

SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST

EXECUTIVE SUMMARY
REPORT TO THE TRUST HEALTHCARE GOVERNANCE COMMITTEE**HELD ON 16 MAY 2011**

Subject:	CQC Caesarean Section Alert
Supporting Director:	Professor M Richmond, Medical Director
Author:	Mrs S Carman, Head of Patient and Healthcare Governance
Status¹	N

PURPOSE OF THE REPORT:

To update the Healthcare Governance Committee on the actions taken in response to a Care Quality Commission (CQC) alert regarding the Trusts rate of Caesarean Sections from July - September 2010.

KEY POINTS:

On the **18 April 2011** the Trust received an alert letter from the CQC in relation to the rate of emergency Caesarean Sections undertaken within the Trust from July-September 2011. This information was derived from the Trusts Hospital Episode Statistics (HES) data. The CQC analysis identified a high emergency caesarean section rate for mothers delivering at the Trust with a particular concern relating to July-September 2010.

Internally the high caesarean section rate had been identified at the time by the Maternity Services Senior Management Team and improvement action had commenced immediately. This work included daily review of all emergency cases, audit activity, individual and group learning and a greater focus on outcomes through the sharing of activity data. An overview of this improvement work is included in the response letter (attached).

Significant improvements have been seen in the overall caesarean section rates. In March 2011 the Trusts caesarean section rate was recorded as 24.65%, a reduction from 31.4% in July 2010, with a split of 16.25% (previously 21.1%) for emergency CS and 8.39% (previously 10.3%) for elective CS.

This ongoing work will ensure that an emergency caesarean section is only undertaken if a vaginal delivery poses significant risks to the health of mothers or babies.

Dotty Watkins, Head of Midwifery, Dr Andrea Galimberti, Consultant Obstetrician and Alison Brodrick, Consultant Midwife contributed to and approved the final Trust response which was submitted two days prior to the deadline on the **4 May 2011**. Executive support and guidance was provided by Prof Mike Richmond.

The Trusts response letter is included in Appendix A and the CQC response is anticipated in the next 4-6 weeks.

IMPLICATIONS²

Achieve Clinical Excellence	
Be Patient Focused	
Engaged Staff	
CQC Evidence	Outcome 4 – Emergency Caesarean Section now only undertaken when appropriate
CQC Concerns	Outcome 16 – Response to adverse trend

RECOMMENDATION(S):

Healthcare Governance Committee is asked to note the information provided, a further update will be provided to the committee once a response has been received from CQC.

APPROVAL PROCESS

Meeting	Presented	Approved	Date

¹ Status: A = Approval
A* = Approval & Requiring Board Approval
D = Debate
N = Note

² Against the three pillars (aims) of the STH Corporate Strategy 2008-201

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RHH

6 May 2011

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Surveillance Manager
Care Quality Commission
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Dear Mr Sherlaw-Johnson

Re: Care Quality Commission (CQC) maternity outlier for emergency caesarean section rates at Sheffield Teaching Hospitals NHS Foundation Trust.

Thank you for your letter dated 13 April 2011, in respect of the number of emergency caesarean sections (CS) carried out at the Trust during July-September 2010.

As you will be aware Sheffield Teaching Hospitals NHS Foundation Trust directly manages the Jessop Wing Maternity Service that cares for approximately 7200 women who give birth each year. Over recent months we have undertaken significant quality improvement work to address the rate of caesarean sections.

Within this work we have not differentiated between emergency and elective caesarean sections. A specific focus on emergency rates may inadvertently result in more elective cases being planned at an early stage. Therefore the improvement work undertaken within Sheffield Teaching Hospitals has focused on the global issue of section rates and incorporated both elective and emergency cases in the analysis.

Please find detailed below a response to each of your questions:

- 1. Assessment of the significantly high emergency caesarean section rate for mothers delivering at your Trust, as indicated in the CQC analysis. The CQC analysis suggests the Trust focus on the higher than expected emergency caesarean rate in 2010 quarter 3 (July to September 2010).**
- 2. Evidence of analysis the Trust has undertaken to review the individual cases. CQC expect this to include the details and findings of either a case note review or a local clinical audit, and suggest that a random sample of at least 30 of the women identified by our analysis is included.**

In July 2010 the caesarean section rate was recorded as 31.4% with a split of 21.1% for emergency CS and 10.3% for elective CS. This immediately triggered a set of actions starting with examining the reasons for emergency CS and exploring the trends in both elective and emergency CS rate.

