UK NATIONAL SCREENING COMMITTEE

Screening for Vasa Praevia and Placenta Praevia

21 November 2013

Purpose

This paper provides background on the UK NSC policy recommendation about screening for vasa praevia and placenta praevia.

The current review updated the previous review which was produced in 2008.

Consultation

The review document was circulated to The Harry Cunningham Trust, Vasa Praevia Raising Awareness UK, National Childbirth Trust, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, The Society and College of Radiographers, British Maternal and Fetal Medicine Society.

The responses to the consultation are attached to this document.

Placenta praevia

Current policy

The current position is that a national screening programme for placenta praevia is not recommended. Policy for the assessment of placental localisation, risk of placenta praevia and its management pathway is currently addressed by the RCOG and NICE.

Current review

The attached review found no new publications which would justify changing this policy.

Consultation responses

The response from the Society and College of Radiographers (SCoR) emphasised that there did not appear to be a need to establish a nationally managed screening programme for placenta praevia in the UK.

Proposal

It is proposed that the current position on placenta praevia is retained.

Vasa praevia

Current policy

The current policy is that a national screening programme for vasa praevia at 18 – 20 weeks is not recommended.

Although the current literature suggests that vasa praevia is now detectable by ultrasound there is insufficient information on the case definition, natural history and epidemiology of the condition. There is also uncertainty on the accuracy and practical application of the test and

there is no agreed management pathway for those with confirmed vasa praevia and for those with some risk factors in the absence of vasa praevia. In this context there is uncertainty about the balance of benefit and harm to be derived from screening all pregnant women with a view to offering caesarean section to those at risk.

Current review

The current review was undertaken by Paul Wood who was asked to review the literature published since his previous review and the resulting document is attached. The review reaffirms the position that universal screening should not be recommended.

However the review suggests that the development of national guidance on detection and management of vasa praevia within some high risk groups should be explored. Towards this end the review was circulated to contacts within the RCOG and Health Departments of the four UK countries prior to the public consultation. A stakeholder meeting was held on October 30th and a note of the meeting will be posted separately.

The outcome of the consultation was that, although some stakeholders consider it necessary to screen all women, there was agreement that an approach based on some high risk groups would be a significant development and would be welcomed by patient groups.

Following discussion at the above mentioned meeting the RCOG have agreed to consider the possibility of developing a document addressing this issue.

Proposal

The following position on vasa praevia is proposed:

Vasa praevia is a rare but important health problem.

Although the current literature suggests that vasa praevia is now detectable by ultrasound there is insufficient information on the epidemiology of the condition and the accuracy and practical application of the test. In addition there is no agreed management pathway for those with screen detected vasa praevia and for those with a velamentous cord insertion the absence of vasa praevia.

In this context there is uncertainty about the balance of benefit and harm to be derived from universal screening with a view to offering caesarean section to those at risk.

Action

The UKNSC is asked to agree the following policy position:

A national screening programme to screen for vasa praevia is not recommended.

Comments received on the UK NSC review of screening for Vasa Praevia

UK NSC Update VP (and PP).

RCOG Guidelines Committee, May 2013.

This is a valuable contribution to the evolving literature and debate surrounding whether or not to introduce screening for vasa praevia (VP). Thank you for inviting our views.

It is notable that (section 13) '..no papers in the literature search addressed the benefits and harms of a national screening programme for vp'.

There are also no randomised trials of screening or of intervention(s) following diagnosis. There are diagnostic studies demonstrating high negative predictive values for ultrasound screening but don't appear to present test sensitivities or positive predictive values.

The committee's observations can be summarised as follows;

1. A persuasive argument for the screening of a 'high risk' group can be made on the grounds that the vast majority of cases of vp occur in a small minority of easily identifiable pregnancies

2. The management strategy following a positive diagnosis involves hospital admission and elective preterm delivery by caesarean section. These are substantial interventions to be recommending in the absence of information regarding the likelihood of a false positive diagnosis.

3. There are substantial (but not insurmountable) training considerations to be met. VP is a rare condition. Learning to locate the placental cord insertion (the primary screening test) will be relatively straightforward. However, confirming or refuting the presence of fetal vessels traversing the internal cervical os by transvaginal ultrasound is more specialised and may require to be limited to centres with particular expertise, at least initially.

