Board of Directors' Meeting
11 August 2022

The Shrewsbury and Telford Hospital NHS Trust

Agenda item	158/22			
Report Title	Incident Overview Report – June 2022 data			
Executive Lead	Hayley Flavell, Director of Nursing			
Report Author	Kath Preece, Assistant Director of Nursing, Quality Governance			
	Link to strategic goal:		**Link to CQC domain:**	
	Our patients and community	√	Safe	√
	Our people		Effective	
	Our service delivery		Caring	
	Our governance	√	Responsive	
	Our partners		Well Led	
	Report recommendations:		**Link to BAF / risk:**	
	For assurance	√	BAF1, BAF2, BAF4, BAF7, BAF8, BAF9,	
	For decision / approval		**Link to risk register:**	
	For review / discussion			
	For noting			
	For information			
	For consent			
Presented to:				
Executive summary:	This paper is presented to the Board of Directors monthly to provide assurance of the efficacy of the incident management and Duty of Candour compliance processes. Incident reporting supporting this paper has been reviewed to assure that systems of control are robust, effective and reliable thus underlining the Trust's commitment to the continuous improvement of incident and harm minimisation. The report will also provide assurances around Being Open, number of investigations and themes emerging from recently completed investigation action plans, a review of datix incidents and associated lessons learned			
Appendices	Appendix One – Serious Incidents – June 2022 Appendix Two – Learning and Actions – June 2022 Appendix Three - Key findings from Maternity Serious Incidents closed February 2022 – May 2022			
Executive Lead				

1. Introduction

This report highlights the patient safety development and forthcoming actions for August/Sept 2022 for oversight. It will then give an overview of the top 5 reported incidents during June 2022. Serious Incident reporting for June 2022 and also rates year to date are highlighted. Further detail of the number and themes of newly reported Serious Incidents and those closed during June 2022 are included in Appendix 1. Detail relating to lessons learned from closed SI in June 2022 are included in Appendix 2.

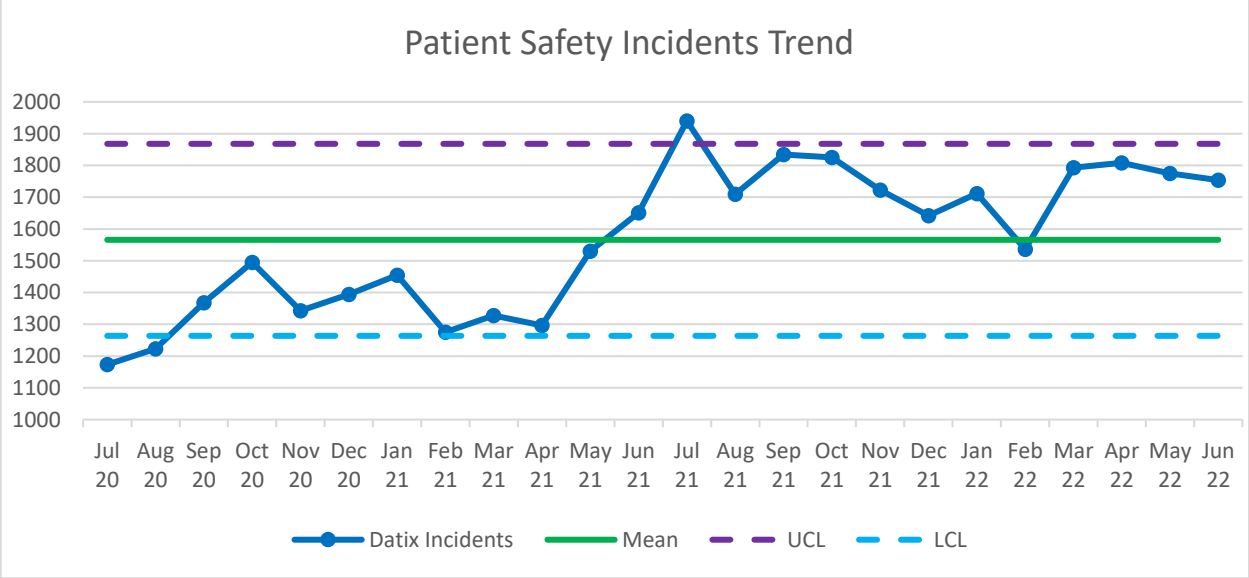
2 Patient Safety Development and Actions planned for August/Sept 2022/23

- Work with the National and Regional Patient Safety Network to develop a clear plan for progress to the new National Patient Safety Incident Response Framework, which will require significant changes to the way in which the Trust approaches patient safety investigations – due to be rolled out Nationally during 2022.
- Develop Safety links/champions in all ward areas to support learning and sharing.
- Internal Audit of Duty of Candour for Serious Incidents planned for September.

3 Analysis of June 2022 Patient Safety Incident Reporting

The top 5 patient safety concerns reported via Datix are reviewed using Statistical Process Charts (SPC). Any deviation in reporting, outside of what should reasonably be expected, is analysed to provide early identification of a potential issue or assurance that any risks are appropriately mitigated. SPC Chart 1 demonstrates Patient Safety Incident reporting over time, which shows an upward trend in reporting this may relate to a more open reporting culture, during September 2022 it is planned to undertake a pulse survey of staff to test this assumption.

SPC Chart 1



3.1 Review of Top 5 Patient Safety Incidents

During May there were 1,754 Patient Safety Incidents reported which were classified as incidents attributable to Shrewsbury and Telford Hospitals. The top 5 reported incidents account for 36% of the reported incidents during June 2022 – see Table 1. The top 5 reported incidents are explored in more details below.

Table 1

Top 5 Patient Safety Incidents	Totals
Admission of patient	193
Inpatient Falls	127
Absconded patients	107
Bed shortage	101
Care/Monitoring/Review Delays	100
Total	628

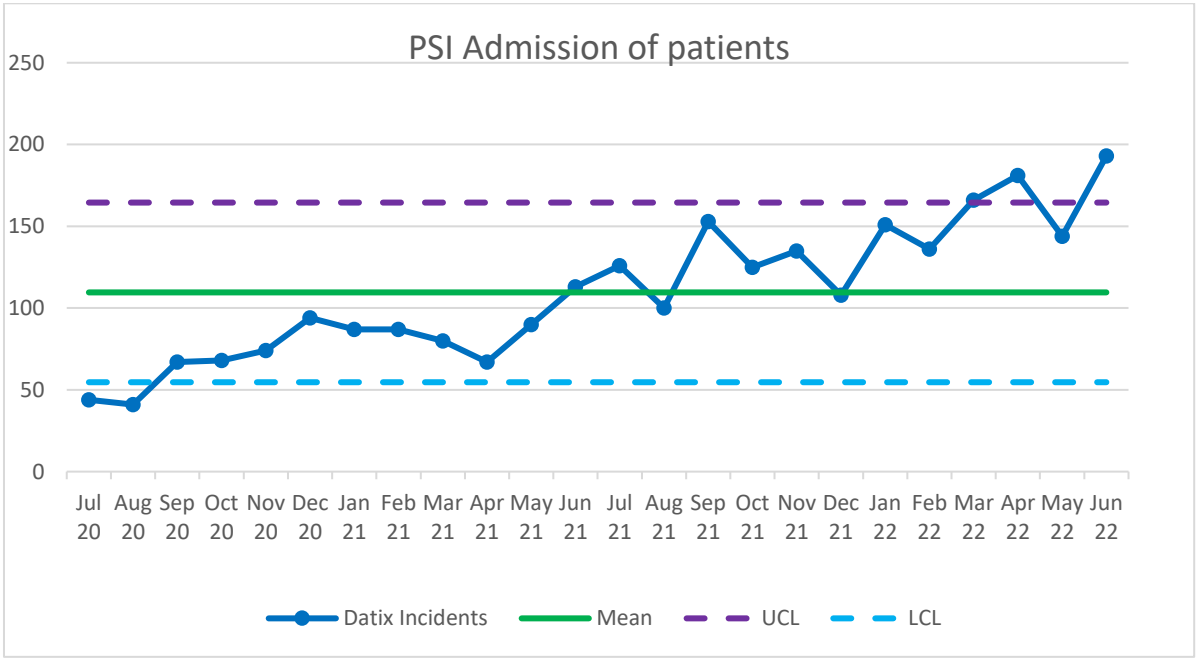
3.2 Admission of patients

11% of all reported incidents during June (193) were categorised as incidents related to the admission of patients. This category covers a wide range of concerns relating to the admission of patients, such as ambulance offload delays and delay with allocation of beds out of the Emergency Department.

