M. E. Voisin
Her Majesty's Senior Coroner
Area of Avon

27th May 2020 REF: 12563

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **1. Chief Executive North Bristol NHS Trust** **2. Head of Clinical Governance North Bristol NHS Trust**
1	**CORONER** I am Robert Sowersby Assistant Coroner for **Area of Avon**
2	**CORONER'S LEGAL POWERS** I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013. http://www.legislation.gov.uk/ukpga/2009/25/schedule/5/paragraph/7 http://www.legislation.gov.uk/uksi/2013/1629/part/7/made
3	**INVESTIGATION and INQUEST** On 30th October 2018 an investigation commenced into the death of Lesley Julie BRASS, aged 58. The investigation concluded at the end of the inquest on 2nd March 2020. The medical cause of death was: 1a) Cardiac arrhythmia 1b) Hyperkalaemia (untreated) 1c) Infected scalp laceration (treated), diabetes mellitus, pneumonia 2) Ischaemic heart disease The narrative conclusion of the inquest was: Mrs Brass was an inpatient on the Plastic Surgery ward at Southmead Hospital when she developed severe hyperkalaemia, a condition requiring emergency treatment. The Hospital's own internal procedures required that severe hyperkalaemia must be treated within 30 minutes, and the relevant staff looking after her were aware that she faced a life threatening emergency, but the window for effective treatment expired without the required treatment being given, and as a result Mrs Brass went into cardiac arrest and sadly died. Her death was contributed to by neglect.
4	**CIRCUMSTANCES OF THE DEATH** As above, the circumstances of the death were that: • Mrs BRASS had a number of co-morbidities, including diabetes, high cholesterol, high blood pressure, and severe peripheral neuropathy • She fell at home on 13 October 2018, sustaining a head injury

	• Her head wound subsequently became infected, and she was admitted to Southmead Hospital by ambulance on 19 October 2018 • On 20 October 2018 she was transferred to Gate 33A (the Plastic Surgery ward) • While she was an inpatient on the Plastics ward Mrs BRASS's kidneys were under additional strain (as a result of her wound infection) and she began to experience hyperkalaemia (high potassium levels in her blood) • A blood sample was taken from Mrs BRASS at 10.30am on 22 October 2018, and subsequently analysed at the hospital laboratory • When the sample was analysed Mrs BRASS's potassium level was 7.1, a reading which indicates "severe hyperkalaemia" • Severe hyperkalaemia is a medical emergency, and should be treated within 30 minutes of the condition being recognised • Untreated, it carries a very high risk of cardiac problems which can be fatal • The Trust which runs Southmead Hospital, recognising the risk posed by hyperkalaemia, has produced a Standard Operating Procedure ("SOP") to indicate how the condition should be dealt with • That SOP states that severe hyperkalaemia (defined as a potassium level of 6.5 or above) is "*potentially life threatening*" and "*needs emergency treatment*" • The SOP mandates that a patient with severe hyperkalaemia must be given intravenous calcium (either 10ml of 10% Calcium Chloride or 30ml of 10% Calcium Gluconate) within 15-30 minutes of the condition being recognised • Shortly before 12.30pm on 22 October 2018 the laboratory phoned Mrs BRASS's potassium reading (of 7.1) through to the Plastics ward • The call was taken by a member of the Hospital's nursing staff, who discussed the alarmingly high potassium result with a number of other members of nursing staff on the ward • Once the Plastics ward had been notified of that potassium result, the team who were looking after Mrs BRASS had a clear duty (under the Trust's own SOP) to ensure that she received IV calcium within 30 minutes • In order for that treatment to be administered, Mrs BRASS first had to be seen by a doctor: three members of the nursing staff gave evidence to the effect that they knew that Mrs BRASS was experiencing a life threatening medical emergency (therefore they must have understood the importance of making sure she was seen by a doctor) • The nursing staff made various attempts to get a doctor to come and see Mrs BRASS, but these were completely ineffective • Not only did Mrs BRASS *not* receive the IV calcium that she required within 15-30 minutes (as required by the Trust's own SOP), but she was not even seen by a doctor in that time • She was subsequently taken off-ward for an ultrasound scan: Mrs BRASS was booked into the radiology ward at 1.13pm, and went into a fatal cardiac arrest at 1.22pm on 22 October 2018 • By the time that Mrs BRASS went into cardiac arrest almost an hour had passed since the Plastics ward had been notified of her severe hyperkalaemia, and she still had not been seen by a doctor, much less received the required medication • There was clear (uncontested) evidence that if she had been treated in line with the Trust's SOP she would probably have survived • There was no doubt whatsoever in my mind that Mrs BRASS's death was contributed to by neglect.
5	**<u>CORONER'S CONCERNS</u>** During the course of the inquest the evidence revealed matters giving rise to concern. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is my statutory duty to report to you. The **MATTERS OF CONCERN** are as follows. – During the course of the pre-inquest investigation, and at the inquest itself, evidence came to light which led me to conclude that the Trust in general, and the Plastic Surgery department in particular, was/were reluctant to investigate Mrs Brass's death properly, and to be open about their findings.

