

Learning points:

- Observations should be written in full at all times. i.e. BP written as systolic and diastolic even though score is calculated using systolic only, temperature written on chart rather than category box ticked etc. this ensures clear documentation.
- Minimum of BD observations to reflect BGH SOP. This will need to be discussed further with Kelso GPs but it is envisaged that the 12 hourly observations will result in closer monitoring and earlier identification of the deteriorating patient.
- HCSW to undertake training on taking observations using electronic equipment on the ward, they should also be included in the NEWS training to enable them to identify abnormal readings and scores.
- A structured review would have made management of this case easier and would have avoided the necessity to arrange 2 GP visits.

Act:

- In training, staff to be asked to chart observations in full – there is capacity to do this on the existing chart.
- Plan to do BD observations with NEWS score each time included in escalation protocol.
- Structured review form to be taken to Kelso GP meeting on 27th.



PDSA Five – Community Hospital Escalation Plan

Aim: To introduce the National Early Warning Score in the community setting to 2 test sites (KCH and BECS) using a PDSA approach.

Describe your first test of change:	Person responsible	When to be completed	Where to be completed
Speak to Kelso GPs about the project and gain their feedback regarding the proposed escalation plan.	SD NL	27/11/15	Kelso Surgery

Plan:

List the tasks needed to set up this test of change:	Person responsible	When to be completed	Where to be completed
-Arrange to attend practice meeting with Kelso GPs. -Prepare materials to demonstrate project aims and objectives and the GP involvement envisaged.	SD	05/11/15	Base

Predict what will happen when the test is carried out	Measures to determine if prediction succeeds
GPs will suggest improvements that can be made to the proposed processes and associated documents; they will also give honest feedback on what will/will not work.	If agreed by team, processes and documents will be changed accordingly.

Do:

A short presentation was given to the GPs about the deteriorating patient project, written information was also given for reading later.

Study:

The GPs felt that on the CHEP – ‘speak to a GP within 10 minutes’ was unrealistic for them during the day, it was proposed that ‘within 20 minutes’ would be achievable though.

Act:

The CHEP was changed to reflect this feedback – Version 6.

Appendix d

Data Measurement Table

	Numerator	Denominator	Calculate Rate	Source
Qualitative Data				
Safety Climate Survey				Sent to BECS and KCH.
Participant Views Survey				Likert Scale.
Staff Stories/Verbal Viewpoints				Semi-structured interviews. 8/12/15
Quantitative Data				
% Compliance of patients with a structured review. (PM)	The number of structured reviews completed.	The number of patients in the sample – a random sample of 5 patients per week, count number of completed structured reviews in case notes.	Calculate the percent achievement of structured review by dividing the numerator by the denominator and multiplying the result by 100. Target 100%	Patient case notes.
% Compliance with NEWS (accurate calculation and correct frequency) by July 2016. (PM)	The total number of observations with accurately calculated NEWS.	The number of patients in the sample – a random sample of 5 patients per week who have had observations taken.	Calculate the percent compliance by dividing the numerator by the denominator and multiplying by 100. Target 100%.	TPR/NEWS charts.
% Compliance with structured response for patients who trigger NEWS. (PM)	Number of complete structured responses within the sample.	The number of patients in the sample – a sample of 10 triggering patient each month.	Calculate the percent achievement of structured response by dividing the numerator by the denominator and multiplying by 100. Target 100%.	TPR/NEWS charts.
Number of 999 calls made from test sites monthly. (OM)	Number of 999 calls from KCH.	Per 1000 occupied bed days.	Divide numerator by denominator (to calculate OBD – add together occupied beds of ward each day, same time for a full month) Multiply by 1000	Ricky Panton, SAS.

Continued...

			Identify increase/decrease post test.	
Number of Referral and advice calls to BECS. (OM)	Number of calls to BECS originating from KCH.	Per 1000 occupied bed days.	Divide numerator by denominator and multiply by 1000. Identify increase/decrease post test.	Adastra
% Referral and advice calls to General Practitioners. (OM)	Number of calls to GP surgery originating from KCH.	Per 1000 occupied bed days.	Divide numerator by denominator and multiply by 1000. Identify increase/decrease post test.	GP surgery (discussed 27/11 at meeting – awaiting response from Cameron).
% of Cardiac Arrests in the Ward at KCH. (OM)	Number of cardiac arrests on the ward at KCH/test site population in current month.	Number of deaths + number of live discharges in current month.	Divide numerator by denominator and multiply by 100.	Ward data.
Measure days between cardiac arrests. (OM)	Measure the days between cardiac arrests.	If cardiac arrest occurs, count will start again.		Ward data.
% of transfers to the ED from KCH (BM)	Number of transfers to ED originating from KCH in the current month.	Total number of patients through ED in the current month.	Divide numerator by denominator and multiply by 1000. Identify increase/decrease post test.	?Trak ?Fiona Currie KCH figures from SAS data
% Compliance of SBAR use from KCH. (OM)	Total number of times SBAR tool used correctly when communicating with surgery or BECS.	Per 10 random calls audited	Rate out of 10	Audit sheets to reception area, Kalso Health Centre and BECS for OOH calls.
% Compliance of SBAR use from BECS (OM)	Total number of times SBAR tool used correctly when communicating with BECS GP (OOH NP).	Per 10 random calls audited	Rate out of 10	Audit sheets to BECS reception.
% Compliance of SBAR use from Waverley Care Home. (OM)	Total number of times SBAR tool used correctly when communicating with BECS reception or GP.	Per 10 random calls audited	Rate out of 10	Audit sheets to BECS reception

