Regulation 28: REPORT TO PREVENT FUTURE DEATHS

NOTE: This form is to be used **after** an inquest.

	REGULATION 28 REPORT TO PREVENT DEATHS **THIS REPORT IS BEING SENT TO:** **1 NHS England & NHS Improvement (PFDs)** **2 Society of British Neurological Surgeons**
1	**CORONER** I am Anita BHARDWAJ, Area Coroner for the coroner area of Liverpool and Wirral
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.
3	**INVESTIGATION and INQUEST** On 23 October 2023 I commenced an investigation into the death of Katherine Sarah FLYNN aged 34. The investigation concluded at the end of the inquest on 29 November 2023. The conclusion of the inquest was that: Misadventure contributed to by Neglect
4	**CIRCUMSTANCES OF THE DEATH** Katherine Sarah Flynn was a 34 year old lady who on 30 November 2020 was found to have a small syrinx (fluid collection in the spinal cord). On 30 June 2021 Katherine was referred to the syringomyelia clinic (specialist clinic for patients with a syrinx). Although Katherine had back pain there was not felt to be a spinal surgical cause for this, and she was discharged from the complex spine clinic but was then referred to the pain team. Katherine had a history of progressive sensory and motor symptoms on the right side and because this could not be explained by her syrinx, an urgent MRI brain scan was requested. This scan was performed on 31 August 2021 and reported as normal. On 13 December 2021 Katherine was seen by a Consultant in Pain Medicine who noted the brain MRI of August looked abnormal and requested a review of the scan. On review there was a mass lesion that had been missed. Katherine underwent a further MRI of the brain where she was found to have tumour (left superior cerebellar / left quadrigeminal cistern region) which had increased in size by approximately 10mm since 31 August 2021. On 18 January 2022 a biopsy was undertaken to establish the type of tumour and a further scan took place on 2 February 2022 when the tumour was felt to have increased in size further. The tumour was found to be an atypical teratoid/rhabdoid tumour (AT/RT). This being a highly malignant central nervous system neoplasm which generally affects infants and is reported to rarely occur in adults. The prognosis of this type of tumour was poor. The management plan was to remove as much of the tumour as possible and then treat it with chemotherapy and radiation. Katherine was consented for the procedure where the risk to life was deemed low. Katherine was admitted to the Walton Centre on 21 February 2022 and underwent the surgery on 22 February 2022. The surgery was uneventful, and a large portion of the tumour was removed but there was still part of the tumour that remained as it could not be removed. Post -operatively, Katherine was slow to wake, and a CT brain scan showed there was some blood at the site of surgery, and it was reviewed by the operating surgeons and no further surgery was felt to be necessary. The plan was to leave the external ventricular