I am particularly concerned that a number of the consultants from the Plastic Surgery department failed to co-operate with and/or progress the investigation.

In summary:

- opened an initial DATIX incident report in respect of Mrs BRASS's death on **26.10.18** (only 4 days after she died): that form correctly identified the possibility that the staff at Gate 33A had not reacted appropriately in response to her high potassium reading (*ie*, that they had not complied with the Trust's SOP on hyperkalaemia)
- The DATIX form erroneously described the level of harm caused as "*Low (minimal harm caused)*" – the effect of this misdescription was that the resulting investigation was subject to a lower level of scrutiny/oversight than it would have attracted if it had been categorised correctly
- was, sadly, unavailable to give evidence in person at the inquest, so I do not have any explanation for this error other than that contained in her statement (dated **24.02.20**) which is: "*I entered the level of harm as low until the actual level of harm was ascertained*".
- In her written statement confirmed that "*and I agreed that due to the raised serum potassium at the time of her death an internal review should be carried out*". To reiterate: by **26.10.18** at the latest the Trust knew, or had reason to suspect, that Mrs BRASS's raised potassium level (and the ward's response to it) might be of significance in relation to her death
- then emailed three of the Consultants in the Plastics department – indicating, amongst other things "*I feel we should review her care as this is an unexpected death*"
- In her written statement indicated "*my expectation at this time* [*ie*, after completing the initial DATIX form / sending those emails] *was that the care received by Lesley BRASS would be reviewed through the Mortality review process using the Structured Judgment Review (SJR). If during this review process there was an outcome of 'poor' or 'very poor' care then there would be a more detailed review and discussion of the case within the Plastic Surgery Mortality and Morbidity meeting*"
- Disappointingly there was no such review, and neither does there appear to have been any substantive response to her email from any of the three Plastics consultants named above ()
- statement goes on to indicate: "*I understand that a request for a Mortality review was sent to a Plastic Surgery Consultant, but it was not completed*"
- I was unable to ascertain who this unnamed consultant might be (and whether it was one of those who had already been contacted). was the only consultant from the department who gave evidence at the inquest: to my surprise he indicated that he *might* have been the person who had been asked to carry out the mortality review, or he might not be, but he could not say either way
- conceded in evidence that whether he was the consultant in question or not, no such review was carried out
- The internal investigation therefore stalled completely: the same department that might potentially be the subject of criticism in respect of this unexpected death had been invited to investigate itself, and had simply not done so – further, there was no extra-departmental oversight which might have picked up on this, because the DATIX had been miscategorised
- The need for some form of internal investigation – given that a patient had died unexpectedly – only seems to have been recognised again some 5-6 months later, in **March/April 2019**, when our (*ie,* the coroner's) office requested further evidence from the hospital in respect of Mrs BRASS's death
- indicates in her written statement that at that stage she requested a copy of the Mortality review, but was told that there wasn't one. She then contacted Mr again "*and requested a review of the medical records*"
- statement goes on to record that "*between May and July 2019, I had numerous conversations with the legal team… regarding the investigation of the incident form. <u>We all had concerns that this was a possible serious incident because the raised serum potassium had not been treated within the time frame of the NBT Hyperkalaemia policy</u>. I also had numerous conversations with regarding the treatment of hyperkalaemia*" (underlining added)