4. There are substantial educational considerations to be met. Knowledge of vp amongst healthcare professionals in general is likely to be limited due to the rarity of the condition. The inclusion of a section on vp in the relevant RCOG guideline (27, jan 2011) will have improved knowledge amongst obstetricians. A programme of education applicable to all relevant healthcare workers would be required in advance of the introduction of a screening programme.

5 There would be no purpose to recommending screening without national guidance on subsequent management, together with information prepared for the woman and her family.

6 Information and consent arrangements prior to the fetal anomaly scan would require to be changed if a vp screening programme was introduced.

7. Introducing national screening in a limited way (high risk groups) is attractive since it would permit an incremental familiarity with the diagnostic and management challenges that screening for vp would present, together with an opportunity to formally evaluate such programme on a national scale (prior to consideration of its application to all pregnancies, or conversely to its abandonment due to poor performance). Auditing of the consequence of the programme's introduction would be essential.

The RCOG view the proposal to introduce a screening programme for vp, limited to recognised high risk pregnancies in a broadly positive manner, with certain caveats as outlined above.

Although a rare condition, infant deaths from vp are tragic and potentially preventable. We would welcome the opportunity to collaborate further with the UKNSC and others towards the development of a robust screening service. Central to this will be the development of evidence based national guidance on the care provided to women following a positive screening test.

Philip Owen FRCOG

Chair, RCOG Guidelines Committee.

May 26th 2013.

UK National Screening Committee

Vasa praevia screening in pregnancy - an evidence review

Consultation comments

Organisation:	The West Middlesex University Hospital NHS Hospital		
Name:	Alexandra Drought	**Email address:**	[redacted]

Section and / or page number	**Text or issue to which comments relate**	**Comment** *Please use a new row for each comment and add extra rows as required.*
Page 3 Section 1	RCOG Guidelines accept that the condition may be under-reported	As a unit that screens for VP and has detected several cases, we believe that there is definitely underreporting of VP by the very fact that it is not a condition that is routinely looked for by ultrasound and that it is miscoded at birth (often as placenta praevia.)
Page 3 2(i)	Hasegawa (2010) identified the risk factors of VP to be velamentous cord insertion, abnormal placental forms and low-lying placentas.	Why is it not advocated that we screen for velamentous cord insertions in addition to the other risk factors (placenta praevia, low-lying placentas and IVF pregnancies)?
Page 4 2(i)	The quoted incidence of VP has been 1:202 following in vitro fertilization	The incidence of VP is going to increase as the number of IVF pregnancies increase. The number of IVF pregnancies increases year on year and so antenatal detection is imperative.
Page 6 Section 4	RCOG (2011) says VP can be diagnosed with good specificity, but sensitivity has not been determined.	Experience in our unit suggests that VP is quick to exclude and normally takes less than a minute. Therefore, when VP is difficult to exclude it has nearly always turned out to be a true-positive for VP, demonstrating sensitivity for the test also.

Page 7 Section 6	That they (the parents) will obtain reassurance with recognition that there is value in the detection of abnormalities in the antenatal period	Screening for VP at the time of the anomaly scan, is no different to screening for any other fetal condition and should not cause any more or any less anxiety than diagnosing the numerous other conditions that can be detected in the second trimester. Antenatal detection of this condition is positive – it can save a life.
Page 8 Section 7	Capriano (2010) suggests that universal screening with TVS is not cost effective in singleton pregnancies as compared to targeted screening.	As some of our VP cases in our unit had no risk factors, I believe it is unethical not to screen everyone and there will be needless neonatal deaths.
Page 8 Section 7	148-154 fewer deaths with screening pregnancies with one high risk indicator	This will have a significant impact in reducing the number of stillbirths/annum, which has been identified as being too high.
Page 11	The RCOG policy of identifying a low-lying placenta at the routine 20-week anomaly scan is a longstanding element of antenatal care	I do not understand why identifying low-lying placentas at 20 weeks, is any more cost-effective or sensitive or causes less maternal anxiety than identifying VP at 20 weeks.
Page 12 (Section 11)	There were no cases of fetal loss in Hasegawa's study (2010) where universal screening for VP was conducted	This paper demonstrates the importance of universal screening for VP
Page 12 (Section 12)	Ioannou and Wayne found that most obstetricians felt an effective screening policy was not feasible. However, a more positive response was elicited from the subgroup of individuals who performed transvaginal scanning.	This paper highlights the lack of understanding amongst obstetricians of VP and of ultrasound technology. People who perform antenatal scans (e.g. ultrasonographers) understand the important and effective role ultrasound plays in excluding or confirming VP.
Page 12 (Section 12)	Ioannou and Wayne (2010) recognised the importance of increasing awareness and understanding of this condition	As an advocate for screening, it is my personal experience that professionals working in obstetrics readily confuse placenta praevia with vasa praevia. There is a clear lack of understanding of this condition and the importance of screening for VP.
Page 12 (Section 12)	Smorgick (2010) reported a prenatal detection rate of VP from 25% in the first ten years to 60% in the second ten years.	This paper again highlights the probable under-reporting of this condition and the need for further education and awareness

