RCA CASE STUDY

UNEXPECTED CHILD DEATH: WM on 14.12.2014

PART 1: LIST OF INFORMATION GATHERED

- Timeline / chronology of contacts with services.
- Initial management report by Cornwall Partnership NHS Foundation Trust
- Significant Even Audit and full report from the practice
- CD recordings of coroner's inquest and statements
- Transcript of NHS 111 telephone call
- Transcript of telephone conversation with Out-of-hours GP
- Information provided by the parents of W, including a set of questions about W's care and treatment
- Witness statement of Mum as provided to the inquest
- Meetings with practice and South Western Ambulance NHS Trust (SWASFT).

PART 2: TIMELINE: NARRATIVE CHRONOLOGY

September 2014

On or around the week commencing the 8 September WM (born on 27 November 2013) went to nursery for the first time and attended on Mondays, Thursdays and Fridays. Mum notes that he developed a cold and cough once he started nursery and that this continued until W died. Mum notes that on occasions this would cause him to be sick and this was a daily occurrence from November.

13 September 2014: Attendance at Royal Cornwall Hospitals NHS Trust A&E

The GP practice received a discharge notification that W had been taken to A&E by his parents, suffering from possible gastroenteritis. The records note that he had vomited 4 times that day. He responded well to fluids / rehydration and was discharged home with medical advice being given to his parents.

30 September 2014: GP appointment, The Practice

W had been unwell with a fever for a day or two and was brought to surgery and seen by Dr Z. On examination he was found to have erythematous and exudative tonsils with a temperature of 38.5. Capillary refill was <2 and there were no signs of recession or systemic distress. W was able to drink fluids well. His chest, ears and abdomen were normal. He was diagnosed with tonsillitis and treated with Calpol and Amoxicillin.

1 October: GP appointment, The Practice

W had developed a rash and was seen at the surgery by Dr W. W was noted to have a speckled erythematous rash which was blanching over the lower aspect of his legs. At that time, he was noted to be alert, well and engaging with a capillary refill of <2 seconds and is noted as a well-looking child. The notes question whether this might be a streptococcal-related rash, but as he was already on antibiotics and making a recovery, he was allowed home with his parents given advice regarding nursery.

13 October 2014: GP appointment, The Practice

W's rash had started to go down, but his cough had developed into a chesty cough. Mum was concerned as the cough was persistent. Mum recalls that W seemed more tired than usual and less playful and had become unwell at nursery where he attended 3 days a week.

W was seen by Dr Z who noted that his throat was much better. Dr Z recorded W as systematically well although noted to have had a cough for the past couple of weeks. He was noted to have been drinking and eating normally. On examination his throat was fine, his chest clear and there were no signs of respiratory distress, his capillary refill was <2 seconds and he was afebrile.

11 November 2014: Telephone call to the Practice

On the 11 of November Mum rang the practice to say that W had been coughing and vomiting after eating. She reported that this has been going on for approximately 4 weeks. He was invited in for a review appointment.

12 November 2014: GP appointment, The Practice

W was reviewed by Dr X. Dr X recorded that she considered W to be well and engaging. He was afebrile with a temperature of 36 degrees, capillary refill of <2 seconds, no respiratory distress, normal heart sounds and a clear chest with no wheeze or crepitations evident. Dr X noted him as 'snotty' and coryzal, noting a working diagnosis of upper respiratory tract infection with a possible potential underlying bronchospasm secondary to a strong family history of asthma. Dr X prescribed a salbutamol inhaler with an Aerochamber Plus with Infant Mask, 2 puffs as required 4 times a day. Dr X confirmed that it wasn't a 'diarrhoea and vomiting picture' but that the vomiting was due to the cough. No follow-up appointment offered following the prescription of the inhaler.

21 November 2014: GP appointment, The Practice

W was sent home from nursery due to his cough and the vomiting with green phlegm. W was seen by Dr Z who notes in the records that W had an upper respiratory tract infection, not otherwise specified, cough symptoms of the last few days on and off, and coughing causing vomiting. Dr Z considered W to be interactive and smiling, with a clear chest and normal observations.

