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NHS
Milton Keynes
University Hospital
NHS Foundation Trust

Dr Sean Cummings
HM Assistant Coroner
Milton Keynes Council
[redacted]

20 June 2023

Dear Dr Cummings

Regulation 28 Report following an Inquest into the death of Mr Alexander Blewitt

I am writing following receipt of a Regulation 28 Report dated 06 June, subsequent to the Inquest which you concluded on 21 March 2023.

Mr Blewitt attended the hospital for the first time on 09 July 2022, having been referred from the Urgent Care Centre (UCC, the out of hours service for primary care in MK). He was discharged home with a working diagnosis (ongoing urinary tract infection) which was incorrect. Mr Blewitt then returned to the Emergency Department (ED) on 11 July 2022 and once a diagnosis was made, went to theatre for a laparotomy. Mr Blewitt suffered a cardiac arrest at the induction of anaesthesia and sadly died post-operatively on the ICU. He had been found to have pus in all four quadrants on laparotomy, following a bowel perforation.

You raise several specific issues in your Regulation 28 Report. I summarise these issues as follows:

- Lack of attention to the referral note from the UCC – inaccurate transcription by the triage nurse and failure of the doctor to seek out the original.
- A failure on the part of the assessing doctor on 09 July to record change in bowel habit as a prominent presenting symptom in his contemporaneous record, leading to an implied concern about the accuracy of the record and his subsequent evidence.
- Lack of reliable recording of IV fluid administration in the ED – you note that the author of the internal Serious Incident Report had been unable to demonstrate any remedy to this issue since the incident.
- A potential contributory factor (fluid prescriptions 'disappearing' from the electronic prescription chart) had not been raised to hospital authorities between the date of the incident and the date of the Inquest.

- A Serious Incident Report which you felt to be of an unacceptable standard (in part as it noted the poor documentation of fluid prescription but did not explore further).

Prescription of Fluids in the Emergency Department and documentation of the same

The narrative around the prescription of intravenous fluids in the Serious Incident Report, Inquest statements and verbal evidence seems to have been complex and nuanced at best, contradictory at worst.

Intravenous fluids should be managed as any medicine in the hospital, prescribed (by a doctor / non-medical prescriber) and administered (typically by a nurse, occasionally by a doctor or operating department practitioner). Since we have been using our electronic patient record (an Oracle Cerner product, branded locally as eCare), both of these steps should take place within eCare. eCare has been the primary record system in the Emergency Department since May 2018. It has been the primary record system in the theatre environment since September 2021.

As with paper records, it remains *possible* for medicines to be given by verbal order. This should occur only rarely when urgency is paramount, and it should subsequently / retrospectively be recorded very clearly in the record. As a rule of thumb, I would not expect the doctor (in the context of the Emergency Department) to leave the vicinity of the patient without completing the prescription. It may be that intravenous fluids may be more prone to administration without prescription than other medicines as a series of fluids may be administered in quick succession in a dynamic environment and – perhaps – on account of an erroneous view that fluids have less potential for harm than other medicines.

During the course of Mr Blewitt's Inquest, views were offered in relation to the prescribing of intravenous fluids within eCare. It seems that there may have been a lack of understanding, and perhaps some misunderstanding, of the technical position and the impact that this might have had on practice and record keeping.

Several years ago, we became aware that prescriptions for intravenous fluids would 'expire' if they had not been administered (commenced) prior to the time at which a prescription should have been completed. For example, if a 1000ml bag of intravenous saline was prescribed at 16:03 to run over 12 hours, the prescription would expire (and

disappear from view as a medicine awaiting administration) at 04:02 the next morning. It would still be visible in the record ('greyed out'), with details of the prescriber and the time of prescription but it will be marked as 'completed but not given'. This is a feature of the Oracle Cerner product internationally and has some benefits / advantages. Ordinarily, this issue does not have a negative impact on workflows and clinical care. However, it is more likely to be problematic in a fast-moving dynamic environment such as the Emergency Department where fluid prescriptions may be administered over relatively short periods of time (i.e., over one hour rather than over 12 hours). Of note, fluid prescribing is undertaken differently in the USA (Oracle Cerner's base) and in the UK: in the USA fluids are ordered at a rate (e.g., 100ml/h) to run indefinitely / until stopped, whilst in the UK fluids are ordered as a fixed volume to run over a defined and discrete period (e.g., 1000ml over 8 hours, then stop).