Page 12 (Section 12)	Smorgick (2010) showed that during his study, the perinatal mortality from VP fell from 25% to 0%.	This demonstrates the effectiveness of universal antenatal screening, education and raising “alertness” to the condition. It also demonstrates the potential to reduce stillbirths.
Page 13 (Section 14)	In 2008, the cost of a national screening programme in the UK based on additional identification of umbilical cord insertion in the antenatal period had not been estimated	The screening would be part of the existing 20 week anomaly scan. Cost-effectiveness does not seem to be an issue when new EPU guidelines are recommended stating a second opinion or rescan is required, or when the new RCOG guidelines for growth-restricted fetuses recommend additional scans. Why is cost-effectiveness an issue in this instance?
Page 14 (Section 16)	VP is not routinely taught during ultrasound training courses	There is an increasing awareness amongst ultrasonographers about the importance of detecting VP antenatally and an increasing number of universities are now teaching about the antenatal detection of VP. It would not be difficult to introduce this into the ultrasound curriculum. There is some training already available through the VPRA charity and a published poster.
Page 17 (vasa praevia)	Using targeted ultrasonography will potentially identify up to 80% of affected cases and reduce the perinatal loss rate in England and Wales by as many as 150 deaths per year	Whilst I support any exclusion of VP antenatally, I am uncomfortable about not diagnosing 20% of cases due to the lack of a universal screening programme. Screening the whole pregnant population ensures more familiarity with the condition and allows the abnormals to be more easily detectable from the normals by ultrasound.

Organisation:	Fetal Medicine Unit, John Radcliffe Hospital, Oxford, UK Nuffield Department of Obstetrics & Gynaecology, University of Oxford, Oxford, UK		
Name:	Dr Christos Ioannou MRCOG, DPHIL	**Email address:**	[redacted]

Section and / or page number	**Text or issue to which comments relate**	**Comment** *Please use a new row for each comment and add extra rows as required.*
Section 6, page 7	Acceptability of transvaginal ultrasound not addressed in this section	Amongst women attending an Early Pregnancy Unit due to problems in early pregnancy, the uptake of TV ultrasound is 88.1%; and 99% of those who accepted said that they would agree to have a similar procedure in the future (Dutta & Economides 2003). The uptake of TV ultrasound is lower in a research setting: 55.2% accepted the offer of a TV ultrasound as part of a research study to screen for preterm labour; and 85.9% of the accepters said they would definitely or probably have a similar scan in a future pregnancy (Clement 2003).
Page 17	Summary and Conclusions	I agree with the main conclusion that universal screening for VP in all pregnant women is not supported by the available evidence

Page 17	Summary and Conclusions	I agree that screening of high risk women for VP should be considered, especially in view of the published cost-effectiveness data by Cipriano 2010.
Page 17	Summary and Conclusions	6-7% of the pregnant population would fall in the high risk group for VP (Cipriano et al 2010); if targeted screening is offered in this group of women, then it should be debated whether this could be a sonographer-led service or a service provided within Fetal Medicine Units.

