	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **Maria Caulfield MP** Parliamentary Under Secretary of State (Minister for Public Safety and Primary Care) Department of Health and Social Care Ministerial Correspondence and Public Enquiries Unit 39 Victoria Street London SW1H 0EU United Kingdom
1	**CORONER** I am Louise Rae, Assistant Coroner for **Blackpool & Fylde**
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** The death of Sarah Louise Dunn on 11th April 2020 at the Blackpool Victoria Hospital was reported to me and I opened an investigation which concluded by way of an inquest held on 1st to 5th November 2021. I determined that the medical cause of Sarah's death was **1a Group A Streptococus Sepsis following Medical Termination of Pregnancy** In box 3 of the Record of Inquest, I recorded as follows: **Sarah Louise Dunn was admitted to the Blackpool Victoria Hospital on 10th April 2020. She was suffering from a Group A Streptococus infection following an early medical abortion on 23rd March 2020 which by the time of her admission at hospital had produced sepsis and had progressed to toxic shock. Signs of sepsis were apparent before and on her admission given Sarah's history and symptoms but Sarah was treated upon admission to hospital as a Covid-19 patient. Prior to admission, Sarah had not been seen by a doctor on either 9th or 10th April despite contacting both her GP surgery and the Out of Hours Service. The surgery pharmacist had not read Sarah's notes properly and was not aware on 9th April that she had recently had undergone an early medical abortion. Her GP on 1st April had not recorded his face to face consultation with her nor noted the possibility of infection. Sepsis was not recognised or treated by the GP surgery, emergency department or Acute Medical Unit and upon Sarah's arrival at hospital, the sepsis pathway was not followed. Antibiotics were not given to Sarah until**

	7.5 hours after her arrival at hospital. Sarah suffered a seizure at 6.30pm on the Acute Medical Unit and was transferred to the Intensive Care Unit. These matters in aggregate impacted on her care and Sarah would not have died had she been admitted to hospital sooner. Sarah died on 11th April 2020 on the Intensive Care Unit at Blackpool Victoria Hospital at 2.15am. In box 4 of the Record of Inquest, I determined that Sarah died due to: **NATURAL CAUSES CONTRIBUTED TO BY NEGLECT**
4	**CIRCUMSTANCES OF THE DEATH** In addition to the contents of section 3 above, the following is of note: 1. Sarah consulted with the NUPAS service in March of 2020 seeking a termination of pregnancy. 2. The inquest heard from a Registered Nurse working with NUPAS, who detailed that at a consultation on Tuesday 23rd March 2020 Sarah was seen and the method of treatment discussed was medical termination of pregnancy initially using Mifepristone. This was to be followed by a second treatment with Misoprostol with the side-effects from the medication being explained. Sarah was that bleeding would affect her for on average around seven to ten days post-treatment and if she was feeling unwell ie. a temperature and a lot of pain or bleeding not reducing, this could be a sign of some retained pregnancy left behind which could result in infection. The nurse discussed with her the risk of developing pelvic infection and risk of developing sepsis. She gave Sarah safety netting advice and the symptoms to look out for with heavy bleeding or severe pain to attend A&E along with painkillers and an aftercare pack containing numbers to call if she needed advice. 3. Sarah contacted her GP surgery on the morning of 1st April 2020 (8 days after the early medical abortion) reporting an increase in vaginal bleeding and the passing of clots. She was triaged and contacted by her GP surgery for a telephone consultation. At the inquest, the GP told me that he spoke to Sarah on the telephone regarding symptoms of heavy bleeding following a termination of pregnancy at seven weeks on 24th March 2020 and at that time there was no information from the hospital regarding this procedure. He told the court that he wanted Sarah to be seen and to have a blood test to exclude the possibility of infection and/or haemoglobin loss. Sarah wanted some medication to stop the bleeding and was reluctant to attend in view of the Covid-19 pandemic for face-to-face appointment. The GP recorded this consultation using the wrong code of 'mensural loss increasing' and the HSIB report found that other more appropriate codes were available. 4. When Sarah attended the surgery about an hour later, she was seen by a Health Care Assistant who took blood samples for testing and Sarah's observations were taken. Her blood pressure reading was 107/83, her pulse rate 101 beats per minute and temperature 36.2°C. In his evidence, the GP told the court that these observations did not trigger the sepsis