This issue was raised with Oracle Cerner and we developed a distinct 'short infusion' order. In this scenario, the prescription remains a planned administration and does not 'grey out' on the chart at the expected time of completion The 'short infusion' order remains visible as due until it is administered, or when the patient is discharged from the clinical encounter. It does not expire at a timepoint related to the time of prescription and/or the calculated time of completion of administration. It has been specifically designed for use when prescribing fluids for infusion over a short duration (i.e., an hour or less).

If doctors in ED prescribe fluids where there is a risk that they may not be started in an appropriate timeframe, or where a number of fluid options are laid out (e.g., depending upon an awaited laboratory result), these short infusions will be more suitable. They have also been included in a sepsis 'PowerPlan' (an electronic 'care bundle') intended to guide practitioners through the required orders for managing sepsis.

The orders look as shown overleaf. A training video was also developed for staff around the short infusion workflow.

In Mr Blewitt's case, documentation around fluid administration is poor but it does not seem that this specific eCare related issue – which I think was introduced into evidence at the Inquest - was relevant.

At 21:28 on 11 July, a 4-hourly bag of fluid was prescribed although it was never recorded on eCare as started (the prescription 'timed out' at 01:37 the next day, so it

remained on the chart available to be given until well after the patient left ED). Of note, antibiotics had been given at 18:55.

Following the cardiac arrest, a retrospective entry was made by the anaesthetist describing the 5 litres of fluid given in the anaesthetic room. One entry that evening (by surgical staff) stated that the patient had received 2 litres of fluids in the ED.

It remains possible, although it clearly cannot be demonstrated in the record, that Mr Blewitt did indeed have two litres of intravenous fluid in the ED. Indeed, he could have received more or less (which is clearly not a satisfactory position). It seems likely that members of staff visiting ED and reviewing Mr Blewitt (for example the two surgeons and the anaesthetist between 21:39 and 22:15) would have commented had intravenous fluids not been in progress at the time of review, given the clinical scenario which had by that point emerged.

Quality of Incident Investigation Report

It appears that the specific issue of the intricacies of electronic prescribing surprised witnesses at the Inquest and in their efforts to provide answers for you, a confused picture emerged. At its core, all ED clinicians should be aware that:

1. Upon suspicion of sepsis, time-critical treatment (including fluids) should be commenced as soon as possible. The Royal College of Emergency Medicine's standard is that 75% of patients should be in receipt of fluids within 1h of arrival, 100% within 4h.

2. High quality record keeping is key to the delivery of effective clinical care and is a professional responsibility for regulated healthcare professionals. This includes accurate documentation of patient history, examination, investigation and plan. Accurate prescribing, and documentation of administration of medicines, is essential.

Incident Investigation Reports are reviewed through a weekly meeting (Serious Incident Review Group, SIRG) where there is some consistency of senior membership. This report was signed off by that group. The two key deficiencies which you infer were: acceptance of the diagnostic approach taken on 09 July; and identification of the issue of poor documentation on 11 July without further exploration of root causes or learning. Whilst I would accept both criticisms to a degree, I do not think they are as clear cut as your Regulation 28 Report implies. The 09 July presentation was not typical for peritonitis, although there were also several elements which cast some doubt over the putative diagnosis of urinary tract infection. I note that the episode was subsequently considered – and not criticised – through a morbidity and mortality meeting which aims to facilitate an objective and arms-length review for learning.

The role of clinicians involved in Mr Blewitt's presentation on 09 July

You criticise the failure of the triage nurse and the assessing doctor to take proper account of the written notes from the UCC.

It is not now possible to establish with certainty whether Mr Blewitt tried unsuccessfully to bring the note to the attention of the assessing doctor, or whether he assumed (quite reasonably) that all important elements would have been entered into eCare at triage and be available to the doctor. I agree that it is important for a doctor to make all appropriate efforts to understand the views of other professionals who have assessed a patient and referred them on. The fact of onward referral from the UCC should have made the doctor ask himself what it was about Mr Blewitt's presentation which rendered him outside the scope of the UCC to manage: the doctor should have been

curious as to whether the UCC felt further tests were necessary, or whether there was such diagnostic uncertainty that a second opinion was effectively being sought.

You suggest in your Regulation 28 Report that the doctor's contemporaneous record was not entirely satisfactory, particularly given his view at Inquest that bowel symptoms were not present.

The contemporaneous record by the doctor on eCare states:

Lower abdominal pain associated with urinary frequency… exacerbation of supra public pain.

There is no comment in relation to bowel habit in either this document or the discharge summary. The ED triage note on eCare had also focused on sudden abdominal pain in the suprapubic area and stated, '*sent to ED due to level of pain with no clear cause'*, without reference to bowel habit.

