REGULATION 28 REPORT TO PREVENT FUTURE DEATHS

THIS REPORT IS BEING SENT TO:

1. Chief Executive, Ashford and St Peter's Hospital
2. President, Royal College of Obstetricians and Gynaecologists
4. Chief Executive, CQC
5. General Medical Council

CORONER

I am Karen HENDERSON, HM Assistant Coroner for the coroner area of Surrey

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

INVESTIGATION and INQUEST

On 17th February 2015 I commenced an investigation into the death of Rhianne Anoushka Florence BARTON, 27 years of age. The investigation concluded at the end of the inquest on March 16th 2016. The medical cause of death given was:

1a. Acute respiratory distress syndrome and aspiration pneumonitis, small bowel infarction

1b. Gut obstruction (operation)

1c. Previous bariatric surgery

My narrative conclusion was: **Rhianne died from complications arising from the surgical management of small bowel obstruction in circumstances when the delay in investigation, diagnosis and management directly contributed to her death**

CIRCUMSTANCES OF THE DEATH

Rhianne Barton was a 27 year old women who underwent bariatric gastric bypass surgery in December 2013. On the morning of the 10th February 2015 she developed a sudden onset of severe abdominal pain and vomiting when she was 35 weeks pregnant with her first child. This did not improve and she contacted the labour ward of St Peter's hospital Chertsey in the afternoon of the 10th February 2015 and attended there later on in the afternoon. Prior to this her antenatal course had been entirely uncomplicated and she was being considered for delivery in a low risk birthing unit.

Rhianne was triaged on the labour ward by a midwife. She was still complaining of severe unremitting upper abdominal pain with vomiting/retching. There was a note made of diarrhoea but this was not seen during her time in hospital. Previous bariatric surgery was also noted and documented. She was reviewed by a specialist registrar in obstetrics later on that evening and a diagnosis of a self-limiting gastroenteritis was made (but not documented) for which analgesia and fluids were prescribed. No investigations were considered or undertaken nor was a management plan documented. During that night Rhianne continued to have severe upper abdominal pain and the midwife caring for her contacted the obstetric team who did not review Rhianne but prescribed intravenous rather than oral analgesia.

Rhianne was next reviewed by a post fellowship obstetric trainee on the morning of the 11th February who noted her symptoms and considered this may be 'dumping syndrome' and requested a surgical review if there was no improvement. Rhianne did not improve and a surgical review was requested at or around midday. During the afternoon and evening Rhianne's mother gave evidence that she was unhappy with the care that

Rhianne was receiving and was concerned about the level of pain and vomiting Rhianne was experiencing. This level of concern was not shared by the midwives who felt Rhianne was stable. Documentation with regard to routine observations was unclear and there was an incomplete fluid balance chart. It was not possible to assess the extent of Rhianne's fluid intake, vomiting (amount or consistency) or diarrhoea despite a diagnosis of gastroenteritis being made. Rhianne's mother felt her concerns were not being addressed.

Rhianne's mother had undergone bariatric surgery herself and gave evidence that she felt Rhianne was suffering from an 'internal hernia' as this is something she had also suffered post operatively. This evidence was disputed by the midwives and the surgical team. A further request was made for surgical review during the evening after concerns were raised by Rhianne's mother but the on call surgical registrar did not attend until midnight. When they did attend they did not find any indication for immediate surgery and documented that Rhianne would be reviewed again in the morning. There was also disputed evidence with regard to that consultation.

Rhianne was reviewed the following morning by a surgical consultant who gave a differential diagnosis of bowel obstruction from a mesenteric hernia or cholecystitis (bilirubin and amylase were however normal) and requested an ultrasound examination which was undertaken in the early afternoon. This showed ascites and dilated loops of bowel suggestive of small bowel obstruction. This was confirmed by MRI scan later on that afternoon. A decision was made to undertake a LSCS followed by surgical management of the bowel obstruction.

She was pre-assessed by the anaesthetic team and prepared for surgery in the obstetric theatre. On induction of anaesthesia Rhianne aspirated a considerable amount of bowel contents from a failed intubation as a result of a rapid sequence induction undertaken by a junior anaesthetic trainee in the presence of two supervising consultant anaesthetists. Rhianne suffered an ill-defined period of hypoxia until her airway was secured by a successful intubation from one of the attending consultant anaesthetists.

Rhianne's baby daughter was delivered and surgical treatment of the bowel obstruction commenced. This was foreshortened by Rhianne becoming severely physiologically compromised with evidence of developing multi-organ failure. Despite maximal resuscitation and support she continued to deteriorate and whilst Rhianne was being prepared for ECMO she had an unresuscitable cardiac arrest and died in the early hours of the 13th February 2015.

I heard sufficient evidence that Rhianne should have been investigated and operated on the previous day for relief of her bowel obstruction and if this had happened then she would not have aspirated and would not have died when she did. That the delay in receiving treatment directly caused her death. There was considerable discussion as to whether siting a naso-gastric tube would have also altered the outcome but given the wide-ranging views heard in evidence for and against this procedure I made no finding of fact on this matter.

CORONER'S CONCERNS

During the course of the inquest the evidence revealed matters giving rise for concern. In my opinion there is a risk that future death 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. Rhianne's named obstetric consultant was not informed of her emergency admission. Although there was a consultant obstetrician on the ward on the 11th February there was no request for Rhianne to be seen and in any event it was not common practice for patients to be seen by another consultant. As such there was no obstetric consultant supervision of Rhianne from the time of admission until shortly before her surgery; approximately 43 hours after admission.

2. No consideration was given to excluding a surgical cause of Rhianne's symptoms despite the history of sudden onset of upper abdominal pain in the knowledge that she had had bariatric surgery. I heard evidence that bariatric surgery can, not infrequently, result in an omental/internal hernia causing small bowel obstruction but that it was not widely understood and should be given greater recognition nationally as more women are becoming pregnant following bariatric surgery.

3. I also heard evidence that whilst the rarity of an omental band may make it difficult to diagnose there was still a responsibility to exclude other causes of abdominal pain in the absence of an obstetric cause, by undertaking appropriate investigations in a timely fashion.

4. Evidence was presented of poor documentation of routine observations and an incomplete fluid balance chart. No accurate records were kept with regard to fluid intake and urine output. It was not possible to assess the amount, frequency and volume of the vomitus. There was no evidence of diarrhoea despite a diagnosis of gastroenteritis. A urine dipstick was undertaken which revealed 4+ of glucose but no action was undertaken with regard to the finding.

5. The obstetric consultant made no specific plans with regard to the obstetric care that Rhianne would receive during pregnancy and labour despite knowing that she had undergone bariatric surgery. I also heard evidence that bariatric surgery was becoming increasingly common but the Royal College of Obstetrics and Gynaecology had not specifically addressed this issue in their guidance to practicing clinicians.

ACTION SHOULD BE TAKEN

In my opinion action should be taken to prevent future deaths and I believe you and your organisation: St Peter's Hospital, the Royal College of Obstetrics and Gynaecology, CQC and GMC have the power to take such action.

YOUR RESPONSE

You are under a duty to respond to this report within 56 days of the date of this report, namely by 19th July 2016. I, the coroner, may extend this 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.

COPIES and PUBLICATION

I have sent a copy of my report to the Chief Coroner and to the following Interested Persons [redacted] and the Chief Executive St Peter's Hospital), President Royal College of Obstetrics and Gynaecologists, CQC, GMC, Royal College of Surgeons.I have also sent it to [redacted] and [redacted] 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.

DATE: 1st June 2016 **SIGNED: Dr Karen Henderson**