Appendix 1

NHS

Report

of the Dudley Maternity Services Quality Improvement Board

Published October 2017

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1. Foreword

Early in 2016, NHS England alerted Dudley Clinical Commissioning Group (DCCG) to concerns about the high number of serious incidents in Maternity Services at The Dudley Group Foundation Trust (DGFT).

This report summarises the outcomes of the work of the Quality Improvement Board (QIB) which was established to look into those concerns.

It highlights the importance of strong clinical leadership and effective governance procedures. It emphasises the importance of understanding why things happen, of learning effectively from issues, and of sharing that learning widely to improve services. And it demonstrates the added value that external advice and support can offer to the improvement process. It also reinforces the importance of communicating with and involving patients and their families in their care.

During the course of the QIB's work, DGFT have introduced a comprehensive improvement plan for maternity services. This addresses the issues identified and provides assurance about the safety and effectiveness of the maternity services in Dudley.

The many improvements that have been made to DGFT Maternity Services as a result of the QIB's work are a tribute to the diligence and hard work of everyone involved, and I would like to thank them for their efforts and offer specific thanks to the families who contributed to the process.

Mr Steve Wellings
Chair, Quality Improvement Board

2. Context

Maternity Services at DGFT are responsible for the delivery of around 4,600 babies each year. The unit is well-regarded in the local community and serves not just Dudley and the Black Country area, but also parts of Worcestershire and Staffordshire.

Within the maternity unit, there is a triage area with four beds, a delivery suite with 10 rooms and a maternity ward with 22 beds. A co-located Midwifery Led Unit (MLU) has five rooms where 608 babies were born last year. The maternity unit has two dedicated obstetric theatres.

Currently the maternity unit is staffed by 168 midwives, which allows for the provision of one-to-one midwifery care in labour. The number of midwives required is assessed using the midwifery establishment Birth Rate Plus Staffing Tool that is recommended by the National Institute for Clinical Excellence (NICE) in the safer staffing guidance. The unit meets these recommendations. There are 32 doctors within the unit, 10 of which are consultant obstetricians and gynaecologists. This enables the service to comply with the Royal College of Obstetrician and Gynaecologists (RCOG) recommendations of 98 hours per week of consultant obstetric cover for the delivery suite.

DGFT has a level two neonatal unit, which has 18 cots, three of which are used to provide intensive care and two for high dependency care. Babies requiring neonatal intensive care that meet defined criteria, are transferred to a level three neonatal unit. These arrangements reflect the British Association of Perinatal Medicine recommendations.

One of the measures used to compare the outcomes for babies is the neonatal and stillbirth mortality rates. This is the number of babies that regrettably die compared to the total number of births. DGFT maternity unit's early neonatal mortality rate in 2014/2015 was 1.8 which meant that for approximately every 1,000 births, fewer than two babies died. This was below the national average of 2.68 per 1,000 births. DGFT maternity unit's stillbirth rate was 3.14 which means that for every 1,000 births fewer than four babies were stillborn. This figure compared favourably with a national figure of 4.64 per 1,000.

DGFT Maternity Services were last inspected by the Care Quality Commission (CQC) as part of an overall review of the Hospital Group in 2014. At that time, the CQC praised the caring nature of maternity staff and the environment in which women and babies were cared for. However, they expressed concerns about staffing levels and felt that the categorisation of incidents and recording of data were, at times, inaccurate. They reported that this prevented the service from fully analysing incidents and learning from these.

The CQC report summarised Maternity Services as 'Good' in relation to the assessments of 'Effective', 'Caring' and 'Responsive' domains, but as 'Requiring Improvement' in the areas of 'Safety and Well Led'. Overall, the CQC assessed the Maternity and Family Services as 'Requiring Improvement'. (The full CQC report can be found at www.cqc.org.uk).

3. Introduction

In January 2016, Dudley Clinical Commissioning Group (DCCG) were informed by NHS England West Midlands (NHSE) that The Dudley Group NHS Foundation Trust (DGFT) had reported a higher number of Serious Incidents (SIs) than for comparable maternity units in the West Midlands between April 2014 to December 2015.