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- However, even though the clinical governance and legal teams *both* had concerns about Mrs BRASS's treatment, and believed that further investigation was required, the DATIX form indicates that '[redacted] *had been asked to provide a medical report for the Coroner and… the Plastic Surgery specialty felt that the report written by* [redacted] *for coroners* (sic) *was a sufficient investigation*" (see [redacted]/DATIX form)
- I was later provided with a statement from [redacted] (dated **05.11.19**) as part of my investigation into the events surrounding Mrs BRASS's death (well before I became aware of the significance that the Plastics team were attaching to his evidence): it is important to note that the contents of that statement in no way represented an adequate assessment of, or investigation into, the cause of Mrs BRASS's death – a viewpoint that [redacted] openly agreed with when he later gave live evidence at the inquest
- When I *initially* reviewed [redacted] statement (well before the inquest) I was in fact struck by the surprising absence of relevant information within it. Although he did make reference to the high potassium reading that was phoned through to the ward by the laboratory:

  (i) He did not give any indication at all of the clinical significance of that reading (*ie,* he did not mention within his statement that it represented a potentially life-threatening medical emergency, or that it carried with it a risk of cardiac arrest)
  (ii) He did not make any reference to the fact that the hospital/Trust had a SOP governing how its staff (and therefore the Plastics department) should respond to such a reading
  (iii) He set out what the ward staff *did* (*eg*, they tried to contact the Plastic Surgery SHO, and performed an ECG), but he did not indicate that there was anything that they *should* have done but did *not*, or give any indication that their response to the telephone call was inadequate (as it manifestly was)
  (iv) He did not indicate anywhere within his statement that Mrs BRASS *should* have been seen by a doctor, and given appropriate medication to counteract her severe hyperkalaemia, within 30 minutes
  (v) He did not say anything at all in his statement which would give the reader the impression that the staff on the Plastic Surgery ward had done anything wrong, or that the treatment Mrs BRASS received was inadequate
  (vi) He described the fact that Mrs BRASS subsequently went into cardiac arrest, but he did not indicate within his statement that there was any connection between her untreated hyperkalaemia and that cardiac arrest

- I was in fact so surprised by the *absence* of salient information in [redacted] statement that I took the unprecedented step of inviting him to write to me explaining why his statement made no mention of the fact that Mrs Brass's potassium reading represented (according to the Trust's own SOP) a "severe, potentially life threatening" condition which required (but did not lead to) "emergency treatment". I subsequently received a response from the Trust's solicitors, but none from [redacted]
- The absence of fundamentally important information from [redacted] statement was striking enough in any event, but it is even *more* striking in light of the knowledge (later acquired) that the Plastic Surgery team apparently regarded his statement as a sufficient investigation of Mrs BRASS's unexpected death. It is possible of course that there was an earlier, more comprehensive version of [redacted] statement, which *did* look at these issues: but if that *was* the case, then (i) it would be hard to understand why I was sent such an emasculated version of the statement, with most of the important evidence removed, and (ii) I imagine that [redacted] would have mentioned the existence of an earlier statement when I put it to him during his evidence that the statement I had from him was in no way a sufficient investigation of Mrs BRASS's death
- Returning to the chronology of the Trust's internal investigation: on **10.06.19** the legal team chased [redacted], and one of her colleagues ([redacted]), for an update on the incident review after receiving a complaint from Mr BRASS. The legal team (quite rightly) emphasised "*the importance of establishing whether if by treating the potassium urgently… there might have been a different outcome*"
- [redacted] then (according to [redacted] written evidence) "*acknowledged that he is not an expert in high potassium… [and] stated that if the Coroner wishes an expert medical opinion then we would need a statement from the medical/renal team in this case*". That is of