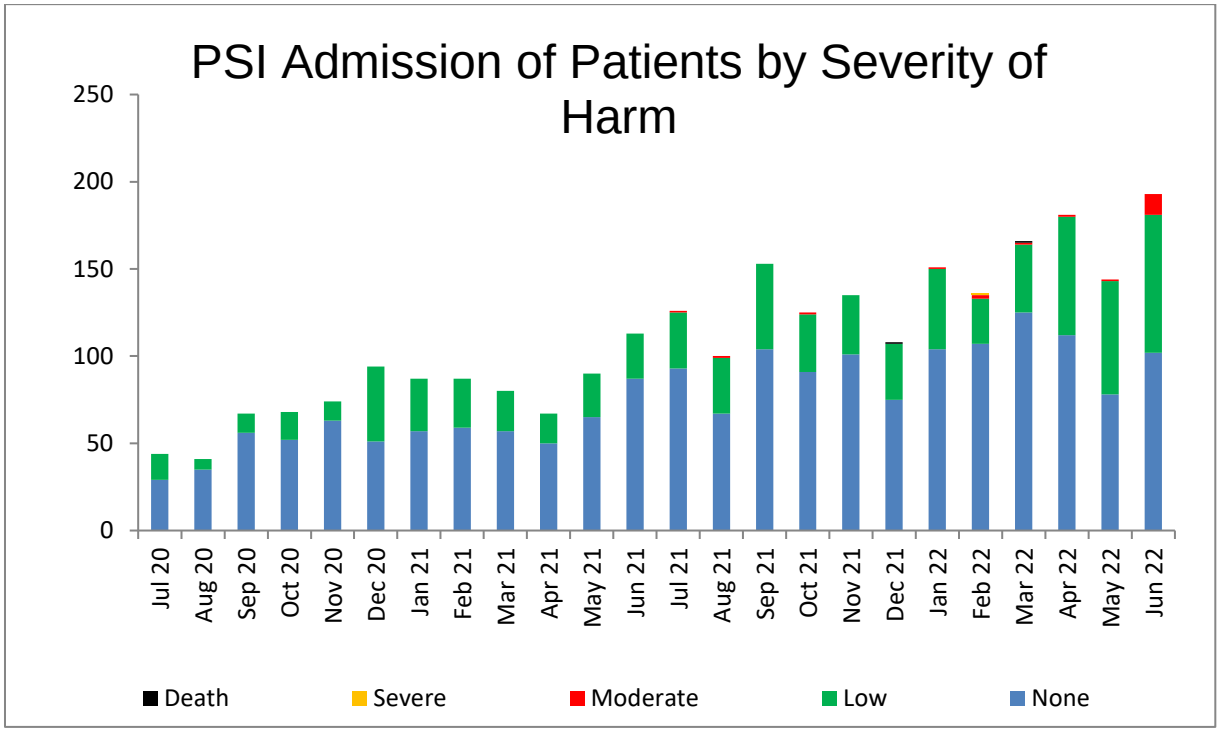
Analysis of ambulance offload delay and long waits in the Emergency Department in demonstrates increased harm caused to patients. It is also important to note that each incident report for ambulance offload delay may have multiple patients attached to it – each patient is reviewed to assess any harm caused due to delay in admission.

SPC chart 2 shows that during September, October and November incidents exceeded the upper control limit it is noted the during December there was a small reduction in incidents however since February 2022 the numbers have exceeded the upper control limit with June showing a sharp increase which this demonstrates the significant and ongoing pressure within the Emergency Department and capacity concerns with the Trust.

SPC Chart 2



Graph 1 – Severity of Harm Admission of Patients



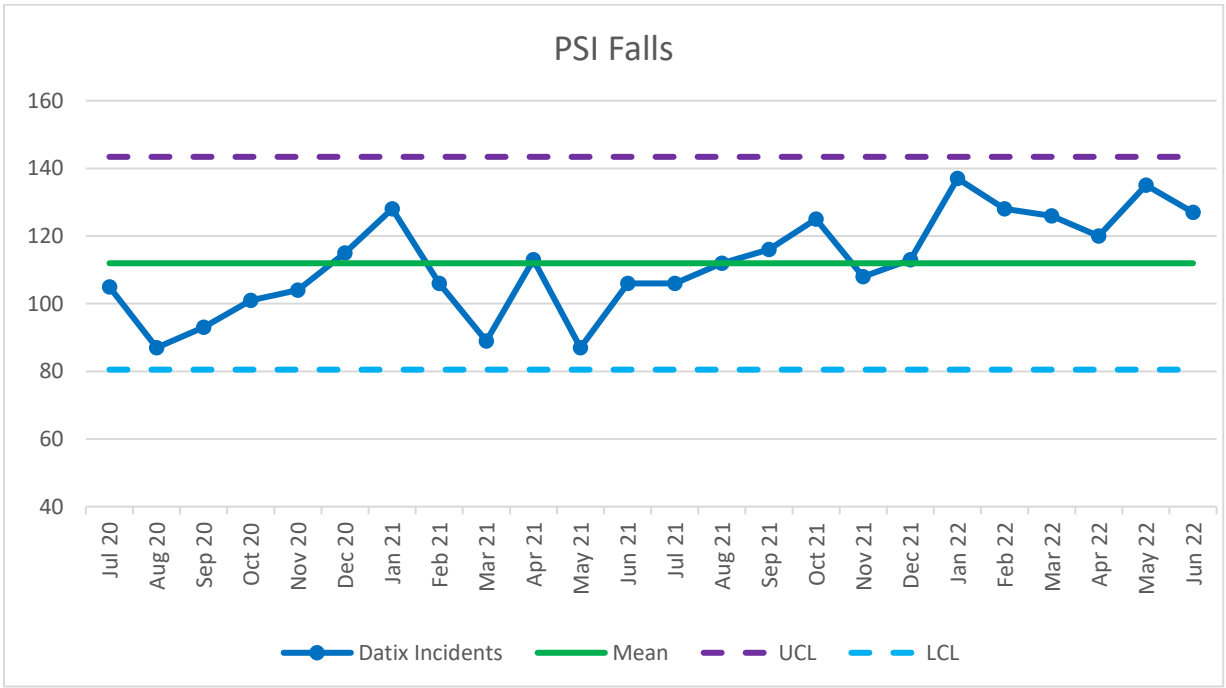
3.3 Inpatient Falls

7% of all reported incidents during June (127) were categorised as a Fall. Of these, 1 was reported as moderate harm and has been reported as a Serious Incident and is under investigation, with 1 other fall undergoing Divisional review. Completed investigation reports are presented to the Nursing Incidents Quality Review Meeting (NIQAM) which is Chaired by the Deputy Director of Nursing where learning is identified and shared.