Appendix e

Audit charts



Date:

Hospital:

Structured Review Criteria	1	2	3	4	5
Risk of deterioration reviewed and documented					
Limited reversibility assessed (e.g. with SPICT tool)					
Management plan reviewed and updated					
Anticipatory care plan considered					
DNACPR reviewed and updated					

Sample One	Sample Two	Sample Three	Sample Four	Sample Five
Y/N	Y/N	Y/N	Y/N	Y/N

- Circle result – Y/N. Measure as an all or none.
- Sample 20 patients per month (5 per week) and count number of structured reviews.
- Primary data source: The patient's medical and nursing notes.
- **Numerator:** Number of structured reviews completed (per month)
- **Denominator:** Number of patients in the sample (20 per month).
- **Compliance:** Divide the numerator by the denominator then multiply by 100 to calculate percentage compliance.

National Early Warning Score (NEWS) Compliance Audit

Health Foundation Deteriorating Patient Project

Date:

Hospital:

Yes No N/A

Observation Number One	1. Score Fully compliant			
	2. Score accurate			
	3. respiratory rate recorded			
	4. NEWS score triggered – at risk			
	5. Appropriate action taken			
Observation Number Two	1. Score Fully compliant			
	2. Score accurate			
	3. respiratory rate recorded			
	4. NEWS score triggered – at risk			
	5. Appropriate action taken			
Observation Number Three	1. Score Fully compliant			
	2. Score accurate			
	3. respiratory rate recorded			
	4. NEWS score triggered – at risk			
	5. Appropriate action taken			
Observation	1. Score Fully compliant			

Number Four				
	2. Score accurate			
	3. respiratory rate recorded			
	4. NEWS score triggered – at risk			
	5. Appropriate action taken			
Observation Number Five	1. Score Fully compliant			
	2. Score accurate			
	3. respiratory rate recorded			
	4. NEWS score triggered – at risk			
	5. Appropriate action taken			

Appendix f – Patient Escalation Decision Making Record

PLEASE DO NOT AMEND THIS FORM.

If any of the treatment plan has changed please complete another form and file this form immediately to the back of the casenotes.



PATIENT ESCALATION DECISION MAKING RECORD

AFFIX PATIENT ID

HOSPITAL:

WARD:

DATE:

<p>RESUSCITATION STATUS</p> <p>Is a DNACPR order currently in place for this patient?</p> <p>If YES: Date decision made: Date of expiry:</p>	<p>YES/NO</p>
<p>ESCALATION STATUS</p> <p>Is the patient suitable for transfer to the BGH?</p> <p>If they are NOT for transfer to BGH are there any limits on which treatments should be given to this patient:</p> <p>Further antibiotic treatment?</p> <p>Further monitoring?</p> <p>Comments:</p>	<p>YES/NO/ UNDECIDED</p> <p>YES/NO</p> <p>YES/NO</p>
<p>Is this patient purely for SYMPTOMATIC MANAGEMENT i.e. no active treatment of new medical problems? <i>Expected death documentation should usually be completed in these cases.</i></p> <p>Discussed with: Family/Patient/Next of Kin/Welfare Attorney or Guardian (Delete as appropriate) - If not, why not?</p>	

Name of doctor completing form:

Signature:

Name of nurse completing form:

Signature:

Date of form review:

v7.

Appendix g

Example of Semi-Structured Interview Statements

“There’s only one trained nurse on after midnight, we really feel quite isolated, the deteriorating patients may not get recognised immediately as we only do observations if they are unwell”

“My main concern is that we have no structure to follow, we must rely on using our own initiative and our own judgement. We Highlight the deteriorating patients to BECS (GP Out of Hours Service) and they give us a decision over the ‘phone, It really depends on how busy BECS are for how long we wait for a response. We have to rely heavily on BECS and don’t always feel like we have enough support”

“I am the only trained nurse at night, the NEWS tool would give me confidence to push for my patient to be seen. I like the structured approach”

Appendix h - Likert Questionnaire

Evaluation of the NEWS Chart

Please answer the following questions by circling the response you feel is most appropriate.