course perfectly correct and proper

- However, the next step – bizarrely in light of this conclusion – was *not* to ask someone from the Renal team for such an opinion, it was to close the incident report on **02.07.19** in accordance with the same [redacted] opinion that "*this patient was significantly unwell with unresponsive high potassium. The mortality predicted was very high... In retrospect it would have been best not to transfer the patient to USS [the ultrasound scanning suite] under these circumstances. Whilst the cardiac events would not have been avoidable it may be that the environment for resuscitation was more appropriate on the ward*" (see [redacted] statement, and pg.3 of the updated DATIX form – underlining added).
- It is extremely worrying to me that [redacted] would acknowledge that he is not the appropriate person to offer an opinion on whether there might have been a different outcome with appropriate treatment, and then go on to offer an opinion on that very issue
- It is also surprising and extremely worrying that [redacted] (part of the clinical governance team), knowing that [redacted] was by his own admission not the appropriate person to given an opinion regarding the causative significance of Mrs BRASS's lack of treatment, would then close the DATIX incident report off the back of that same opinion
- The Trust then had to re-open the recently closed DATIX incident only weeks later (on **19.07.19**) after discussion with [redacted] of the Trust's legal team prompted [redacted] to belatedly obtain an independent (in-house) Renal opinion, which confirmed, unsurprisingly, that Mrs BRASS's potassium level should have been dealt with more promptly as per the SOP, and that her death should be investigated under the Serious Incident Review process. These were, with respect, facts that were self-evident within days of Mrs BRASS's death
- I note that when the Trust obtained input from an *appropriate* specialist in relation to the question of causation, his opinion was entirely different to [redacted]

  "*Effective treatments which can be given quickly such as Calcium Gluconate injection, nebulised Salbutamol and IV Insulin & Dextrose infusion can help to rapidly protect the heart from the effects of as well as reduce high potassium levels. If Mrs Brass had been treated with such measure within 30 minutes, I consider it is probable the cardiac arrhythmia would have been avoided*" (Statement of [redacted], Consultant Renal Physician, dated **18.12.19**, underlining added)

- The Root Cause Analysis investigation which was conducted into Mrs BRASS's death (final report produced **30.10.19**) concluded that the root cause of her death was that "*the recognition, escalation and treatment of acute life threatening hyperkalaemia (high potassium level in blood) at the point of it measuring 7.1 mmols did not follow the Trust guidelines*"
- Given what had happened on the Plastic Surgery ward on 22.10.18 (or rather what *hadn't* happened), this conclusion was inescapable: Mrs BRASS had required emergency treatment from a doctor within 30 minutes, but almost an hour later she hadn't even been seen by one, and certainly hadn't had the life-saving drugs she required
- It has been obvious to all concerned in this case – before, during, and after the inquest – that the Trust's SOP on hyperkalaemia was not followed by the staff on the Plastics ward
- Notwithstanding that, on **12.10.19** the Plastic Surgery team's new head of clinical governance [redacted]) had sent various recipients, including [redacted] (who was involved in preparing the RCA report), an email which contained the following:

  "*My reading of this unfortunate incident is that, although the plastic surgery juniors were hard to contact, the hyperkalaemia guidelines were responded to pretty much as per the guidelines. This patient was refractory to initial treatment* [here he is referring to an earlier episode of hyperkalaemia, which was treated] *in the period leading up to her death, and as such, in hindsight, her escalating hyperkalaemia and death was possibly (please correct me if I'm wrong) inevitable, or at least very hard to avoid...*" (underlining added)

- Given that every relevant piece of evidence I have seen/heard in this case indicates that the guidelines were *not* followed: I am confused and concerned as to how or why the head of clinical governance for the Plastics team could conclude the opposite
- For completeness, I should note that almost the entire investigation (above) was carried out in the midst of a Trust-wide clinical governance improvement drive.

	As is, I hope, clear from the outline that I have presented above, this case has left me worried about the investigation of serious untoward incidents generally, and extremely concerned at the attitude and behaviour of the Plastic Surgery department. The evidence as a whole demonstrates to me a department that has – at Consultant level – been serially unwilling to acknowledge, respond to, investigate, be open about, or admit to its mistakes. The attitude and approach of the Plastic Surgery department, facilitated in part by failings in the approach of others involved in the initial DATIX investigation, creates a risk of further deaths in the future unless action is taken: a department which refuses to investigate or accept its mistakes cannot learn from them. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is my statutory duty to report to you.