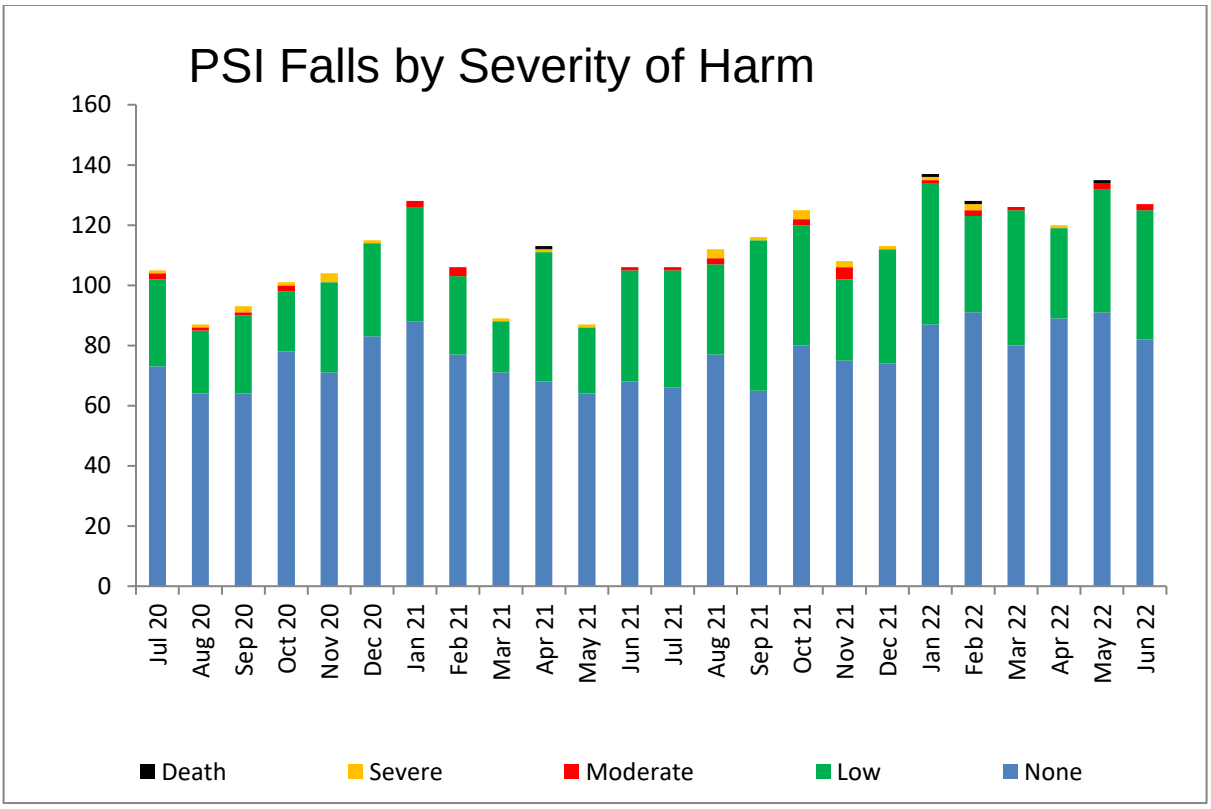
All inpatient falls are reviewed daily by the Quality Matrons and the Falls Lead Practitioner, identifying areas for improvement and shared learning.

SPC Chart 3 identifies a reduction in inpatient Falls reported since January 2022 despite a rise in May 2022. The Trust is part of the Regional Falls Group working to share learning and falls prevention strategies. The Group have noted an increase in falls Nationally, which may be linked to the COVID 19 pandemic.

SPC Chart 3



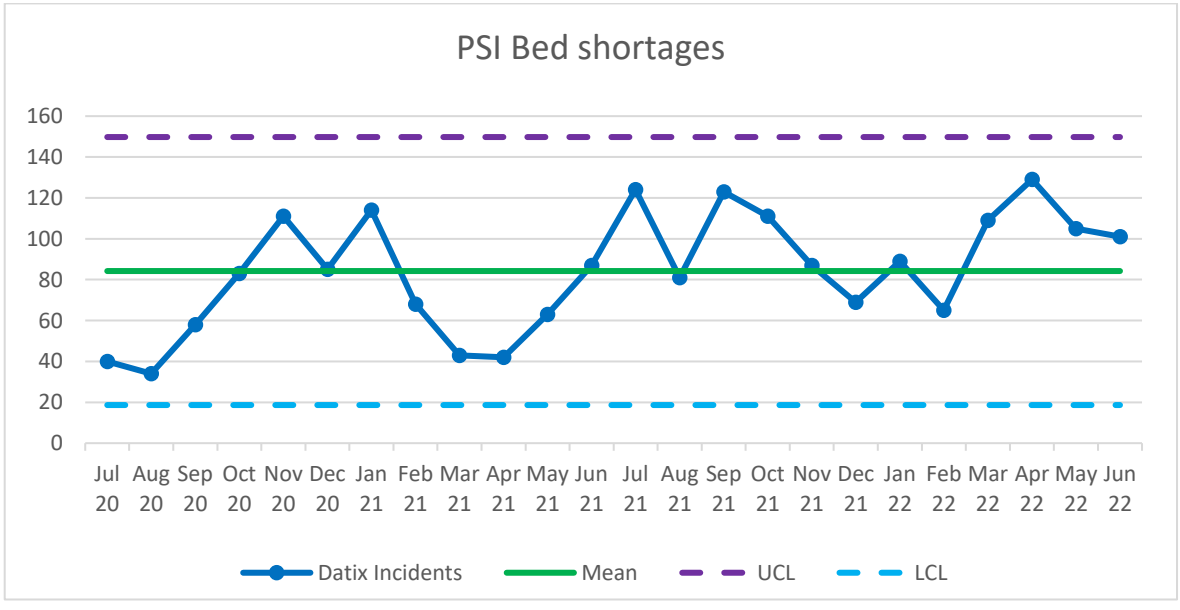
Graph 2 Severity of Harm Inpatient falls



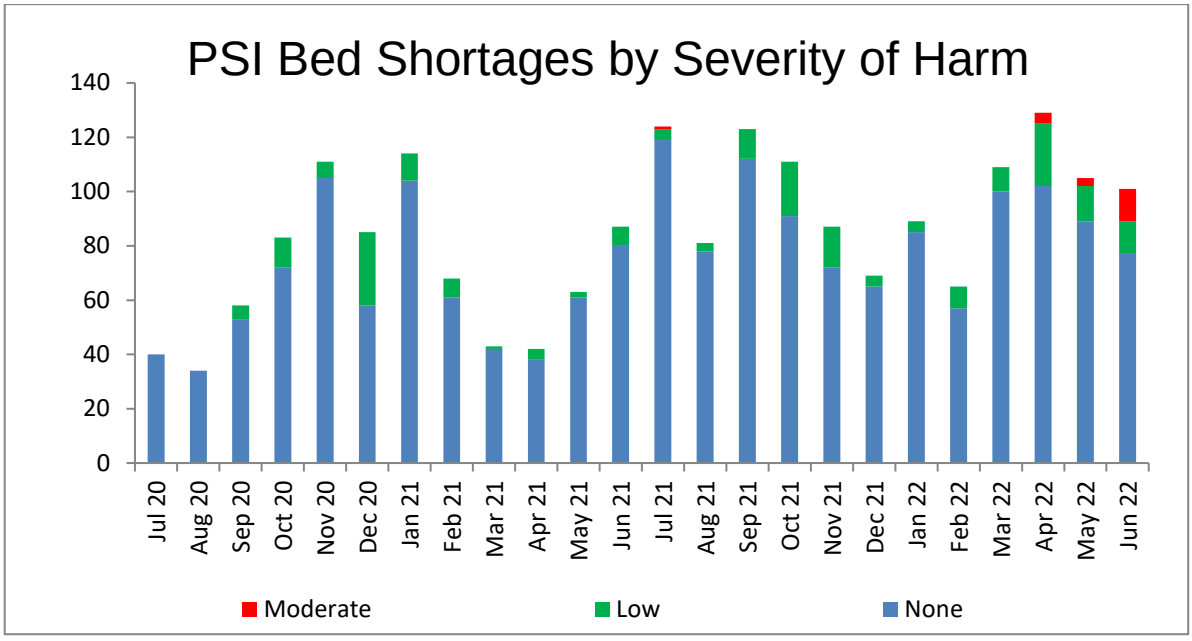
3.4 Bed Shortage

5.8% of all reported incidents during June (101) were categorised as bed shortages. These incidents include 12-hour breaches for patient admission from ED, it is important to note that 1 incident report for 12-hour breaches may contain multiple patient detail and delay in discharge from Intensive Care Unit to a ward bed