In addition to this, it was identified by NHSE that there was limited learning associated with these Serious Incidents.

When a Serious Incident[1] happens, it is necessary to objectively establish what happened; what went well and what didn't, alongside what actions should be taken to avoid a similar occurrence in the future. This process should involve the patient and, where appropriate, their family. If incidents happen and are not adequately investigated, the same mistake and harm can be repeated; this is unacceptable. If lessons are not learned, the risk of recurrent harm increases. In maternity services where the health and wellbeing of women and babies is at the heart of care, the processes for investigating incidents are central to ensuring safe high quality care.

Following an initial assessment of the SI Root Cause Analysis[2] (RCA) reports from this period, by the DCCG, and the support of independent reviewers to provide objectivity and challenge, it was confirmed that DGFT maternity Serious Incident investigations were inadequate, that learning was not identified appropriately, and that there was harm in some cases. The DCCG subsequently led the establishment of a Maternity QIB as this was agreed as an open and transparent approach to investigating and addressing the concerns raised. The Maternity QIB commenced in April 2016 and the purpose of this report is to provide an overview of its work.

[1] Serious Incident (SI) - "…events in health care where the potential for learning is so great, or the consequences to patients, families and carers, staff or organisations are so significant, that they warrant using additional resources to mount a comprehensive response";
[2] Root Cause Analysis (RCA) - defined by the NHS as: "a useful tool for thoroughly investigating reoccurring problems of a similar nature …in order to identify the common problems (the what?), contributing factors (the how?) and root causes (the why?). This allows one comprehensive action plan to be developed and monitored and, if used effectively, moves the focus from repeated investigation to learning and improvement".

Both definitions taken from NHS England (March 2015) Serious Incident Framework

4. Scope of the Maternity Quality Improvement Board

From the 43 cases reported as Serious Incidents between April 2014 and December 2015 the Maternity QIB agreed to initially review 25. Of the 25, 19 related to care that affected the baby and 6 cases related to care of the woman. These 25 presented the most opportunity for learning.

The objectives of the QIB were to:

- work openly and collectively to review and enhance maternity services;
- gain assurance that maternity services provided by DGFT are safe and effective and that processes to manage risk are robust;
- ensure those families whose cases formed part of the review were given opportunities to actively engage in the process and contribute towards any lessons learned, keeping them informed throughout;
- review DGFT system wide Serious Incident processes between April 2014 and December 2015 - addressing governance and reporting; and
- ensure lessons are learned and actions are taken to address issues that were identified.

The work of the QIB was allocated to three sub groups.

Each sub-group was given a set of tasks to ensure the QIB achieved its aims. The main work of each group is explained on the following pages.

A. Clinical Review Group (CRG)

The Clinical Review Group (CRG) was clinically led and included clinical representatives from both DCCG and DGFT, supported by an independent external consultant obstetrician. The purpose of the CRG was to provide assurance that the maternity service provided by DGFT was clinically safe and effective and involved detailed reviews of the 25 cases. In addition, the CRG was to identify improvements in care and service delivery and to ensure that learning is implemented for the benefit of women who receive maternity services from DGFT in future, their babies and their families.

Each of the 25 cases was clinically reviewed separately and thoroughly. The clinicians challenged decisions made throughout each case, and considered possible links between these decisions and outcomes for women and babies. There were five cases where there was avoidable harm and one death. DGFT have been open with all of the families affected. Where care and service delivery issues affected the outcome for women and babies, this was identified and led to recognition of themes which have been addressed within the DGFT maternity improvement plan.

All families were written to by DGFT and informed of the review into their care. They were offered the opportunity of a meeting with senior staff from DGFT. The point of this letter was to provide the 25 families with the opportunity to share their views on the care they received and to raise any questions they would like answered as part of the review process. Five families responded to the initial letter requesting a meeting. These families met with senior staff and were provided with the outcome of the review of their case by DGFT. Following the review of all the cases, the remaining 20 families were contacted for a second time. Six families were informed there was additional information regarding the care they had received and they were invited to a meeting with DGFT; of these, three families took up this offer. The remaining 14 families were informed that the review had concluded and it did not identify any findings that had not been shared with them previously.

