



House of Commons  
Science and Technology  
Committee

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# **Scientific Developments Relating to the Abortion Act 1967**

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**Twelfth Report of Session 2006–07**

*Volume I*





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# Scientific Developments Relating to the Abortion Act 1967

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Twelfth Report of Session 2006–07

*Volume I*

*Report, together with formal minutes*

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to be printed 29 October 2007*

## The Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Office of Science and Innovation and its associated public bodies.

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A list of Reports from the Committee in this Parliament is included at the back of this volume.

### Committee staff

The current staff of the Committee are: Dr Lynn Gardner (Clerk); Dr Celia Blacklock (Second Clerk); Mr Edward Waller (Assistant Clerk); Dr Christopher Tyler (Committee Specialist); Dr Joanna Dally (Committee Specialist); Ana Ferreira (Committee Assistant); Christine McGrane (Committee Secretary); and Jonathan Olivier Wright (Senior Office Clerk).

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# Contents

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<b>Report</b>	<i>Page</i>
<b>Summary</b>	<b>3</b>
<b>1 Introduction</b>	<b>5</b>
Background to the inquiry	5
The inquiry	5
Terms of reference	5
Witnesses	6
The aim of the inquiry	7
Specialist Advisers	7
Informal seminar	8
History of UK abortion law	8
Abortion in the UK	9
<b>2 Upper gestational limit</b>	<b>13</b>
Neonate survival rates	13
Defining viability	13
Evidence of medical advances	15
Consciousness	22
Foetal pain	22
The chemical depression of awareness	24
Developmental psychology	25
Relevance to the upper gestational limit	25
4-D images and foetal consciousness	26
Reasons for late presentations	26
<b>3 Abortion for foetal abnormality</b>	<b>29</b>
Arguments for tightening the definition	29
Arguments against further clarification	30
Our conclusions	31
<b>4 Access and procedure</b>	<b>32</b>
Requirement for two doctors' signatures	32
Arguments in favour of removing the requirement	33
Arguments in favour of retaining the requirement	35
Our conclusions	35
Other causes of delay	36
Involvement of nurses	36
Arguments in favour of increasing nurses' responsibilities	37
Arguments against increasing nurses' responsibilities	38
Our conclusions	38
Places where abortions can be carried out	39
Arguments to allow the second pill to be taken at home	40
Arguments against allowing the second pill to be taken at home	41
Our conclusion	41

<b>5 Impact of abortion on women’s health</b>	<b>43</b>
Mental health risks	44
Physical health risks	47
Future reproductive outcomes	47
Breast cancer	49
Post abortion infection	49
Restriction of access to abortion	50
Informed consent	50
<b>Conclusion</b>	<b>52</b>
<b>Conclusions and recommendations</b>	<b>53</b>
<b>Glossary</b>	<b>58</b>
<b>Annex A: Declarations of interest</b>	<b>60</b>
Additional declarations of interest by witnesses providing oral evidence	65
<b>Annex B: Requests for Declarations of Interest</b>	<b>68</b>
General request	68
Request to witnesses providing oral evidence	68
<b>Appendix: RCOG guidelines on ‘Information for women’</b>	<b>69</b>
<b>Formal minutes</b>	<b>71</b>
<b>Witnesses</b>	<b>86</b>
<b>List of written evidence</b>	<b>87</b>
<b>List of unprinted evidence</b>	<b>88</b>
<b>List of Reports from the Committee during the current Parliament</b>	<b>89</b>

## Summary

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Abortion is a complex issue. Legislative decisions are informed by ethical and moral positions, philosophical, religious and political views, case law, clinical practice, and scientific and medical evidence. As a science and technology committee, we have focused only on the scientific, medical and other research evidence. As well as informing the way courts interpret the law, scientific and medical developments can alter the balance of opinion on ethical and moral issues and they often inform legislative decisions. This happened in relation to abortion law in 1990, when evidence of improved outcomes for very premature neonates led to a reappraisal of the threshold of foetal viability and this in turn to the reduction of the then 28 week limit on most abortions to the current 24 week limit. In our inquiry, we have attempted to sift the evidence on scientific and medical developments since the last amendment of the law and since the 1967 Act.

In this Report, we set out the key issues that have emerged and the key questions MPs must ask themselves as they consider options for changes in the law. Where we have felt it appropriate and justified, we have drawn conclusions about what the science and medical evidence currently before us tells us. We urge all MPs to study the evidence we have taken and the conclusions we have reached.

Because we recognise that what the science and medical evidence can tell us is only one of many factors that are taken into account when legislating on this issue, we have not made any recommendations as to how MPs should vote on abortion law.\*

\* For a draft Report which was not agreed by the Committee, see Formal Minutes, page 71 onwards





# 1 Introduction

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## Background to the inquiry

1. It has been ruled that abortion would fall within the remit of the Human Tissues and Embryos Bill, which is likely to be presented to the House in the 2007/08 session. In 2005, the Science and Technology Committee recommended that a joint committee of both Houses be formed to consider the scientific, medical and social changes in relation to abortion that have taken place since 1967.<sup>1</sup> Despite our best efforts,<sup>2</sup> this has not come about, and so we decided to undertake this considerable task ourselves.

## The inquiry

### *Terms of reference*

2. Witnesses to this inquiry were invited to submit evidence on the following points:
- a) the scientific and medical evidence relating to the 24-week upper time limit on most legal abortions, including:
    - i. developments, both in the UK and internationally since 1990, in medical interventions and examination techniques that may inform definitions of foetal viability; and
    - ii. whether a scientific or medical definition of serious abnormality is required or desirable in respect of abortion allowed beyond 24 weeks;
  - b) medical, scientific and social research relevant to the impact of suggested law reforms to first trimester abortions, such as:
    - i. the relative risks of early abortion versus pregnancy and delivery;
    - ii. the role played by the requirement for two doctors' signatures; and
    - iii. the practicalities and safety of allowing nurses or midwives to carry out abortions or of allowing the second stage of early medical abortions to be carried out at the patient's home; and
  - c) evidence of long-term or acute adverse health outcomes from abortion or from the restriction of access to abortion.
3. As a Committee that examines scientific and technological issues, we decided that the ethical and moral issues of abortion were not within our remit. Therefore, we decided to focus on scientific and medical evidence relating to abortion, and explicitly ruled out ethical or moral issues in the published terms of reference.

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<sup>1</sup> Science and Technology Committee, Fifth Report of Session 2004-05, *Human Reproductive Technologies and the Law*, HC7-1, para 308

<sup>2</sup> HC Deb, 3 July 2006, cols 528-584

## Witnesses

4. We selected witnesses to cover a range of scientific issues and views. The emphasis of the inquiry was on seeking scientific evidence—including medical and social science evidence—that would inform debate on abortion law. Therefore, we did not ask witnesses to state their individual moral positions in advance of the inquiry and did not seek to achieve a balance between ‘pro-life’ and ‘pro-choice’ personal opinions among our witnesses. However, to ensure that we were informed as to which aspects of the body of scientific evidence are important to the ethical and moral issues, we decided to hear from a balanced panel of campaign groups.

5. We noticed that among the written submissions there were a number<sup>3</sup> from doctors who were furnishing references and citing studies from the published scientific literature and/or providing their judgements or opinions on the scientific evidence in areas (or some of the areas – see SDA 38) where they did not appear to carry out clinical practice, research or to publish. It subsequently emerged that all these submissions except one (SDA 31) were from individuals who were either active members of organisations who had strong views on abortion and who had themselves submitted evidence (SDA 35, 37, 40) expressing this view. Submission SDA 31 was from an individual who was a campaigner against abortion and had publicly expressed very strong moral views on the subject.

6. We welcome all written submissions to all our inquiries and do not believe anyone should be denied the opportunity to make written submissions, or to have their views properly considered on account of their views. However, in keeping with the accepted practice in the scientific community of requesting relevant declarations of interest from those submitting articles for publication or submitting views for consensus statements, we think it is appropriate and important that those individuals contributing data, references or views of a scientific nature to a science committee evaluating scientific questions should declare any competing interests and specify their expertise or experience where this is not already clearly apparent. We note that this is the only approach we can take on this matter which is consistent with the recommendations of our own report on *Scientific Advice, Risk and Evidence-based Policy Making*.<sup>4</sup>

7. Furthermore, we recognise that for us in producing this report, and for all those MPs and members of the public who will subsequently read and evaluate the report, in the process of weighing up the strength and reliability of scientific evidence and opinions submitted on that evidence, it is necessary to be aware of the level of expertise concerned, and – especially where the expertise is not apparent – any competing interests that are not otherwise apparent. That does not mean that such views are discounted.

8. Finally, in the interests of transparency, even where individuals contest the relevance of such interests, it is far better practice for such interests to be revealed than concealed.

9. It is for these three reasons that, subsequent to the receipt of the written evidence, we requested declarations of interests from everyone who submitted evidence. We did not ask

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<sup>3</sup> SDA 24, 27, 28, 29 and 39

<sup>4</sup> Seventh Report of Session 2005-06, HC 900-I

people to state their personal religious beliefs.<sup>5</sup> We reiterate that no one should be expected to declare personal religious or political views when making submissions, nor be deterred from making submissions when they hold such views, but we believe that the previous publication of strong moral or other views on, or active membership of organisations campaigning directly on, the matter being investigated by a select committee do qualify for disclosure.

10. We are grateful to all those contributors who responded to our request and the responses we received are shown in Annex A. We regret that two contributors failed or refused to reveal relevant interests and in the interests of transparency we draw attention to those relating to SDA 31<sup>6</sup> and to SDA 27.<sup>7</sup>

### ***The aim of the inquiry***

11. Abortion is a complex issue. Legislative decisions are informed by ethical and moral positions, philosophical, religious and political views, case law, clinical practice, and scientific and medical evidence. As a science and technology committee, we have focused only on the scientific, medical and other research evidence. As well as informing the way courts interpret the law, scientific and medical developments can alter the balance of opinion on ethical and moral issues and they often inform legislative decisions. This happened in relation to abortion law in 1990, when evidence of improved outcomes for very premature neonates led to a reappraisal of the threshold of foetal viability and this in turn to the reduction of the then 28 week limit on most abortions to the current 24 week limit. In our inquiry, we have attempted to sift the evidence on scientific and medical developments since the last amendment of the law and since the 1967 Act.

**12. In this Report, we set out the key issues that have emerged and the key questions MPs must ask themselves as they consider options for changes in the law. Where we have felt it appropriate and justified, we have drawn conclusions about what the science and medical evidence currently before us tells us. We urge all MPs to study the evidence we have taken and the conclusions we have reached.**

**13. Because we recognise that what the science and medical evidence can tell us is only one of many factors (see para 11 above) that are taken into account when legislating on this issue, we have not made any recommendations as to how MPs should vote on abortion law.**

### ***Specialist Advisers***

14. We appointed two Specialist Advisers:

- Professor Allan Templeton FMedSci, a leading expert on obstetrics and gynaecology. Professor Templeton is a former Head of the Department of Obstetrics and Gynaecology, University of Aberdeen; Honorary Consultant in Obstetrics and

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<sup>5</sup> See Annex B for the emails sent to witnesses.

<sup>6</sup> Q 105-8

<sup>7</sup> Dr Gardner is an active member of the Medical Ethics Alliance.

Gynaecology, Grampian University Hospitals NHS Trust; and a former President of the Royal College of Obstetricians and Gynaecologists.

- Professor Malcolm Chiswick FRCP, a leading expert in neonatology and perinatology. Professor Chiswick is a former Medical Director of the Central Manchester and Manchester Children’s University NHS Trust; and a former President of the British Association of Perinatal Medicine.
15. We are very grateful for their impartial, expert advice during the course of this inquiry.

### **Informal seminar**

16. We also benefited from an informal seminar at the start of the inquiry to inform our thinking on the issues, and we are grateful to Professor Neil Marlow and Professor Emily Jackson, London School of Economics, for participating in this.