Mum told the doctor that the inhaler was not having any effect, although this is not noted in W's record. Mum was concerned that the cough and vomiting was increasing to sometimes 6-7 times daily. Mum recalls that Dr Z said this was normal. The nursery were concerned that W was infectious and so Dr Z wrote a letter for W's parents to take to nursery to say that the vomiting was due to the cough, so he could continue to attend nursery.

8 December 2014: Practice Nurse appointment, The Practice

W received his childhood booster vaccinations HIB and MEN C.

9 December 2014: Notes from Mum

Mum recalls that W was not himself, tired and unwell. She had been told by the Practice Nurse on the previous day that the vaccine could often make children feel 'off colour', so she attributed it to that.

11 December: 2014 - Notes from Mum

W went as usual to nursery. Mum provided the nursery staff with liquid paracetamol and explained that he wasn't himself and had just had vaccines. When W was collected, the staff confirmed that he had not himself. W was taken home where he ate his dinner; he woke once in the night, was soothed and settled down again.

Friday 12 December: Mum's notes and Nursery notes

W refused his breakfast, which Mum recalls as unusual as he usually enjoyed his food. He was taken to nursery as normal and arrived between 8 and 8.30am. W was noted by his key worker to be OK in the morning. He had been teething for the last two weeks so was a bit under the weather but nothing unusual. W was noted during that day to be playing and seemed content in the morning and not overly clingy. However, his key worker did note that he did not eat his morning snack, which was unusual for him.

As the day progressed, W was noted to become more agitated and at around 11.30am W was given the liquid paracetamol provided by Mum. This seemed to help, although he did not eat his lunch and was noted to be tired, so the staff put W down for a sleep. He was noted to fall to sleep quickly. However, when he awoke, he was upset. The staff took his temperature and recorded it as 37.8. Staff were concerned as he had had liquid paracetamol in the previous few hours and yet the temperature was still high. They rang W's father to come and collect him.

Friday 12 December: GP appointment, The Practice

An emergency appointment for W was made at the GP practice and W was taken by his father and seen by Dr Z around 4.40pm. Dr Z examined W and noted that he found W febrile and coryzal with flushed cheeks. W had been given liquid paracetamol one hour before being brought to surgery. Dr Z considered W to be alert and engaging, although quieter than his usual self.

Dr Z recalled that at the time W's temperature was 40 degrees, although this was not formally recorded in the notes. Dr Z noted capillary refill <2 seconds and no rashes. His ears were clear, throat fine and his chest was clear with no signs of respiratory distress or increased respiratory rate. Dr Z did not record the heart rate.

Dr Z did not consult the NICE guidelines (CG16) which advise GPs about feverish illness in children. These are designed to help the GP assess children with febrile illness, and the presence or absence of symptoms and signs which can be used to predict the risk

of serious illness using a traffic light system. The symptoms and signs of specific illness are listed in the NICE guidelines; they include pneumonia.

Abdominal examination was unremarkable and he seemed systemically well. Dr Z gave safety-netting advice should W's condition worsen, and supportive advice regarding his fever, fluids and the need for further review if he were to worsen or show any change over subsequent days. There were no specific indicators given to the parents about what constituted 'worsening of symptoms' and no written advice. Upon leaving the appointment, W's father recalls asking when W should be taken in, upon which Dr Z's advice was that it was 'nothing grisly'.

Friday 12 December: Evening notes from Mum

On the evening of the 12 December, W was restless and 'not feeding'. Mum recalls that he remained restless throughout the night and that his temperature had risen again. He was given liquid paracetamol and soothed until he rested.

Saturday 13 December: Telephone call to NHS 111

Mum recalls that W was vomiting a lot more and that the vomit was green and yellow in colour. W also seemed more tired than usual. At 4pm Mum phoned NHS 111 for advice. The NHS pathways assessment was undertaken by a call advisor (who was not clinically trained) and the end disposition was to receive a consultation with a health care practitioner within 6 hours via the Cornwall Out of Hours provider. In addition, the patient was offered the opportunity to attend the local treatment centre.