On review (in the writing of this letter) of the records from the urgent care centre, reference to bowel habit was as follows: *'Abx have given him diarrhoea - stool was loose prior'*. The UCC record very much focuses on pain rather than bowel habit.

The statement prepared for the Inquest, finalised approximately 5 weeks after the clinical contact, states:

On further questioning, Mr Blewitt did not have any nausea, vomiting or change in bowel habit.

As shown above, there is no contemporaneous reference to bowel habit within the notes against which to reference his comment in relation to responses to further questioning. The doctor may have been basing this on his usual practice when taking a history from a patient with abdominal pain.

I shall meet with the doctor in question to further understand his perspective on both elements. Clearly, a distinction may emerge between having inaccurately recorded the history given and having been insufficiently thorough in eliciting an accurate history. There are I am sure other potential explanations. From reviewing entries from three clinicians (UCC and MKUH ED) on 09 July 2022, it is not clear to me that

changes in bowel habit were felt to be particularly prominent at that time: pain was the over-riding symptom.

I am sure – given that you have shared your Regulation 28 Report with colleagues at the General Medical Council (GMC) – that I will discuss the case with the GMC Employer Liaison Adviser in due course. Indeed, the doctor will likely seek to report himself formally to the GMC on the basis of paragraph 75 of *Good Medical Practice*: I would ask you to reflect on how this criticism could have been shared in parallel with your Regulation 28 Report – potentially in writing to me as Responsible Officer. The doctor now finds himself in a rather grey position in relation to paragraph 75 some ten weeks after the Inquest (and having not himself been a recipient of the Regulation 28 Report).

We have made advances over the last year or so in relation to the visibility of electronic patient records between different providers and IT systems involved in a patient's pathway. Specifically, through use of the Health Information Exchange (HIE), it is possible for clinicians at MKUH to see selected content from the primary care record in SystmOne. This content includes read-only access to clinical notes from the UCC. By the same token, selected eCare content is available to colleagues using SystmOne.

Sepsis work more broadly

You will be aware that the Trust is transitioning from the reactive 'root cause analysis' investigation of clinical incidents to the new national *Patient Safety Incident Response Framework* (PSIRF). PSIRF will afford us more discretion going forward in targeting our governance efforts to those areas where they have the greatest opportunity to make a positive impact for future patient care. In reviewing our historic incident profile, we have determined that we should focus our efforts on a couple of areas relevant to this Regulation 28 Report, namely:

- Robust clinical triage on presentation to the ED including timely management of sepsis where indicated.
- Recognition of, and response to, deteriorating patients – including escalation – in the inpatient environment (where sepsis may well be the driver of that deterioration).

Notwithstanding this planned focus, it is noteworthy that our in-hospital mortality rate for patients with a coded diagnosis of sepsis across 2022/23 was 15.9% (lower than both the prior year and the national average).

Sepsis is included as a priority within our 2023 Quality Account (due to be laid before Parliament in June 2023) and we have set up a 'Sepsis Quality Improvement (QI) Group' under the chairmanship of an Associate Medical Director who also happens to work as a Consultant within ED.

The Sepsis QI Group will use quality improvement methodologies to provide assurance on current performance and to drive further improvement in areas contained within the relevant NICE quality statements, including:

- Use of standardised physiological monitoring (NEWS2)
- Senior review and timely antibiotics for patients screening positive for sepsis
- Appropriate and timely fluid management
- Escalation of care to a high dependency environment where appropriate
- Effective antimicrobial stewardship

We are also working to improve the way in which we capture learning from the work of our Medical Examiners and the Structured Judgement Review (SJR) process, including in relation to deaths involving sepsis.

Other Actions

The Chief Nurse and I will be writing to all registered staff in the ED to highlight the key elements of Mr Blewitt's case, and to remind them of the issues referenced in this letter:

- Importance of reviewing notes / letters from referring colleagues (where applicable), and the HIE functionality within eCare in respect of patients referred on by UCC.
- Requirement for all medicines, including intravenous fluids, to be prescribed correctly in eCare and for their administration to be documented. Only in very rare circumstances should documentation occur in parallel with / after administration, and this too must be recorded clearly within the record.
- The specific issue of the 'short infusion' order for fluids in ED, with signposting of the available video resources and an emphasis on the sepsis PowerPlan.

- Value of the 'sepsis 6' interventions, with a particular emphasis on timeliness of antibiotics and intravenous fluids.

I trust that this response is helpful.

Yours sincerely,

[redacted]

Dr [redacted]
Medical Director / Deputy Chief Executive

Copies
[redacted], Chief Executive, Milton Keynes University Hospital
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