The breakdown of reasons for emergency caesarean section for July – September 2010 is detailed below:

Reason for emergency CS	July 2010	August 2010	September 2010
Sub optimal cardiotocography (CTG) NO meconium	28	29	26
Sub optimal CTG WITH meconium	11	14	15
Poor/no progress	30	32	25
Breech	9	4	7
Multiple births	3	0	1
Malpresentation	8	7	2
Eclampsia	3	0	4
Abnormal/borderline fasting blood sugar (FBS)	4	2	2
Failed induction of labour	3	2	3
Placenta praevia	1	4	1
Ruptured uterus	1	0	0
Abruption	2	0	3
Failed trial forceps	2	0	1
Other	8	5	7
Reason not stated	14	17	13
Total	127	116	110

The three main reasons identified in July 2010 are detailed below:

Reasons	No (n)	Proportion of all 127 Emergency CS for July 2010 (%)	Proportion of 404 deliveries for July 2010 (%)
Sub optimal CTG (meconium or not)	39	31%	9.6%
Poor/no progress	30	24%	7.4%
Malpresentations including Breech	17	13%	4.2%
Total	86	68%	21.2%

These remain the same three main reasons in March 2011:

Reasons	No (n)	Proportion of all 93 Emergency CS for March 2011 (%)	Proportion of 585 deliveries for March 2011 (%)
Sub optimal CTG (meconium or not)	24	25%	4.1%
Poor/no progress	29	31%	4.9%
Malpresentations including Breech*	8	8.6%	1.3%
Total	61	64.6%	10.3%

*Please note figures for emergency CS for breech will always fluctuate, the majority will appear as elective CS.

The above results are in line with the results of the National Sentinel Caesarean Section Audit (2001)¹, which examined the reasons for caesarean sections in England and Wales.

Starting in September 2010 a number of actions were undertaken to review practice and to reduce the overall rate.

1. Daily review of all emergency caesarean section by a multidisciplinary team
 - a. Themes identified and addressed through training/education
 - b. Charts generated to highlight to practitioners trends and rates
2. Elective caesarean section audit.

1. Daily review of all emergency caesarean section by a multidisciplinary team

Since September 2010 a daily review of all emergency caesarean sections during the past 24 hours is scheduled to take place at 12.30 on the labour ward (data reported in Appendix 1) During September – December 2010, 321 notes were reviewed which accounted for 74% of all emergency CS. Appendix 1 shows that, on average, 57% of all emergency CS were reviewed in the last 3 months (January – March 2011).

With the unpredictable work volume on the labour ward there are times when the daily review is not able to take place. The decision was made not to address the backlog, this is in keeping with practice at Leeds Teaching Hospitals Trust whom we consulted prior to commencing the reviews.

This work enables multidisciplinary reflection and discussion, attempts are made to identify recurring themes and any practice issues that are identified can be acted on immediately.

1(a) Themes identified and addressed through training/education

For cases where a practice issue is highlighted and further reflection or learning is required there are 3 pathways in place.

1. Weekly Peri-natal morbidity meeting-to present cases for wider dissemination
2. Statutory supervision of Midwives-to deal with midwifery practice concerns and disseminate new knowledge and evidence
3. 1:1 learning/reflection of individual cases-carried out by the Consultant Midwife or the Lead Obstetrician with midwives and doctors respectively.

¹ The National Sentinel Caesarean Section Audit Report, RCOG Clinical Effectiveness Support Unit October 2001 (1900364662).

In each case a pro-forma is completed showing action needed, the subsequent discussion with the practitioner is confidential.

The themes from the daily reviews are also discussed each month at the labour ward forum.

In terms of medical management the themes emerging from the case reviews predominantly relate to CTG interpretation and appropriate use of Syntocinon for labours that have slowed. It should be noted however that even with different management an emergency caesarean might still have resulted in some cases. These issues are managed on a one to one basis between the lead obstetrician for labour ward and the consultant involved in the case.