Organisation:	Society and College of Radiographers		
Name:	Nigel Thomson	**Email address:**	[redacted]

Section and / or page number	**Text or issue to which comments relate**	**Comment** *Please use a new row for each comment and add extra rows as required.*
Summary and Conclusions (there were no page numbers)	Comments relate to Vasa Praevia	We agree with the recommendations of the external review and would welcome national guidance being developed on the identification and management of pregnancies with an increased risk of VP. It is hoped that this can be written as soon as possible and that it includes specific guidance for the sonographers on the identification of the two types of VP with ultrasound. Although universal screening is not being advocated by the external review we agree that selective diagnostic ultrasound based on the current 18w to 20w 6d fetal anomaly screening scan which has a high take up rate and can identify many of the known risk factors for VP would be cost effective. A point that will need to be considered is that current FASP requirements for the placenta are simply to view the position of the placenta. As this does not form part of the FASP screening programme and is not one of the 11 conditions being screened for vasa praevia and placenta praevia are not specifically discussed in the consent literature and not all women will opt to have this scan.
		The majority of sonographers are experienced in the use of colour Doppler but there may be specific training issues involved with the identification of VP in the identified higher risk categories.
		Scans that are likely to include transvaginal scanning will have some resource considerations. A low placenta that has been identified at the 18w to 20w 6d

		scan will most likely be booked for rescan in any event as per current RCOG Guidelines. If TV scanning were to be a regular feature of the 18w to 20w 6d fetal anomaly scan this will affect the time available for the fetal anomaly survey itself and may mean that a longer scan time is needed.
		The SCoR is very aware of the advice and work of the Vasa Praevia Society and has members who are actively involved with this organisation. If universal screening were to be recommended based on the published evidence we would also be supportive although we believe that there are information, consent, training and resource issues that will need to be addressed before full universal screening as part of a National Screening Programme could be implemented .http://www.vasapraevia.co.uk/

Organisation:	West Middlesex University Hospital		
Name:	Elizabeth Daly-Jones	**Email address:**	[redacted]

Section and / or page number	**Text or issue to which comments relate**	**Comment** *Please use a new row for each comment and add extra rows as required.*
Number 12, paragraph 5	Lack of published guidelines and lack of knowledge appear to loom large in this respect, so that education and application of knowledge would seem to be a priority within UK Obstetric practice.	I would absolutely concur with this statement. In a recent audit of our **known** Vasa Praevia cases over half were in-correctly coded following the elective C.section. Further evidence of the under-reporting of this condition.
		When discussing these cases with some of the midwifery team it was clear that it is being confused with placenta praevia. Mandatory training regarding VP is required, perhaps an on-line course would be helpful. This lack of understanding is not confined to the midwifery teams but also to medical students and sonography students. Clearly it is essential that education on VP is made a requirement in all these teaching establishments. Furthermore for some Obstetric Consultants there is the misheld historical belief that this condition cannot be diagnosed antenatally.

		. Not only this but education is required for Consultant teams in Anaesthetics and Paediatrics where the urgency of this condition is not always readily understood in an emergency situation.
		We would be very happy to help in any education initiatives that the NSC decide upon.
Summary and conclusions	There is increasing evidence that national guidance should be developed focussing on the identification and management of pregnancies with a raised risk of VP	I am really delighted that the NSC are considering national guidance for those pregnancies with a raised risk of Vasa Praevia. It is certainly a step in the right direction. I would add however that it is essential that the cord insertion is assessed to exclude a velamentous insertion and that is included in the risk factors for this condition. Of course at West Middlesex we screen all our patients and believe that the minimal time taken to do this does not warrant selective screening.

Organisation:	VASA PRAEVIA raising awareness [Registered number 1109893] www.vasapraevia.org		
Name:	Daren Samat, Nick Partridge [Trustees]	**Email address:**	[redacted]; [redacted]
Section and / or page number	**Text or issue to which comments relate**	**Comment** *Please use a new row for each comment and add extra rows as required.*	
	General Comment	VASA PRAEVIA raising awareness (Registered Charity Number 1109893) are pleased that the National Screening Committee (Dr. Wood) have concluded that; *"Consideration should be given to the active exclusion of VP in pregnancies at high risk of the condition using targeted ultrasonography, since this will potentially identify up to 80% of affected cases and could reduce the perinatal loss rate in England and Wales by as many as 150 deaths per year".* We believe that the number of lives saved will far exceed those stated even if screening is, in the first instance, limited to those in the high risk groups for the condition. The available data would indicate an even greater number of lives can be saved if screening were routine for all pregnant women. The importance of screening for vasa praevia must not be understated, it is an important public health issue and if screening is properly managed will reduce the annual number of still births and neo-natal deaths in England and Wales markedly. For the purposes of this review, we also refer to our responses in the first NSC review (2008), in which set out the case for targeted screening for those in risk groups as a minimum standard: http://vasapraevia.co.uk/wp-content/uploads/VPRAs-response-to-National-Screening-Committee-Review-on-Vasa-Praevia.pdf	