SPC Chart 4



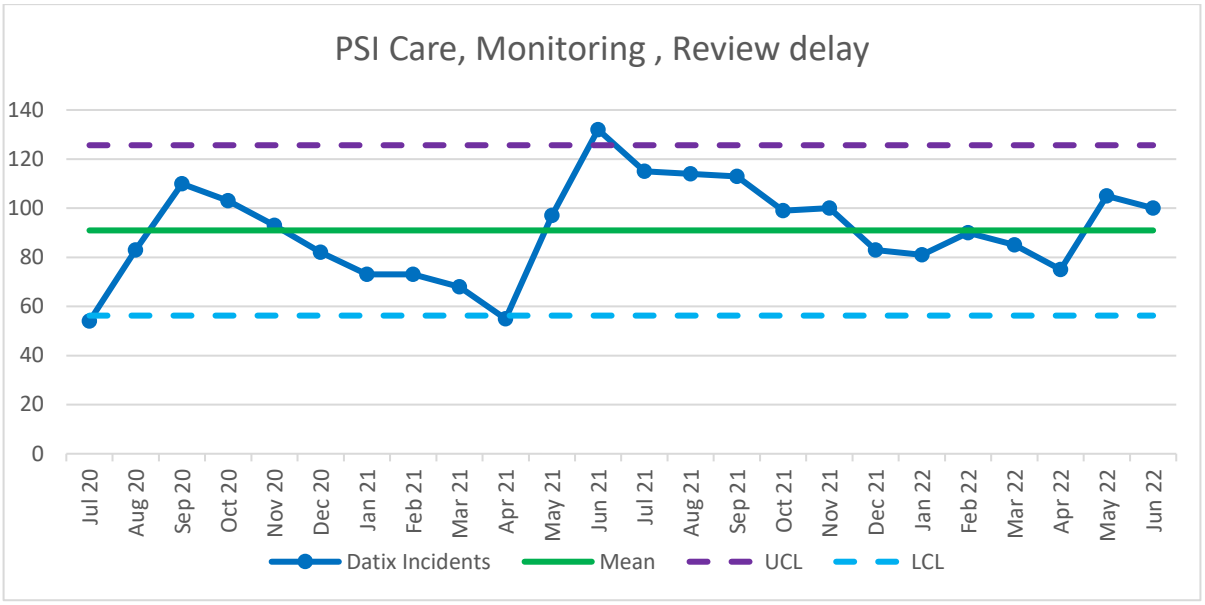
Graph 3 – Severity of Bed Shortages



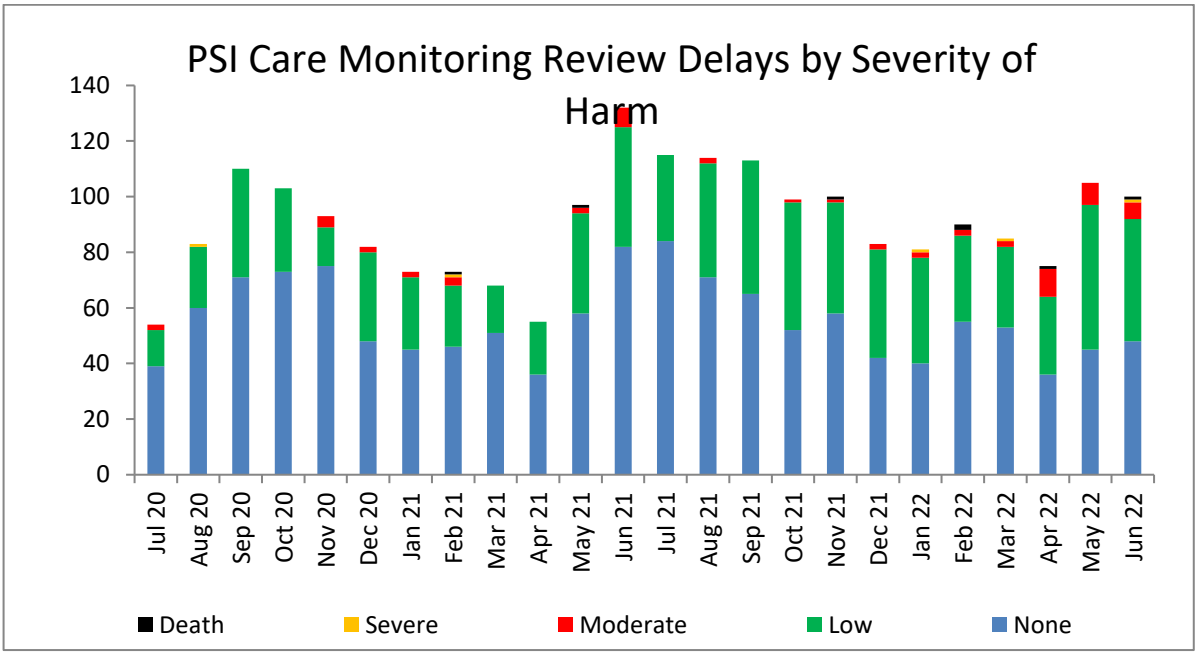
3.5 Care Monitoring Delay

5.7% of all reported incidents in June (100) were categorised as Care Monitoring Delays. Analysis of this group of datix is complex and identifies a wide range of issues, which relate to delays due to staffing, delays due to lack of beds, delays in escalation, delays in observations. Ongoing work in relation capacity, flow and staffing should help to mitigate harm. SPC Chart 5 demonstrates a rise in incidents between April 2021 and June 2021 which correlates to pressures seen within the Trust, particularly attendances to the Emergency Department. It is noted that during August through to April that the trend was on a downward trajectory, however May and June 2022 have seen an increase which may relate to sustained and increased pressure within the emergency assessment areas such as ED.