1. NEWS gives me clear instructions on what to do should a patient trigger.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

2. NEWS helps me make decisions whether or not to call the doctor to review my patient.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

3. Using NEWS only makes extra work for me.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

4. NEWS allows me to better prioritise my care.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

5. NEWS takes away my clinical judgment skills.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

6. Using the escalation criteria, I get a better response from the doctors.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

7. When I inform the doctors using NEWS, they review the patient within the time frame.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

8. Since introduction of NEWS, the number of times I have to call the doctor has increased.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

9. NEWS supports my gut feeling about an unstable patient.

Strongly Disagree Disagree Neither Agree or Disagree Agree Strongly Agree

Comments:

Appendix i

SBAR Format in Healthcare Setting

S **Situation:**
I am (name), (X) a nurse on ward (X)
I am calling about (patient X)
I am calling because I am concerned that...
(e.g. BP is low/high, pulse is XX temperature is XX,
Early Warning Score is XX)

B **Background:**
Patient (X) was admitted on (XX date) with
(e.g. MI/chest infection)
They have had (X operation/procedure/investigation)
Patient (X)'s condition has changed in the last (XX mins)
Their last set of obs were (XX)
Patient (X)'s normal condition is...
(e.g. alert/drowsy/confused, pain free)

A **Assessment:**
I think the problem is (XXX)
and I have...
(e.g. given O₂/analgesia, stopped the infusion)
OR
I am not sure what the problem is but patient (X)
is deteriorating
OR
I don't know what's wrong but I am really worried

R **Recommendation:**
I need you to...
Come to see the patient in the next (XX mins)
AND
Is there anything I need to do in the meantime?
(e.g. stop the fluid/repeat the obs)

Ask receiver to repeat key information to ensure understanding

The SBAR tool originated from the US Navy and was adapted for use in healthcare by
Dr M Leonard and colleagues from Kaiser Permanente, Colorado, USA

If you require further copies quote SC042

Appendix j

SBAR for Care Home Setting

SBAR COMMUNICATION TOOL – AIDE MEMOIRE	
S	Situation Your name and care home Name of person you are calling about. Age. DOB What are you concerned about? Describe symptoms as clearly as possible include how this differs from normal (The checklist may help)
B	Background How long have symptoms been present? Did they come on suddenly? Have they got worse over time? Does the person have any long term illnesses? Has any medication been started, stopped or dose altered recently? Have you got a list of current medication available? Has the person recently been in hospital? If so what for? Is there a DNACPR request in place?
A	Any Action taken? If you suspect that the person has a particular condition eg urine infection, constipation let the health profession you are calling know. Is there an emergency care plan in place for this person. If yes does it relate to this condition and has it been applied? What actions (if any) have you taken already?
R	Request (what would you like the person you are calling to do) Request visit Request telephone consultation

Checklist for symptoms (not exhaustive)
Is the person you are calling about?

- Alert and orientated as to place and time?
- Confused?
- Drowsy and/or hard to rouse?
- Has speech changed? (describe how)
- Complaining of or showing new signs of weakness in arms or legs? (describe)
- Pale?
- Hot? Flushed or sweating?
- Cold or shivering?
- Unsteady/ less mobile than usual?
- Dizzy?
- Breathing harder or faster than normal?
- Breathing slower or shallower than normal?
- In any pain? (if so make a note of where)
- Is the pain Sharp or Dull?
- Is it in One place or Several? (describe where the pain is)
- Coughing more than usual?
- Bringing up phlegm? (What colour?)
- Feeling sick/being sick?
- Is there a change in bowel habit? (describe)
- Is there a change in urinary continence? (describe)
- Is there a change in diet/fluid intake (describe)

Appendix k

BECS Assessment Sheet

Patients Name: CHI
 BECS Assessment Sheet

Physiology Parameter	NEWS - NHS Early Warning Score							
	0	1	2	3	4	5	6	7
Respiratory Rate	0	1	2	3	4	5	6	7
Oxygen Saturation	0	1	2	3	4	5	6	7
Abnormal Oxygen	0	1	2	3	4	5	6	7
Temperature	0	1	2	3	4	5	6	7
Urea	0	1	2	3	4	5	6	7
Systolic BP	0	1	2	3	4	5	6	7
Conscious Level	0	1	2	3	4	5	6	7

NEWS should not replace sound clinical judgement. Any concerns regarding the patient's condition should be escalated appropriately.

Time	Temp	HR	SpO2	RR	BP	Urea	Pain score	BT	NEWS

Sepsis Screening Criteria (Use if NEWS 4 or 5 as appropriate)

Altered mental state?	
Respiration ≥ 30 /minute?	
Heart Rate >100 /minute?	
Temperature >38 or <36 ?	
WBC >12 /mm ³ ?	
IF 2 or more above signs of systemic inflammation AND knowledge/suspicion of infection – Patient has Sepsis!	