		Whilst we remain committed to the aim of routine screening for VP of all pregnant women, we note that targeted screening as recommended by the NSC (Dr. Wood) will provide opportunities for further essential data to be gathered so as to achieve that aim and we therefore support the proposal. We have in the past received assurances from HM Government that funding has been made available for research into VP and to this end we welcome the opportunity of discussing this with the stakeholders at the planned meeting.
	Additional Review of Literature	We draw attention to a further review of the recent literature: http://www.minnisjournals.com.au/_images/articles/pdf/article-pdf-0727.pdf
	VPRA Specific Comments /Responses	*NB. As some of the paragraph numbering has gone awry reference is made to the page number and where necessary paragraph number per page*
Page 2	Conclusions 2008	This accurately reflect the conclusions reached in 2008
Page 3	Under-reporting	There remains an underreporting of the condition due to the (continued) general lack of awareness of a large number of medical professionals at all levels. Furthermore it is evident that the condition is often inaccurately recorded due to the use of generic terms such as APH (antepartum haemorrhage) or placental abruption etc. on death certificates. We believe that much can be learned about the incidence of the condition with a carefully structured antenatal surveillance system (UKOSS) – to that end reference should be made to the current AMOSS collection of data on VP (http://www.amoss.com.au/page.php?id=45). This can be discussed at the stakeholders meeting.

Page 3 Page 4	Association with abnormal placentation Association with IVF	The OR for VP in bi-lobed placentas has been shown to be consistent in these studies. With respect to IVF the incidence of VP is alarmingly high (1:202). It is essential that all medical professionals delivering IVF services including the maternity and ultrasound services are made aware of this significant risk. All pregnancies conceived by IVF cases should be provided with information allowing informed choices for screening. [NB. The approximate number of IVF pregnancies likely to be affected by VP is close to 200 per annum]
Page 4	Type I & II VP	It is agreed that more education and awareness is required regarding all risk factors, however it would be a mistake to remove from clinical suspicion VCI in seeking to raise awareness of other variants of VP.
Page 5 paragraph 2		(Query paragraph numbering as section 2(ii)) Second Paragraph page 5 Where vasa praevia has been diagnosed antenatally, and there is evidence of PV bleeding and in the absence of fetal distress, blood tests to determine the source of the blood tests are an invaluable diagnostic tool.
Page 5 paragraph 4		It is agreed that it is reasonable (essential) to screen those in known high risk categories. However VPRA do not advocate the need for routine TVS unless a greater sensitivity is required or to rule out or confirm a suspicion shown by TAS.
Page 7 paragraph 2	Guidelines for addressing cord insertion	The Society College of Radiographers have adopted the former UKOSS guidelines for sonographers performing antenatal ultrasound; ***Examinations in the Second Trimester*** *The structures which the sonographer should normally examine appropriately and measure correctly according to referenced charts during a second trimester dating examination are shown in Table 8.* ***Fetal Anomaly Screening***

		In keeping with nationally agreed guidelines, it is recommended that the optimal gestational age range over which routine fetal anomaly screening is carried out is 18(0)-20(6) weeks.(1)(6) (Refer to Section 1.10) The structures which the sonographer should be able to examine during a routine fetal anomaly screening examination are shown in Table 9. Similarly the measurements that the sonographer should be able to make correctly according to referenced charts during the same examination are also shown in Table 9. It is anticipated that the majority of these measurements will only be taken in cases where abnormal findings are identified or suspected. The range of structures and measurements included in such an examination will normally be determined by local guidelines. ***In addition to the assessment of the fetal anatomy as indicated in Table 9, the sonographer should also be able to take the fetal measurements according to referenced charts and make the assessments shown in Table 10.*** It is plain from "Tables 8 and 10" that the intention of SCoR (formerly UKOSS) was to include routine screening in all second trimester ultrasound scans. The Ioannou & Wayne "study" was a postal survey questionnaire conducted in 2006. The only real value of the survey was to indicate the ongoing need for awareness amongst obstetricians of the condition. Nothing other than this can be properly extrapolated from this "study".
Page 7 section 6	Test acceptable to Population	It is agreed that the optimum time for screening for VP is the second trimester ultrasound it should be stressed to ultrasound technicians that screening for VP presents an opportunity to save a life and to afford the parent(s) with sensitive counselling.
Page 7 section 7	Agreed Policy on further diagnostic investigation/choices	It is essential that once VP is diagnosed it is managed properly. This must include further ultrasound. It is not known from which source the suggestion "that VP can resolve in up to 15% of cases" however once "diagnosed" VP can be confirmed or excluded at a further late second