	drain (EVD) in and continue high dose steroids to help reduce post operative swelling. Katherine was transferred to the intensive care unit to be kept sedated and ventilated overnight. As the sedation was reduced, Katherine became aware of the endotracheal tube (ETT) and bit down on it causing significant trauma to her tongue at the same time. The sedation was increased to enable Katherine to tolerate the tube again. Later that day the tongue was noted to be very swollen and was assessed as being a risk to the airway which prevented the removal of the ETT. The sedation was reduced over the ensuing 48 hours and neurological assessment showed improvement, eye opening to stimuli, obeying commands on the left side however there was still a severe weakness on the right side. Over the following days on intensive care, the respiratory support was reduced slowly, and Katherine was breathing spontaneously but some sedation was still required to help Katherine tolerate the ETT. Due to her tongue swelling it was not deemed appropriate to remove the ETT. On 3 March 2022, Katherine developed fever/sepsis, was started on antibiotics, and subsequently showed an E. coli infection. On 4 March 2022 at 00:00 hours the EVD stopped draining for 2 hours and so the on-call neurosurgeon was contacted who asked if it was oscillating, it was, so he wasn't concerned and, in the hours thereafter, the EVD started to drain again. Later that evening there was some leakage from the site of the drain resulting in a wet dressing but, contrary to policy, the medical team were not informed or consulted. On 4 /5 March 2022 midnight it was recorded only 1ml of fluid had drained. At 01.00 hours on 5 March 2022, it was recorded only 1ml of fluid had drained again. At 02.00 hours and 03.00 hours 0ml of fluid had drained. At no stage was the medical team informed or consulted. Between 04.25 hours and 04.35 hours that morning the surgical registrar received a call from the nursing staff stating Katherine's pupils were enlarged and unreactive and the EVD had not drained anything for 3 hours. An urgent CT was requested (04.50 hours) and the scan confirmed hydrocephalus and the fact the EVD had dislodged and moved out of the ventricle, Katherine was taken to theatre at 06:08 hours. Katherine's pupils remained dilated and unresponsive to light postoperatively and she died on 6 March 2022. There were a number of missed opportunities with the care and treatment afforded to Katherine. There was a missed opportunity to correctly report the findings on the scan of 31 August 2021.This resulted in significant delay in identifying that Katherine had a tumour and this consequently delayed treatment by several months during which time her symptoms were deteriorating. No clear factors were identified that could have contributed to the incorrect reporting of the scan. This was a basic failure resulting in a missed opportunity to investigate the tumour and possible treatments at the earliest opportunity. However, the care and treatment are more likely than not to have been the same had the tumour been reported correctly in August 2021. Once the tumour was identified the decisions made were reasonable and appropriate and the plan to operate to remove the tumour were also reasonable and appropriate to provide Katherine with the best chance of survival for as long as possible. Katherine was dependent upon the EVD postoperatively, but the hope was this could be removed, however it became apparent she would remain heavily reliant upon the drain and so there had been plans to place a permanent drain (VP shunt) on 7 March 2022: again, this being appropriate and reasonable. On 4 March 2022 there was evidence of leakage from the drain due to a wet dressing. There was a failure to inform and consult with the medical team, contrary to policy. This was a basic failure resulting in a missed opportunity to investigate the leakage, though unclear as to what stage the drain dislodged, this may have been an opportunity for a scan to be carried out to confirm whether the drain was still in situ. In the early hours of 5 March 2022 there was a failure to escalate the lack of drainage to the medical team, this was a basic failure and a missed opportunity to provide Katherine with lifesaving medical attention. Those caring for Katherine were falsely re-assured by the fact her observations were in range and the fact that there was still oscillation at 2am (though not recorded prior to that). This was a lengthy time with little or no fluid output, and this taken together with the wet dressing was sufficient to justify medical team invention. Despite there being 4 hours of little or no output the medical team were not called until her pupils were fixed. This is a lack of basic care which was more likely than not compounded by the lack of Guidance when nursing this presentation. Had advice and intervention of the medical team been sought earlier it is more likely than not Katherine would have survived at this time. The fact that the drain could become dislodged, and leak is a known inadvertent consequence of a necessary procedure, however, the failure to escalate the drainage observations to the medical team and appreciate the full clinical picture, given that at 03.00

	hours there had been 3 hours of little draining and a wet dressing, is a basic gross failure, namely neglect.
5	**CORONER'S CONCERNS** During the course of the investigation my inquiries revealed matters giving rise to concern. In my opinion there is a risk that future deaths could occur unless action is taken. In the circumstances it is my statutory duty to report to you. The **MATTERS OF CONCERN** are as follows: (brief summary of matters of concern) The case is a complex death where the immediate cause of death was blockage of an external ventricular drain resulting in hydrocephalus and coning. The written policy at this Trust, at the time, was not entirely clear about how the nursing staff should escalate things when a drain stopped draining but was still seen to be oscillating. Though some Trusts have developed their own policy on this area, these vary as there is currently no standard national policy dealing with this issue. This is a risk which needs to be highlighted at a national level.
6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you (and/or your organisation) 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 January 25, 2024. I, the coroner, may extend the period. 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 [redacted] [redacted] **The Walton Centre** I am also under a duty to send a copy of your response to the Chief Coroner and all interested persons who in my opinion should receive it. I may also send a copy of your response to any person who I believe may find it useful or of interest. 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	**Dated: 30/11/2023**

Anita BHARDWAJ
Area Coroner for
Liverpool and Wirral