Clinician:
Date:
Time:

Patients Name: CHI
 BECS Assessment Sheet

ESCALATION PROCEDURE FOR HOME VISITS

NEWS 0	NEWS 1-3	NEWS 4 or more (or 3+ on parameter)	NEWS 5 or more
Admission unlikely unless deemed clinically necessary. Safety/next advice	Admission dependent on individual assessment, home environment/circumstances, PIRK and NEWS Ambulance within 3hrs and outside for upgrade ≥ 5 ambulance control of patient's NEWS	Screen for sepsis. Commence Sepsis 6s if indicated. Admission likely depending on previous criteria and NEWS Blue light ambulance – advice ambulance control of patient's NEWS (If not for admission: (in case of an agreed treatment plan with clinicians and patient/family) Home home circumstances Safety/next and organize follow up	Screen for sepsis. Commence Sepsis 6s if indicated. Admission advised Blue light ambulance – ≥ 5 ambulance control of patient's NEWS (If not for admission: (in case of an agreed treatment plan with clinicians and patient/family) Home home circumstances and palliative status plan Organize rapid follow up
Organize follow up if required by clin GP/CCS	Ambulance within 3hrs and outside for upgrade ≥ 5 ambulance control of patient's NEWS Consider acceptable parameters of observations for chronically ill patients i.e. COPD (If not for admission: Safety/next advice Organize follow up call or visit if required by clin GP/CCS)	Safety/next advice	Safety/next advice

Ambulance – Time Ordered: Category: Reference number: Referred to:

SITUATION: Overview of presenting complaint:

BACKGROUND: Normal function, History of presenting complaint, Drug history and allergies:

ASSESSMENT: Check BM? ≥ 5 of cold hands/feet? Sweating? Passed urine in last 6hrs? ≥ 5 ≥ 5 ≥ 5 ≥ 5 ≥ 5 ≥ 5 ≥ 5 ≥ 5 ≥ 5

RECOMMENDATION: What should happen next? Significant adjustment? Transfer by ambulance to where?

MEDICATION	DOSE	ROUTE	TIME	INITIALS	MEDICATION	DOSE	ROUTE	TIME	INITIALS

Clinician:
Date:
Time:


Appendix I

Nursing Assessment Sheet

Patients Name:

 CHI
 |

Nursing Assessment Sheet



Physiological Parameter	NEWS - NHS Early Warning Score						
	3	2	1	0	1	2	3
Respiratory Rate	≥ 24	20-23	16-19	12-15	10-11	8-9	≤ 7
Oxygen Saturation	≤ 91	92-93	94-95	96	97	98	≥ 99
(w/ Supplemental Oxygen)		≤ 94	95	96	97	98	≥ 99
Temperature	≤ 35.0°	35.1-36.0°	36.1-38.0°	38.1-39.0°	39.1-40.0°	40.1-41.0°	≥ 41.1°
Pulse	≤ 100	101-110	111-120	121-130	131-140	141-150	≥ 151
Systolic BP	≤ 90	91-100	101-110	111-120	121-130	131-140	≥ 141
Diastolic BP	≤ 60	61-80	81-100	101-110	111-120	121-130	≥ 131

NEWS should not replace sound clinical judgement. Any concerns regarding the patient's condition should be escalated appropriately.


Time	Temp	HR	SpO2	BP	RR	AVPU	Pain score	BM	NEWS

SEPSIS SCREENING CRITERIA (Use if NEWS ≥4)	SITUATION: Overview of presenting complaint.
Altered mental state?	BACKGROUND: Normal function, History of presenting complaint, Drug history and allergies.
Respiratory >>>30/minute?	ASSESSMENT: Check BM? Level of cold hands/feet? Sweating? Passed urine in last 6hrs? New or Worsening confusion? Pain Score?
Heart Rate >100/minute?	RECOMMENDATION: What would you like BECS to do? (Refer to escalation procedure).
Temperature >38 or <36?	
S1/S2 Tinnor?	
If 2 or more above signs of systemic Inflammation AND knowledge/suspicion of Infection – PATIENT HAS SEPSIS!	

NURSE:
Date:
Time:

Patients Name:

 CHI

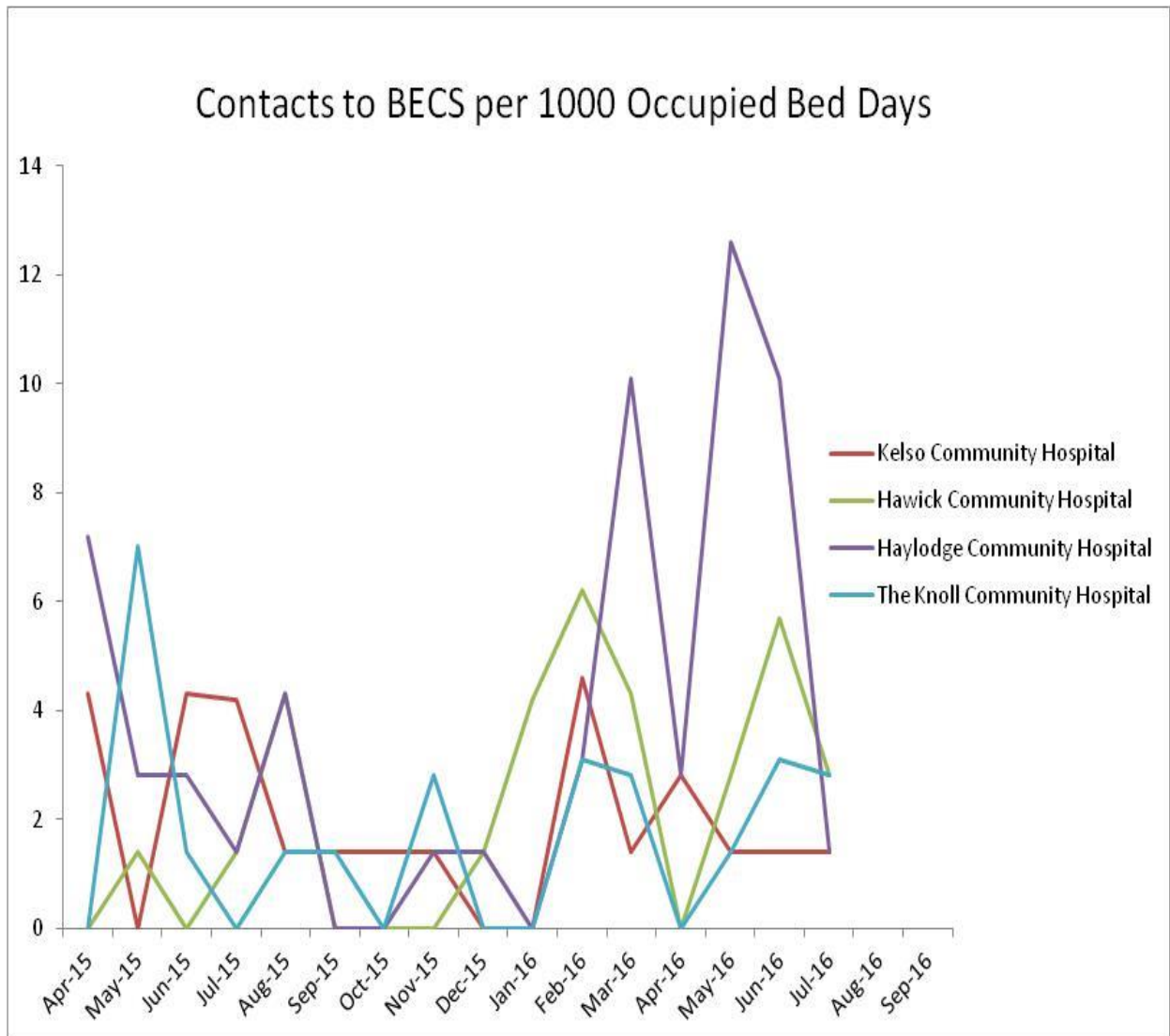


ESCALATION PROCEDURE

NEWS 0-1 or pain score less than 4/10	NEWS 2-3 or pain score 4/10 or more	NEWS 4 or more (or 3 in one parameter) or pain score 4/10 or more	NEWS 7 or more or pain score greater than 8/10
Admission unlikely unless deemed clinically necessary. Suitable for speak to BECS clinician within 30mins Leave the patient only if you feel it is clinically safe to do so.	Admission dependent on (individual) assessment, home environment/circumstances, FMH and NEWS. Consider acceptable parameters of observations for chronically ill patients, i.e. COPD Inform BECS – suitable for Discuss with clinician within 10mins. If BECS has not called back within 10mins phone back BECS It is advisable not to leave patient If not for admission: Safety netting advice Organise follow up call or visit if required by own GP(DN)/BECS.	Admission likely depending on previous criteria and NEWS. Inform BECS – suitable for Discuss with clinician within 10mins. If BECS has not called back within 10mins phone back BECS It is advisable not to leave patient If not for admission: (in case of an agreed treatment plan with clinicians and patient/family) Otherwise urgent (within one hour) assessment by a clinician with core competencies to assess acutely ill patients.	Patient is sick or in pain Phone BECS and ask to speak to a clinician immediately. Alternatively, if clinician not immediately available, dial 999 from patient's home and arrange blue light ambulance then update BECS. Assess home circumstances and palliative status/plan. Do not leave the patient If not for admission: (in case of an agreed treatment plan with clinicians and patient/family) Otherwise urgent (within one hour) assessment by a clinician with core competencies to assess acutely ill patients.
Time called BECS:	Called back BECS:	Time BECS called and their advice:	
<div style="display: flex; justify-content: space-between; border: 1px solid black; padding: 5px;"> NURSE: Date: Time: </div>			