Improving CTG interpretation is managed via staff training sessions and a weekly perinatal mortality meeting. Further review work is underway regarding the time of day a caesarean takes place, and to establish if the variation in staffing establishment overnight has any influence on the overall rate.

The themes relating to the midwifery management of cases are complex, though they predominantly relate to increasing the confidence of the midwife to be able to promote normality. This is particularly important for women who enter labour ward in spontaneous labour at term following an uneventful pregnancy.

This critical emphasis on de-medicalising childbirth is common throughout most units in England and has been shown to influence overall caesarean section rates (Ontario Women's Health Council 2000²; National Institute for Innovation and Improvement 2007³). For the last year a Consultant Midwife who specifically focuses on promoting normality has led this work.

In addition, the theme of promoting normality for women having a vaginal birth after CS (and thereby reducing CS rates) has been focused on by the Maternity Service Liaison Committee (MSLC) as a joint working initiative for this year. The MSLC is chaired and run by maternity service users with bi monthly meetings attended by maternity staff.

1(b) Charts generated to highlight to practitioners trends and rates

From September 2010 the emergency caesarean section review data was collated and shared with staff.

The results show a small reduction in a number of cases where a *'different course of action could have been taken'* it must be noted that in none of these cases was there a gross deviation from expected best practice. In obstetrics some of the *'different course of action'* categorisation are based purely on consensus expert opinion rather than hard evidence. In many cases a different course of action may still have resulted in an emergency CS.

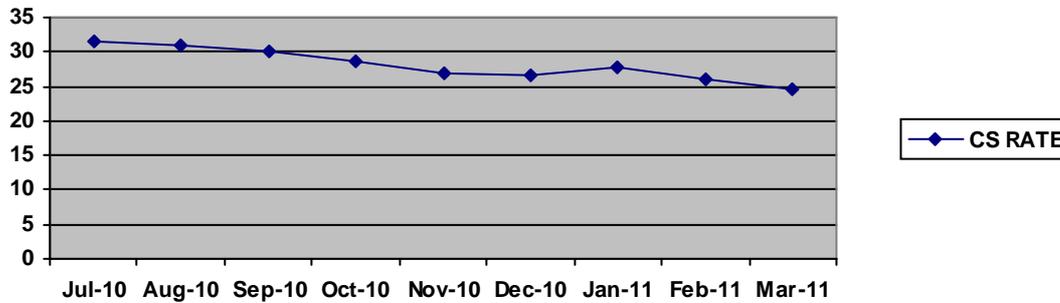
Charts are updated and displayed on the labour ward. Monthly statistics are circulated to all staff showing changes to caesarean section rates.

² Ontario Women's Health Council (2000) Attaining and maintaining best practices in the use of caesarean sections. Caesarean section working group, Toronto.

³ NHS Institute for Innovation and Improvement (2007) Pathways to Success: A self-improvement toolkit - focus on normal birth and reducing CS rates (www.institute.nhs.uk).

Since September 2010 there has been a heightened awareness among staff regarding the decision to undertake an emergency caesarean section, with staff aware that decision will be discussed and debated the following day. There is increased discussion on the labour ward regarding promoting normality and a willingness from staff to engage.

The chart below shows a significant decrease in the percentage caesarean section rate for all births since July 2010.



2. Elective caesarean section audit (see appendix 2)

In October 2010 a retrospective audit was carried out from the case notes of fifty women delivered by elective caesarean section during the first quarter of the financial year 2010-2011. The aim was to measure the adherence to the guidance contained within the 'Map of Medicine's' clinical pathway for caesarean section. Compliance was 100% for all standards, except for standard 4 and standard 12.

Standard 4: If the mother has had 1 previous CS in the absence of [standards] '2' and '3' vaginal birth after Caesarean (VBAC) should be considered and discussed – (100%)

1 in 15 of the cases audited did not meet this standard. The women had undergone a previous CS with no current pregnancy complications influencing mode of delivery or the presence of recurrent indications for CS. However, there was no documented evidence that a VBAC discussion had taken place. There was however documentation that the woman requested CS even if laboured. This suggested VBAC had been discussed but not documented.