During the review, DGFT identified that due to a disconnection between the DGFT clinicians and the maternity risk management processes, there were missed opportunities to prevent further recurrence of service and care delivery problems that may cause harm.

The CRG acknowledged that DGFT had not systematically investigated maternity Serious Incidents, identified root causes and embedded appropriate learning. The QIB were assured by the Governance Group that by providing training for staff on conducting systematic and objective investigations and redesigning the risk and governance systems within maternity and across the wider organisation, future governance would be robust. The CRG also had oversight of and monitored the maternity clinical improvement plan, to ensure that care and service delivery issues that had been identified, were addressed.

The CRG concluded that the 25 cases demonstrated common themes and opportunities for learning, as detailed in Section 5. The review of further cases was considered, however the CRG consensus was that they would not reveal anything that was not already captured within the improvement plan.

B. Governance Group

The Governance Group built on the work already underway across DGFT. It comprised clinical and managerial representatives from DGFT, the DCCG and Local Authority Public Health, and focused on improving the management and oversight of SIs across the system as a whole.

The Group:

- reviewed action plans to improve governance and reporting including ensuring clarity of roles of responsibility for assurance across DGFT, DCCG and NHSE. These actions included training for DGFT and DCCG staff and revisions to templates used for Root Cause Analysis reporting;

- agreed measures that could be used to show progress and monitor Serious Incidents on an on-going basis.

The Governance Group were assured that DGFT has taken positive steps to develop its incident, risk management and governance frameworks, with specific assurance gained in respect of maternity services. Oversight of maternity governance has now transitioned to a DCCG-led monthly Maternity Performance and Assurance Group. This provides a forum for ongoing dialogue in relation to the quality and safety of care in maternity services.

Two subsequent external reviews, reported via the DCCG Quality and Safety Committee, have both indicated that they were significantly assured of the improvements made in managing Serious Incidents which have been reported.

C. Communications Group

The Communication Group membership included communications leads from both DCCG and DGFT and from each of the QIB organisations. The role of Healthwatch Dudley was to be assured that the process was transparent and that Duty of Candour was followed throughout.

The group was instrumental in agreeing an engagement plan and communication concordat which was put in place and signed by all but the independent organisations of the QIB.

The communications group followed the principle of putting those most affected by the review first. They played a key role in the way that families affected were informed of the case review and insisted that the families were the first to receive this report prior to wider publication. Further detail on the involvement of families is included in the CRG section of this report, as it was right that the conversations with families happened at a clinical level.

5. Findings of the Maternity Quality Improvement Board

5.1. The review identified that Serious Incidents were not routinely reviewed by a Multidisciplinary team of professionals.

While DGFT Root Cause Analysis documentation indicated that clinicians within a Multidisciplinary Team (MDT) were responsible for investigating cases, the review identified that this was not happening. The Root Cause Analysis' were largely undertaken in isolation with limited input from clinicians; there was rarely a connection between the clinical conversations which happened with families, the risk and governance processes and midwifery supervision. This meant that when there were care and/or service delivery issues within individual cases, there was limited learning to help prevent further recurrence and potential harm to women and babies.

DGFT's process for the review of Serious Incidents now mandates that this is always done with input from obstetricians as well as midwives and includes anesthetists, cardiologists, paediatricians and other professionals as required. There is a process for the review of unexpected admissions to the Neonatal unit and that always includes paediatric staff input. There is also increased clinical leadership through the greater involvement of senior medical staff associated with risk management and governance processes.

A senior consultant obstetrician from Birmingham Women's Hospital NHS Foundation Trust attended DGFT's Maternity Governance Meeting on two occasions, to provide an expert independent review of cases and to enable sharing of clinical guidelines as appropriate.

In addition, a consultant midwife with specific expertise in governance, worked with the maternity team to further provide an independent review and assurance of Serious Incident processes being delivered. She has provided DGFT and the DCCG with positive feedback, confirming there has been a significant level of improvement and a clear commitment demonstrated by the DGFT maternity team to address the areas of weakness in governance and risk management.