### **History of UK abortion law**

17. UK abortion law is based on several Acts of Parliament. They are, in chronological order:

- a) The Offences Against the Person Act 1861 (which only applies in England and Wales), which makes it an offence to intentionally procure a miscarriage, either by self-administering or providing another with “any poison or other noxious thing” or using “any instrument or other means whatsoever”.<sup>8</sup>
- b) The Infant Life (Preservation) Act 1929 (which only applies in England and Wales), which makes it an offence to “destroy the life of a child capable of being born alive”, but it is a defence to terminate a pregnancy “in good faith for the purpose [...] of preserving the life of the mother”.<sup>9</sup> If a woman had been pregnant for a period of twenty-eight weeks or more, that “shall be *prima facie* proof that she was at that time pregnant of a child capable of being born alive”.<sup>10</sup>
- c) The Abortion Act 1967 (which only applies in England, Scotland and Wales), which creates a series of defences in relation to abortion “when a pregnancy is terminated by a registered medical practitioner if two registered medical practitioners are of the opinion, formed in good faith,” – except in an emergency – that one of the stipulated grounds is met. These grounds were originally given a letter, A to G, to which medical practitioners still refer. They are outlined below.
- d) The Human Fertilisation and Embryology Act 1990, which included amendments to the Abortion Act 1967. The most significant amendment was the reduction of the upper time limit on most abortions from 28 weeks of gestation to 24 weeks. The grounds for abortion, although reordered in the Act, are still referred to, in medical practice, by their original designations. Accordingly, the grounds for abortion are:

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<sup>8</sup> Section 58 of the Offences against the Person Act 1861

<sup>9</sup> Section 1(1) of the Infant Life (Preservation) Act 1929

<sup>10</sup> Section 1(2) of the Infant Life (Preservation) Act 1929

Either where two doctors in good faith agree that:

- A the continuance of the pregnancy would involve risk to the life of the pregnant woman greater than if the pregnancy were terminated (Abortion Act 1967 as amended, section 1(1)(c));
- B the termination is necessary to prevent grave permanent injury to the physical or mental health of the pregnant woman (section 1(1)(b));
- C the pregnancy has not exceeded its twenty-fourth week and the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman (section 1(1)(a));
- D the pregnancy has not exceeded its twenty-fourth week and the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of any existing children of the family of the pregnant woman (section 1(1)(a)); or
- E there is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped (section 1(1)(d));

Or in emergency, certified by the operating practitioner as immediately necessary:

- F to save the life of the pregnant woman (section 1(4)); or
- G to prevent grave permanent injury to the physical or mental health of the pregnant woman (section 1(4)).

Additionally, abortion must be carried out “in a hospital [...] or in a place approved [...] by the Secretary of State”. The Secretary of State was granted by the 1990 Act the power “to approve a class of places”<sup>11</sup> (see paragraph 113 below for the relevance of this to the question of where drugs used in early medical abortion can be administered).

- e) The Births and Deaths Registration Act 1953 provides for the registration of every baby born in England and Wales. Amended by the Still Birth (Definition) Act 1992, it defines ‘still-born child’ as “a child which has issued forth from its mother after the twenty-fourth week of pregnancy and which did not at any time after being completely expelled from its mother breathe or show any other signs of life”.<sup>12</sup>

## Abortion in the UK

18. The Government produces annual statistics on abortion. The headline statistics for women resident in England and Wales in 2006 were:

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<sup>11</sup> Section 1 (3) of the Abortion act 1967

<sup>12</sup> Section 41 of the Births and Deaths Registration Act 1953

**Table 1. Key Government statistics on abortion in England and Wales in 2006.**

Total number of abortions of which:	193,700
abortions funded by the NHS	87%
abortions carried out under 13 weeks of gestation	89%
medical abortions	30%
abortions carried out under ground C	97%
abortion carried out under ground E	1%
carried out at 3–9 weeks of gestation	68%
carried out at 10–12 weeks of gestation	22%
carried out at 13–19 weeks of gestation	9%
carried out at 20 weeks of gestation and over	2%

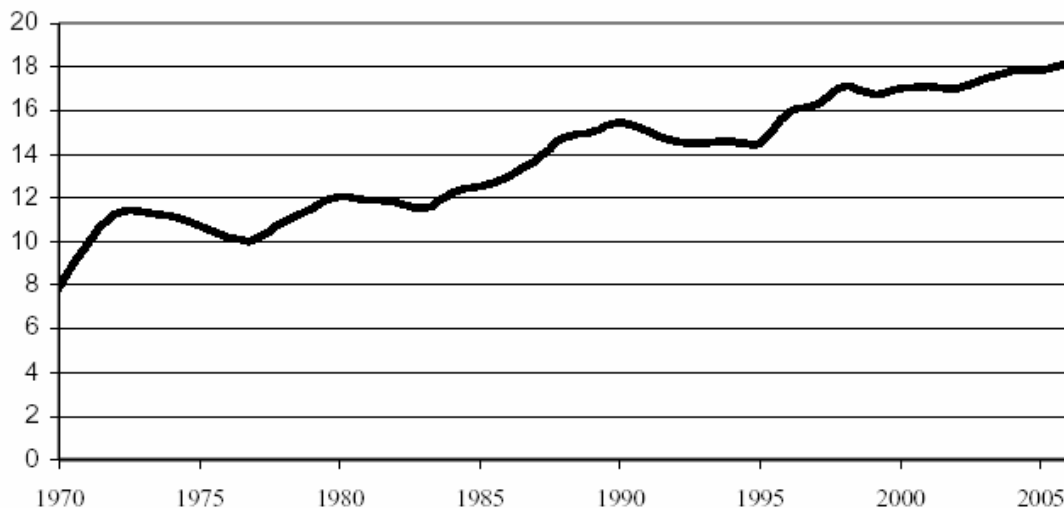
Source: *Statistical Bulletin: Abortion Statistics, England and Wales: 2006*, Department of Health, January 2007

19. The following figures show various abortion statistics for England and Wales:

- Figure 1: the age-standardised<sup>13</sup> abortion rate per 1,000 population aged 15–44 between 1970 and 2006;
- Figure 2: the age-standardised abortion rate per 1,000 conceptions between 1970 and 2006;
- Figure 2: the rate of abortions by gestation weeks between 1995 and 2006; and
- Figure 3: the abortion rate per 1,000 population by age in 2006.

**Figure 1. Age-standardised abortion rate per 1,000 population aged 15–44, England and Wales, 1970–2006**

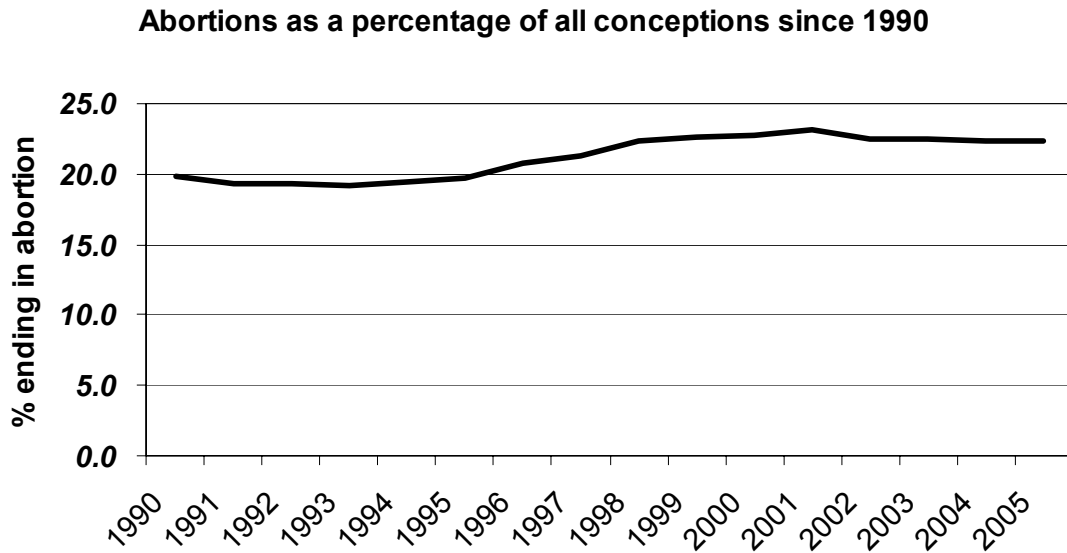
Rate



Source: *Statistical Bulletin: Abortion Statistics, England and Wales: 2006*, Department of Health, January 2007

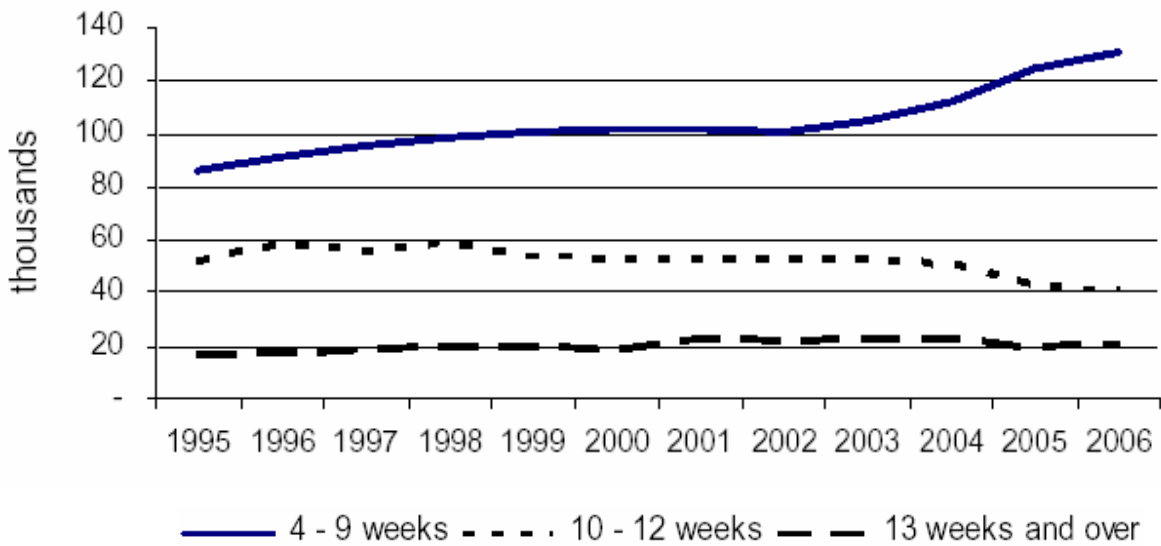
<sup>13</sup> Age-standardisation removes the effects of changes in the age distribution of the female population on overall abortion rates. Age-standardised rates can also be used to compare abortion rates in areas with different age compositions. (*Statistical Bulletin*, The National Assembly for Wales, 11 March 2002)

Figure 2: Abortions as a percentage of all conceptions (England and Wales) since 1990



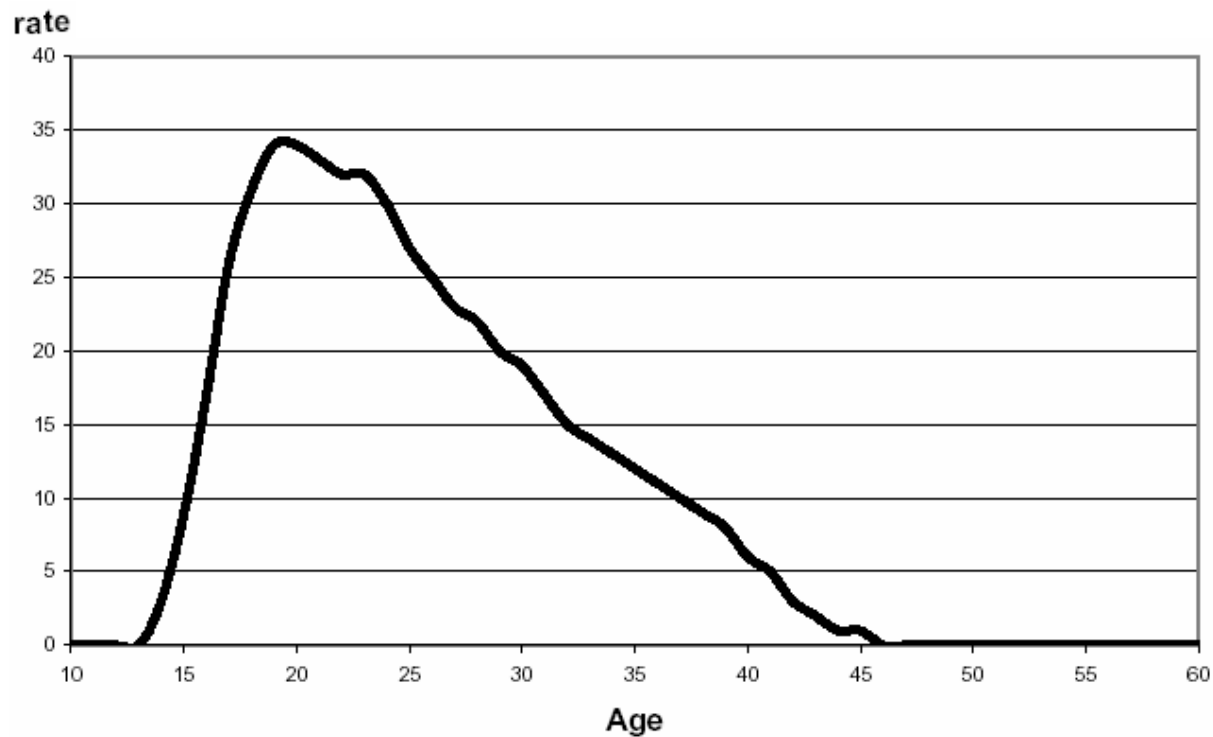
Source: SDA 01A

Figure 3. Numbers of abortions by gestation weeks, England and Wales, 1995–2006



Source: Statistical Bulletin: Abortion Statistics, England and Wales: 2006, Department of Health, January 2007