Standard 12: Consultant involvement in decision-making

In the five of the fifty cases reviewed where this did not take place the decisions had all been made by a Senior Registrar; in all of these cases the decision was felt to be appropriate and the involvement of the consultant would not have influenced the outcome.

The outcomes of standards 4 and 12 will be reviewed as further improvement work is planned this year. The results overall indicate that the Trusts Obstetricians are following the NICE Guidance⁴ contained within the 'Map of Medicine's' clinical pathway for [elective] Caesarean Section.

⁴ National Institute for Health and Clinical Excellence (NICE), Caesarean section, London: NICE; 2004.

3. Information regarding the configuration of the Maternity Unit, in particular where postnatal care is carried out for women who have had a caesarean. Information on staffing levels is also requested.

The Jessop wing is a purpose built maternity unit opened in February 2001, which was formed by the merger of the maternity services at the Northern General Hospital and the Jessop Hospital for Women. One of the main reasons for this move was to ensure that maternity services were closely adjacent to ITU facilities. The Trust provides tertiary maternity and neonatal services for South Yorkshire and North Trent.

Establishment information

Antenatal Outpatient services – Total establishment 27.59 wte

- Feto Maternal Unit
- Antenatal Clinic
- Antenatal Day Care

Labour, Birth and Maternity high dependency – Total establishment 108.70 wte

- 3 Triage rooms
- 19 Labour rooms
 - 7 Midwifery led care
 - 12 Consultant led care

Postnatal/Antenatal Floor – 4 Wards (79 Beds) – Total establishment 106.71 wte

- 20 Antenatal beds including 6 induction of labour beds
- 21 Caesarean section beds (31.71 wte)
- 18 Short stay beds including 6 transitional care beds
- 20 Complex post natal care beds

Staffing levels are reviewed yearly. In 2008, an extensive local review using the Birthrate Plus⁵ methodology was undertaken and 7.80 wte additional midwives, were funded for the Labour ward. This included 1.0 wte Consultant Midwife in Normality.

The Consultant Midwife leads the daily CS discussions in partnership with the Consultant Obstetrician. The Consultant Midwife provides an enhanced service to many women through conducting 'birth after thoughts' sessions to support women with birth trauma and conducts 1:1 referrals of women who request elective CS. In addition she is currently setting up a pathway for managing vaginal births after caesarean section (VBAC) and will also be part of the External Cephalic Version (ECV Team) in the future. This post is supported by 1.2 wte who can offer caseload care for these women where necessary.

The Consultant Obstetric medical cover on Labour Ward is 88 hours per week. Overall medical staffing equates to 11.0 wte.

⁵ Ball J.A. & Washbrook M; 1996 Birthrate Plus; A Framework for Workforce Planning and Decision Making for Midwifery Services. Books for Midwives Press/ Elsevier Press.

Pathway information

Emergency caesarean sections

During labour if caesarean section is needed the decision is made on clinical grounds and the category of CS is decided. The mother is prepared; seen by the anaesthetist and the section undertaken.

Post natal care for women following a caesarean section

95% of post CS women with epidural anaesthesia are recovered in the Post Anaesthetic Care Unit (PACU) by a trained recovery nurse for a minimum of 30 minutes. Midwives with HDU experience recover the women the remainder of the time.

The women are then transferred to the post natal ward with their babies, where they are cared for in an immediate post operative area by registered nurses who are indirectly supervised by midwives. The midwives are further supported by nursery nurses and/or support workers who care for the baby in the early post operative stage.

The Venous Thrombo-embolism (VTE) risk assessment is reviewed as part of the post anaesthetic phase to determine whether the risk factors have altered.

Women who have a general anaesthetic, following care in PACU may be kept in HDU for up to 2 hours before transfer to the post natal ward post operative areas as they require more observations than women with spinal or epidural anaesthesia.

The experiences of the women using the Trusts services are regularly monitored and steps taken to improve the way maternity services are delivered. The latest Picker Survey⁶ on patient satisfaction demonstrated that 94% of the women rated the care they received during their labour and birth as excellent, very good or good. 89% of women rated the care they received after the birth of their baby as 'excellent', 'very good' or 'good'. To further enhance these results the Trust has in place an action plan to address the areas identified for further improvement.

