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Patient Services and Quality Improvement

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7 June 2024

IN CONFIDENCE
Mr Andrew Hetherington
HM Senior Coroner for Northumberland
Coroners Court
County Hall
Morpeth
Northumberland
NE61 2EF

Dear Mr Hetherington

INQUEST INTO THE DEATH OF ELEANOR SMITH

RESPONSE TO REGULATION 28 REPORT; PREVENTING FUTURE DEATHS RESPONSE

We write in response to your Regulation 28 report dated 12 April 2024 following your investigation into the death of Eleanor Smith. This response has been prepared by Northumbria Healthcare NHS Foundation Trust (The Trust) and addresses the concerns set out by HM Senior Coroner.

The Trust will respond to each of these concerns in turn.

Response

The Trust is committed to ensuring that lessons are learnt when any patient safety incident occurs. At the time of the incident a multidisciplinary learning from deaths mortality review was undertaken by the Trust and some key learning points were identified, the most relevant of which was that there was a delay to the decision to prescribe and administer intravenous antibiotics which was inadequately recorded in the electronic record. The mortality review team was clear in its conclusion that the delay to administration of antibiotics was not likely to have contributed to Mrs Smith's death as she was felt to be dying following the stress of surgery and the initial injury.

During the inquest HM Senior Coroner heard oral evidence from the family that demonstrated that the recording of the administration of the intravenous antibiotics was not consistent with their observations at the time and that the record keeping with regards to the difficulty of siting an intravenous cannula was absent.

Matters accepted by the Trust during the inquest:

During the inquest, the Trust accepted the following:

1. There was no record in the electronic medical record with regards to the difficulty in siting the intravenous cannula, nor was there a care plan completed once the cannula was eventually successfully sited in the foot.

2. Following the prescribing of intravenous antibiotics (Teicoplanin and Aztreonam) on 23 September 2023 there was insufficient evidence within the electronic prescription record to determine whether some or all the prescribed doses had been administered and when the dose was completed.

On reflection following the inquest, the Trust also notes that the management of the clinical deterioration of the patient in the final 24 hours of life could have been improved, and that if treatment was being pursued then antibiotics should have been prescribed earlier.

It is also accepted that there should have been documentation around the problems with cannulation that led to the delayed administration of the intravenous antibiotics.

Below is set out the response to each of HM Senior Coroner's concerns:

Concern 1

The Trust accepts that in this case the record keeping regarding the cannula was absent.

Cannula care plans are contained within the "Nervecentre" application that forms part of the electronic record. It is Trust policy (IC16 V09 Intravascular policy) that all vascular access devices should be assessed daily for leakage or failure, and they should be flushed at least twice daily. The procedure should be documented in the cannula care plan on Nervecentre. The policy does provide a link to the Vascular Access intranet page which provides a clear guide as to how to access help in the event of difficult IV access, including escalation to the on-call Anaesthetic team if necessary.

In the case of Mrs Smith intravenous access was obtained by the ward team, however, we would expect there to have been documentation regarding missed or delayed critical medicines such as intravenous antibiotics.

Requests by nursing staff for cannula insertion can either be done digitally by creating a task on Nervecentre, or via a face-to-face request. No tasks were raised in Nervecentre on this occasion.

Interrogation of Nervecentre data shows that on NSECH Ward 1, between the beginning of September 2023 and end of December 2023, there was an average of 493 completed cannula care plans per month. This is for a 28-bed ward over 31 days.

This suggests regular use of the care plans but does not provide assurance that all cannulas are being correctly documented. We therefore conducted a one-day point prevalence audit of Ward 1 to assess compliance on 12 May 2024. The audit showed that on the day in question only 58% of patients with a cannula had a fully completed and up to date care plan. We have put an action plan in place to address this on Ward 1 and across the Trust. The action plan includes highlighting the issue at the ward safety huddles, a clearer escalation process for staff in the event of difficult intravenous access and weekly reaudit to drive improvement.

We are in the process of creating a safety message (see attached text and video) that will highlight:

- The pathway for escalating difficult intravenous access and the importance of recording in the clinical record when there has been difficulty or delay in cannulation (Concern 1).
- The overall importance of cannula documentation and recording of partial or incomplete drug administration (Concern 2)
- A step-by-step guide video to remind people how to amend the details of an incomplete/partial dose on eMeds (see attached eMeds Amending Administration.mp4).