Figure 4. Abortion rate per 1,000 population by single year of age, England and Wales, 2006



Source: *Statistical Bulletin: Abortion Statistics, England and Wales: 2006*, Department of Health, January 2007



## 2 Upper gestational limit

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20. The upper gestational limit on most abortions in the UK is 24 weeks 0 days.<sup>14</sup> There are no time limits in cases where, if the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped, or where termination is necessary to prevent grave permanent injury to the physical or mental health of the pregnant woman or to save her life, or if the continuance of the pregnancy will involve risk to the life of the pregnant woman greater than if the pregnancy were terminated.<sup>15</sup> We have approached the issue of the upper time limit in three areas that are informed by scientific, medical and social scientific evidence. These areas are: neonatal survival rates and foetal viability, foetal consciousness and pain, and the reasons why women present for late abortions.

### Neonate survival rates

#### *Defining viability*

21. The Abortion Act 1967 originally stipulated a 28 week upper gestational age limit on abortions. That is the same age that was used in the Infant Life (Preservation) Act 1929 as “prima facie proof that [...] a child was capable of being born alive”. In the 1980s, the Royal College of Obstetricians and Gynaecologists (RCOG) set up a working party to look at the survival rates of neonates born before 28 weeks. The working party’s report, *Fetal Viability and Clinical Practice* (1985), noted significant progress in neonate survival rates and recommended that the age at which a foetus should be considered viable should be 24 weeks.<sup>16</sup> In 1990, Parliament decided, on a free vote, to amend the Abortion Act 1967 to lower the time limit from 28 to 24 weeks.

22. The term ‘neonatal viability’ has been subject to a range of interpretations. At one extreme a baby could be defined as viable simply because it was born showing signs of life, for example, breathing or a heart beat, even if it were, say, an anencephalic newborn which lacked most of the cerebral hemisphere but was capable of using its lungs.<sup>17</sup> At the other extreme, it could mean that a baby is capable of surviving through childhood with no or minimal disabilities.<sup>18</sup>

23. This range of definitions raises related problems in pinpointing an ‘age of viability’. The age of viability could be:

- the minimum gestational age at which any neonate could survive;
- the gestational age at which a particular neonate could survive; or

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<sup>14</sup> SDA 01A; Q 329 [Ms Cohen]

<sup>15</sup> Abortion Act 1967 as amended.

<sup>16</sup> SDA 01 para 18

<sup>17</sup> Example from *Abortion time limits: a briefing paper from the BMA*, BMA, May 2005, p 16

<sup>18</sup> SDA 13 para 8

- the gestational age at which the majority of neonates could survive.<sup>19</sup>

24. It is important to distinguish between foetal viability and neonatal viability. Neonatal viability is based on survival rates among live-born infants, whereas foetal viability expresses survival in relation to foetuses who are alive and variable times during the pregnancy.

25. The national EPICure study from 1995 (see paragraph 31) reports that at 20–22 weeks 89% of babies are born dead, while at 23 weeks, 61% of babies are born dead, dropping to 40% at 24 weeks.<sup>20</sup> Of these, some would have been dead at the commencement of labour (intra-uterine death), and can not be included in the denominator for foetal survival, and the rest would have died during labour. EPICure 1 did not distinguish these two groups, so we can only conclude from EPICure 1 that foetal survival rates are much lower than neonatal survival at 22 weeks, significantly lower at 23 weeks and still considerably lower at 24 weeks.

26. EPICure has traditionally been reported as the proportion of neonates who survive out of those born alive (or who have been admitted to NICUs), but not including those who died during labour. This is therefore neonatal viability, not foetal viability.

27. We took evidence from Professor Neil Marlow, President of the British Association of Perinatal Medicine (BAPM), who told us that viability “is the capability of surviving the neonatal period and growing up into an adult”.<sup>21</sup> Professor John Wyatt, Professor of Neonatal Medicine at University College London, agreed: “it is the ability to survive and grow up into adult life with optimal medical care”.<sup>22</sup>

28. This use of viability is not the same as the legislative language: ‘capable of being born alive’. However, as is pointed out in the BMA’s paper on *Abortion time limits*,<sup>23</sup> some legal cases have also suggested that viability does not equate solely with being born alive.<sup>24</sup>

29. Gestational age is not the only factor that determines the likely outcome of an extremely preterm birth. Factors such as birth weight, whether it is a multiple pregnancy and sex of the foetus also affect the likely outcome.<sup>25</sup> Further, there is always a problem that development is continuous and varies from individual to individual, so any demarcation is bound to be arbitrary.<sup>26</sup> The BAPM uses the concept of a ‘threshold of viability’, which it

<sup>19</sup> SDA 13 para 8

<sup>20</sup> EPICure study, Paediatric 2000 paper

<sup>21</sup> Q 1

<sup>22</sup> Q 6

<sup>23</sup> [www.bma.org.uk/ap.nsf/Content/AbortionTimeLimits](http://www.bma.org.uk/ap.nsf/Content/AbortionTimeLimits)

<sup>24</sup> For example, in a case before the English courts in 1988 [C v S [1988] QB 135, [1987] 1 All ER 1230.] and the earlier American case of *Roe v Wade* [Go to reference 37] the notion of being capable of ‘meaningful life’ is introduced. In the *Roe v Wade* judgment it was said: ‘With respect to the State’s important and legitimate interest in potential life, the ‘compelling’ point is at viability. This is so because the foetus then presumably has the capability of meaningful life outside the mother’s womb’. Mr Justice Brooke, in the 1991 legal case of *Rance v Mid-Downs HA*, stated that “[T]he word “viable” [means] “capable of living” ... In my judgment the word ‘viable’ was simply being used [by Parliament] as a convenient shorthand for the words ‘capable of being born alive’.”

<sup>25</sup> Draper ES, B Manktelow, DJ Field & D James, “Prediction of survival for preterm births by weight and gestational age: retrospective population based study”, *BMJ*, vol 319 (1999) pp 1093–97

<sup>26</sup> SDA 17 exec sum

puts between 22 and 26 weeks of gestation in the developed world, and, quoting the WHO, between 22 and 28 weeks in the developing world.<sup>27</sup> The Nuffield Council on Bioethics in their recent report uses the same time period and describes it as “borderline of viability”.<sup>28</sup>

### Evidence of medical advances

30. Between 1967 and 1990 there were clear advances in neonatal care which ultimately led to the reduction of the 28 week gestational upper limit to the current 24 week limit. Since 1990, improvements have continued to be made, and the nature of these improvements are discussed below.

### National and regional studies

31. The most comprehensive analysis of the survival rates of extremely preterm babies was conducted by the EPICure group, which is led by Professor Kate Costeloe of Homerton Hospital in London, Dr Alan Gibson of the Royal Hallamshire Hospital in Sheffield and Professor Neil Marlow of the University of Nottingham. The EPICure study looked at every baby born at 25 weeks 6 days or less gestation in the UK and Ireland between March and December 1995. The health of each child was then assessed at 1 year, 2½ years, 6 years and 10 years. The following table shows the immediate and 6-year outcomes of premature births, averaged across the UK and Ireland:

**Table 2: EPICure - Summary of Outcomes among Extremely Preterm Children**

Outcome	22 weeks (N=138)	23 weeks (N=241)	24 weeks (N=382)	25 weeks (N=424)
Number (per cent)				
Died in delivery room	116 (84)	110 (46)	84 (22)	67(16)
Admitted for intensive care	22 (16)	131 (54)	298 (78)	357(84)
Died in Neonatal Intensive Care Unit	20 (14)	105 (44)	198 (52)	171(40)
Survived to discharge	2 (1)	26 (11)	100 (26)	186(44)
Deaths post-discharge	0	1 (0.4)	2 (0.5)	3(0.7)
Lost to follow-up	0	3 (1)	25 (7)	39(9)
At 6 years of age:				
Survived with severe disability	1 (0.7)	5 (2)	21 (5)	26(6)
Survived with moderate disability	0	9 (4)	16 (4)	32(8)
Survived with mild disability	1 (0.7)	5 (2)	26 (7)	51(12)
Survived with no impairment	0	3 (1)	10 (3)	35 (8)

Source: Marlow N, D Wolke, M Bracewell, M Samara, for the EPICure Study Group, “Neurologic and Developmental Disability at Six Years of Age after Extremely Preterm Birth”, *New England Journal of Medicine*, vol 352 (2005) pp 9–19

It needs to be noted that this table gives two values for neonatal viability (survival): neonatal survival at birth where the denominator is all those born alive, and neonatal survival from NICU where the denominator excludes those who die before admission. Foetal viability is not given in the above table (but see paragraph 25 above).

<sup>27</sup> *Fetuses and Newborn Infants at the Threshold of Viability: A Framework for Practice*, BAPM Memorandum, July 2000

<sup>28</sup> *Critical care decisions in fetal and neonatal medicine: ethical issues*, Nuffield Council on Bioethics 2006, p65

**Table 3: Effect of choice of denominator on neonatal survival statistics**

Definition	Denominator	Survival at 22 weeks	Survival at 23 weeks	Survival at 24 weeks
Neonatal survival from ITU	Admissions to NICU (includes transfers in of "outborns")	10%	20%	33%
Neonatal survival at birth	All live births (includes those who die in delivery room)	Less than 1%	11%	26%
Foetal survival	All births where foetus alive at onset of labour	Less than 0.1%	Approx 4 to 7%	Approx 13 to 20%

Source: EPICure 1.