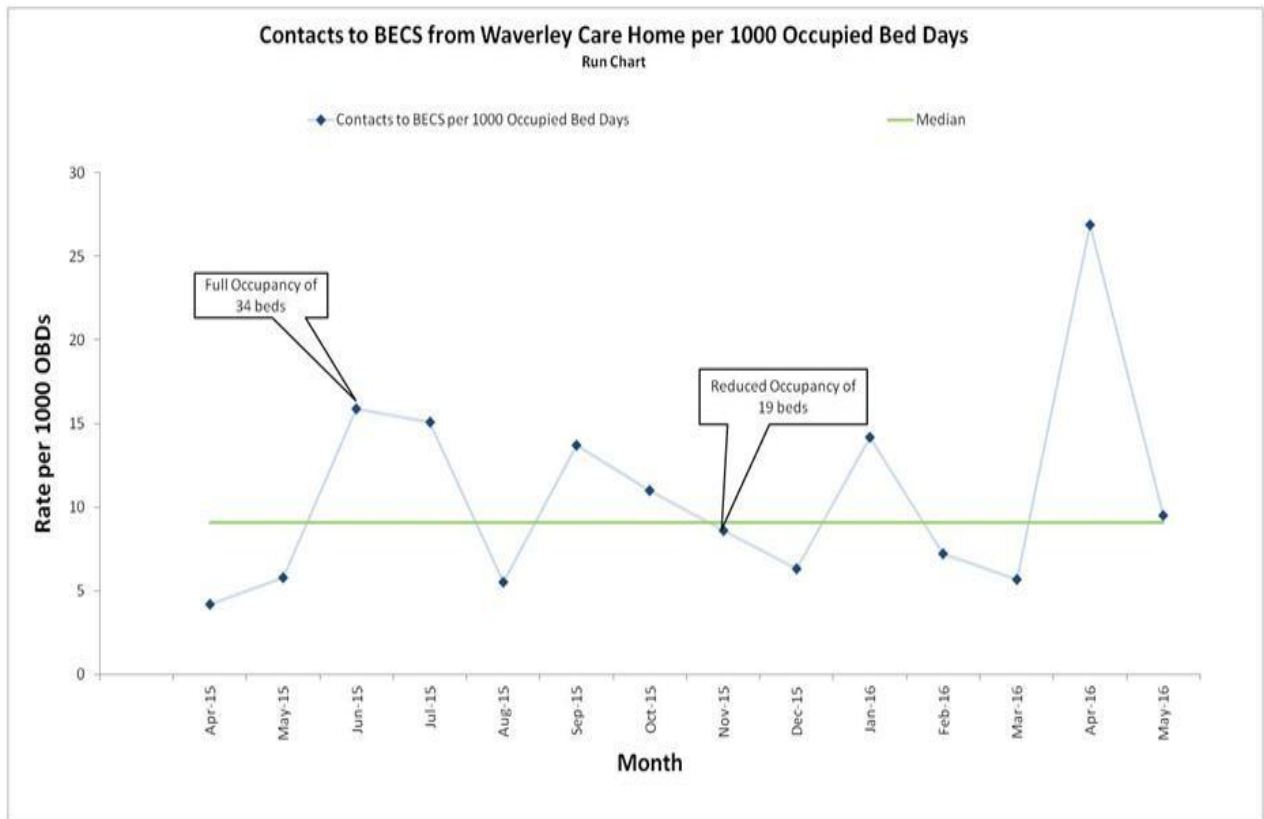
Appendix m

Run Charts to demonstrate improvements made during the project and show overall results.