The sharing of learning is now a priority in the maternity unit. The midwives, doctors and support staff train together with professionals from other disciplines who frequently work in maternity; this includes staff from the neonatal unit, anesthetics and theatres. Numerous methods are used to ensure everyone is informed and kept up to date.

Meetings are held regularly to discuss the care of women and babies. These meetings are attended by a range of clinicians including midwives, paediatricians and anesthetists to discuss cases and learn together on how they can improve care.

5.2. The review identified that DGFT assurance processes were not robust and DGFT were being over reliant on, and falsely assured by, the feedback from external organisations

The CCG requested support from an NHS England Midwife in reviewing the Serious Incident RCA's. They had accepted assurance on these from the stated level of MDT investigation.

DCCG has since changed the process of assurance for Serious Incident Root Cause Analysis documentation. This new process has been independently audited on two occasions to validate the improvements in this area.

However, as highlighted in 5.1, the documentation did not reflect the processes that were taking place and this could not have been known to the external agencies. DGFT were also falsely reassured by the fact that their Root Cause Analysis documentation was being produced in a timely way and this was misinterpreted as an indication of thoroughness.

DGFT established a Task and Finish Group in the summer of 2015, chaired by the Chief Executive Officer; to examine six serious incidents. The group met three times to review whether there were any themes or commonalities across those cases which would warrant further investigation and found none. The QIB identified on reflection that had the Task and Finish Group worked differently, it could have identified earlier the issues which have subsequently been highlighted elsewhere in this report. While the Task and Finish Group's actions and findings were taken as internal assurance by DGFT, it represented a key missed opportunity by the Trust to have identified maternity governance issues earlier.

DGFT have recognised the importance of clinical perspective when reviewing cases and they have changed their internal ways of working to ensure the clinical voice is heard.

5.3. The review identified fragmentation of governance systems and processes across the organisation and single points of failure across DGFT

DGFT has recognised multiple governance weaknesses which had contributed to the failings in maternity care. There were also wider governance issues identified such as the delayed application of the revised national Serious Incident framework released in March 2015; this was identified during the review in April 2016.

In response to this, DGFT has implemented a new training programme for staff in Serious Incident processes.

There was also a disconnect between the DGFT maternity investigatory and midwifery supervisory processes; this was subsequently investigated by the LSAMO and further case reviews took place.

The governance group monitored that the DGFT system assurance issues were addressed; however the supervisory issues were discussed and assured within the CRG.

Significant national changes of Supervision of Midwifery processes has resulted in the opportunity to ensure that the links between investigations and midwifery practice are strengthened in DGFT.

5.4. The review identified that Cardiotocography (CTG) heart rate monitoring was, in some cases, misinterpreted and therefore the wellbeing of the unborn baby was, in some cases, compromised

The CRG reviewed cases where the fetal heart monitoring was interpreted incorrectly and actions were delayed or not taken to avoid the potential of the baby being harmed.

To address this learning, DGFT undertook a thorough review of CTG training, sought advice from a tertiary maternity unit on best practice and has increased the frequency and breadth of training to all staff on CTG use and analysis.

There were also cases where CTG assessment of a baby's wellbeing was not completed before an epidural was sited. Midwifery, obstetric and anaesthetic staff are all now aware and compliant with this requirement. This process is audited on a monthly basis from 1st August 2016 and has shown 100% compliance with this improvement.

The documentation of a structured assessment of the fetal heart recording during a CTG was reviewed and rewritten in April 2016, and is used systematically across all areas of antenatal and labour care. There is also a system by which hourly reviews by senior staff, called 'Fresh Eyes', is used to ensure an objective review of a fetal heart tracing. Although well used there were times when this was not documented, and again the group emphasised the importance of this process being systematically undertaken by all staff. DGFT has been assured by monthly audits of these improvements demonstrating consistent compliance.

