LM Learning Matters

Issue 11: June 2020

Checking Patient Details on Images and other Investigations

A patient was admitted to the Emergency Department (ED) following a history of trauma to the left side of chest. The patient was referred for chest x-ray. The image reviewed by the ED clinician appeared to show a left sided pneumothorax and the patient was referred to the surgical team. The surgical team also reviewed the same image and proceeded to insert a left sided thoracostomy (chest drain), following discussion with Consultant on call. As per standard practice, a repeat x-ray was completed to ensure the correct position of chest drain and on review, the ED clinician noted that the pre-insertion chest x-ray did not show a pneumothorax but was normal. It subsequently became apparent that a previous chest x-ray dated 30 months earlier had appeared to show a pneumothorax.

Key Learning

From September 2019, for NIPACS sites, the wording current and prior can and should be displayed on all images highlighting which is most recent as well as both showing the date clearly. This will not be available on sites with different systems.

For any investigation, all staff should:

- check the patient details are correct: name, dob, H&C number
- check the date of the image or test is correct
- check the orientation of a radiograph is correct
- 'close down windows' when finished viewing

Introduction

Welcome to issue 11 of the Learning Matters Newsletter. Health and Social Care in Northern Ireland endeavours to provide the highest quality service to those in its care. We recognise that we need to use a variety of ways to share learning therefore the purpose of this newsletter is to complement the existing methods by providing staff with short examples of incidents where learning has been identified.

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Focus on NEWS2

Summary of Events

In this edition we feature a section on learning from Serious Adverse Incidents relating to incorrect identification, escalation and management of National Early Warning Score (NEWS). NEWS is a tool developed by the Royal College of Physicians (RCP)which improves the detection and response to clinical deterioration in adult patients. It is a key element of patient safety and improving patient outcomes.

NEWS2

NEWS2 is the latest version of the National Early Warning Score. NEWS was issued in 2012 by the RCP and the update to NEWS2 was published in December 2017. NEWS has been implemented in all Trusts. Trusts are currently working on a phased introduction of NEWS2.

NEWS2 was issued in response to evaluation of user feedback and focussed on four key issues:

1. How NEWS could be more effective in identifying patients likely to have sepsis and at risk of clinical deterioration
2. Highlighting that NEWS>=5 is a key threshold for urgent clinical alert and response
3. Improving the recording of oxygen use and NEWS scores in patients with hypercapnic respiratory failure
4. Recognising that **new confusion** or any acute decrease in Glasgow Coma Scale (GCS) is a sign of potentially serious clinical deterioration

How does NEWS2 differ from the original NEWS chart?

- the recording of physiological parameters has been reordered to align with the Resuscitation Council (UK) Airway, Breathing, Circulation, Disability, Exposure (ABCDE) sequence
- the ranges for the boundaries of each parameter score are now shown on the chart
- the chart has a dedicated section (SpO2 Scale 2) for use in patients with hypercapnic respiratory failure, (usually due to COPD), who have a clinically recommended target oxygen saturation range of 88–92%
- the section of the chart for recording the rate of (L/min) and method/device for supplemental oxygen delivery has been improved
- the importance of considering sepsis in patients with known or suspected infection, or at risk of infection, is emphasised. A NEWS score of 5 or more is the key trigger threshold for urgent clinical review and action
- the addition of 'new confusion' (which includes disorientation, delirium or any new alteration to mentation) to the AVPU (Alert, Verbal, Pain, Unresponsive) score, which becomes ACVPU (where C represents confusion)
- the chart has a new colour scheme, reflecting the fact that the original red–amber–green colours were not ideal for staff with red/green colour blindness

NEWS2 training

A NEWS2 e-learning programme is available at https://news.ocbmedia.com/. This is free to access for staff with a hscni.net email account. There are five modules; select the one most appropriate to your work setting:

- Acute care
- Ambulance care
- Mental health
- Community/Nursing or Residential Home
- Primary Care

Key learning from Serious Adverse Incidents (SAI) relating to NEWS

Failure to act on abnormal NEWS scores

In a recent SAI it was reported that NEWS recording were not in keeping with Trust guidance. A patient attended ED with chest pain, low oxygen saturations, shortness of breath and pyrexia. The patient also had a cardiac history. The patient's condition deteriorated later that evening and they had a cardiac arrest. Cardiopulmonary resuscitation was commenced and the patient was intubated and transferred to theatres for stabilisation.

NEWS recordings were not in keeping with Trust guidance on frequency. NEWS of 7 should result in continuous monitoring of vital signs including blood sugar and during continuous monitoring all vital signs should be recorded on the NEWS chart every 15 minutes. This did not happen.