Note: 24 weeks means 24 weeks 0 days to 24 weeks 6 days

32. Professor Neil Marlow warned us not to be too reliant on these 1995 data to determine the current survival rates of very premature babies born in the UK: "I think the survival rates are becoming out of date".<sup>29</sup> This view is echoed by the Nuffield Council on Bioethics which says that the 1995 data are the best available in terms of disability but less helpful in respect of survival.<sup>30</sup> Professor Marlow went on: "What we have seen, certainly in the Trent region of the UK, are significant trends in [improved] survival at 24 weeks but we have not seen those at 23 weeks".<sup>31</sup> The RCOG told us that Trent survey data suggest that "survival in the last 10 years has risen to 40% of neonatal intensive care admissions at 24 weeks, although there has been little improvement in survival at gestations below this".<sup>32</sup> Figure 4 shows neonatal survival at 22–26 weeks gestation by week from the EPICure study and from The Trent Neonatal Survey. In order to make like-for-like comparisons, the EPICure data is that reflecting survival rates for babies admitted to NICUs, and thus excluding babies who died in the delivery room but were alive at the start of labour, which is why the figures are higher than for neonatal viability at birth.<sup>33</sup>

<sup>29</sup> Q 27

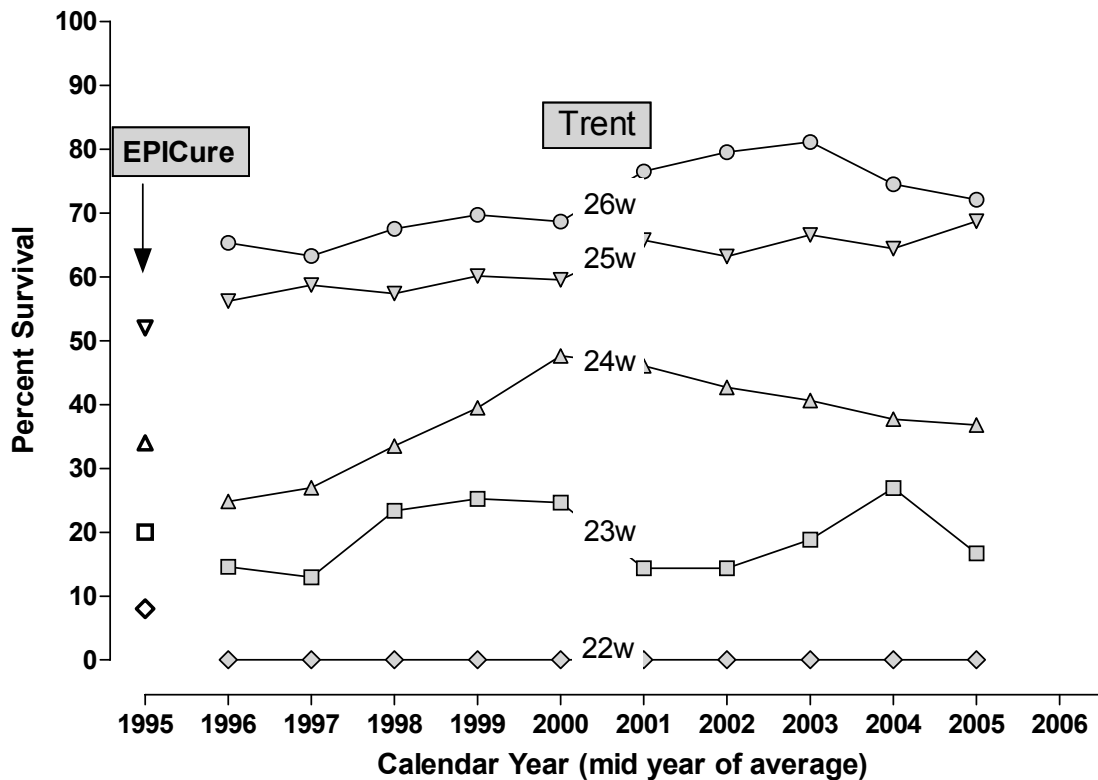
<sup>30</sup> Nuffield report, p 73-4, para 5.10

<sup>31</sup> Q 27

<sup>32</sup> SDA 30 1.1.1—these assertions can be verified in Draper ES, B Manktelow, DJ Field & D James, "Tables for predicting survival for preterm births are updated" *BMJ*, vol 327 (2003) p 872

<sup>33</sup> The graph was provided by Professor Neil Marlow with permission. The data are from *The Neonatal Survey* with permission from D Field, and Costeloe K, E Hennessy, AT Gibson, N Marlow, AR Wilkinson. "The EPICure Study: Outcomes to Discharge From Hospital for Infants Born at the Threshold of Viability", *Pediatrics*, vol 106 2000 pp 659–671

Figure 5: Combined EPICure and Trent Neonatal Survey data on survival by gestation week



Source: Professor Neil Marlow, with permission (see fn 34)

33. To assess recent advances in neonate survival on a national level, a new EPICure study is underway, dubbed EPICure 2, which will assess outcomes for every baby born at 26 weeks 6 days of gestation or less in England during 2006. The new study will include more variables than the original, including a breakdown of newly developed geographically-based neonatal networks and of individual neonatal intensive care units (NICUs). Although the results of this study are not yet published or peer-reviewed,<sup>34</sup> we have been told that they show considerable improvements at 24 and 25 weeks of gestation. However, we were also told by the BAPM that:

early indications are that, for infants below 24 weeks of gestation, the survival to discharge home was very similar between the cohort of 1995 and that of 2006. Headline figures of approximately 10-15% survival were found. This is important for those working in perinatal care, who in general, do not believe that the survival for babies born below 24 weeks of gestation has improved to such an extent that they would see any value in redefining the lower limit of viability. Naturally a small number of these infants below 24 weeks of gestation do survive but BAPM would be concerned that a lowering of the legal definition of viability would imply that quality

<sup>34</sup> Note to reader: We place high value on the scientific publication and peer review process and note that these data have not been peer reviewed or published. However, we can be sure that the design of the study is good, since it was awarded competitive funding that is rigorously peer reviewed from the Medical Research Council, and there is not other study like it to which we could turn.

survival has improved for infants below the present limit of 24 weeks. The evidence for the UK population, to date does not support this.<sup>35</sup>

34. This view was confirmed in oral evidence by Professor Neil Marlow who is one of the lead investigators of the Epicure study.<sup>36</sup>

**35. Caution needs to be applied to unpublished data (see footnote 34) but the least the Committee is able to conclude is that we have not heard any evidence from Epicure that survival rates below 24 weeks gestation have significantly improved and we draw this to the attention of the House.**

**36. We understand that the EPICure 2 results will not be published for some time. It is unfortunate that the published data may not be available in time fully to inform debate in the House. We hope that the emerging findings are published as soon as possible.**

### *Individual neonatal intensive care units and results from abroad*

37. Professor Wyatt told us:

It is important to differentiate between two types of study. There is a kind of study that involves the testing of the outcome of an entire population, often a geographically defined population, so all the pregnancies in an area are enrolled and the outcome of those pregnancies, including the babies born at the limits of viability, is then assessed. There are other kinds of studies based at single centres and often centres of excellence in order to see the level of [survival] that is [possible] with optimal care.<sup>37</sup>

38. Of course it is the case that that the data from centres of excellence will be included within the national or regional studies and will in any event influence the average. Nevertheless, it is useful to explore whether there is evidence of significantly different outcomes and whether this is in any event a useful basis to guide public policy.

39. In his written evidence Professor Wyatt stated that “Data from a prospectively-defined long-term follow-up study at the Neonatal Intensive Care Unit at University College London Hospital has shown survival rates in the period 1996 to 2000 of 42% at 23 weeks and 72% at 24 weeks.”<sup>38</sup> The reference given is to a 2004 abstract (Riley et al, 2004) which does not contain the data mentioned. Professor Wyatt also told us in oral evidence that the denominator in the Riley study was all live births,<sup>39</sup> but the denominator of that study was in fact admissions to NICU which will include transfers and exclude deaths in the delivery room (see below). In a further two memoranda to the Committee, Professor Wyatt clarified that the 42% survival figure for 23 weeks had not been published in a peer-reviewed journal and confirmed that it was not even in the abstract given as a reference.<sup>40</sup>

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<sup>35</sup> SDA 44

<sup>36</sup> Q 24-7

<sup>37</sup> Q 7

<sup>38</sup> SDA 38, para 17

<sup>39</sup> Q 53

<sup>40</sup> SDA 38A; SDA 38B

He further explained that he had “for the benefit of the Committee” therefore gone back to reanalyse the data prospectively collected in 1996-2000 and excluded transfers and added back in deaths in the delivery room.<sup>41</sup>

40. These data therefore represent, according to Professor Wyatt, all babies that were born at UCLH, including those that showed signs of life but died before admission to the NICU, between 1996 and 2000:<sup>42</sup>

**Table 4: Survival rates at UCLH by gestation week**

Gestational age (completed wks)	Total born alive at UCLH	Number survived to 1 year of age	Percentage Survivors
22	8	4	50%
23	13	6	46%
24	22	18	82%
25	26	20	77%

Source: SDA 38A

41. These impressive survival figures are higher than the national average but they illustrate a difficulty with data on extremely premature neonates at individual hospitals which is that there are very few births at these gestations and consequently the confidence we can place on the percentages is quite low. This is demonstrated very clearly in these data, where the chance of survival appears higher at 22 weeks than 23 weeks and at 24 weeks than 25 weeks, which is obviously not the case. As Professor Wyatt put it: “If you have a very small number, you have a large statistical error”.<sup>43</sup>

42. During our evidence sessions, Hope Hospital in Salford was raised as a unit with particularly good survival at 23 weeks but we have not been able to establish a source – published or otherwise – for such a report.

43. A study by Hoekstra et al (2004) shows higher survival rates, but for a much larger sample size.<sup>44</sup> Medical records were examined of 1036 infants who were born at 23–26 weeks of gestation and were admitted to the Abbott Northwestern Hospital and Children’s Hospitals and Clinics of Minneapolis between January 1986 and December 2000. The survival-to-discharge rates for the years 1996–2000 at 23, 24, 25 and 26 weeks were 66% (number of patients = 53), 81% (n = 97), 85% (n = 115) and 93% (n = 117). It is difficult to make a direct comparison between these results and the UK results since the denominator used in this study (admissions to neonatal ICU) is different from the denominator (which is all births where newborns show signs of life) used in the most commonly cited EPICure results. In this case, the authors have included 135 infants which were born at other units, for which information about the level of medical intervention offered post birth was not available, and according to evidence from the Trent Neonatal Survey, those 135 “outborn” infants are likely to be hardier than the average of the infants in the study as they have been judged fit enough to transfer and have survived the transfer.<sup>45</sup> The main difficulty is – as

<sup>41</sup> SDA 38B

<sup>42</sup> SDA 38A

<sup>43</sup> Q 19

<sup>44</sup> Hoekstra, RE, RB Ferrara, RJ Couser, NR Payne & JE Connett, “Survival and long-term neurodevelopmental outcome of extremely premature infants born at 23–26 weeks’ gestational age at a tertiary centre”, *Pediatrics*, vol 113 (2004) pp e1–e6

<sup>45</sup> *The Trent Neonatal Survey*, Annual Report 2006 page 35

set out in below – that such studies from the US and Australia where there is a far greater centralisation of specialist care than in the UK, have confounding factors related to patient selection and possibly different inclusion criteria.

44. We consider all attempts to study and record survival and to inform policy as to foetal viability useful. However, in terms of policy-making, the EPICure study, supplemented in respect of neonatal survival from NICU by the published data from the Trent Neonatal Survey (TNS), has the following advantages over other claims:

- a) Evidence-based policy should be based on carefully-designed, peer-reviewed studies. Such studies will have prospectively designed inclusion criteria, end-points and time periods and will include statistical advice to ensure their power to identify statistically significant findings is adequate. It is worth noting that large studies like EPICure and the TNS are prospectively designed in this way, go through the peer review process in order to obtain funding, and publications resulting from these studies have also been peer reviewed. This point is well put by Field and Draper in a very recent paper where they say:

Direct comparisons of neonatal outcomes at any level (unit, regional or international), require detailed validation and standardisation to ensure ‘like for like’ evaluation. Reported variation in neonatal performance may be either real or the result of one or more artefacts of the data collection. These issues need to be understood in order for an accurate interpretation to be made. [...] Problems arise when the question being addressed has been poorly framed or the data used to answer it has been inappropriately chosen. Comparisons using questions based on clearly defined standardised outcome measures and good quality prospective data collection are a much better way to proceed.<sup>46</sup>

- b) It is clear from the numbers in the EPICure study that the breakdown of results from individual hospitals are usually too small to be statistically significant—this is demonstrated in the survival rate figures that we received for UCH. In the extreme case a hospital with one baby born at 23 weeks who survives will have a survival percentage of 100%. One set of triplets born at these gestations – who because of low birth weight have a very poor prognosis – will radically alter the success rate of a unit. The EPICure authors looked at this issue in some detail and while not ruling out a potential beneficial effect if there was a major rationalisation and centralisation of neonatal services, concluded that:

In 1995 only 15 hospitals had 10 or more intensive cots and, after postnatal transfer, ongoing intensive care for the infants in this study was provided by no fewer than 137 NNUs. Only 16 units reported >10 births within the gestational age range of the study during the 10-month period and only 8 had >5 survivors; the highest number in a single centre being 10. This emphasizes the impossibility, in the United Kingdom or Ireland, of making reliable predictions of survival and morbidity using