Microsoft Word 97 - 2003 Document


eMeds Amending Administration.mp4

The safety message and videos will be disseminated Trustwide via multiple media platforms, along with being shared on the Trust's intranet and will also be sent to all staff by way of an email bulletin and on the communication digital newsletter. This will be sent separate to the normal safety message process.

Concern 2

The Trust accepts that there was incomplete documentation on the electronic prescription record (MedChart) to demonstrate that the intravenous antibiotics had been administered as prescribed.

Medicines Management Policies and Procedures (MM01) Version 9.3 which was implemented on 12 January 2023 states:

"Healthcare staff must make a clear, accurate and immediate record of all medicines administered, intentionally withheld, or refused by the patient, ensuring their signature, initials, or electronic signature (as appropriate to the administration record) is clear and legible. The record must not be made before the medicine has been administered."

In the case of Mrs Smith, the dose of intravenous Teicoplanin administered at 17:56 on 23 September 2023 (after being prescribed at 17:20 on 23 September 2023) was incomplete due to the leaking cannula and was then repeated at 21:47. This was not recorded on MedChart or in the patient's clinical record.

The Trust collects data from the MedChart to monitor whether medications are administered at the correct time, and this is then shared with the ward teams. The data for Ward 1 at NSECH for intravenous drug administration shows that over 95% of intravenous drug administration happened on time or early between 24 April 2022 and 22 April 2024 (see figure 1). Early administration occurs usually before a shift change, most commonly when the night staff deliver that morning doses before handover to the day shift at 8.00 am. This allows the day team to start the busiest part of the day with some of the most time demanding tasks already completed.

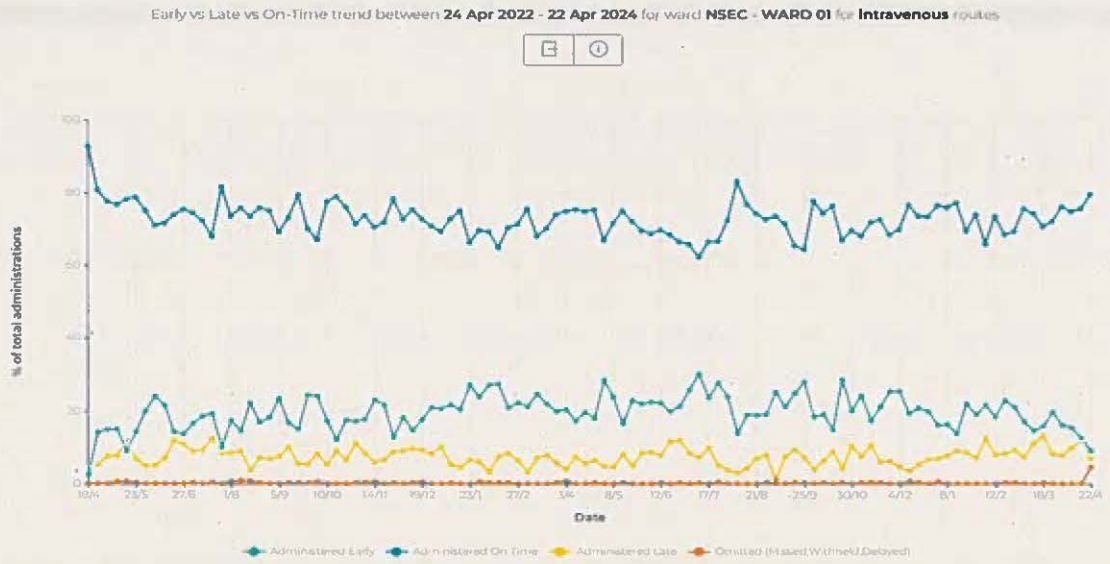

Figure 1 – Intravenous drug administration timing on ward 1 NSECH

In the case in question the prescription was signed as administered after the antibiotic infusion had been started, however, there was no amendment made to the record when it became clear that the infusion had not been completed due to the intravenous cannula not working properly.

There was previously no clear guidance in policy MM01 on how to record partial doses (as might occur if the cannula leaks or is tissued). There is, however, a facility within the electronic prescription record to add narrative text to indicate an incomplete or partial dose and this is regularly used by clinical teams. Data taken from MedChart shows that for Ward 1 at NSECH, 50 individual staff members used this facility between 1 June 2023 – 31 December 2023. Table 1 below shows the number of administration event changes during this period:

Table 1

Month (2023)	Number of Administration Event Changes (NSECH Ward 1)
Jun 2023	90
Jul 2023	72
Aug 2023	72
Sep 2023	104
Oct 2023	107
Nov 2023	111
Dec 2023	119
Grand Total	**675**

Table 2

Shows the original administration event compared to the updated administration event.