Key Learning

- An elevated NEWS score helps identify a sick patient who requires urgent clinical review in a standardised way.
- A NEWS **score of 5 or more** is a key threshold requiring an urgent clinical review.
- Sepsis should be considered in any patient with a NEWS2 score of 5 or more – '**think Sepsis**'. However NEWS should be used alongside clinical judgement as a high score for some individuals, i.e. those at the end of their life may need to be interpreted differently.
- Significantly abnormal NEWS scores, which combine with a clear history of pain on movement, should lead to a suggestion of a source of sepsis and a CT scan should be considered.
- It is imperative that all healthcare staff recording data for, or responding to the NEWS score are fully trained in its use and understand the significance of the scores.
- Education, training and demonstrable competency in the use of NEWS should be completed for all healthcare staff engaged in the assessment and monitoring of acutely ill patients.

Incorrect calculation of NEWS scores

A patient felt unwell following an elective Endoscopic Retrograde Cholangio-Pancreatography (ERCP). Over the following 24 hours the patient's condition deteriorated with signs of sepsis and acute kidney injury. The findings from the review of this case show that there were gaps in the recording of clinical observations. There were omitted parameters (without rationale) and there were incorrect calculations of total NEWS scores, due to omission of calculating oxygen administration (score of 2) in the overall score.

In a second case the patient was admitted to hospital with a NEWS score of 8. Following transfer to ward the patient had a cardiac arrest and was subsequently transferred to ICU. There the patient experienced ongoing multi-organ failure, significant deterioration and subsequently died. The review of this case highlighted that NEWS scores were calculated incorrectly on numerous instances Recording intervals were not as per protocol and there was no evidence of escalation of care following the abnormal NEWS score.

Key Learning

- Education and training and demonstrable competency in the use of NEWS should be a mandatory requirement for all staff using NEWS.
- Whoever records the NEWS should be trained to measure the parameters accurately, understand the significance of the NEWS and be familiar with the response policies for changing the frequencies of monitoring and escalation of clinical care.

Sterile water should not be used for bladder irrigation

A patient was admitted to hospital with abdominal pain following a recent admission for resection of a bladder tumour. On admission the patient's blood tests indicated hyponatraemia (128mmol/L).

Bladder irrigation was performed using sterile water for irrigation, via a 3-way urinary catheter. A blood transfusion and intravenous fluids were also in progress.

The catheter was bypassing, which made accurate fluid balance challenging. Documentation of fluid balance and bladder irrigation was inadequate at times.

The plasma sodium level fell further over the next few hours. Symptomatic hyponatraemia was diagnosed, which was felt to be a significant contributory factor in the patient requiring intensive care support.

Key Learning

- All staff should be made aware that **sterile water should not be used** for bladder irrigation; Sodium Chloride 0.9% should be used.
- Water is not used for irrigation, as it may be absorbed via by osmosis from the bladder, volume may cause dilution of electrolytes in the circulatory system.
- The patient's input and output must be recorded accurately on the fluid balance chart
- On erecting a new bag of Sodium Chloride for irrigation purposes, the input and output balance must be recorded and a doctor alerted if the volume of irrigating fluid being instilled is significantly greater than volume is returned.

Importance of Appropriate Communication and Follow-up of Diagnostic Testing

Summary of Event

A patient attended the pre-assessment clinic and had a number of tests arranged, including a chest x-ray. The tests were requested by pre-assessment nurses, under the name of the surgeon, in accordance with the Trust guidelines. However the guidelines do not specify who is responsible for follow-up of results. Before the x-ray result was available, the patient was discussed with the Consultant Anaesthetist and it was decided to proceed to surgery.

The report subsequently became available and, in view of changes present, a chest CT advised. The report was entered onto the radiology alert system but was closed without being actioned and the paper copy was filed without being seen by the surgeon. At the time of surgery, which was performed under spinal anaesthetic, the x-ray report was not reviewed.

The report was noted by the pre-assessment nurse and brought to the attention of the surgeon a number of months later. When an urgent CT was requested, it confirmed a lung tumour and the patient was referred to the lung Multi-disciplinary Team for follow-up.

Key Learning

- Pre-operative Assessment Units should have clear guidelines, including specific roles and responsibilities, for requesting and **follow-up** of tests or investigations.
- Staff must ensure there are robust systems for the communication of results to all relevant professionals involved in the care, and are accurately recorded in the patient notes.
- The guiding principle is that the professional who orders the test is responsible for reviewing, actioning and communicating the result.