warning when inputted into the electronic patient system. The GP confirmed that he saw Sarah with the Health Care Assistant after the blood sample had been taken but due to the pandemic and where patients were being seen at the surgery, he was not in the room with his computer and did not record his consultation with her. In his evidence, the GP reflected on this and stated that he should have returned to his computer and recorded the consultation. I found at the inquest that the GP had failed to record this consultation in Sarah's notes although I accepted his evidence that he was considering infection. I also accepted his evidence that he gave Sarah safety netting advice although he failed to document this along with the possibility of infection. I found that this failure to record on Sarah's medical notes was a failure of basic care although I did not find this to be a gross failure. I found that Sarah was not examined on 1st April 2020 and should have been. I found this to be a failure of basic care although not a gross failure. The GP told me that he called Sarah into the surgery in to examine her but he did not do so. The GP's decision not to refer Sarah for an Ultra Sound and not to prescribe Sarah with antibiotics on 1st April 2020 were clinical decisions that he made after considering Sarah's history and I accepted his evidence that he wouldn't prescribe antibiotics until a source of infection was found.

5. The infection occurred between 1st and 9th April 2020.

6. Sarah was then seen on 9th April by a qualified pharmacist working at the GP surgery who was in the process of Advanced Practitioner training. He saw Sarah for medication review. He told the court in evidence that he always reviewed the consultation tab in the electronic system but that he was not aware Sarah had undergone a medical procedure in the form of EMA. He should have known as it was in the notes and I found this to be a basic failure of care. The pharmacist should have also been aware that her symptoms were unlikely to have been symptoms of drug withdrawal as her use of dihydroclorine for which she used for pain had been decreasing. The pharmacist should have sought supervision with a GP but did not do so because he did not properly read the notes. I found these to be failures to provide basic care although not gross failures. The pharmacist has completed further training in sepsis and helped disseminate this to others. The pharmacist has reflected upon Sarah's death and implemented learning into his practice.

7. Sarah had been booked in by the pharmacist to see the GP the next morning at 9am but unfortunately her symptoms were worsening. She made contact with 111 at 02.25am on 10th April 2020 complaining of severe deep limb pain affecting both legs. Sarah's case was passed to the Out of Hours GP.

8. The Out of Hours GP called Sarah at 02.44hrs and spoke to her for some 14 minutes. Prior to the call, the Out of Hours GP he had reviewed Sarah's Patient Care record from her own GP noted that Sarah had undergone a termination of pregnancy two weeks previously. The Out of Hours GP did not have access to all of the GP records but was aware from speaking to Sarah that she had bloods taken but that they had come back as normal.

The Out of Hours GP considered the time, that Sarah had children, that he was the only OOH GP on call and that she was being seen at 9am the next morning (some 6 hours later) by her own GP.

9. However, Sarah was becoming very unwell and the NICE guidelines 2016, advise that patients in the medium to high risk of sepsis (which Sarah was) should be seen. At 3am in the morning, Sarah followed the safety net advice and called 111 service. Sarah was reviewed albeit some 6 hours later but I found she should have been seen that night and that her history indicated that sepsis should be considered. I found this failure to be a basic failure of care. The evidence from the Out of Hours GP particularly struck me when he was explaining his reflection after Sarah's death. He also spoke about the training that he had undertaken and how now he shares that information with others. He also said that he now thought Sepsis first after undertaking further learning and reflection.

10. The issue in this case, is that sepsis first wasn't being thought by the staff dealing with Sarah. There are clear established pathways and treatment plans that are followed if sepsis is suspected and these were not followed.

11. By 9th April and 10th April Sarah had severe sepsis and had she been admitted to hospital at 3am on 10th April she would have survived.

12. Sarah called an ambulance at 7.55 on 10.04.20 and was transported to Blackpool Victoria Hospital. No call ahead was made by the ambulance crew to the hospital to flag potential sepsis.