SPC Chart 5



Graph 4

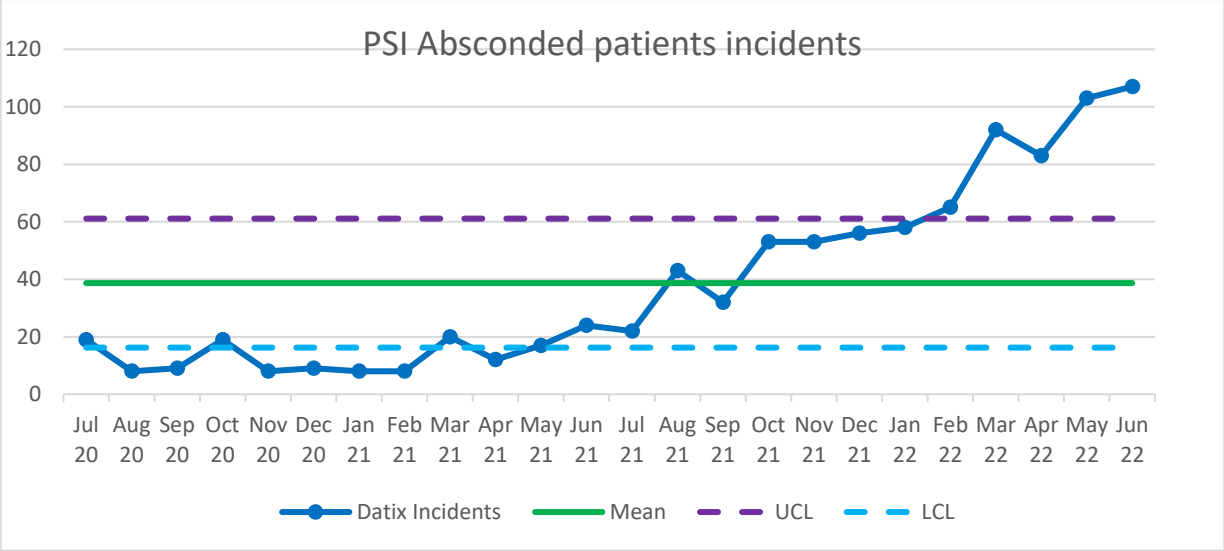


3.6 Absconded Patients

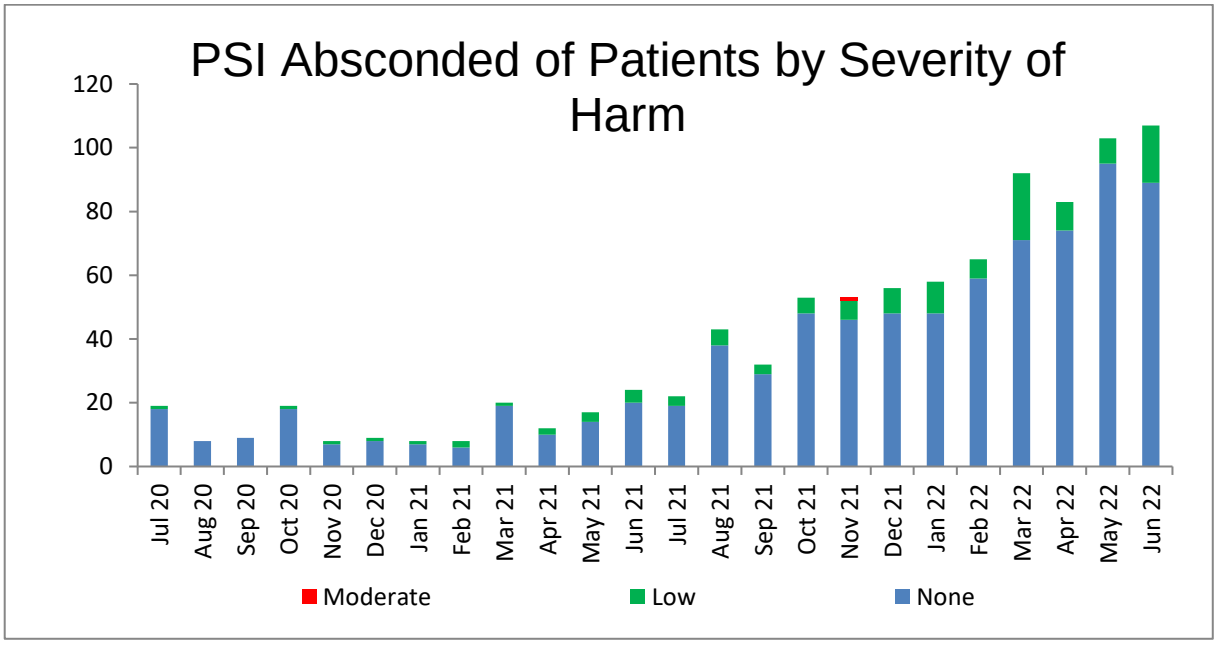
6.1% of incidents reported during June (107) relate to the category absconded/missing patient.

This is a wide category that includes patients who absconded from Ward/Trust care, left without being seen after attending the ED. SPC Chart 6 shows an increasing trend in reporting which may relate to an increase in patients who left without being seen in ED due to waiting times. Level of harm for these patients is low (see Graph 5). Standard processes are in place in relation to both missing patient and patients who leave without being seen in the ED.

SPC Chart 6



Graph 5



4 Incident Management including Serious Incident Management

4.1 Review, Action and Learning from Incident Group (RALIG)

13 new case assessments were reviewed by RALIG during June, Chaired by the Co-Medical Director, resulting in 7 Serious Incident Investigations being commissioned and 6 Internal/Divisional Investigations.

4.2 Nursing Incident Quality Review Meeting (NIQAM)

2 Serious Incident Investigations were commissioned during June relating to a fall with severe harm and a Category 3 Pressure Ulcer (See appendix 1 for detail).

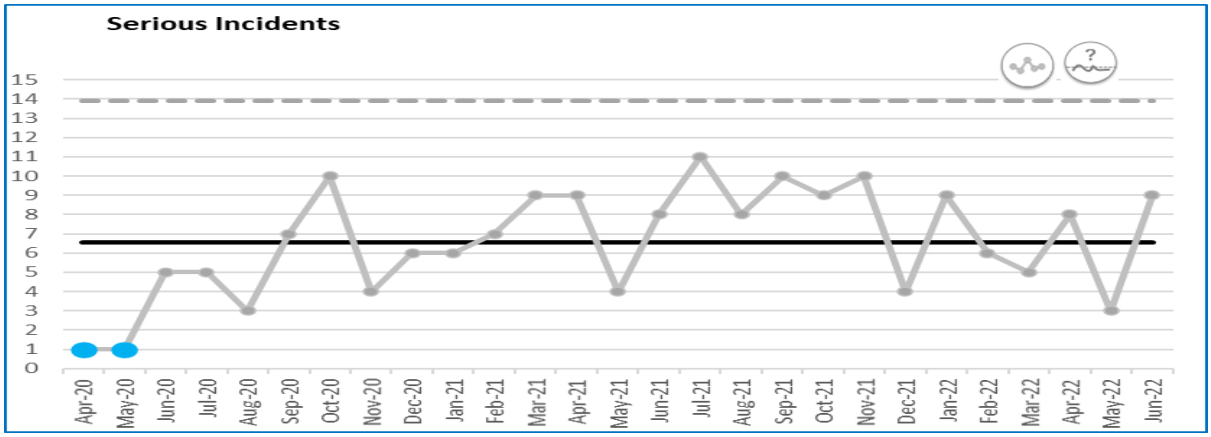
4.3 Maternity

There were no serious incident reported for Maternity during June.

4.4 Serious Incident Reporting Year to Date

At the end of May 2022/2023, the Trust had reported 11 serious incidents.

SPC Chart 7



5 Never Events

There has been 1 Never Event reported in June 2022 (See Appendix 1).