Communication Primary Care

Summary of Event

A patient was referred as a 'red flag' to secondary care by their GP following a slightly abnormal blood test. The patient was seen in secondary care where the test was repeated, and a plan made to review in 4 months.

At that second review the patient had a repeat test and, on the clinic letter to the GP, a handwritten transcript was included asking for the test to be repeated in 6 months and the results forwarded.

The test was not repeated and the patient remained as an 'open registration' on the Patient Administration System (PAS). This means they have not been discharged and neither have they been allocated to the review waiting list.

The Consultant then retired from practice. When the patient re-presented several years later, results revealed cancer and an opportunity for earlier diagnosis may have been missed.

Key Learning

- Results letters should clearly indicate a plan of action for the patient including being clear on who is responsible for each action.
- When a consultant provides notice of their intention to end their employment, all patient registrations and waiting lists should be reviewed to identify patients that will require on-going care and treatment and arrangements made for their on-going care.

Communication between secondary care to district nursing when a patient requires insulin administration

Summary of Event

A patient with Type 2 diabetes and dementia was discharged from hospital to their Residential Home/ Supported Living flat.

A referral to the district nursing team was not made by the discharging ward to recommence services for the administration of insulin, resulting in the receiving facility not having procedures in place to ensure services were recommenced.

Consequently, the patient did not receive insulin for 5 days and required readmission to hospital for stabilisation.

Key Learning

- On discharge, staff must ensure that a referral/re-referral is made to all the necessary services, e.g. District Nursing if they require follow up services.
- Include information about insulin type, dose and recent blood sugar levels.
- All receiving facilities, e.g. Residential Homes/Supported Living accommodation, should consider having a checklist in place to ensure that services are recommenced.

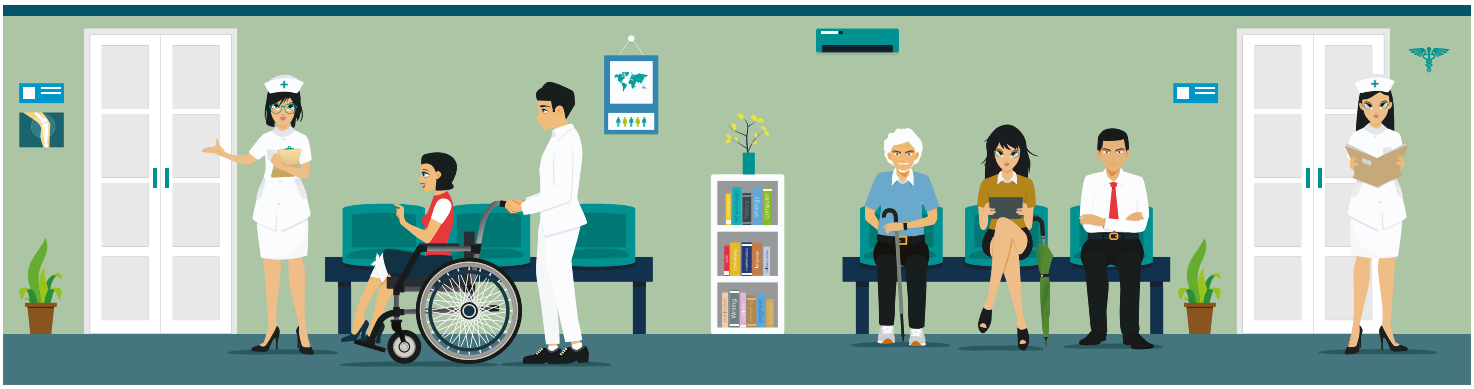
Advice for patients waiting elective surgery

Summary of Event

A patient waiting for elective surgery did not attend for pre-assessment on the day prior to surgery. On being contacted by the doctor in the clinic, they informed the doctor they were feeling unwell and would be unable to attend. The doctor advised that they should attend the Emergency Department (ED) which they subsequently did via emergency ambulance.

On arrival at ED, they conveyed that they had been told to attend by the doctor, as they had not been able to attend their pre-assessment appointment. As a result ED staff assumed the patient was attending for routine pre-assessment bloods, which they carried out and then discharged the patient without full assessment of their current complaint.

The patient attended the following morning for their elective surgery, however they were too unwell to have this carried out.



Key Learning

- All patients awaiting treatment/assessment should be aware of how to escalate matters if they suffer an acute deterioration of their condition. All patients should receive appropriate information and have this documented in their notes.
- If a patient requires clinical assessment before their surgery, due to deterioration in their condition, specialty teams need to ensure all avenues for clinical assessment prior to referral to the Emergency Department. Referral to ED should only be used in the case of a clinical emergency and after discussion/handover with the ED consultant.
- If a patient requires clinical assessment before surgery, due to a deterioration in their condition, the speciality team must ensure all avenues for clinical assessment prior to referral to the ED have occurred.