A competency assessment based on best practice has been developed and introduced in September 2016, for midwives and doctors regarding the interpretation of CTGs and documentation of the assessments made. Of the 168 midwives employed at the Trust, 158 have attended the fetal monitoring training session within the past 12 months and the remaining 10 have attended within the past 14 months, with dates to attend again within the next two months. All of the doctors employed in obstetrics at the Trust have attended a training session within the past 12 months.

There is now an identified lead consultant obstetrician who, together with a lead Midwife, delivers the training to mixed groups of staff. These sessions are multidisciplinary, attended by both midwifery and medical staff, to promote team working and this has the advantage of encouraging greater discussion of CTGs which are often complex and open to different interpretations.

In addition to the internal training, all staff are encouraged to attend external training courses, such as those run by the Royal College of Obstetricians and Gynaecologists (RCOG) and Baby Lifeline. Training packages provided by K2 and the RCOG, both online training and simulation systems, are available and obstetricians and midwives are required to complete these as part of their mandatory training every two years.

In December 2016, the maternity unit was successful in its bid for additional funding from the Department of Health for maternity safety training. Additional external training courses on fetal monitoring are being accessed by midwives and obstetricians via Baby Lifeline and the Maternity Network.

5.5. The review identified that there were, on occasions, delays in concerns being escalated in a timely manner to senior obstetricians

Despite there being a daily ward round where complex and/or high risk cases were discussed, the review identified a lack of documentation reflecting appropriate consultant involvement in decision-making for women under obstetric management. A review of the involvement of senior obstetricians has been undertaken and a revised procedure has been reinforced and monitored; this has improved, and now ensures, a more structured multidisciplinary ward round. The unit has introduced an audit to assure itself that there is early identification of high risk cases, and that senior obstetricians are involved and obstetric support is available when required. The support and involvement in routine care and escalation when required is to be documented in the patient records.

To ensure the Trust meets the RCOG recommendation to have 98 hours consultant cover for the labour ward each week, a further two obstetric consultants have been appointed. The vacancies in the midwifery workforce were addressed with a recruitment drive and concerted effort to improve midwifery staffing, to comply with Birth Rate Plus recommendations. A total of 21 midwives were appointed and all commenced employment between September and December 2016.

5.6. The review identified that there was concern regarding the use of drugs to induce labour and coordinate contractions

The review considered DGFT's use of induction agents, particularly in the management of vaginal births after caesarean (VBAC) cases, and the use of syntocinon, a drug used for induction and to coordinate and increase contractions in labour.

Although DGFT guidance for induction of labour reflected normal and acceptable practices, the guidance was reviewed and changes have been made to differentiate the types of induction agents (prostaglandins) used when women have had a previous birth by caesarean section. Specific education was provided for staff regarding the impact of the use of syntocinon on fetal wellbeing in labour.

5.7. The review identified that there were concerns that senior paediatric support was not available to assist with baby resuscitation at complex births

The review of cases raised questions about whether the most appropriate senior support was readily available, to support the immediate and ongoing resuscitation of a baby when difficulties arose. Local guidance was reviewed and updated to ensure a clear escalation process is in place to secure senior support when needed.

Subsequent audits have provided assurance that the right seniority of staff have been called and were available. It has been emphasised to staff the ongoing importance of ensuring the process is followed and documented.

The successful maternity safety training fund bid is now enabling DGFT to send an additional 72 midwives on enhanced training in Neonatal Life Support.

5.8. The review identified that there was concern that staff, on occasion, were slow to respond in a timely way to urgent situations and in some cases appreciate the deterioration of a woman's condition

External reviewers and members of the CRG identified a theme that staff, on occasion, were slow to respond to urgent situations and, in some cases, did not recognise deterioration in a woman's condition in a timely way.

A review of guidelines relating to care of the deteriorating patient was completed and a midwife lead was identified to participate in the DGFT Deteriorating Patient Group.

Reviews of the care pathways for women with severe pre-eclampsia and eclampsia, sepsis and existing long-term medical conditions were completed and updated to reflect the most up-to-date national guidance where necessary.