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<sup>46</sup> Draper E& D Field, “Epidemiology of prematurity – how valid are comparisons of neonatal outcomes?”, *Seminars in Fetal and Neonatal Medicine*, vol 12 no. 5 (2007), pp 337-343



data from a single institution and the need for aggregated data to provide reliable information for clinicians and parents.<sup>47</sup>

- c) It seems difficult to identify a reasonable class of units that will be better performers since the Trent Neonatal Survey report in their 2006 report that once transfers were excluded there was no detectable difference between large units (like Nottingham and Leicester) and smaller units in overall survival below 29 weeks.<sup>48</sup> The Epicure study published in 2000 looked for differences in outcomes between large units and smaller ones and reported “There was no difference in survival between institutions when divided into quintiles based on their numbers of extremely preterm births or admissions.” This is confirmed by studies designed to look for this effect published by the TNS team.<sup>49</sup>

The issues raised in the above three points have been thoroughly debated previously in the scientific literature. They are best summarised by the comments of Dr Elizabeth Draper, the Leicester epidemiologist, who responded to propositions from three individual units from across the world:

We do not agree with Ferriman et al that hospital based data are an acceptable alternative. The small numbers make the predictions far less accurate and the inevitable referral bias also has a marked effect on the results of each unit [...] All three letters report survival rates higher than those from Trent. None provides data relating to the outcome of all babies, of the relevant gestation, alive at the onset of labour. This is essential if any comparison is going to compare like with like [...] Variation in how these infants are defined and treated will, however, affect survival rates for “liveborn infants.” In units where all liveborn infants are not necessarily admitted to neonatal units or seen by a paediatrician, the sickest infants may not be classified as liveborn, and survival rates will seem more favourable. We have recently reported data supporting this concept. This study showed that babies aged 28 weeks or less who had been transferred postnatally for intensive care had significantly better survival rates than predicted from scores for disease severity and better than infants whose whole course was in a tertiary centre. These seemed to be simply a selected group.<sup>50</sup>

- d) In terms of assessing the viability of babies at particular gestational ages, the baseline that EPICure uses for the data, which is all babies showing signs of life at birth (neonatal viability at birth), is more appropriate than all babies admitted to intensive care (neonatal survival from NICU).
- e) The issue of viability is informing the outcome of a nationwide UK policy (indeed criminal law) on abortion time limits and it seems appropriate when imposing such a

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<sup>47</sup> Costeloe K, AT Gibson, N Marlow & AR Wilkinson, “The EPICure Study: outcome to discharge from hospital for babies born at the threshold of viability”, *Paediatrics*, vol 106 no. 4 (2000), pp 659-671

<sup>48</sup> *The Trent Neonatal Survey*, Annual Report 2006, Table 1.12

<sup>49</sup> Field D & ES Draper. “Survival and place of delivery following preterm birth: 1994-96”, *Archives of Disease in Childhood: Fetal and Neonatal Edition*. Vol 80 no. 2 (1999), pp111-4.

<sup>50</sup> BMJ 2000

task on the data to use national average data, rather than to select an individual unit with better figures in the year chosen or to use data from another jurisdiction.

- f) As far as UK goes, the only data that has been published and peer-reviewed is the national and some of the regional survey data. The Science and Technology Committee has set a high store on the need for evidence underlying Government policy to be peer-reviewed and published and the same should apply to Parliament.

**45. We therefore reach the conclusion that the national and regional surveys of outcomes for very premature neonates are the best basis for establishing the limit of foetal viability. We draw this to the attention of the House and invite members to consider our conclusions when they consider the best basis for determining foetal viability.**

**46. Having considered the evidence set out above, we reach the conclusion, shared by the RCOG and the BMA, that while survival rates at 24 weeks and over have improved they have not done so below that gestational point. Put another way, we have seen no good evidence to suggest that foetal viability has improved significantly since the abortion time limit was last set, and seen some good evidence to suggest that it has not. We draw this to the attention of the House and invite Members and the Government to consider our conclusion when deciding when a foetus becomes viable.**

47. The Minister of State, the Rt Hon Dawn Primarolo MP, told us that the Government view on the relationship between the 24 week limit and viability was that:

In this very complex area with regards to time and viability, we are following the medical consensus, and that medical consensus still indicates that, whilst improvements have been made in care, at the moment that concept of viability cannot continually be pushed back in weeks: it is a matter of development and therefore survival rates.<sup>51</sup>

**48. We make no conclusion on the legal upper limit for abortion but instead invite Members of Parliament to consider the role played by foetal viability, among other factors, in that decision and to consider our analysis.**

## Consciousness

### *Foetal pain*

49. We received written submissions on this matter from Dr Stuart Derbyshire. Professor Maria Fitzgerald, who appeared as an oral witness, is a recognised expert in neuro-developmental biology and has been successful in a number of grant applications to the MRC in this area.<sup>52</sup> Although we did not receive evidence from Professor Sunny Anand, nor did any of those originally submitting evidence refer to his work or publications, we did consider a review article co-authored by him which was published recently,<sup>53</sup> together

<sup>51</sup> Q 323

<sup>52</sup> SDA 01, annex D

<sup>53</sup> Lowery CL, MP Hardman, N Manning, R Whit-Hall & KJS Anand, "Neurodevelopmental changes of fetal pain", *Seminars in Perinatology*, vol 31 (2007), pp 275-282

with submission from Dr Stuart Derbyshire which offers commentary upon it and refers to Dr Anand's earlier work in this area.<sup>54</sup> We note that the main thrust of his important previous work has been to show neonates have better outcomes when provided with anaesthesia and analgesia during surgery and other stressful procedures and that noxious stimuli during gestation can have a detrimental impact on the long-term development of an infant; we have been unable to see the direct relevance of this work to the question of abortion.

50. Pain is “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage”.<sup>55</sup> We may never know whether foetuses feel pain. As Dr Stuart Derbyshire puts it: “Subjective experience, including pain, cannot be inferred from measures of anatomy, stress hormones and fetal movements because these measures do not account for the contents of experience in general, and of pain in particular”.<sup>56</sup> However, there are a number of ways that we can infer whether a foetus feels pain. We raise three here: (1) the sensory pathways argument; (2) the chemically depressed awareness argument; and (3) the developmental psychology argument.

### *Sensory pathways*

51. Dr Stuart Derbyshire put forward an analogy for pain:

Although the analogy is quite oversimplified, it is not unreasonable to think of pain as being similar to a fire alarm. The pain stimulus is the same as hitting the red button, the electric cable to the alarm is the same as the connection between nerve endings and the brain and the alarm itself is the brain ringing out pain. Answering the question of whether the fetus feels pain can then be answered, in part, by considering the development of this ‘alarm’ system.<sup>57</sup>

52. He goes on to describe the development of the ‘alarm system’, which we have paraphrased:

- a) Naked nerve endings that lie free in the skin begin to form from about 7 weeks gestation; these cells do not mature until 24-28 weeks gestation.
- b) The spinal cord, the major ‘cable’ from the ‘buttons’ to the brain, does not mature until around 24–28 weeks.
- c) Some projections from the immature spinal cord reach the thalamus (the lower ‘alarm’) of the brain at about 7 weeks gestation.
- d) The very first projections from the thalamus towards the cortex (the higher ‘alarm’) are apparent from about 12–16 weeks gestation but these are projections into the subplate.

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<sup>54</sup> SDA 44

<sup>55</sup> Merskey H, U Lindblom, JM Mumford, PW Nathan, W Noordenbos & SS Sunderland, “Pain terms: a current list with definitions and notes usage”, *Pain* vol 53 (1986), pp S215–S221

<sup>56</sup> SDA 04 exec sum

<sup>57</sup> SDA 04 para 2

The subplate is a ‘waiting compartment’ where fibers accumulate and mature before penetrating the cortical plate developing above.

e) Thalamic connections do not penetrate the cortical plate until 26 weeks gestation.

53. The RCOG set up a working party in 1996 to look at foetal pain and awareness. Although their 1997 report concluded that it was unlikely that pain could be felt before 26 weeks, it did point out that more research was required, including on the development of sensory pathways.<sup>58</sup>

54. It has been pointed out that foetuses do demonstrate ‘stress responses’ to invasive procedures. Increased production of cortisol and  $\beta$ -endorphin and the redistribution of blood towards vital organs have been reported.<sup>59</sup> However, Dr Derbyshire explains that these physiological changes

are elicited at the subcortical and brainstem level and do not require cortical input and thus do not provide evidence for pain experience. Cortisol and endorphin are significantly elevated during surgical procedures carried out under general anesthesia, and in brain dead patients during organ harvesting, despite cortical activation in these patients being profoundly suppressed.<sup>60</sup>

55. To put it another way, “the fetal stress response must not be used to imply that the fetus perceived pain at a conscious level”.<sup>61</sup> We need to distinguish, as Lowery, Anand and colleagues put it, between conscious pain (which is perception of pain with an emotional response) and subconscious pain (which is a physiological stress response to a stimulus).<sup>62</sup>

### ***The chemical depression of awareness***

56. It may be that the sensory pathways argument is redundant. First, it is based on the assumption that the foetal brain works in the same way as an adult brain. This may not be the case: it may be that other structures in the brain participate in sensory awareness.<sup>63</sup> Second, evidence suggests that the foetus is heavily sedated by a cocktail of chemicals in the brain.<sup>64</sup> Professor Maria Fitzgerald explained to us that we know this from two areas of study:

One is from work on sheep foetuses and is by Professor David Mellor in Sydney, a huge body of work studying all of the hormones that are perfusing the brain in a foetal lamb and measuring brain activity over the whole gestation period. We know it as well from the work of Professor Lagercrantz at the Karolinska Institute who also measured equivalent hormones in human foetuses. There is very strong evidence

<sup>58</sup> *Fetal Awareness: Report of a Working Party*, RCOG Press, 1997

<sup>59</sup> SDA 04 para 6

<sup>60</sup> SDA 04 para 6

<sup>61</sup> Lowery, CL, MP, Hardman, N Manning, R Whit-Hall & KJS Anand, “Neurodevelopmental changes of fetal pain”, *Seminars in Perinatology*, vol 31 (2007) pp 275–82

<sup>62</sup> Lowery, CL, MP, Hardman, N Manning, R Whit-Hall & KJS Anand, “Neurodevelopmental changes of fetal pain”, *Seminars in Perinatology*, vol 31 (2007) pp 275–82

<sup>63</sup> Q 41, 295

<sup>64</sup> Q 37

that the foetus is effectively asleep. It is like you asking if a man who is deeply sedated feels the same as a man who is not. It is that kind of question.<sup>65</sup>

57. The fact that foetuses show reflex (not involving the cortex) actions—for example, physically recoiling or scrunching up the face at unpleasant stimuli—does not necessarily mean that foetuses are conscious or that the cerebral cortex is involved. Professor Fitzgerald provided an example that quadriplegics, whose connections between the spinal cord and the brain have been damaged so that they are unable to move or feel anything below the spinal cord lesion, will still recoil if someone puts a needle in their toe.<sup>66</sup>

### *Developmental psychology*

58. The final argument may, in turn, make the previous two arguments redundant. Its basis is the distinction between conscious pain and subconscious pain, and that conscious pain can only be felt in the context of subjective experience. Dr Derbyshire puts it thus:

Pain is not merely the response to physical injury or disease but is a higher order experience including emotional, cognitive (thinking) and sensory components. It is not something that we experience raw and then interpret post-hoc. The interpretation is the experience. [...] At birth and afterwards there is a massive increase in sensory input and this acts as a form of ‘neuronal crowd control’. Repeated sensory input during this critical period of development results in generation and stabilization of functional brain circuits with unused pathways being eliminated. This internal organization of inputs helps the differentiation and creation of feeling so that the feeling of hunger, for example, can be separated from feelings of cold.<sup>67</sup>

### *Relevance to the upper gestational limit*

59. Foetal pain is obviously something that should be considered in clinical practice; for example, in 2001 the RCOG issued a letter to its members advising them that for all abortions at 22 weeks or more, the method chosen should ensure the foetus is born dead and to consider the instillation of anaesthetic and/or muscle relaxant agents beforehand.<sup>68</sup> The relevance of foetal pain to the upper gestational limit is based on the premise that pain is a marker of consciousness.<sup>69</sup> **We conclude that, while the evidence suggests that foetuses have physiological reactions to noxious stimuli, it does not indicate that pain is consciously felt, especially not below the current upper gestational limit of abortion. We further conclude that these factors may be relevant to clinical practice but do not appear to be relevant to the question of abortion law.**

60. **We invite Members of Parliament, when considering the role, if any, of questions relating to pain, to clinical practice or abortion law, to consider our conclusions.**

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<sup>65</sup> Q 38

<sup>66</sup> Q 39

<sup>67</sup> SDA 04, para 14

<sup>68</sup> SDA 01 para 25

<sup>69</sup> Q 295

#### 4-D images and foetal consciousness

61. 4D images are 3D images that move in real time. 4D images of fetuses, a technology pioneered by Professor Stuart Campbell among others, show incredibly detailed images of 12 week fetuses appearing to stretch, kick and ‘leap’, 18 week fetuses opening their eyes and 26 week fetuses appearing to scratch, ‘smile’, ‘cry’, hiccup, and suck. It has been suggested that these images have altered the public perception of fetuses in a significant way,<sup>70</sup> although this assumption has not been examined formally. We did not receive any written evidence from Professor Campbell, although we did ask some of our witnesses to comment on his work.