The call handler asked: 'is he fighting for every breath?', the caller answered 'no', but went onto state he had an inhaler and his breathing was 'slightly more laboured'. Mum offered that W had been coughing for 2-3 weeks. The question was asked 'is he limp and floppy'. Mum stated that W 'was not floppy, however he was limp and if you picked him up his arm flopped down'. The call adviser sums up the call clarifying 'W is unwell, he is vomiting, he is in severe pain and he has been like this for 1.5 days'. Mum described that W had had a temperature for the last 1.5 days that had required liquid paracetamol in order to keep it down. It was noted that at the point of the call the temperature was lower than expected.

Mum provided a symptom history and recent medical history. NHS Pathways has a question: 'Has the child been crying for longer than 1 hour'. In answering this question, Mum indicated that the patient had been crying for 45 minutes but had now to calmed down. Throughout the call, W can be heard crying in the background. The Call Advisor selected the resulting disposition for W as 'Primary care review 6-hours', not 'Primary care review 2-hours'.

The pathway chosen was 'Vomiting and/or Nausea'. The call lasted 14 minutes. The detail of the call and disposition was then passed to the out-of-hours provider, Serco.

Saturday 13 December: Serco OOH provider - telephone consultation with Dr Y

At 6.52pm, Dr Y telephoned W's parents (i.e. approximately 3 hours following the NHS 111 call. The Out of Hours GP Dr Y did not have access to the primary care records and was not therefore in a position to have all the information to hand - in particular the record of attendances from mid-October and the detail of the attendance at surgery the previous day.

Dr Y confirmed with Mum that he understood that W had been unwell, vomiting, with severe pain, and had recently had 1-year booster. Mum advised that W had been a bit off all week but teething as well. He had gone off his food and had taken no food since the previous morning, although was taking some fluids. Mum also provided an account of visit to family GP the previous day.

Dr Y discussed W's condition with Mum and asked if she would like to bring him to the Falmouth Clinic. By this time, W had gone to bed and he seemed peaceful. Mum asked Dr Y for his professional opinion, which was that W should be left to sleep. W's parents went to bed at around 10.30pm and observed that W was sleeping. On terminating the call, the GP advised Mum to continue with the paracetamol and fluids, but if worried about him over the next 12 to 24 hours to ring back for a reassessment. There was constant video surveillance on W throughout the night. Dad recalls noting W moving about at around 5am.

At around 8.30am the next day, Mum discovered W was not breathing and phoned 999. South Western Ambulance subsequently attended. W was pronounced dead at approximately 8.47am.

PART 3: ADDITIONNAL INFORMATION

1. Cause of death

W was born on 27 November 2013 and tragically died on the 14 December 2014. The cause of death was established at post-mortem as:

- a Septicaemia (Group A Streptococcus)
- b Empyema of left pleural cavity
- c Bronchopneumonia with Abscess of left upper lung lobe

The evidence is very clear that septicaemia or blood-poisoning is a very rapidly developing condition where the body's response to an infection goes wrong and begins to attack the tissues and organs. Whilst it is rapid, there is always an underlying pathology or infection which provides the environment for the septicaemia to develop. In W's case, this underlying pathology was the pneumonia, empyema / pleural effusion and abscess in his left lung, identified at post-mortem and the inquest. As a result of this the streptococcal infection took hold, septicaemia.

2. Inquest evidence from Professor Peter Fleming

During the inquest, expert witness Professor Fleming advised that the type of streptococcus that was identified at post-mortem was an invasive and rapidly-

progressing infection. It was most likely that W's illness was developing a few days before his death. Therefore, the episodes and sequence of events in the 24-48 hours before W's death were crucial.

Note: Professor Fleming's view of the vaccinations given to W on 8 December 2014 were that these were unlikely to have compromised W's immune system. Professor Fleming said that the evidence was in fact the other way around in that in the period immediately after the injection the immune system was stronger and other infections were slightly less likely to progress. The vaccines given were not 'live', so this is not an immunisation that in itself could cause serious illness.