Multidisciplinary emergency skill drills study days, which staff attend annually, uses the DGFT Simulation Laboratory - a simulated ward or delivery suite environment. All staff can then practice the skills they need to use in an emergency situation and are given feedback on their performance. This allows for individual support to improve knowledge and skills.

A maternity acute illness management (AIM) course has been established within DGFT and all midwifery staff are attending.

5.9. The CRG review supported the importance of DGFT maternity services working with other maternity services, to share good practice and be involved in national initiatives to improve outcomes for women and their babies

As a consequence of the QIB process, DGFT have established a joint working relationship with The Royal Wolverhampton NHS Trust and midwives have shared learning and good practice. There is an effective programme of visiting each other's units, to share good practice across a wider network within the Black Country and more widely across the country.

DGFT contributes to NHS England's quarterly audit, based on the Saving Babies Lives Care Bundle, which aims to reduce the rate of stillbirths from 4.7 per thousand to 2.3 per thousand by 2030. The initial care bundle was launched in March 2016 and implemented by DGFT.

6. Conclusion

The QIB process has demonstrated that where systems work together, they are more effective.

The Quality Improvement Board met its terms of reference and was assured:

- that after the detailed clinical review, and by the subsequent improvement plan, that the maternity services at DGFT are safer and more clinically effective;
- by DGFT that families have been appropriately engaged in the investigation of these cases;
- through the focused work of the governance sub group, that significant improvement has been made to both the Serious Incident reporting processes within DGFT and DCCG, and that these improvements are being embedded across the Trust
- through the active monitoring of the action plans developed, that the lessons learnt have been adopted and the learning is enhancing day-to-day practice at DGFT.

This QIB review has identified that the level of investigation of Serious Incidents in the maternity unit at The Dudley Group Foundation Trust (DGFT) was poor. The absence of effective investigations into cases where there were care and service delivery issues resulted in missed opportunities to share learning from problems and prevent them re-occurring. During the review of multiple cases, clear themes emerged that have been referenced in this report. These have been addressed by the maternity service. Having identified the lack of learning, DGFT has worked to actively involve families directly affected by this review and communicate with them regarding the findings.

The systems and processes have now been strengthened across NHSE, DCCG and DGFT. The organisations have worked closely on the improvement agenda and we have mutual confidence that incidents are now being investigated thoroughly, that all relevant learning is being identified, and the required changes are being made to optimise the safety of women and babies.

A wider benefit of the QIB has been to enhance clinical and managerial working relationships and act as a catalyst to enable DGFT to forge partnerships with other maternity units, to allow the learning at Dudley to be cascaded to others, as well as offering a conduit for DGFT to proactively seek opportunities to further learn and improve.

Dudley Maternity Quality Improvement Board
Published October 2017

7. Membership of the Maternity Quality Improvement Board

Chair - Mr Steve Wellings, Non-Executive Director, Dudley Clinical Commissioning Group

Vice Chair - Dr Doug Wulff, Non-Executive Director, Dudley Group NHS Foundation Trust

Dudley Group NHS Foundation Trust (DGFT)

Dr Paul Harrison - Medical Director, DGFT
Mrs Dawn Wardell - Chief Nurse (until April 2017), DGFT
Mr Adrian Warwick - Consultant Obstetrician, Clinical Director, DGFT
Mrs Steph Mansell - Head of Midwifery (Retired June 2016), DGFT
Mrs Yvonne O'Connor - Head of Midwifery (June 2016 - December 2016)
Ms Siobhan Jordan - Interim Chief Nurse

Dudley Clinical Commissioning Group (DCCG)

Mrs Caroline Brunt - Chief Nurse & Quality Officer, Dudley CCG
Dr Ruth Edwards - Clinical Executive, Dudley CCG
Dr Tim Horsburgh - Clinical Executive, Dudley CCG
Dr Steve Mann - Clinical Executive, Dudley CCG

Care Quality Commission (CQC)