Eg 142 cases (highlighted) where a patient's administration was originally recorded as ***Administered*** but then updated to ***Missed***.

	Updated Administration Event							
Original Administration Event	**Adjust Infusion**	**Administered**	**Delayed**	**Infusion Started**	**Missed**	**Not Taken**	**Withheld**	**Grand Total**
Adjust Infusion	5							5
Administered		103	80		142	115	31	471
Missed		112	7	4	10		1	134
Not Taken		7			1			8
Withheld		42	5	3	3		4	57
Grand Total	**5**	**264**	**92**	**7**	**156**	**115**	**36**	**675**

Table 3

This shows the updated reasons as to why an administration event was amended.

Administration Event Reasons	**Number of instances**
(blank)	15
Cancel to edit previous event	4
Clinical reason (please state)	9
Declined / refused	78
Dose given early at nurse discretion	7
Dose given late as patient off ward	2
Dose given late at prescriber's request	3
Dose was due during MedChart downtime, and status unknown. (Refer to offline chart for details)	1
Error in recording dose	2
Medication unavailable	8
Medication unavailable (D/W Pharmacy)	2
Missed by staff / unclear if dose administered	5
Nil by mouth	3
No available access	2
Other	195
Patient asleep	3
Patient asleep / drowsy	5
Patient away from the ward	2
Patient omitted to take	40
Patient on leave / absent	2
Patient self-administered	15
Patient vomited	249
Retrospective recording of administration	15
Valid Clinical Reason	2
Withheld for clinical reason (Please specify)	6
Grand Total	**675**

From the evidence presented at Mrs Smiths' inquest although this facility is being used appropriately in many cases there are instances where this has not been done. Moreover, within the recorded amendments there are a significant number that have been recorded as either other (195) or blank (15), which does not provide sufficient clinical context. To address this gap, we have created a new training video for staff that demonstrates how to effectively use this facility in a step-by-step manner (see attached eMeds Amending Administration.mp4 in Concern 1).

This video will form part of the safety message referred to in Concern 1 and disseminated to the organisation.

In conjunction with this, Medicines Management Policies and Procedures (MM01) Version 9.3 has now been amended to reflect the importance of partial dose recording, including reasoning. The key changes to policy are detailed below and the amended policy is attached:

"6.9.3.16 Healthcare staff must make a clear, accurate and immediate record of all medicines where an incomplete or partial dose of a medication has been administered (for example if signs of leakage are noted when re-checking the administration site as per **Appendix 16 2.3.4**). Healthcare staff must ensure their signature, initials, or electronic signature (as appropriate to the administration record) is clear and legible. If the medication is a critical medication refer to 6.9.3.13."

MM01 Medicine Policy Version 9.4 202

The MM01 policy changes were approved by the Chief Pharmacist on 4 June 2024 and will be ratified at Policy Assurance Committee on 9 July 2024.

Clinical response to evidence of Mrs Smiths' deteriorating condition

Sepsis is when an infection begins to have a more global impact on the body both physiologically and biochemically. However, Sepsis is just one condition that can cause physiological and biochemical deterioration. At Northumbria Healthcare, it is the belief of our Deteriorating Patient Board that to truly improve care we need to focus on the recognition of patients with all cause deterioration. By doing this we will not only capture at risk patients with sepsis but with other key clinical conditions that need the same level of awareness and timely intervention.

The message we aim to deliver is: If you think someone is deteriorating, call for help and consider key generic interventions, which may include intravenous antibiotics to halt or reverse deterioration whilst you continue to make a unifying diagnosis. The Deteriorating Patient is one of the Trust's eight key safety priorities for this year. These safety priorities are chosen and then scrutinised by Safety, Quality and Improvement Committee.

We hope that the information provided during the inquest and in writing provides the necessary assurances that The Trust already has in place effective measures, which they continue to monitor and improve to ensure the effective delivery and recording of medications and the robust documentation of intravenous cannulas. We are grateful

to the Senior Coroner and family of Mrs Smith for highlighting the areas for further improvement and will deliver the additional measures detailed in this response.

Yours sincerely

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Chief Executive