62. While 4D imaging is a useful technology in terms of identifying anatomical abnormalities,<sup>71</sup> there have been no published scientific papers marking a contribution of 4D images to the scientific understanding of the neurobiology of foetal development and consciousness. Professor Maria Fitzgerald, from University College London, told us that “In terms of 4D imaging, I do not think it has told us anything about the development of the nervous system. An image of a body tells you nothing about the nervous system.”<sup>72</sup> Professor Marlow added that “[4D imaging] is helpful in terms of prediction of abnormality and therefore one is able to see structures that one would not see in ordinary, two dimensional, real time, 3D ultrasound. I do not think it tells us any more about foetal development than we probably knew already.”<sup>73</sup> This position is further supported by Professor Wyatt: “at the moment I think the consensus is they do not add a great deal in terms of the science.”<sup>74</sup>

**63. We conclude that while new imaging techniques are useful tool in diagnosis of foetal abnormality, there is no evidence they provide any scientific insights on the question of foetal sentience. We invite MPs to consider our analysis when approaching this issue.**

#### Reasons for late presentations

64. One of the key issues relating to the time limits on abortion is the reasons why women present for late abortions. The evidence we received on this issue was from the most recent survey, although it should be treated with caution since it has not been peer reviewed. However, it is undergoing the peer-review process and the full report, including the methodology, is available online.<sup>75</sup>

65. In this research, Dr Ellie Lee and colleagues argue that there are many factors that contribute to second trimester abortions. They found that 13 different reasons were

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<sup>70</sup> Q 37

<sup>71</sup> Q 34–35

<sup>72</sup> Q 37

<sup>73</sup> Q 35

<sup>74</sup> Q 44

<sup>75</sup> [www.psychology.soton.ac.uk/research/cshr](http://www.psychology.soton.ac.uk/research/cshr): Ingham, R, E Lee, S Clements & N Stone, *Second Trimester Abortions in England and Wales*, April 2007

selected by a fifth of the sample of 883 women who had terminated a pregnancy at 13 or more weeks.<sup>76</sup> These reasons were:

**Table 5: Result from survey on reasons for late presentation**

Reason	Percentage
I was not sure about having the abortion, and it took me a while to make my mind up and ask for one	41
I didn't realise I was pregnant earlier because my periods are irregular	38
I thought the pregnancy was much less advanced than it was when I asked for the abortion	36
I wasn't sure what I would do if I were pregnant	32
I didn't realise I was pregnant earlier because I was using contraception	31
I suspected I was pregnant but I didn't do anything about it until the weeks had gone by	30
I was worried how my parent(s) would react	26
I had to wait more than 5 days before I could get a consultation appointment to get the go-ahead for the abortion*	24
My relationship with my partner broke down/changed	23
I was worried about what was involved in having an abortion so it took me a while to ask for one	22
I didn't realise I was pregnant earlier because I continued having periods	20
I had to wait more than 7 days between the consultation and the appointment for the abortion*	20
I had to wait over 48 hours for an appointment at my/a doctor's surgery to ask for an abortion	20
Respondents could give more than one reason *Adjusted for missed appointments	

Source: SDA 02

66. There are a number of findings from this study, and others like it,<sup>77</sup> that are worth consideration:

- a) many women who present for late abortions do so because they did not know they were pregnant or did not know that their pregnancy was as far advanced as it was;

<sup>76</sup> Ingham, R, E Lee, S Clements & N Stone, *Second Trimester Abortions in England and Wales*, April 2007

<sup>77</sup> For example: George, A & S Randall, "Late presentation for abortion", *The British Journal of Family Planning*, 22 (1996) pp 12–15; Marie Stopes International, *Late abortion, a research study of women undergoing abortion between 19 and 24 weeks gestation*, London, MSI, 2005; Torres A, JD Forrest, "Why do women have abortions?" *Family Planning Perspectives*, vol 20 no 4 (1988) pp 169–176

- i. abortions at over 18 weeks of gestation are particularly associated with women who take a long time to discover that they are pregnant;
  - ii. women who had an abortion at over 21 weeks had reached a gestation of at least 18 weeks 2.5 days prior to taking a pregnancy test, compared with 9 weeks of gestation for those who had abortions at 13–15 weeks;
- b) many women present for late abortions because they struggle to take the decision to have an abortion.

67. The definition of a late presentation varies across Europe since different countries have different abortion time limits. It is worth considering whether a lower gestational limit “sharpens the mind”<sup>78</sup> of women considering whether to have an abortion. Dr Ellie Lee told us that she was not aware of any studies that showed that; however, different abortion laws create abortion tourism:

[J]urisdictions which have stricter controls around second trimester abortion generate abortion tourism. Lack of access to all sorts of reproductive health services creates tourism. Women travel to other countries. We know there is an inflow of women for example from France to this country for second trimester procedures.<sup>79</sup>

68. There have been reports of women going to Spain after 24 weeks although no figures are available.<sup>80</sup>

**69. We believe that consideration of these matters and the production of guidance would be better enhanced by better collection of data relating to the reasons why women present for late abortions and how many women travel overseas for late abortions, and appropriate analysis of such data, with due regard to the need to protect the confidentiality of patients.**

**70. We invite Members of Parliament to consider what research has to say about the impact that an alteration on the upper time limit would have on those women who present late for abortions.**

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<sup>78</sup> Q 75 [Dr Desmond Turner]

<sup>79</sup> Q 75

<sup>80</sup> Q 374–376



## 3 Abortion for foetal abnormality

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71. Ground E for an abortion in the Abortion Act 1967 is “there is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped”.<sup>81</sup> However, ‘physical and mental abnormalities’ are not defined, and neither is ‘handicapped’.

72. The British Medical Association (BMA) and Royal College of Obstetricians and Gynaecologists (RCOG)<sup>82</sup> have laid down guidelines by which the seriousness of a handicap should be assessed. The BMA’s recommendations are based on RCOG’s and stipulate that the following factors be taken into account:

- the probability of effective treatment, either in utero or after birth;
- the child’s probable potential for self-awareness and potential ability to communicate with others;
- the suffering that would be experienced by the child when born; and
- the impact on the family.<sup>83</sup>

### Arguments for tightening the definition

73. The decision to terminate a pregnancy is currently left to the mother (preferably parents) and the doctor in charge of her case. Evidence suggests that this may be leading to some inconsistencies. Some of the more controversial examples include:

- in 2001, a 28 week foetus was aborted because it was diagnosed with a bilateral cleft lip and palate;<sup>84</sup>
- from 1996 to 2006 there were 20 abortions for clubbed feet;<sup>85</sup> and
- in England and Wales, around half of foetuses affected by Down’s syndrome are aborted.<sup>86</sup>

74. The Christian Medical Fellowship has recommended that a legal definition be introduced so that abnormalities are treated in the same way across the medical profession.<sup>87</sup> David Randall, a final year medical student at Barts and The London Medical School, comments that:

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<sup>81</sup> S1(1) of the Abortion Act 1967

<sup>82</sup> in a 1996 RCOG Report on *Termination of Pregnancy for Fetal Abnormality*

<sup>83</sup> SDA 13 para 10

<sup>84</sup> SDA 01 para 28

<sup>85</sup> SDA 29 para 1.5

<sup>86</sup> SDA 03 p 2

<sup>87</sup> SDA 35; see also the Lejeune Clinic for Children with Down Syndrome, SDA 03, and David Randall, SDA 29.

Currently it falls on two doctors alone to assess a foetus's future level of disability, leading to an unacceptable risk of subjective decision making [...] it is therefore essential that a full evidence-based review is carried out by parliament to work towards a robust definition of the level of disability deemed to render a foetus worthy of termination.<sup>88</sup>

75. At the very least, as Professor Wyatt told us, “the wording [of the Act] could be made more precise to give [the profession a clearer understanding of] what Parliament’s intention is as to what these words should mean”.<sup>89</sup>

### Arguments against further clarification

76. The difficulty with further clarifying ‘handicap’ or ‘abnormality’ is that they are nonlinear continuums: it is impossible to create an exhaustive list of abnormalities that are considered serious enough to warrant the termination of a pregnancy. The Faculty of Sexual and Reproductive Healthcare (FSRH—formerly the Faculty of Family Planning and Reproductive Health Care) gives two reasons for this:

- a) we do not have sufficiently advanced diagnostic techniques to always be able to precisely define the abnormality and predict the seriousness of its outcome; and
- b) defining the word ‘seriously’ (as in the Act, which says ‘seriously handicapped’) is problematic: do we mean ‘serious’ for the foetus in terms of viability or residual disability (which can be physical, intellectual or social) in the child; or serious to the family into which the child would be born; a family which rejects a child who is unwanted due to disability can result in poor outcomes in the child (see the Czech Study<sup>90</sup>).<sup>91</sup>

77. The FSRH suggest an alternative:

you cannot put a scientific definition on ‘serious abnormality’ but you can put a medical one based on what is agreed between the mother of the pregnancy and the consultant in charge of her case, taking into account all clinical information available (obstetric and with information from other pertinent specialists e.g. paediatrician) and the wishes of the mother (ideally parents but ultimately the decision lies with the mother). This situation would benefit from having national clinical guidelines/standards set, laying out what information should be available and what staff are involved.<sup>92</sup>

78. FSRH and RCOG are concerned that there are many serious foetal abnormalities that manifest or become diagnosable late in the second trimester. For example, foetal cardiac scans are frequently done at 22–23 weeks in women with a suspicious prior scan. This is because the images of the foetal heart anatomy are better at the later gestational age. It may

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<sup>88</sup> SDA 29

<sup>89</sup> Q 57 [Professor John Wyatt]

<sup>90</sup> David HP, “Born unwanted, 35 years later: the Prague Study”, *Reproductive Health Matters*, vol 14 (2006) pp 181–90

<sup>91</sup> SDA 19 section 1(b); see also SDA 09, para 1.1.1

<sup>92</sup> SDA 19 section 1(b)

be that women whose fetuses have abnormalities like mild ventriculomegaly can continue their pregnancy until the prognosis becomes clearer.<sup>93</sup> Further, Dr Fiona Adshead, the Deputy Chief Medical Officer, told us that “it would be technically very difficult to define serious abnormality in terms of scans [since] what can appear to be not very serious abnormalities on a scan can actually mark a wider syndrome and serious complications and abnormalities”.<sup>94</sup>

## Our conclusions

79. We do not consider that an exhaustive list of abnormalities is feasible or desirable, although guidance for professionals who are seeking to determine ‘serious handicap’ may be feasible and of some use to the medical profession.