Ms Angela Martin - Inspection Manager, CQC

NHS Improvement

Ms Zena Young - Senior Clinical Lead

NHS England (NHSE) West Midlands

Ms Alison Tennant - Deputy Director Nursing & Quality, NHS England (West Midlands) (left October 2016)
Ms Helen English - (Quality Lead, joined QIB July 2016)
Ms Barbara Kuypers - Local Supervisory Authority Midwifery Officer (until April 2017)
Ms Jacqueline Barnes - Director of Nursing & Quality (joined QIB June 2017)

Healthwatch Dudley

Ms Jayne Emery - Chief Officer, Dudley Healthwatch Dudley
Ms Pam Bradbury - Chair, Healthwatch Dudley

8. Glossary

Abbreviation	Meaning
AIM Course	Acute Illness Management Course
BAPM	British Association of Perinatal Medicine
BWNHSFT	Birmingham Women's Hospital NHS Foundation Trust
CQC	Care Quality Commission
CRG	Clinical Review Group The purpose of the group was to provide assurance that the service was clinically safe and effective and involved detailed reviews
CTG	Cardiotocography Is a technical way to monitor a baby's heart rate alongside a woman's contraction during pregnancy and labour
DCCG	Dudley Clinical Commissioning Group
DGFT	Dudley Group NHS Foundation Trust
DoC	Duty of Candour The Duty of Candour is a legal duty on hospital, community and mental health trusts to inform and apologise to patients if there have been mistakes in their care that have led to significant harm
Eclampsia	Is a life-threatening complication of pregnancy. Eclampsia is a condition that causes a pregnant woman, usually previously diagnosed with pre-eclampsia (high blood pressure and protein in the urine), to develop seizures or coma
MDT	Multidisciplinary team Multidisciplinary and Multi-agency working involves appropriately utilising knowledge, skills and best practice from multiple disciplines and across service provider boundaries, e.g. health, social care or voluntary and private sector providers, to redefine, rescope and reframe health and social care delivery issues and reach solutions based on an improved collective understanding of complex patient need(s)
MLU	Midwifery Led Unit
MPAG	Maternity Performance and Assurance Group Provides a forum for ongoing dialogue in relation to the quality and safety of care in maternity services
NHSE	NHS England (West Midlands)
NHSE LSAMO	NHS England (West Midlands) Local Supervisory Midwifery Office
NIC	Neonatal Intensive Care
NICE	National Institute for Clinical Excellence

8. Glossary

Abbreviation	Meaning
Pre-eclampsia	Is a condition that typically occurs after 20 weeks of pregnancy. Signs of pre-eclampsia include high blood pressure (hypertension) and protein in urine (proteinuria). Symptoms of pre-eclampsia may include headache, visual disturbances, swelling of face hands and feet and upper abdominal pain. However often there are no symptoms and it may be picked up at a routine antenatal appointment by the results of the blood pressure and urine checks.
Prostaglandins	Induction agents Is a hormone-like substance that causes your cervix to ripen, and which may stimulate contractions
QIB	Quality Improvement Board
RCA	Root Cause Analysis Defined by the NHS as: 'a useful tool for thoroughly investigating reoccurring problems of a similar nature in order to identify the common problems (the what?), contributing factors (the how?), and root causes (the why?). This allows one comprehensive action plan to be developed and monitored and, if used effectively, moves the focus from repeated investigation to learning and improvement'
RCOG	Royal College of Obstetrician and Gynaecologists
RWT	The Royal Wolverhampton NHS Trust
Sepsis	Also referred to as blood poisoning or septicaemia, this is a potentially life-threatening condition, triggered by an infection or injury. In sepsis, the body's immune system goes into overdrive as it tries to fight an infection. This can reduce the blood supply to vital organs
SIF	Serious Incident Framework (released in March 2015)
SIs	Serious Incidents Defined by the NHS as: 'events in health care where the potential for learning is so great, or the consequences to patients, families and carers, staff or organisations are so significant, that they warrant using additional resources to mount a comprehensive response'
Syntocinon	A drug used for induction and to co-ordinate an increase of contractions in labour
T&FG	Task & Finish Group Group established to assure themselves and providers of internal governance
VBAC	Vaginal births after caesarean

Notes