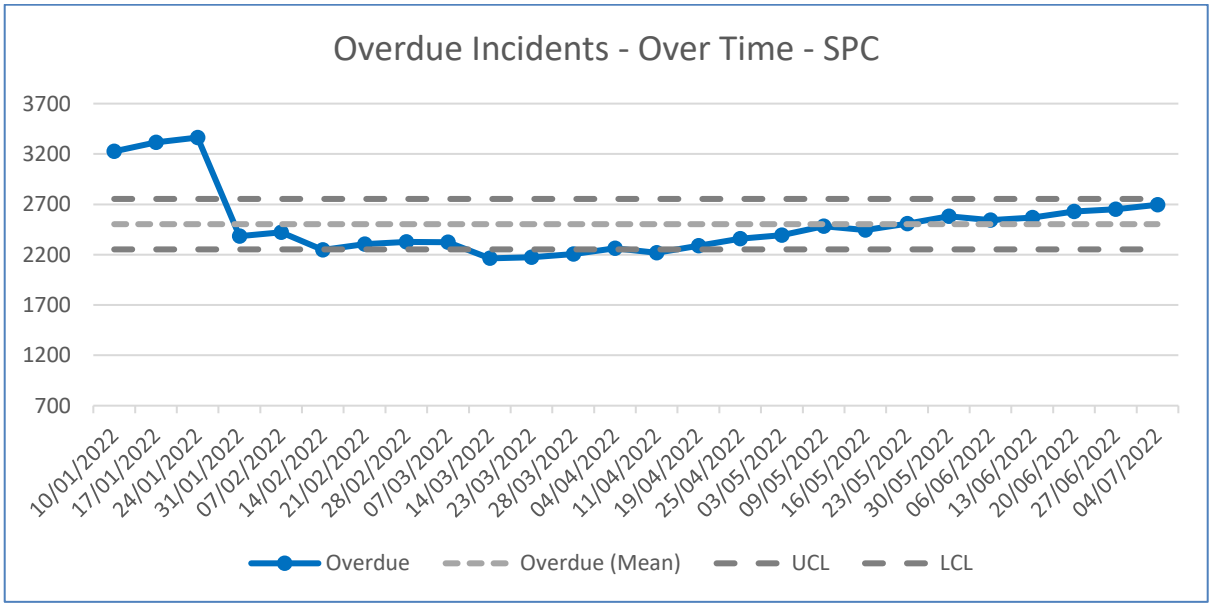
6 Overdue datix overtime

SPC 8 shows that the progress with overdue incidents has deteriorated during May and June 2022 with the majority of overdue within the ED this may reflect the sustained and unrelenting pressure seen within the Emergency Department.

Mitigation and trajectory for improvement

All datix are reviewed daily by the Quality Governance/Safety teams who filter out those datix that require immediate actions. Moderate harm or above incidents are reviewed at the weekly Review of Incident Chaired by the Assistant Director of Nursing. All Divisions have a weekly incident review meeting to prioritise and escalate incidents, such as Neonatal and Obstetric risk meeting, Medicine incident review group, ED weekly incident review.

SPC Chart 8



7 Lessons Learned and Action Plan Themes

There were 5 Serious Incidents closed in June. A sample of the learning identified can be found in Appendix 2 and 3.

8 Duty of Candour

There have been no reported breaches in Duty of Candour during May. An internal audit of duty of candour is due in September 2022, the results will be reported in November 2022.

9 Quality Governance Framework

The new Quality Governance Framework and structure is now in place to support Divisional Quality Governance teams to create a robust resource to enable a standardised approach to Quality Governance across the Divisions.

Appendix One

New Serious Incident Investigations - June 2022

A summary of the serious incidents reported in May 2022 is contained Table 1.

There were 3 serious incidents reported in May 2022.

Table 1

SI Theme	Number Reported
2022/11678 Category 3 – pressure ulcer	1
2022/11662 Retained foreign body – Never Event – Theatres	1
2022/11742 Delay/failure to monitor	1
2022/12302 Delayed Diagnosis	1
2022/12338 Failure to escalated deteriorating patient	1
2022/12485 Delayed Diagnosis	1
2022/13082 Fall Head Injury	1
2022/13187 Delayed Diagnosis Mental Health Issues	1
2022/13757 Delay in review	1
Total	9

5 Closed Serious Incident Investigations – June 2022

SI – Closed June 2022
2021/14115 Neonatal – HSIB
2022/207 Category 3 Pressure Ulcer
2022/202 Fall resulting in Head Injury
2022/335 Fall resulting in fractured neck of femur
2022/2931 Fall resulting in fractured arm

Appendix Two

Learning identified from closed incidents in June

Key themes:

• Support clinicians to recognise and escalate maternal observations that are outside the expected range to ensure robust care plans can be made
• Ensure clinicians are aware of the importance of performing all of the expected observations to calculate a complete MEWS score to inform further care planning
• Support clinicians to use the emergency buzzer /escalate an obstetric emergency in the correct manner
• Ensure that when fetal heart monitoring merits an emergency delivery that every effort is made to expedite birth as rapidly and safely as possible.
• Staff that are working in RIU to be educated by the Emergency Department CNE team regarding the completion of the ED cas-card and the actions post completing the risk assessments.
• Nursing staff to consider a high low bed for any patient at risk of falls/ confusion, and to document if not placed on one why, or document reasons if they are unable to obtain a high low bed
• Bed rails policy and assessments to be discussed at ward huddles with a focus on the link between confused patients and appropriate use of bed rails.
• Relaunch of the designated handover form used between areas/wards. The single form is to be signed, dated and timed by staff giving and receiving handover to support partnership working and patient safety across areas
• A communication proforma to be developed to capture the detail of conversations between ward staff and families
• A technical review of VitalPacs to be undertaken to explore the possibilities of observations being recorded and the data not being saved due to a loss of signal.
• All relevant staff to attend the Tier 2 Dementia Training so staff can recognise when a patient may be experiencing intermittent confusion and how to use the Abbey Pain Score to assess pain.
• TVN link workers need to have dedicated time to spend with staff and be able to audit completion of a cross section of pressure ulcer documentation to assist in promoting learning and raising standards
• TVN Link worker to work closely with TVN to identify areas of good practice from our trust, other trusts, and community that they could transfer to the ward, this could include making information packs relating to completion of documentation and help and support.

Action and learning from incidents are tracked and monitored through the Divisional Quality Governance Processes. Plans are in place to introduce learning and sharing forums cross divisions. Action tracking will be monitored through Divisional Governance Committees.

Appendix Three

Maternity/Neonatal Serious Incidents Closed February 2022 – June 2022

Synopsis and Key Findings

2021/15019	**Maternity Obstetric affecting baby** **Synopsis of incident** Patient was admitted at 37weeks +4days gestation on the evening of 30/06/2021 reporting reduced fetal movements for approximately 24 hours. Following her admission three CTGs (Cardiotocographs) were performed where the Dawes Redman criteria was not met. On the fourth recording Dawes Redman was met at 56 minutes. The decision at approximately 04:00 following the fourth CTG, was to repeat the CTG at 07:30 to review her status. The CTG at 07:25, which ran for 65 minutes, also did not meet the Dawes Redman criteria, but a subsequent CTG from 08:44 met the criteria at 16 minutes. While there was awareness of her condition, and escalation was in place, the capacity and high activity of the Delivery Suite meant that while the abnormal CTGs were considered, there were significant competing pressures within the service. Following clinical review at 13:30hrs on 01/07/2021 arrangements were made for her to transfer to the Delivery Suite for continuous CTG monitoring with a plan for either induction of labour or caesarean section that day. Following transfer to the Delivery Suite, an additional consultant attended the unit and she underwent a caesarean section soon after 17:00hrs. Baby was delivered in poor condition (very pale with a low heart rate and poor respiratory function), which has been attributed to a fetomaternal haemorrhage which expert clinical opinions suggests occurred 24-48 hours prior to delivery. While baby experienced some metabolic acidosis, this was short lived with a good recovery and no long-term effects anticipated. **Root Cause** Although there is no single root cause identified, there is general agreement between the clinicians asked to review this case, that with hindsight the patient ideally should have been supported in delivering Baby earlier in the day, although no time has been specified, this could have been optimally between 04:00 to soon after handover on the morning of 01/07/2021. There are multiple and complex factors which meant that Baby was not delivered until later that day, the delay is not however, believed to have overtly affected the outcome. **Contributory Factors** • She had been seen for a routine antenatal clinic appointment on 29/06/2021 where indications of fetal well-being were identified. On contact with the triage service the following evening, she reported RFM for the past 24 hours and was advised to attend the department as soon as possible which she did. She was being managed on the 'complicated' pathway in relation to her raised BMI, gestational diabetes (on insulin) and a large for dates baby, with an agreed plan for an elective caesarean section. • She contacted triage with the information that she had been experiencing RFM for approximately 24 hours. She was appropriately advised to attend the department and on arrival she was triaged as 'orange' due to the RFM and relevant risk factors of; raised BMI, gestational diabetes (insulin controlled) and a large for dates baby. In line with the escalation plan a CTG was commenced. The Antenatal Electronic Fetal Monitoring guideline states that the minimum duration for monitoring is 10 minutes and analysis continue every 2 minutes until the Dawes Redman criteria is met. If this criterion is not met by 60minutes the CTG can be