**80. We invite Members of Parliament, when considering whether a clarification or a definition of ‘seriously handicapped’ is desirable and/or feasible, to consider our conclusions.**

**81. The Department of Health should commission work to produce guidance that would be clinically useful to doctors and patients, and look at who is best placed to do so.**

**82. We believe that consideration of these matters and the production of guidance would be enhanced by better collection of data relating to the reasons for abortion beyond 24 weeks for foetal abnormality, and appropriate analysis of such data, with due regard to the need to protect the confidentiality of patients.**

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<sup>93</sup> SDA 30 para 1.1.2

<sup>94</sup> Q 384

## 4 Access and procedure

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83. There is wide agreement that, if society is to accept that legal abortions take place, it is preferable that these be carried out earlier rather than later in terms of gestational ages.<sup>95</sup> In this chapter we discussed ways of improving access to abortion services, particularly in the first trimester.

### Requirement for two doctors' signatures

84. The Abortion Act 1967 requires that an abortion under ground A to E is certified by two doctors, who must each sign a Department of Health HSA 1 form to give notification that the abortion has been approved and on what grounds, and an HSA 4 form for information including patient details, the method of abortion and gestation time.

85. A range of explanations have been given for the introduction of the requirement for two doctors' signatures:

- to ensure that the provisions in the legislation were being observed ;<sup>96</sup>
- to protect women;<sup>97</sup>
- to protect doctors from breaking the law ;<sup>98</sup>
- to demonstrate the medico-legal concerns of Parliament, namely that the 1967 Act did not make abortion legal but conferred upon doctors a defence against illegality—the two doctors are expected to police each other; <sup>99</sup>
- to show the seriousness of the decision to terminate; <sup>100</sup> and
- to appease the pro-life lobby. <sup>101</sup>

86. The Department of Health has ruled that both doctors are able to sign the HSA forms without seeing the patient, so long as they believe, in good faith, that the woman meets the legal grounds for abortion on the basis of the clinical notes. <sup>102</sup> We have heard that the process of certifying abortions has become, in the words of the Christian Medical Fellowship, a “sham”.<sup>103</sup> Dr Vincent Argent says that that the HSA1 form “is often considered to be just an administrative process where doctors make no attempt to form an

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<sup>95</sup> Q 319–20; SDA 1 para 39; SDA 13 para 11

<sup>96</sup> SDA 1 para 35

<sup>97</sup> SDA 07 para 9.1

<sup>98</sup> SDA 14 para 2.2.8

<sup>99</sup> SDA 35 para 19

<sup>100</sup> SDA 19 section 2(b)(1); SDA 30 para 2.2.1

<sup>101</sup> SDA 6 section 2(b)

<sup>102</sup> SDA 48 para 2.2

<sup>103</sup> SDA 35 para 20

opinion, in good faith, that the patient fulfils the grounds [for an abortion]”.<sup>104</sup> He further claims to have witnessed HSA1 signing practices that include:

- “Signing batches of forms before patients are even seen for consultation;
- Signing the forms with no knowledge of the particular patient and without reading the notes;
- Signing forms without seeing or examining the patients;
- Signing forms after the abortion has been performed;
- Faxing the forms to other locations for signature;
- Use of signature stamps without consultation with the doctor.”<sup>105</sup>

87. If requests for abortions are being ‘rubber stamped’ by doctors, either the requirement for two signatures does not play a meaningful role in abortion practice or the law is not being properly applied.

### ***Arguments in favour of removing the requirement***

88. There is widespread concern that the requirement for two signatures delays access to abortion services.<sup>106</sup> Submissions from the medical profession highlighted the issue of two signatures as a barrier to abortion services: the British Medical Association (BMA),<sup>107</sup> the Royal College of Nursing (RCN),<sup>108</sup> the RCOG,<sup>109</sup> and service providers.<sup>110</sup> An additional factor to consider in this context is the role that conscientious objectors may play in delaying access and we return to this matter below.

89. According to the RCN, there is no other medical or surgical procedure that requires the signature of two doctors before it is carried out.<sup>111</sup> Further, Professor Sally Sheldon points out that the requirement for two doctors’ signatures runs contrary to the concept of patient autonomy.<sup>112</sup> Her submission noted that judges have said that:

[A] medical practitioner must comply with clear instructions given by an adult of sound mind as to the treatment to be given or not given [...] whether those instructions are rational or irrational.<sup>113</sup>

<sup>104</sup> SDA 23 para 2.4

<sup>105</sup> SDA 23 para 2.4

<sup>106</sup> SDA 10 para vi; SDA 14 para 2.2.7; SDA 18 para 3.2.4; SDA 19 section 2(b)(2); SDA 30 para 2.2.2; SDA 33 para 3.1; SDA 45 section 2(b); SDA 46 section 2(b); SDA 48 para 2.1

<sup>107</sup> SDA 13, para 11

<sup>108</sup> SDA 18 para 3.2.1–3.2.6

<sup>109</sup> SDA 30 para 2.2.2

<sup>110</sup> SDA 48 para 2; SDA 33 para 3; SDA 43 section 2

<sup>111</sup> SDA 14 para 2.2.7; SDA 18 3.2.5; SDA 45 section 2(b)

<sup>112</sup> SDA 05 para 2.7

<sup>113</sup> Thomas Bingham M.R., *Airedale N.H.S. Trust v Bland* [1993] AC 789 at 808.

90. She also noted that pregnant women are not an exception: the Court of Appeal said that:

[P]regnancy [...] does not diminish (a woman's) entitlement to decide whether or not to undergo medical treatment [...] Her right is not reduced or diminished merely because her decision to exercise it may appear morally repugnant.<sup>114</sup>

91. We received evidence that the two signature requirement is an artefact of the legal basis of the Abortion Act 1967. Dr Peter Saunders, who spoke to us as a representative of the Alive & Kicking alliance, summed it up:

I think we have to understand this in its historical context. Abortion is quite unique because under the Offences Against the Person Act abortion is still illegal in this country, which means that if you commit an illegal abortion you can go to prison for 14 years. The reason there are two doctors in the Act has nothing to do with medicine or safety but everything to do with legality.<sup>115</sup>

92. Anne Weyman, from fpa, added:

There is absolutely no reason why we should have the two doctors' signatures, for medical or scientific reasons. It does seem rather odd that in 2007 we are still bound by an Act that was passed in 1861, the Offences Against the Person Act.<sup>116</sup>

93. We received submissions arguing that the need for two doctors signatures was superfluous since one of the grounds (C) was always met, at least in the first trimester. Most abortions in the UK take place under ground C: that "the pregnancy has not exceeded its twenty-fourth week and the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman".

94. Many submissions noted that the earlier an abortion is carried out, the safer it is, and that legal abortions carry lower risks than continued pregnancies. RCOG notes that:

This means that women in the first trimester could be seen as automatically fulfilling the criteria of the Abortion Act. Although this was not the original intention of the Act, in practice it facilitates access to induced abortion within the current law.<sup>117</sup>

95. There were dissenters to this view, but we found strong evidence that ground C is always met for first trimester abortions.

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<sup>114</sup> *George's Healthcare N.H.S. Trust, v S* [1998] 3 WLR 936 at 957

<sup>115</sup> Q 300

<sup>116</sup> Q 301 [Ms Weyman]

<sup>117</sup> SDA 30, para 2.1.1

### *Arguments in favour of retaining the requirement*

96. Abortion is not like other kinds of procedures. The Society for the Protection of Unborn Children (SPUC) points out that abortions are typically performed on healthy women and foetuses, and Rev Dr Peter Fleming, from SPUC, told us that:

This is a particular kind of procedure. You are talking about a medical procedure often being prescribed for a social reason or a psychiatric reason and that is highly unusual in medicine. Usually a medical procedure is done for a medical reason. This is not being done for a medical reason and in that case, if the professed reason initially is a psychiatric indication you would think that somebody who has psychiatric expertise would be able to do it.<sup>118</sup>

### *Our conclusions*

97. We questioned the Government on the requirement for two doctor's signatures, since we have received evidence that the requirement is causing delays. If these claims are accurate, the requirement runs contrary to the Government's pursuance of its policy to increase the ratio of early to late abortions.<sup>119</sup> The Minister told us that the high percentage (89%) of abortions that take place in the first trimester is an indicator that "there is not a problem".<sup>120</sup> We recognise, however, that this does not cast any light on the question since improvements in the proportion of abortions taking place earlier may be despite these delays, rather than evidence that they do not exist. The Government is some way from meeting its aim of all PCTs carrying out a majority of abortions by 9 weeks and eventually 70% by 9 weeks.<sup>121</sup>

98. The RCOG have said that there are situations where a second opinion might be appropriate, for example, in complex cases like late foetal abnormality, the very young and those with learning disabilities.<sup>122</sup> We recognise that this is good clinical practice, involving a formal consultation between the doctors and is a separate matter from the requirement for two doctors' signatures on a form.

**99. We were not presented with any good evidence that, at least in the first trimester, the requirement for two doctors' signatures serves to safeguard women or doctors in any meaningful way, or serves any other useful purpose. We are concerned that the requirement for two signatures may be causing delays in access to abortion services. If a goal of public policy is to encourage early as opposed to later abortion, we believe there is a strong case for removing the requirement for two doctors' signatures. We would like see the requirement for two doctors' signatures removed.**

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<sup>118</sup> Q 300 [Rev Dr Fleming]

<sup>119</sup> SDA 01 para 39

<sup>120</sup> Q 322

<sup>121</sup> Ref: [http://www.medfash.org.uk/publications/documents/Recommended\\_standards\\_for\\_sexual\\_health\\_services.pdf](http://www.medfash.org.uk/publications/documents/Recommended_standards_for_sexual_health_services.pdf) for standards and <http://www.healthcarecommission.org.uk/healthcareproviders/nationalfindings/nationalthemedreports/sexualhealth/improvingsexualhealthservices.cfm> for 2005/6 performance.

<sup>122</sup> SDA 30

100. **Members of Parliament, when considering whether the requirement for two signatures safeguards the interests of women and doctors or any other purpose, are invited to consider our conclusions.**

### Other causes of delay

101. As we discussed above in paragraph 88, we heard evidence that an additional factor to consider in relation to potential delay in accessing services is the role that conscientious objectors may play in delaying access. The fpa points out that 18–24% of medical practitioners describe themselves as broadly anti-abortion and do not refer women.<sup>123</sup> Although this finding is in a non-peer reviewed report, it is supported by another publicly available report, Ingham et al (2007),<sup>124</sup> which we discussed in relation to late presentation for abortion, and by Brook’s submission.<sup>125</sup> While this is not conclusive, it is indicative of a problem. However, we do not question that the right for conscientious objection in the medical profession should be protected.

102. We note that in the guidelines commissioned and promoted by the Department of Health, it is recommended that practitioners who conscientiously object should refer the patient as soon as possible to another doctor who does not conscientiously object:

Practitioners who are ethically opposed to abortion should follow relevant professional guidance (see Guidance on practice) for those with conscientious objection. Where such practitioners receive an abortion request, they should follow professional and contractual obligations to refer without delay to another practitioner who has no such objection or directly to an abortion service.<sup>126</sup>

Professional guidance is not as clear as this and **we urge the General Medical Council, while preserving the right of doctors to conscientiously object and not to refer directly to another doctor for an abortion unless it is an emergency, to make clear that conscientious objectors should alert patients to the fact that they do not consult on abortions and that if the issue arises during a consultation that they have a duty immediately to refer the patient to another doctor for the consultation.**

### Involvement of nurses

103. Current legislation requires that an abortion must be conducted by a ‘registered medical practitioner’. This means ‘registered with the GMC’, which means that only doctors can perform abortions in the UK. When the law was drafted, abortion was exclusively a surgical procedure, and so the role of nurses was relatively restricted. Today, however, there are two forms of abortion: surgical and medical, and the techniques in each vary by gestation.<sup>127</sup> Early medical abortions (up to ten weeks) are carried out by the

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<sup>123</sup> SDA 10 para 2.10 cite *General Practitioners: attitudes to abortion*, Marie Stopes International, London 1999

<sup>124</sup> Ingham, R, E Lee, S Clements & N Stone, *Second Trimester Abortions in England and Wales*, April 2007

<sup>125</sup> SDA 33 para 3.1

<sup>126</sup> [http://www.medfash.org.uk/publications/documents/recommended\\_standards\\_for\\_sex\\_health\\_services.pdf](http://www.medfash.org.uk/publications/documents/recommended_standards_for_sex_health_services.pdf)

<sup>127</sup> <http://www.bpas.org/abortions/options.html>



administration of two sets of pills. DH figures indicate that 70% of abortions were performed surgically and 30% were early medical abortions in 2006.