4. Evidence that findings from this review are incorporated into the Trusts Governance arrangements.

The findings from the alert review are incorporated into Sheffield Teaching Hospitals Healthcare Governance arrangements. The Trusts Healthcare Governance Committee is notified of any alerts received; this took place on the 18 April 2011.

The Healthcare Governance Committee, which is a committee of the Board of Directors and chaired by a non-executive director, meets monthly and receives routine reports on sources of assurance such as external visits, audits, surveys, complaints etc that contribute to the development and maintenance of the Trust's provider compliance assessments. These in turn provide overall assurance that the Trust maintains ongoing compliance against the CQC outcomes. In addition the Healthcare Governance Committee receives update reports on the development of the CQC Assurance Framework and provider compliance assessments.

⁶ Maternity Survey 2010, Sheffield Teaching Hospitals NHS Foundation Trust, September 2010 Final Report

The minutes of the Healthcare Governance Committee are routinely included in the monthly Board of Directors papers. The Committee identifies any noteworthy agenda items to take to the Board for more detailed consideration, including papers relevant to assure ongoing compliance. The Chair of the Healthcare Governance Committee also gives a verbal update to the Board of Directors.

The Chair of the Healthcare Governance Committee is an ex officio member of the Audit Committee, which is the Board committee that has overall responsibility for risk and assurance. A representative from NHS Sheffield is also a member of this committee (Deputy Director of Standards).

This process can be demonstrated by reviewing the information received by the committee in respect of the previous CQC Neonatal readmissions alert. A final summary has been recently submitted to the Healthcare Governance Committee with an action plan of ongoing work. The committee will monitor completion of this work.

At a local level the Jessop Wing Governance Committee will review the outcomes of this alert and disseminate any additional lessons learnt.

Conclusion

The above information details the ongoing quality improvement work to address the high levels of caesarean section identified in July 2010. As can be identified in the data presented, we are seeing a significant decline in the overall rate, with the current rate aligning with the national average of 24.8%⁷.

In March 2011 the Sheffield Teaching Hospitals caesarean section rate was recorded as 24.65%, a reduction from 31.4% in July 2010, with a split of 16.25% (previously 21.1%) for emergency CS and 8.39% (previously 10.3%) for elective CS.

We are confident this ongoing work will ensure that an emergency caesarean section is only undertaken if a vaginal delivery poses significant risks to the health of mothers or babies and are assured that the current reduction in caesarean section rates will be maintained.

We trust this summary meets your requirements and would be happy to provide any further detail on request.

Yours sincerely



PROFESSOR MIKE RICHMOND
MEDICAL DIRECTOR

- cc. Shelagh Murphy, Compliance Inspector – Care Quality Commission
- Jo Bell, Compliance Manager – Care Quality Commission
- Jo Dent, Regional Director – Care Quality Commission
- Ian Atkinson, Chief Executive – NHS Sheffield
- Jane Harriman, Deputy Director of Standards – NHS Sheffield
- Tim Halford, Relationship Manager – Monitor

⁷ HES data 2009-2010

Appendix 1

Daily Review of Emergency Caesarean Sections September - December 2010

	% Sep-10		% Oct-10		% Nov-10		% Dec-10		% Total for 4 months	
Total reviewed:	98%	108/110	75%	95/126	75%	72/96	45%	46/103	74%	321/435
Category 1	32%	35	24%	23	26%	19	17%	8/46	26%	85
Category 2	41%	44	63%	60	56%	40	65%	30/46	54%	174
Category 3	23%	25	9%	9	11%	8	13%	6/46	15%	48
Category 4	0%	0	1%	1	0%	0	2%	1/46	1%	2
Category not doc	4%	4	2%	2	4%	3	2%	1/46	3%	10
Category unclear, ie different in notes to Ormis	0%	0	0	0	3%	2	0%	0	0.6%	2
Auditable Standards										
Indication documented by decision maker (100%)	94%	102/108	88%	84/95	96%	69/72	100%	46/46	94%	301
Consultant involved (100%)	90%	97/108	79%	75/95	92%	66/72	98%	45/46	88%	283
Decision to delivery time appropriate (100%)	92%	99/108	93%	88/95	89%	64/72	85%	39/46	90%	290
Reason for delay documented (100%)	44%	4/9	43%	3/7	38%	3/8	43%	3/7	42%	13/31
Number where a different course of action could have been taken	10%	11/108	14%	13/95	8%	6/72	2%	1/46	10%	31