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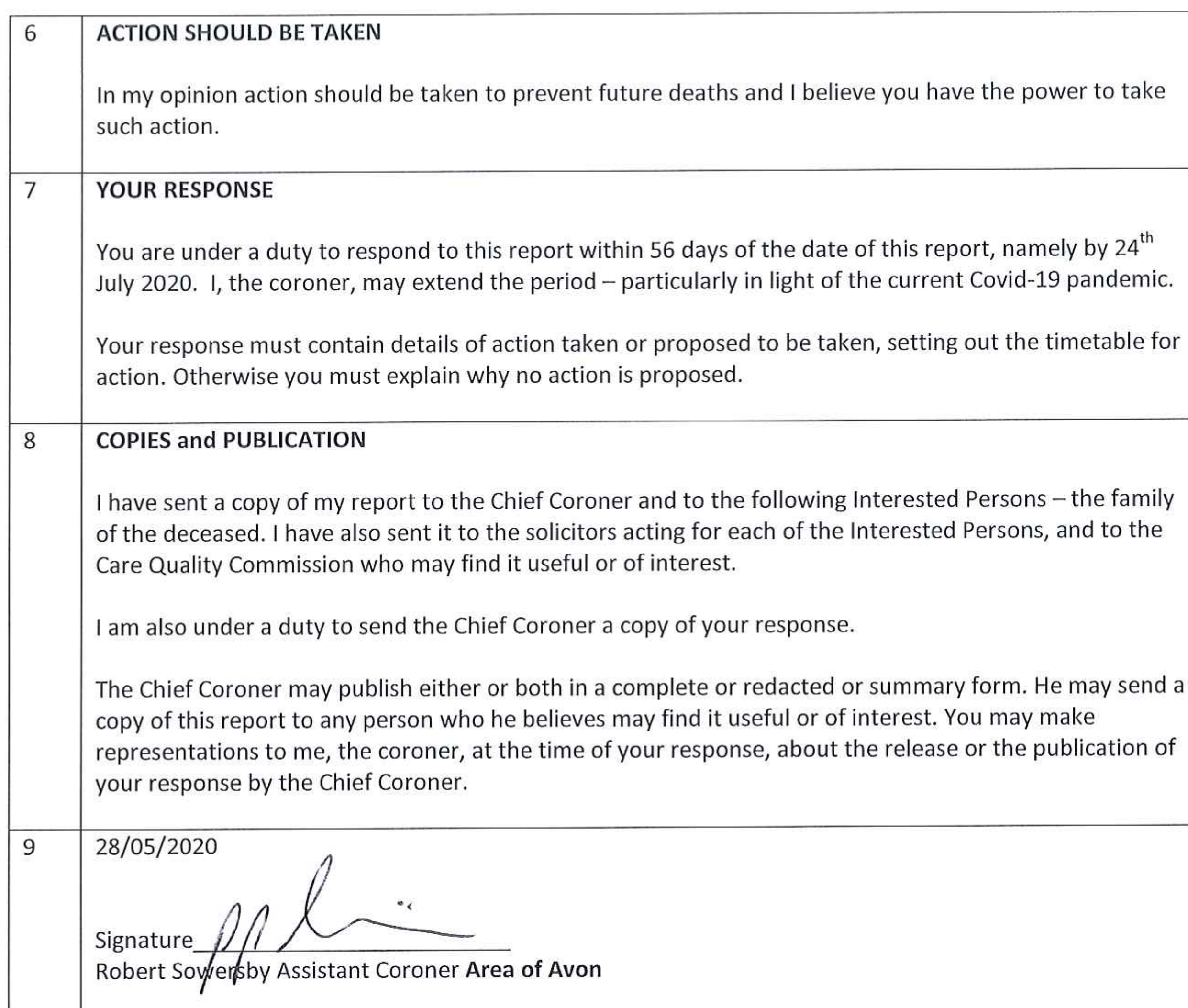

6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you have the power to take such action.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by 24th July 2020. I, the coroner, may extend the period – particularly in light of the current Covid-19 pandemic. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise you must explain why no action is proposed.
8	**COPIES and PUBLICATION** I have sent a copy of my report to the Chief Coroner and to the following Interested Persons – the family of the deceased. I have also sent it to the solicitors acting for each of the Interested Persons, and to the Care Quality Commission who may find it useful or of interest. I am also under a duty to send the Chief Coroner a copy of your response. The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest. You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response by the Chief Coroner.
9	28/05/2020 Signature____________________ Robert Sowersby Assistant Coroner **Area of Avon**

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