	discontinued and the rationale for not meeting the criteria will be identified. Should the criteria not be met then review by a Tier 2 or Consultant is required. The rationale for the Dawes Redman criteria not being met on this first CTG related to the lack of accelerations noted on the recording. The STV however was noted to be 4.4. The fetal heart rate was identified as being within the range identified with the guidance of: 110 to 160bpm, but at the upper range of this. At 37+4/40 the appropriate steps were taken to set a plan to repeat the CTG in an hour and review. The second CTG resulted in the same outcome with the decision made to admit her to the Antenatal Ward with a further plan to repeat the CTG in 2 hours. • The third CTG was commenced in due time, but there was a delay in being seen due to the Consultant being in theatre then prioritising a patient in Triage. A fourth CTG was commenced by the Midwife in the interim, which was identified as meeting the Dawes Redman criteria at 56mins. By this time the non-resident Consultant was on site and both Consultants reviewed this CTG and agreed that it met the Dawes Redman criteria with an STV of 6.8 and it was felt that there were accelerations present, with a plan for repeat in the morning. It is possible that a different decision may have been made if the three CTGs where Dawes Redman was not met were viewed before the fourth was produced which then met the criteria and gave a degree of reassurance. The subsequent CTG from 7:25 to 8:30 did not meet the Dawes Redman criteria, but one shortly after was identified as meeting the criteria at 16 minutes. • There was an unusual level of activity occurring within the service on 30/06/2021 and 01/07/2021. Activity and staffing levels form part of a set of metrics which are evaluated to a RAG (Red, Amber, Green) rating system. Activity and staffing from 23:00hrs on 30/06/2021 equate to RED with the estimate that Delivery Suite was at minus 4.3 midwives (in part from fewer staff than the template but also related to acuity / activity) and minus 4.2 midwives for the morning of 01/07/2021. This fluctuated slightly through the day until 23:00 on 01/07/2021 when a 'GREEN' level was identified where pressures were more in keeping with the staffing template. • The pressures within Delivery Suite were also felt through the same period by the medical staff, which precipitated the non-resident Consultant overnight being called in and during the early morning of 01/07/2021 and during the day support was requested from colleagues through clinical groups and the re-allocation of staff. The high levels of acuity within the service did mean that there were some delays inherent in the system, while the patient was being monitored closely on the Antenatal Ward, the degree of activity on Delivery Suite meant that the highest priority patients were being transferred. The anecdotal input from the Delivery Suite co-ordinators indicate that it would have been very challenging to have facilitated transfer earlier than actually occurred. **Recommendations** • A review of the case to be used in subsequent training days. This recommendation/incident should be used in conjunction with the current mandatory education and training programme on CTG monitoring, awareness and actions. • There is an escalation plan in place supported by Policy when the service is under severe pressure, but this is not always implemented. A review of the current pathway should be considered in order to expedite the escalation plan or provide a rationale as to why it was not activated, with a recorded action log. It is recommended that this be reviewed in order to facilitate a safe, but responsive process where support can be gained to assist in mitigating risk.

2021/14486	**Maternity Obstetric Post Natal Care – Downgrade from SI following investigation** **Synopsis of incident** Mother is a 28 year old lady who was classed as a high risk pregnancy and was booked in for consultant led delivery. She had a raised Body Mass Index and a Group B Streptococcus (GBS) infection was identified during her pregnancy. No other risk factors were identified. She was actively engaged with the maternity service and appropriately contacted with any concerns she had regarding her pregnancy. She suffered with nausea and vomiting throughout her pregnancy and was treated appropriately and in a timely manner after each contact. On the 3rd June 2021, it was identified by an ultrasound scan that there was reduced fetal movement and a low birth weight was anticipated. She was therefore admitted into the Trust on the 7th June for induction of labour. She gave birth to baby on the 8th June. There were no complications during labour and both mother and baby were transferred to the postnatal ward at 19:00. Mother commented that the baby was shaking overnight, but these concerns were not considered cause for further action by attending staff. The following morning baby was identified as "jittering" and a blood sample to test his blood glucose was taken with his mother's permission at 06:37. On the 9th June 2021 at 07:00 baby was transferred to the neonatal unit (NNU) at 13 hours old after it was identified on the postnatal ward that his blood glucose was low - not recordable. On identification of his hypoglycaemia and transfer to the NNU, all appropriate care and treatment was provided, baby remained on the unit for a period of 13 days when he was treated for his low blood sugars and jaundice. **Conclusion** The incidence of Transient Hyperinsulinism causing hypoglycaemia in newborn infants in the first days of life is usually associated with trauma or stress. Transient Hyperinsulinism can also occur in infants with no predisposing factors (Great Ormond Street Hospital for Children , 2020). While IUGR was identified, baby's birth weight was above the lower limit of 2.1kg and he was born at 37+3 so did not meet the clinical criteria for extra monitoring, which would have included blood glucose monitoring. The confusion arose because the customised birth centile for the baby by GROW-App was below 2nd centile, but baby's birth weight was above the 2nd centile (the recommended threshold for blood glucose monitoring) on the WHO-RCPCH Growth charts used nationally and recommended in the BAPM Framework for Investigation and management of Hypoglycaemia in Term neonates. Staff are advised to use the hospital guidelines which is clear regarding weight criteria. In this incident there was a lack of clinical risk factors for newborn hypoglycaemia; premature birth before 37 weeks and a low birth weight below 2.10kg. There is no evidence that there was a delay in blood glucose monitoring. The Investigation team asked that a downgrade from Serious Incident be considered and this has been confirmed by the Clinical Commissioning Group. **Recommendations** • One midwife stepped outside the guidelines to conduct additional testing on baby. This resulted in him receiving the care required. We recommend that this nurse is praised, and that she share her story to allow others to gain the same confidence. • Documentation needs to be reviewed to enable fuller care evaluations on interactions with mothers and newborns in first 24 hours, specifically regarding assisted feeding. Documentation review for inclusion of rationale when acting outside hospital and national guidelines