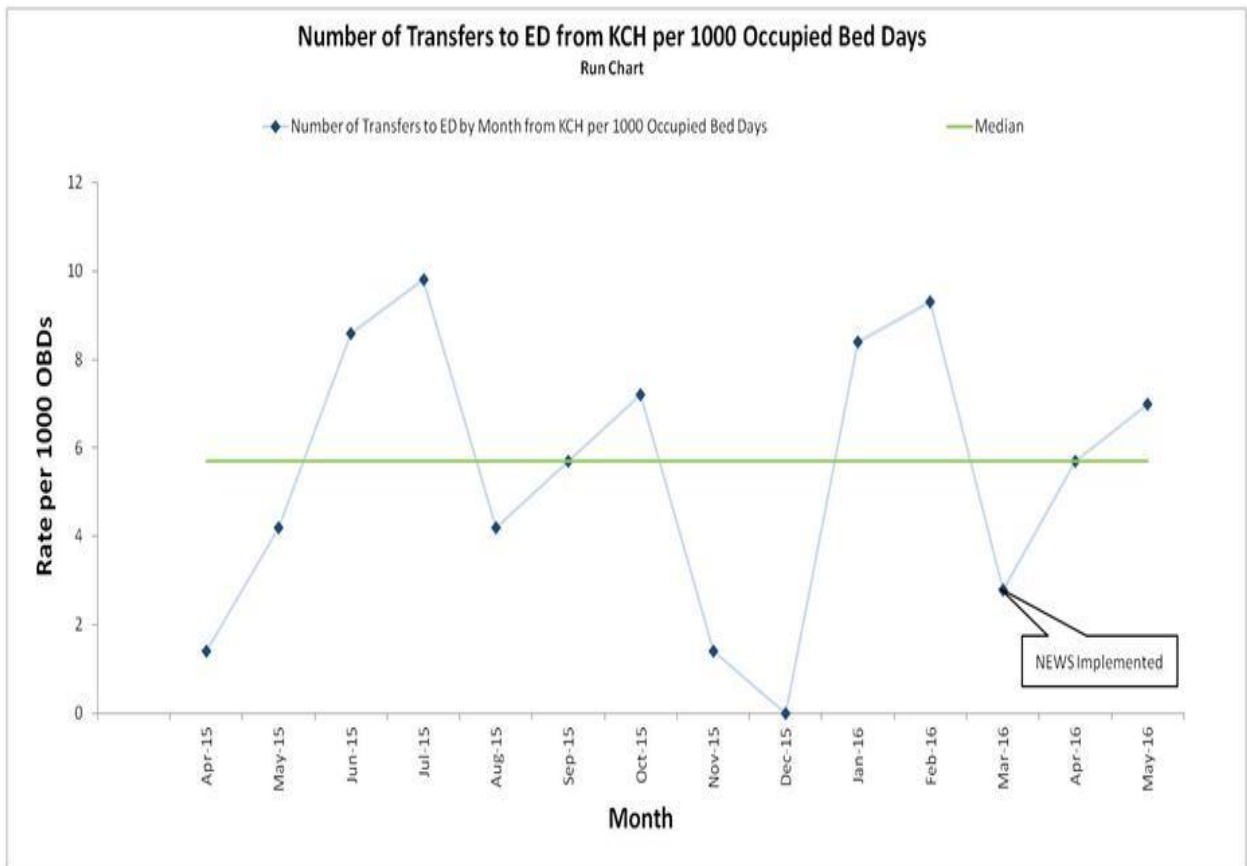


This chart demonstrates a comparison between the contacts made by each community hospital to Borders Emergency Care Service (GP Out of Hours Service) for advice regarding in-patient care. The community hospital test site, Kelso, shows a comparable level of contact.