		trimester scan or early third trimester scan.
Page 8 section 7		The huge reduction of still birth or neonatal death by routine screening of those in high risk groups is something VPRA advocated at the last review as a minimum requirement. When the figures are multiplied to represent the number of lives saved per the annual number of live births the public health issue becomes much clearer. Screening for VP will therefore have a sizeable impact on the reduction of the annual still birth and neonatal death rate (a minimum reduction of 148 – 154 deaths pa). It should be stressed (as we did at the last review) that even if screening was routine it is inevitable that cases may be missed or misdiagnosed and even if diagnosed there will be some which have a poor outcome, however far more lives will be saved by the introduction of screening.
Page 8 paragraph 6		VPRA agrees with the general view expressed.
Page 9 - 10	Effective Treatment or Intervention	As a charity we are frequently asked by those diagnosed and by those who have made a diagnosis about the management of VP. This is clearly a clinical matter but the Canadian model http://sogc.org/wp-content/uploads/2013/01/gui231CPG0908.pdf is not the only management guideline; RANZCOG have issued a statement; http://www.ranzcog.edu.au/documents/doc_view/1070-c-obs-47-vasa-praevia.html . Many NHS units have local management protocols for VP. VPRA believes that the RCOG together with the RCM should formulate a management guideline as a matter of urgency. This can be discussed at the stakeholders meeting.
Page 11 Paragraph 1		VPRA support increased awareness amongst medical professionals and to that end we have been providing ad hoc training to NHS ultrasound units throughout the UK. We believe training and education can be delivered swiftly and easily throughout England and Wales (Scotland and Northern Ireland) and this can be discussed at the stakeholder's meeting.

Page 11	Follow up scan.	It is said that the optimum delivery time for a VP pregnancy is 34 – 35 weeks gestation. Therefore for women diagnosed with VP at the anomaly scan must have a follow up or reassurance scan between 28 – 32 weeks. Cases of placenta praevia (major or minor) form many of the underlying cases of VP. Therefore these cases need to have a high degree of suspicion for VP. As a matter of course all cases of placenta praevia coming for reassurance scans must also be screened for VP at that time (especially when the placenta praevia has receded). It is VPRA's experience that the vast majority of missed VP cases arise from placenta praevia cases where the placenta has receded but underlying VP has not. These cases invariably receive erroneous advice at the follow up/reassurance scan, in that the diagnosis usually made is that the placenta had receded far enough away from the os and so the woman is discharged and referred for a vaginal delivery – most of the calls to the VPRA helpline complain that the VP was missed at that stage.
Page 12	Ioannou & Wayne	The only reliable data to result from this questionnaire is that there was (in 2006) an almost complete lack of understanding of the condition from the respondees (all of whom were obstetricians, none were sonographers). Therefore what this "study" successfully identified was a need for increased awareness and training of those who responded. However the questionnaire had an in built bias.
Page 13	Nishtar & Wood	We agree that there must be increased awareness of VP. This includes a need for training and we can discuss the delivery of training at the stakeholders meeting. However increased awareness must also include awareness for the general public backed by the medical profession.
	Adequate staffing and facilities available	Work is already under way and training is being given to NHS units who wish to screen for VP. We believe that validation and quality control can be achieved and delivered and that cost can be minimised. This can be discussed at the stakeholders meeting but we understand HM Government have funds for this purpose.

