OFFICE OF THE CHIEF MEDICAL OFFICER

Medway
NHS Foundation Trust

Medway Maritime Hospital
Windmill Road
Gillingham
Kent
ME7 5NY
[redacted]

3rd September 2021

Ms Sonia Hayes
Assistant Coroner
Mid Kent and Medway Coroners
Cantium House
County Hall
Sandling Road
Maidstone
Kent
ME14 1XD

Dear Ms Hayes,

Prevention of Future Deaths Regulation 28 Report – Johanna Moreland

We refer to your report issued following the inquest touching upon the death of Johanna Moreland dated 11th July 2021 pursuant to Regulation 28 of the Coroner's (Investigations) Regulations 2013.

Background:

Mrs Moreland was admitted to Medway Maritime Hospital on 13th February 2021 with an infective exacerbation of her COPD and there were concerns about her behaviour. She underwent investigations and her liver function tests were deranged. Unfortunately she self-discharged against medical advice on 16th February and sought a private liver scan, but before that took place Mrs Moreland re-attended Medway Hospital on 19th February 2021. Psychiatric review revealed no mental disorder to explain her unusual behaviour, and a lumbar puncture was performed on 26th February 2021 to investigate possible encephalopathy as a cause. The initial results were normal but the enhanced results revealed Herpes Simplex virus which was treated with anti-viral medication.

Mrs Moreland had advanced liver metastases and imaging indicated a possible primary lung cancer, therefore a biopsy was performed on 4th March 2021 intended to confirm the diagnosis, to stage the cancer and then make a palliative care plan. The biopsy carried a risk of bleeding due to Mrs Moreland's advanced liver disease and she did suffer a bleed post procedurally. Mrs Moreland was not suitable for surgical intervention due to her advanced liver cancer and sadly continued to deteriorate, passing away from the intra-abdominal bleed on 8th March 2021. The biopsy hastened her death by a short time.

The following is our response in relation to the matters of concerns raised:

(1) Results from lumbar puncture taken on 26th February 2021 were made available on 4th March 2021. Evidence heard at the inquest was that Lumbar Puncture tests are usually for diagnosis of serious illness and would usually be made available within 24-48 hours.

The Trust has investigated the timeframe for the availability of Mrs Moreland's results. The cerebrospinal fluid (CSF) sample was taken on Friday 26th February 2021 and was received at the Pathology department at 17:28 on the same evening. The standard cell count, protein and glucose levels and bacterial screening and culture, performed in our microbiology laboratory at North Kent Pathology Services based at Dartford, was available within normal turnaround time of 24-48hrs and was unremarkable.

The molecular investigation for viral pathogens (including the Herpes Simplex virus) is an outsourced function, carried out by external laboratory Micropathology in Coventry on behalf of the Trust. The published turnaround time is 10-14 working days for viral pathogens including Herpes Simplex virus. The sample was sent to the external lab on Monday 1st March 2021. The regular transport to external laboratories is Monday to Friday, leaving just before 17:00. Specimens are not sent to external laboratories on Saturdays and Sundays because most laboratories will not process these over the weekend and a specimen will wait too long in conditions that may lead to deterioration.

In Mrs Moreland's case, the specimen was received at the external laboratory on 3rd March 2021 with the result available late that evening and sent by email. The result was uploaded to the Trust's system the next day on 4th March 2021 in line with our procedure, and was communicated to the ward at this time. These results were thus received within the normal turnaround time for this particular investigation.

(2) The Lumbar Puncture results were positive for encephalitis and in the absence of the tests results, a liver biopsy was conducted and, there was a delay in antiviral treatment commencing.

The lumbar puncture procedure was carried out to investigate encephalopathy as a possible cause for Mrs Moreland's ongoing confusion and erratic behaviour as there had been no mental health cause found on assessment, and antibiotic treatment was not resulting in improvement.

The biopsy procedure Mrs Moreland underwent was performed as Mrs Moreland had evidence of metastatic cancer in the liver without an identified primary tumour. Imaging undertaken appeared to show a possible primary tumour within her lung, however it is now known after post mortem that the tumour in Mrs Moreland's liver was the primary tumour.

These investigative processes were carried out independently of each other to explore separate medical concerns; the biopsy was not carried out as a result of any delay in receipt of the lumbar puncture results.

Mrs Moreland was administered Clarithromycin and Co-Amoxiclav for treatment of infective exacerbation of COPD from her admission on 13th February 2021 until she took her on discharge on 16th February 2021. Upon readmission on 19th February 2021 Mrs Moreland was recommenced and maintained on IV antibiotics whilst awaiting results from lumbar puncture. The preliminary culture results returned were normal and not indicative of a change in treatment. However, the results of the viral pathogen test available on 4th March indicated Herpes Simplex virus and upon Microbiology advice treatment was changed to anti-viral Acyclovir. Please see (1) regarding turnaround times for complex DNA results.

(3) The Trust policy on the required levels of observations following a liver biopsy were not followed on return to the ward due to a miscommunication between Trust staff and the required levels of observations was not recorded in the medical records.

Trust policy is for observations to be carried out every fifteen minutes for the first two hours post procedure. Mrs Moreland's observations were completed pre-procedure at 11:10, the procedure was completed in Interventional Radiology at 12:48, and Mrs Moreland's next documented set of observations were at 15:38 with a NEWS of 1. Patients would usually be recovered in the Interventional Radiology department, however our investigation has indicated that Mrs Moreland was returned to the ward earlier than a patient would normally be due to Covid precautions.

This report from the Coroner has identified an opportunity for improvement to process within the Trust, and to reduce the likelihood of any similar circumstance the Trust has developed the attached handover form to be competed post every procedure (Appendix 1). This process is led by the Consultant Radiologist and will include written confirmation of frequency of observations to be carried out, as well as written confirmation of handover to nursing staff. Trust policy for post procedure observations has been reiterated to all nursing staff subsequently through consistent inclusion in the Trust's 'Big 4' ward based messaging.

We thank the Assistant Coroner for raising this with us and highlighting the opportunity for an improvement in our process.

Yours sincerely,

[redacted]
Chief Medical Officer

Appendix 1 – Ultrasound Guided Biopsy Procedure Chart