13. Her records note her attendance at BVH at 9.30am. By the time of her attendance at the ED department Sarah was unwell and in the early stages of toxic shock. Her initial blood results showed an Acute Kidney Infection and that her organs were failing although her NEWS score did not reflect how ill she was, a feature of sepsis seen in previously, young, healthy patients. The hospital trust have accepted that there were failings in Sarah's care. Sepsis protocols and pathways were not used or followed, a confirmation bias of Covid 19 was in place and Sarah did not receive antibiotics until 5pm that day some 7.5 hours after her attendance at hospital. I found these to be gross failures to provide basic care to Sarah. Sarah wasn't reviewed by a senior clinician soon enough upon arrival. Sarah warranted early Sepsis 6 treatment particularly in relation to consideration of the infective source, IV fluids, antibiotics and hourly monitoring of urine output. She also should have had her observations taken regularly on the sepsis 6 pathway and no observations were taken between 13.15 and 18.15. Had Sarah's observations been taken it is likely that the staff would have seen a deterioration in her NEWS score during this time.

14. By the time of Sarah's seizure documented at 6.30pm, Sarah's condition was unsurvivable. It is more difficult to say whether Sarah would have survived had she been given antibiotics and if her care had followed the sepsis pathway upon arrival to hospital on 10th April. I was unable to say

	that Sarah would have survived at this point had appropriate care been given. 15. The hospital trust have been candid in their learning and reviews and in their acceptance that on 10th April 2020 Sarah did not receive the care that she should have. They have carried out mortality reviews, disseminated learning to staff and produced an action plan which has seen a maternity sepsis pathway introduced to the hospital. 16. Unfortunately despite maximum care being given by the ICU, Sarah died in the early hours of the morning on 11th April 2020. 17. I heard evidence that Group A streptococcus is a bacteria that is often found in the throat and on the skin and quite often causes sore throats or skin infections. On some occasions, it can cause more serious invasive Group A streptococcus (iGAS) infections when it gets into parts of the body where it is not found. This can lead to Toxic Shock Syndrome (TSS) which is characterised by shock and multi organ failure that can be rapidly progressive. This is a rare condition with a quoted incidence in the medical literature of 1 in 200,000 people. I also heard evidence that 1% of EMA result in infection and that sepsis from EMA is very rare.
5	**CORONER'S CONCERNS** 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. – (1) Inadequate training of doctors and other medical professionals re the risk of sepsis following Early Medical Terminations. Evidence from a wide range of clinicians who had cared for Sarah in March and April 2020 echoed each other. The clinician evidence revealed a common theme of lack of training, knowledge or experience on the part of physicians and medical staff (including GPs, pharmacist and acute hospital doctors) regarding the rare risk of sepsis following Early Medical Termination. The hospital trust accepted that at the time of Sarah's death, there was confirmation bias in their thinking due to the Covid 19 pandemic and that other differential diagnosis were not considered in this case. Whilst the witness evidence was that Sepsis protocols were in place at both the GP surgery and the hospital trust, what is of particular concern is that none of the professionals who saw or spoke to Sarah were considering Sepsis in this case. Sarah was spoken to and seen by numerous medical professionals in both primary and secondary care but no sepsis protocols were initiated and I found that the compounding delays in screening, diagnosis and treatment more than minimally contributed to a poor outcome in Sarah's case.

	I heard evidence that Sepsis remains a diagnostic challenge despite all the guidelines available because the same infection does not always present in the same way in different individuals, symptoms may be non-specific and the Emergency Department may not have an obvious specific source of infection that physicians can identify. In addition, in younger patients such as Sarah, their physiological reserve and ability to cope with the infection can mean that their circulatory collapse and deterioration of the NEWS score occurs later in the disease process. Having said that, I am concerned that there remains a lack of awareness of sepsis in particular following Early Medical Abortion given how many opportunities there were to think sepsis in this case. Whilst those giving evidence to me in court are now aware of sepsis and the risks post abortion having reflected on Sarah's death, I am concerned that there is a lack of awareness of the risk of sepsis following Early Medical Abortions. This lack of awareness in my view risks avoidable future deaths.
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 7th July 2022. 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] [Sarah's mother] • Dr [redacted] [GP] • [redacted] [Pharmacist] • Dr [redacted] [GP] • Blackpool Victoria Hospital Foundation Trust 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	12/05/2022

	Signature  **Blackpool & Fylde**