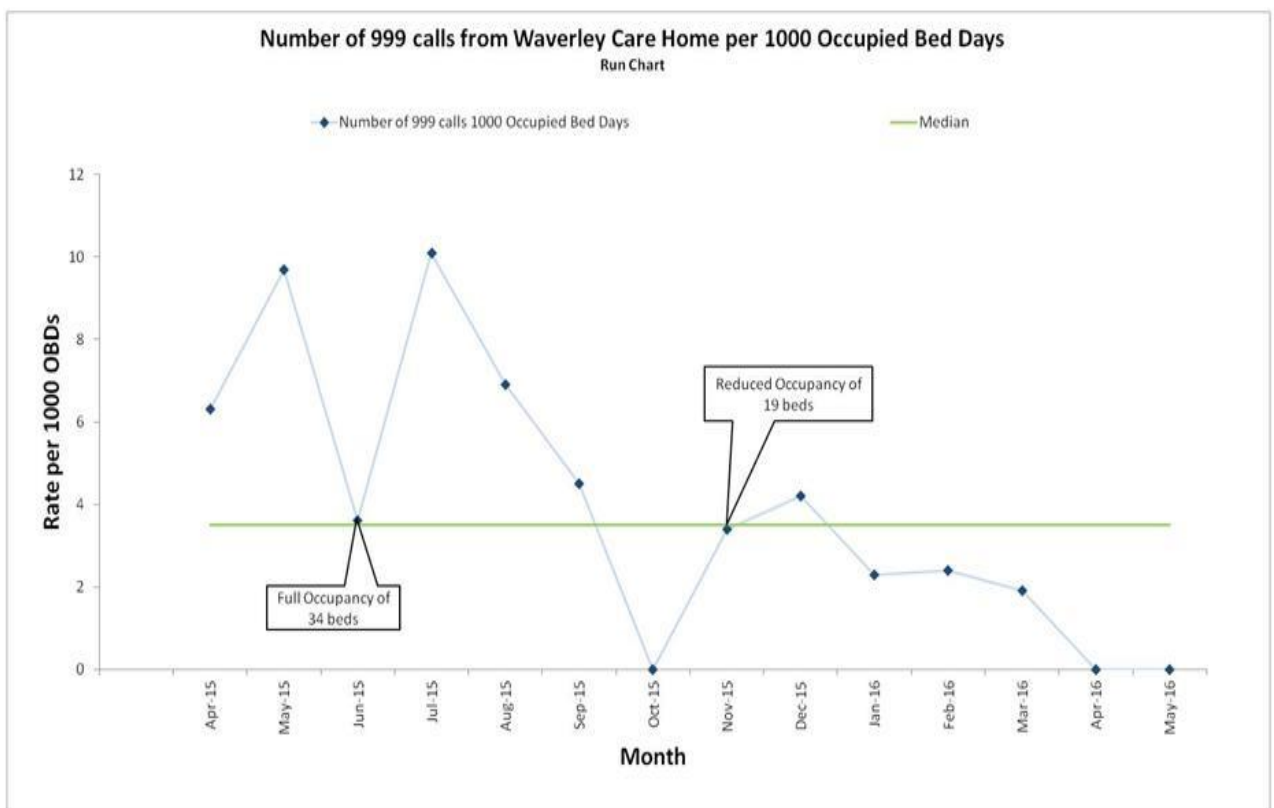
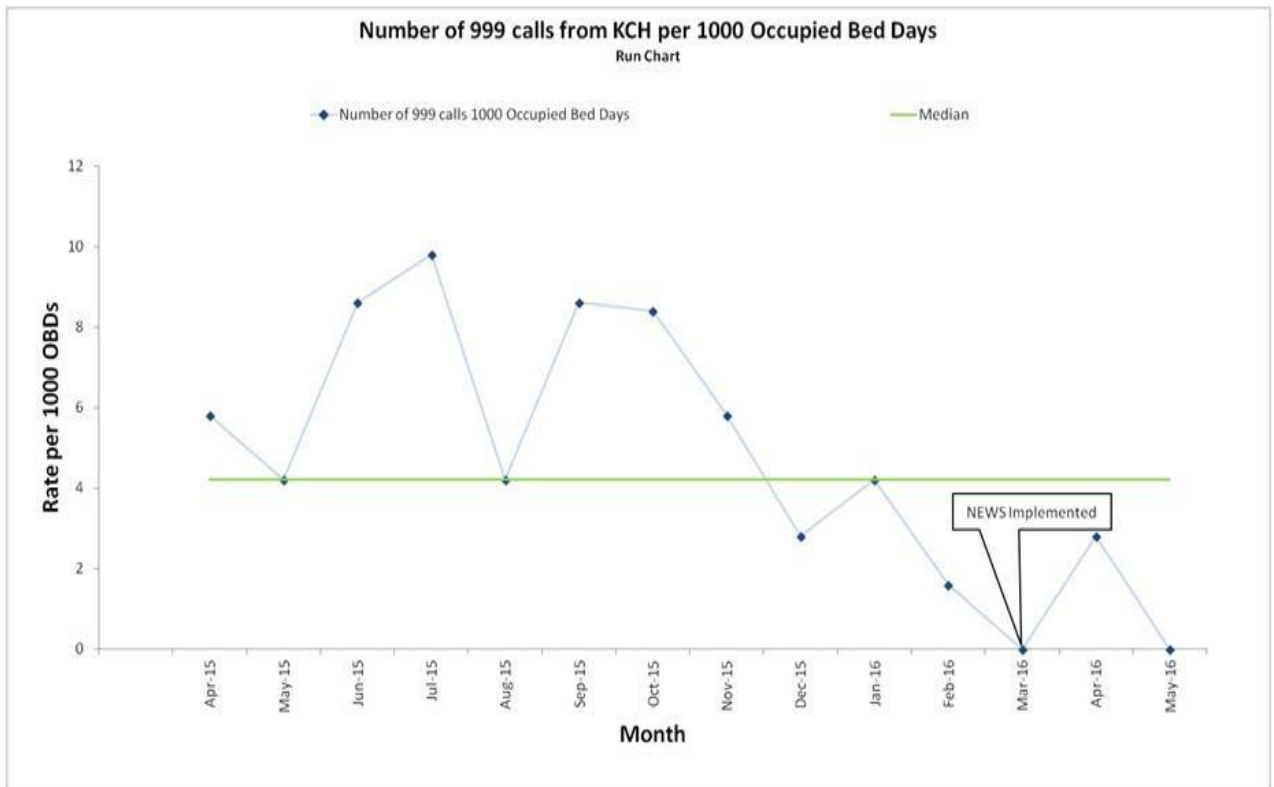
This chart shows the number of referral calls into the Out of Hours Service from Waverley Care Home per 1000 occupied bed days.



Run chart demonstrating the number of transfers from Kelso Community Hospital to the Emergency Department per 1000 occupied bed days.



2 Run charts showing the amount of 999 ambulance calls from 2 of the test sites.



Structured Response to managing a patient who has triggered the Early Warning Score and is considered at risk.

Structured Response Compliance indicates that all 7 elements to safely manage the patient who triggers the National Early Warning Score (NEWS) and are considered at risk have been performed.

- A. Nurse in charge is informed.
- B. NEWS score calculated/sepsis considered.
- C. Appropriate care givers have met and discussed plan.
- D. Documentation of active problems, working diagnosis, management plan, and review time (SBAR format).
- E. Frequency of observations reviewed and documented.
- F. DNACPR considered and completed if appropriate.
- G. Patient Escalation Decision Making Record viewed (in case notes).