Communicating and acting on urgent lab results

Summary of Event

Following a fall a patient was admitted for inpatient management of a fracture. Blood samples taken in the Emergency Department showed an abnormally high potassium level. The results were telephoned through to the Emergency Department and the call was taken by a non-clinical member of staff. The Department was very busy at the time and results were not communicated to the ward that was caring for the patient. Some hours later the patient had a cardiac arrest, they were noted to have hyperkalaemia and were subsequently treated for this.

Key Learning

Hyperkalaemia is a medical emergency. Resources to support the safe and timely management of hyperkalaemia including simple awareness raising videos are available from NHS Improvement https://improvement.nhs.uk/resources/resources-to-support-safe-and-timely-management-of-hyperkalaemia/

- Staff should follow the Guidance on Communication of Urgent Laboratory Results developed by the Pathology Network Northern Ireland in 2018. This guidance was previously disseminated to Trusts.

Retained vaginal swabs in gynaecology patients

Summary of Event

A patient underwent a vaginal hysterectomy during which a vaginal pack was inserted for removal 24 hours post-op. A nurse and two doctors reviewed the patient and were unable to visualise the pack and so removed the vaginal pack armband. Staff were not aware of the appropriate action to be taken in the event of being unable to visualise the pack. Two weeks later the patient spontaneously passed the pack.

Key Learning

- Documentation at time of surgery should indicate that a pack has been placed and instructions for removal. Removal should also be documented.
- Consider generic small sized swab with raytex markings;
- Pack should have tie;
- Tie should be taped to thigh (not folded inside vagina);
- Check pack removed at time of catheter removal;
- Trusts should develop guidance on what to do when the pack cannot be retrieved i.e. escalation and ensuring red armband remains in place until absence confirmed.

Double check: Is it micrograms or milligrams?

Summary of Event

A paediatric patient was prescribed Ethinylestradiol **2 micrograms** by the specialist however the GP was not familiar with this dose and assumed that ethinylestradiol **2milligrams** was intended. This dose was gradually increased over 2 years, and resulted in to several prescriptions for the incorrect strength. The patient did not come to any harm.

Key Learning

Key learning from this incident is as follows:

- Micrograms should always be written in full i.e. not 'mcgs'.
- Check unfamiliar drugs or doses against a reliable source e.g. British National Formulary for medicines in children of all ages from birth to adolescence.
- If unsure, or unable to source information, double check with the initiating speciality.
- Transcribing medications from another source can carry a higher risk of error than when making the prescribing decision - check the end result against original recommendations.
- Every time a medication is prescribed or dispensed think: Is this drug and dose clinically appropriate for this patient? Assumptions should not be made.
- Medicines reconciliation should always take place when patients move across interface from secondary to primary care and vice versa.

Best Practice Letters

Reference	Date Issued
SQR-SAI-2019-058 (AS) - Delayed Diagnosis Of Appendicitis	17th January 2020
SQR-SAI-2019-059 (AS) - Wrong Connection Of Peripheral And Regional Anaesthetic Infusions-block	11th December 2019
SQR-SAI-2019-057 (AS) - Head Injury In Patients Taking Oral Anticoagulants	24th October 2019
SQR-SAI-2019-056 (All PoCs) - Correct Administration Of Medicines	25th September 2019
SQR-SAI-2019-055 (AS MCH OPS) - Timely Recognition And Treatment Of Sepsis	25th September 2019
SQR-SAI-2019-053 - WHO Surgical Checklist	18th September 2019
SQR-AI-2019-054 - Phenobarbital Elixir Contains A High Level Of Alcohol	18th September 2019
SQR-CR-2019-052 (AS) - Sore Throat Care Pathway For Adults	30th August 2019
SQR-SAI-2019-051 (ASPHC) - Delayed Diagnosis Of DKA And Type 1 Diabetes In A Young Adult	27th August 2019
SQR-SAI-2019-050 (AS) - Difficult Failed Intubations	27th June 2019

Learning Letters

Reference	Date Issued
LL-SAI-2020-035 - Aortic Stenosis Diagnosis And Follow Up	8th January 2020

Alerts

DoH Ref No	Title of Alert	Date Issued
HSC (SQSD)11/19	Assessment and management of babies who are accidentally dropped in hospital	4th April 2019

Contact us

HSC Health and Social Care

If you have any comments or questions on the articles in the newsletter please get in contact by email at learningmatters@hscni.net or by telephone on **0300 555 0114 ext: 1695**

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