Organisation:	Grandmother of Vasa Praevia survivor.		
Name:	[redacted]	**Email address:**	[redacted]

Section and / or page number	**Text or issue to which comments relate**	**Comment** *Please use a new row for each comment and add extra rows as required.*
Section 1, page 1.	Vasa Praevia and Placenta Praevia Screening 1 November 2008	Following our experience, through research and communication with other affected families, we have discovered that this deadly condition is more common than some evidence suggests. The cause of some neonatal deaths does not always seem to be correctly attributed to this condition.
Section 3, page 3.	As above.	Survival rates for babies where prenatal diagnosis of this condition has been made, clearly demonstrate that successful interventions and outcomes are possible and practicable.
Section 4, page 3.	As above.	Ultrasound protocols urgently require revision to ensure that routine examination for this condition is carried out effectively. Current ante-natal care recommends scans for many mothers-to-be in a wide range of situations –- not all of them life threatening. My daughter received an additional scan, towards the end of her pregnancy, to check the baby's growth. No problem was detected. How much more beneficial it would have been to incorporate screening for this condition during this time, or at an appropriate earlier scan.
Section 5, page 8.	As above.	We have been shocked by the lack of awareness of this condition. This ignorance exists at all levels, but most worryingly, at a professional level where many health practitioners display little, or no, knowledge of this devastating condition. It is not included in any of the ante-natal literature distributed, or during classes and check-ups. Parents are being denied the right to be fully informed of a potentially fatal, and extremely serious, condition. It is certain that any parental anxiety arising from pre-natal screening, or diagnosis, would

		bear no comparison to the parental anxiety experienced by those whose baby has died, or been damaged, by Vasa Praevia.
Section 10, page 11.	As above.	Evidence and personal experience show that the public must be more fully educated with regard to this condition. They are entitled to have confidence in their ability to safe-guard the health and well-being of their unborn babies. It does not appear that a substantial degree of additional training would be required to equip sonographers to carry out the necessary screening. Indeed, all professionals would surely wish to be part of a relatively simple process that could lead to the prevention of so many unnecessary deaths. If the public were alerted to this condition they could, at the very least, be offered the opportunity to undergo further investigations, at their own expense, in the absence of a national screening programme.
Section 12, page 11.	As above.	The general public are unable to voice their desire for a complete screening programme as most people are completely unaware of the existence of this condition. I am a 56 year old mother of four and since my grandson's traumatic delivery on [redacted], I have struggled to find anyone among family, friends, colleagues and the wider community who had previously heard of Vasa Praevia. I certainly had not. Disappointingly, we have learned, to our cost, that very many of the health professionals responsible for the provision of prenatal care are equally lacking in knowledge and awareness. This is truly frightening and disturbing. Training must be improved to address this problem.
Section 14, page 12.	As above.	Cost implications would not seem to present a valid argument against the implementation of a national screening programme. These would seem to be minimal if screening is incorporated into standard ultrasound scans. Staff, without doubt, should be proficient in detecting and managing this

		condition. In our particular case the NHS provided our grandson with post-natal care of the highest standard. Thanks to the excellent treatment delivered by committed and highly skilled staff in [redacted] Hospital, his life was saved and, despite an initially bleak prognosis, he has escaped any permanent damage. [redacted] was delivered by emergency caesarean section following onset of labour at home. This naturally involved a large number of medical personnel. Following lengthy and aggressive resuscitation he required neo-natal intensive care for the first week of his life. He then required emergency surgery as he suffered two perforations to his bowel, and had to be transferred by special transport to [redacted] Hospital for Sick Children. He was treated there, post-operatively, in N,I.C.U, before eventually returning to [redacted] where he was cared for leading up to his reversal procedure, which was again successfully performed by the outstanding surgical team at [redacted]. In total, [redacted] spent the first ten weeks of his life in hospital. In evaluating the cost of such care it must completely outweigh the claimed additional expense of introducing national screening and more effective training. From an emotional point of view the cost is immeasurable. Much of that period was distressing and extremely worrying for his parents and extended family. We do appreciate how fortunate we were and will be eternally grateful for all the efforts made on [redacted]'s behalf by so many dedicated and expert professionals. However, had a national screening programme been in place, none of this would have been necessary. Another major consideration in support of routine screening must be the cost of the provision of lifelong care required by babies who survive Vasa Praevia, but are tragically damaged or disabled by it. Finally and most compellingly, the preventable loss of so many perfect, healthy babies must not be allowed to continue when the solution is within our means.