Daily Review of Emergency Caesarean Sections January - March 2011

	Jan-11		Feb-11		Mar-11		Total for 3 months	
Total reviewed:	59%	61/103	55%	46/83	56%	52/93	57%	159/279
Category 1	30%	18/61	28%	13/46	38%	20/52	32%	51/159
Category 2	59%	36/61	61%	28/46	51%	26/51	57%	90/159
Category 3	8%	5/61	11%	5/46	12%	6/52	10%	16/159
Category 4	0%	0	0%	0	0%	0	0%	0
Category not doc	2%	1	0%	0	0%	0	1%	1/159
Category unclear, ie different in notes to Ormis	2%	1	0%	0	1%	1	1%	2/159
Auditable Standards								
Indication doc by decision maker (100%)	100%	61/61	93%	43/46	100%	52/52	98%	156/159
Consultant involved (100%)	93%	57/61	98%	45/46	96%	50/52	96%	152/159
Decision to delivery time appropriate (100%)	97%	59/61	96%	44/46	88%	46/52	94%	149/159
Reason for delay documented (100%)	100%	2/2	50%	1/2	33%	2/6	50%	5/10
Number where a different course of action could have been taken	8%	5/61	9%	4/46	8%	4/52	8%	13/159

Appendix 2

Elective Caesarean Section Audit

Standards for Elective Caesarean (CS) Audit (n=50, first baby 5/50, subsequent 45/50)		Compliance
1	El CS can be offered if there is a history of 2 or more previous CS (100%)	N = 7 100% (7/7)
2	El CS can be offered if there is a history of 1 previous CS when there are current pregnancy complications potentially influencing mode of delivery (100%)	30/50 women had a h/o 1 previous CS. 11/30 had current pregnancy complications influencing mode of delivery
3	El CS can be offered if there is a history of 1 previous CS in the presence of recurrent indications (100%)	N = 2 100% (2/2)
4	If the mother has had 1 previous CS in the absence of [standards] '2' and '3' vaginal birth after Caesarean (VBAC) should be considered and discussed – (100%)	N = 17 94% (16/17) (1/15 requested CS even if laboured. Discussion around VBAC not documented)
5	With breech presentation external cephalic version (ECV) should be considered after 36 wks unless contraindicated (100%)	N = 4. 100% (4/4) 2 ECVs carried out/unsuccessful 2 women declined ECV 2 women – ECV contraindicated (6 breeches in total)
6	In twin pregnancy elective CS can be offered if twin 1 is non cephalic (100%)	n/a
7	If twin 1 is cephalic and in the absence of any other complications influencing the mode of del a vaginal del should be considered and discussed (100%)	n/a 3 sets of twins <ul style="list-style-type: none"> • 1 PIH • 1 had 2 previous CS + HIV, VL<40 • 1 reducing the risk of vertical transmission – primary HSV
8	If CS is planned with a twin pregnancy it should not be conducted before 38 weeks (100%)	100% (3/3) CS conducted after 38 weeks.
9	With placenta praevia CS should be advised always when the placenta is within 2cm of the internal cervical os and often when it is within 3cm of the internal cervical os (100%)	n/a
10	If a CS is performed at the request of the mother in the absence of any other obstetric indication the reasons for the request should be explored discussed and recorded (100%)	n/a

11	<p>A CS should not be performed under the following circumstances;</p> <ul style="list-style-type: none"> • To reduce the risk of vertical transmission of infections other than primary herpes/HSV or HIV with high viral load (0%) • In the presence of a small for gestational age (SGA) fetus with no other obstetric complication (0%) • After prediction of cephalopelvic disproportion (CPD) using pelvimetry, shoe size, maternal height or fetal size (0%) 	<p>0%</p> <p>0%</p> <p>0%</p>
12	<p>Consultant involved Where senior Specialist Registrar made the decision for CS</p> <ul style="list-style-type: none"> • 3 women had 2 or more previous CS • 2 women had 1 previous CS (1 of which was breech). VBAC had been considered/discussed with the woman whose baby was cephalic presentation. 	<p>90% (45/50)</p>