2021/11460	**Maternity Obstetric affecting mother and baby** **Synopsis of incident** At 01:14 on 6th of March 2021, a 28-year-old primigravida, at 37 weeks and 6 days of gestation: presented to triage with symptoms suggestive of PROM (Pre-labour Rupture of Membranes). She was assessed in triage, where she was noted to be experiencing mild cramps and evidence of pink tinted vaginal liquor and subsequently a decision was made for her to be kept in triage for further observation. Her clinical observations were satisfactory with a Modified Early Warning Score (MEWS) of 0, although her heart rate was slightly tachycardic at 104; this was not of significant concern. She was attached to a CTG machine which reported within the normal parameters. Whilst in Triage she continued to have a mews of 0, however her observations showed a low-grade temperature of 37.4. In view of the low grade, the mild pain she was already experiencing and a positive Amnisure test, she was transferred to the antenatal ward at 03:00am. At 12:55 on 6th of March 2021, she had a low-grade temperature of 37.5°c and her heart rate had increased to 120bpm. Her urine specimen proved positive for protein and leucocytes. She was reviewed by a Tier 2 locum doctor and a collective decision was made to transfer her to the Delivery Suite with the intention to assess for the appropriate time to augment labour. Her contractions increased and a collective decision was made to allow her 24 hours before any artificial intervention. The CTG readings were in reasonable parameters and her low grade fever appeared to have resolved. As her labour was progressing slowly, the need to augment labour became apparent and she was commenced on IV Oxytocin approximately 22 hours after her initial presentation. On clinical assessment it was recognised that she had developed pyrexia with a temperature of 38.1; she was reviewed and commenced on the sepsis protocol. Once she was fully dilated, her second stage of labour progressed slowly, she had been in second stage labour for two hours and a decision was made to proceed with an assisted delivery using forceps. She was transferred to theatre where she delivered her baby with the aid of forceps by the Tier 2 locum doctor under consultant supervision, in what was observed to be a rapid delivery with no perineal support or guarding and without an episiotomy, which may have influenced the outcome, she sustained a 3b tear during the delivery of her baby. She was reviewed by the community midwives 10 days postnatally and discharged and has continued follow up as an outpatient within the Gynaecology service for perineal trauma. **Root Cause** The procedure itself poses a high risk to perineum trauma, additional factors such as an elevated BMI, induction of labour and fetal positioning were a probable reason for the outcome. **Contributory Factors** • The 6th of March was the locum Tier 2's first night shift on the Labour ward. This was also his 5th shift of six for that week. On this night, alongside a Tier 1 and a Consultant, as the tier 2 on call, he was covering Triage, The antenatal Ward and Gynaecology. Unlike a day shift in which he would be allocated to one department. The Tier two confirmed that he was still unfamiliar with the department and felt nervous during this shift.

	• The Locum Tier 2, who was a confident Consultant in his native country, came to the UK towards the end of 2019. His GMC registration was delayed for a period of 14 months due to the pandemic, in which he was unable to practice as an Obstetrician during that period. This assisted delivery was his first since his return to practice. • The locum doctor who performed the delivery was in induction with the trust; the week of the incident was his first week contracted to the Trust. He was allocated to supernumerary day shifts to transition him to the division as per Induction pathway and remained on supernumerary night shift, supervised. • During the investigation, there was also difficulty locating previously completed induction checklists for locums which appears to relate to new members of staff within the medical staffing team • Perineum tears are a known complication to the use of forceps. The decision to perform an episiotomy is a clinical decision dependent on the operator to use their clinical judgement to assess if there is a need for an episiotomy. Forceps delivery is associated with more maternal perineal trauma and a higher incidence of 3rd and 4th degree tears. The RCOG's Green Top Guidelines indicate that there is no evidence that an episiotomy eliminates the risk to perineum trauma. The NICE guidelines on intrapartum care for healthy women and babies recommends that an episiotomy should only be performed if there is a clinical need, such as an instrumental birth or if there was fetal compromise. **Recommendations** To review the induction program and audit compliance
2020/14241	**Maternity Obstetric affecting baby** **Synopsis of Incident** Patient was booked in Powys in her first pregnancy. The first 30 weeks of her pregnancy were largely uneventful, and the management of the pregnancy followed national guidance. On Saturday 25 July 2020 at 30 weeks gestation, she experienced a reduction in fetal movements and consequently attended the Triage area at Princess Royal Hospital, Telford in the late evening. She underwent two cardiotocograph (CTG) traces in order to assess fetal wellbeing. The initial CTG trace did not meet the Dawes-Redman criteria but the second CTG did meet the criteria. Both CTG traces showed a sinusoidal pattern, but the pattern was not recognised as such by the attending doctor and midwife. She was consequently sent home in the early hours of Sunday morning and an ultrasound scan arranged for the Monday morning with a fetal medicine specialist. The symphysio-fundal height was not measured on this occasion. The reason given was that she had forgotten to bring her hand-held records. The following day on 26 July 2020 she reattended the triage area at Princess Royal Hospital, Telford with no fetal movements. A CTG was repeated that appeared similar to the previous two CTG traces. The attending doctor recognised the CTG trace as abnormal and arranged admission to the antenatal ward, repeat CTG and consultant review. The admitting midwife on the antenatal ward also recognised the CTG as sinusoidal and requested urgent attendance by the Consultant. Following prompt review she was moved to the Delivery Suite with a likely possibility of preterm delivery by Caesarean section. In view of the early gestation the Consultant requested a second opinion from his colleague who attended promptly and confirmed that delivery was appropriate. It was agreed that she would undergo a Caesarean section within an hour when the operating theatre was available. Whilst the second on call Consultant was reviewing her there was another delivery underway in the operating theatre. The delivery in the theatre took longer than anticipated. When the first on call Consultant attended, she again there was a relatively sudden fetal bradycardia which

	led to an immediate Caesarean section under general anaesthetic. Baby was born in poor condition with evidence of significant anaemia due to a fetomaternal haemorrhage and hypoxia. He required extensive resuscitation and was transferred from the Neonatal Intensive Care Unit in Princess Royal Hospital, Telford to the Neonatal Intensive Care Unit in New Cross Hospital, Wolverhampton. **Root Cause** The main underlying cause for the condition of baby at delivery was that fact that a significant fetomaternal haemorrhage had occurred. **Key Findings** The main finding of the report showed that the sinusoidal pattern of the two CTGs, performed initially when the mother presented with reduced fetal movements, was not recognised by the attending obstetrician and midwife. The pattern was recognised by the computerised analysis software within the cCTG machine for the first cCTG but not the next. The Dawes-Redman criteria that suggest that a cCTG does not indicate hypoxia were met in the second cCTG. The obstetrician did not see the annotation on the printout that suggested the first cCTG trace was sinusoidal whereas the midwife did see the annotation. At each presentation to Triage the symphysiofundal height measurement did not occur. Recognition that the symphysiofundal height was small may have raised concerns that there was a significant problem with the fetus although in hindsight the fetal weight was normal for the gestation. The report also showed that there was an additional delay of around 30 minutes in the delivery of baby once the sinusoidal CTG had been recognised and delivery had been agreed to occur within the hour. Although the fetal bradycardia that occurred just prior to delivery could not have been anticipated it may have been prevented with earlier delivery. Improved communication after the decision was made to deliver baby may have enabled the team to recognise that delay was developing within the operating theatre. The fetal bradycardia was likely to have been caused by a sudden event such as cord occlusion. As a result, baby, who was already significantly compromised by anaemia, became significantly hypoxic and consequently was born in poor condition. **Recommendations** • Training in the recognition of a sinusoidal CTG pattern should be reviewed. If there is a widespread lack of knowledge in the recognition of such a trace within the staff body then training will need improvement. • An audit of practice with regard to the measurement of symphysiofundal height be undertaken for the antenatal area in order to ensure that practice is within guidance. • The company supplying the computerised CTG analysis are approached, and any existing, additional training materials are obtained from the company. • There is continued training in human factors in order to recognise situations in which there may be a reduction in the awareness of risk and confirmation bias as well as promoting staff to speak up when they become aware of something unusual. Human factors training should also ensure that communication channels must be maintained when an individual or team become task focussed.

	• Training in fetal Doppler assessment should be planned for the midwifery sonographers.