104. In 1981, the House of Lords ruled that for medical abortion the practitioner is not required to perform personally each and every action needed for the treatment. Many abortion services rely on nurses to run their medical abortion units, but nurses are not permitted to sign the authorisation forms or prescribe the necessary medication; nor are they allowed to perform early surgical abortions. However, nurses are involved in every other aspect of the procedure and the RCOG notes that “Many hospital based abortion services already rely on nurses to run their medical abortion units”.<sup>128</sup> Further, Kathy French from the RCN, told us that “There is a small group of nurses within abortion services who would like, with appropriate training [...] to be able to do the very early medical abortions”.<sup>129</sup>

### ***Arguments in favour of increasing nurses’ responsibilities***

105. A number of submissions argue that trained nurses and midwives should be able to carry out medical and surgical abortions with appropriate supervision.<sup>130</sup> There are three key arguments.

- a) Nurses and midwives perform a range of complicated procedures including colposcopies and hysteroscopies, and fitting sub-dermal implants.<sup>131</sup> Nurses also routinely fit contraceptive coils (IUD/IUS), which require about the same level of skill as manual vacuum aspiration, a method of early surgical abortion (offered from 4–12 weeks of gestation) which involves the removal of the contents of the uterus using a gentle hand-operated suction pump.<sup>132</sup>
- b) Nurses are already allowed to prescribe mifepristone for medical needs other than abortion. Mifepristone is listed in the British National Formulary (BNF) for Nurse Independent Prescribing (NIP).<sup>133</sup> Women who have experienced a spontaneous miscarriage self-administer misoprostol at home to ensure the safe expulsion of the miscarried pregnancy.<sup>134</sup>
- c) Nurses already carry out medical and sometimes surgical abortions in some US states and in South Africa with good safety profiles.<sup>135</sup> Further, research has been conducted to assess the safety of allowing nurses rather than doctors to perform abortions. For example, complication rates for surgical abortions performed by physician assistants were compared with complication rates for surgical abortions performed by physicians in Vermont and New Hampshire. For physician assistant performed abortions, the

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<sup>128</sup> SDA 30 para 2.3.1

<sup>129</sup> Q 191

<sup>130</sup> SDA 18 para 1.2; SDA 19 section 2(c); SDA 23 para 1.2; SDA 30 para 2.3.1

<sup>131</sup> SDA 18 para 3.4.1

<sup>132</sup> SDA 48 para 3.3

<sup>133</sup> SDA 18 para 3.5.1

<sup>134</sup> SDA 48 para 4.4

<sup>135</sup> SDA 10 para 2.15; SDA 19 section 2 (c); SDA 23 para 1.2

complication rate was 22.0 per 1000 compared to 23.3 per 1000 for physician performed abortions, which is not statistically different.<sup>136</sup> The involvement of nurses and midwives in other countries, including Sweden, Norway, France, Vietnam, Cambodia, Bangladesh and Mozambique, is outlined by Reproductive Health Matters's submission.<sup>137</sup>

106. Dr Vincent Argent has suggested that, since nurses in practice carry out the whole of early medical abortions including consultation, treatment and after-care, nurses should be able to sign HSA1.<sup>138</sup> We heard from Kathy French that:

In terms of early medical abortion, currently nurses provide all of the care for the women, apart from prescribing the medication needed. Many of our colleagues tell us that this is a great disadvantage to them, that they could actually speed up the process once that woman has decided that is her option.<sup>139</sup>

### **Arguments against increasing nurses' responsibilities**

107. The principal argument used against increasing the role that nurses and midwives play in abortion services is one of safety. The Christian Medical Fellowship has argued that nurses should not be permitted to perform abortions since "Medical abortion is not as safe as commonly assumed and it is not always effective".<sup>140</sup> Further, the BMA recently voted against a motion to increase the role of nurses. Dr Tony Calland, Chair of the BMA Medical Ethics Committee, told us:

I cannot quote you any evidence but the [...] the debate at the conference on this issue was about patient safety. It was felt, maybe not surprisingly since we were all doctors there, that it would be safer if doctors [performed early medical abortions] rather than nurses.<sup>141</sup>

### **Our conclusions**

108. We consider the matter of safety of medical abortions in more detail in chapter 5. However, **we are satisfied that there is adequate evidence, particularly in terms of the roles that nurses already play in service provision and in terms of the international experience, to conclude the following:**

- **that subject to usual training and professional standards nurses (and midwives) could be permitted to sign the HSA 1 form, for which they currently obtain consent, and prescribe the necessary drugs, which they currently administer;**

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<sup>136</sup> Goldman MB, JS Occhiuto, LE Peterson, JG Zapka, & RH Palmer, "Physician assistants as providers of surgically induced abortion services", *American Journal of Public Health*, vol 94, no 8 (2004) pp 1352–1357; quoted in SDA 10 para 2.15

<sup>137</sup> SDA 25

<sup>138</sup> SDA 23 para 2.6

<sup>139</sup> Q 187

<sup>140</sup> SDA 35 para 22

<sup>141</sup> Q201

- that permitting nurses and midwives to sign the HSA 1 form and prescribe the necessary drugs would not alter the rates of failed and incomplete abortions, abdominal pain or uterine cramping, nausea, vomiting, diarrhoea, vaginal bleeding or spotting, or pelvic inflammatory disease that can be associated with EMA;
- that since, as will be discussed below, most women go home after taking the second pill, there is no direct involvement with either nurses or doctors at this point. What is crucial is the ready availability of appropriate care should a complication arise, and clear instructions to women about what to do in the event of complications, something that nurses routinely give;
- that subject to usual training and professional standards nurses (and mid-wives) could be permitted to carry out early surgical abortions; and
- that such practice would not compromise patient safety or quality of care.

109. We recommend that when Members of Parliament consider whether the statutory ban on anyone else than doctors carrying out abortion should remain, they consider the evidence and conclusions in this report.

### Places where abortions can be carried out

110. Current legislation stipulates that, except in an emergency, an abortion must be conducted in an NHS hospital or a place approved by the Secretary of State. This means that most abortions take place in NHS gynaecology wards, NHS day care units and private clinics. In 2006, 39% of abortions were performed in NHS hospitals and 48% in approved independent sector places under NHS contract.<sup>142</sup>

111. When this legislation was put in place, abortion was a surgical procedure. That is why places were specified where abortions could be carried out. However, in the last 10 years, medical abortions have increased in frequency, the requirements of which, from a medical provisions point of view, are markedly different. It is common practice in other countries for the second stage of an early medical abortion to be completed at home. We have taken evidence on the safety, effectiveness and acceptability of carrying out the second stage of a medical abortion at home.

112. Medical abortions take place in two stages. First, a single dose of mifepristone is given orally, which blocks the pregnancy hormones so that the pregnancy ceases to be viable. Upto 48 hours later—and conventionally 24–48 hours later—a second drug, either misoprostol or gemeprost, is then administered vaginally or is swallowed. It causes the uterus to contract and to expel the pregnancy much like a miscarriage. Women are now offered the option of going straight home after taking the second pill, which most do, in order to make themselves comfortable before this process starts. In the UK misoprostol is treated as an abortifacient, and therefore women must visit a clinic to obtain the second pill. In the USA, the second stage of a medical abortion is frequently self-administered by the woman in her own home.<sup>143</sup> The practice of administering the second drug in medical

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<sup>142</sup> *Statistical Bulletin: Abortion Statistics, England & Wales: 2006* Department of Health 2007

<sup>143</sup> SDA 10 para 2.18

abortions at home would probably require legislative change, according to the Department of Health, citing legal advice.<sup>144</sup>

113. The Department was granted the power by Parliament to define ‘class of place’ in 1990, with a view to (at some point) enabling a woman’s home to be considered appropriate for the administration of the second stage of medical abortion. The Department confirmed that if these regulations were issued, then it would be possible to enable women to have the option of taking the second stage of EMA at home.<sup>145</sup>

114. The Department of Health has told us that it is currently funding two hospital trials into early medical abortion services in non-traditional settings. One site is within a community hospital; the other is in a stand-alone unit within an acute hospital. A formal evaluation is underway to assess the safety, effectiveness and patient acceptability of this service.<sup>146</sup> However, on questioning the Minister, these trials appear to be so “cautious”<sup>147</sup> as to add little to the current body of evidence. They do not test home administration of the second stage of EMA, and it is hard to fathom precisely what different practice they are seeking to evaluate.

### ***Arguments to allow the second pill to be taken at home***

115. A pilot study has already been undertaken to assess the safety, effectiveness and acceptability of completing the second stage of a medical abortion at home in the UK. However, further study has not been possible because DH indicated this was not lawful, without legislative change.<sup>148</sup>

116. Outside the UK, research has shown that self-administration of misoprostol at home is safe, effective and acceptable.<sup>149</sup> For example, in America where misoprostol is routinely self-administered at home, the estimated case-fatality rate for medical abortion is 0.8 deaths per 100,000 procedures, which is statistically indistinguishable from the risk of death from miscarriage, 0.7 per 100,000 miscarriages; in 1997, the pregnancy related mortality ratio in America was 12.9 deaths per 100,000 live births.<sup>150</sup> From a legal perspective, it is worth noting that in Norway, which has a law similar to the UK, only the mifepristone must be taken in a clinic, as this is regarded as the abortifacient. Misoprostol is viewed as a supporting medication, because it is taken to enable the safe and prompt expulsion of the products of conception.<sup>151</sup> It is noteworthy that in the UK misoprostol is

<sup>144</sup> SDA 30 para 2.3.3; Q 360–361; SDA 01A, Annex C

<sup>145</sup> SDA 01A Annex C

<sup>146</sup> SDA 01 para 16

<sup>147</sup> Q 356–63

<sup>148</sup> Q 359, in reference to Hamoda H, P Ashok, G Flett & A Templeton, “Home self-administration of misoprostol for medical abortion up to 56 days’ gestation”, *Journal of Family Planning and Reproductive Health Care*, vol 31 no 3 (2005) pp 189–192

<sup>149</sup> SDA 10 para 2.2; SDA 19 section 2(c); SDA 48 para 4.3

<sup>150</sup> SDA 10 para 2.2 cites Grimes D, “Risks of mifepristone abortion in context”, *Contraception*, vol 71 no 3 (2005) p 161 and Grimes D, “Estimation of pregnancy-related mortality risk by pregnancy outcome, United States, 1991 to 1999”, *American Journal of Obstetrics and Gynecology*, vol 194 no 1 (2006) pp 92–94

<sup>151</sup> SDA 48 para 4.2

prescribed for home-self-administration to women who have experienced a spontaneous miscarriage to ensure the safe expulsion of the miscarried pregnancy.<sup>152</sup>

### **Arguments against allowing the second pill to be taken at home**

117. The concerns regarding home-self-administration are based around the safety of medical abortions. Dr Chris Richards and Dr Mark Houghton argue that relatively minor complications such as abdominal pain and nausea occur in the majority of women after taking mifepristone; vaginal bleeding usually continues for between 9-16 days, but sometimes much longer; and 5–8% of women require surgical intervention following medical termination.<sup>153</sup> Further, they argue that medical abortions have ten times the mortality of surgical abortion: there have been five deaths in North America following medical abortion using mifepristone, from infection, in most cases, with *Clostridium sordellii*.<sup>154</sup>

### **Our conclusion**

118. The RCOG (echoed by Dr Vincent Argent) has recommended that a trial needs to be done to assess the safety, effectiveness and acceptability of self-administration of misoprostol at home, although no reason is given as to what concerns there are that a practice commonplace abroad, without problems with safety, efficacy and acceptability, requires trials here.<sup>155</sup>

119. Dr Argent further pointed out that:

For patient safety there needs to be a comprehensive advice service and back-up service with access to clinics that can see the patient fairly soon. That would mean having access at night and during the weekends.<sup>156</sup>

Such a service is already in place for those providers who allow women the choice of going home to complete the termination, but it may not yet be in place in more traditional settings.

120. We were impressed by the evidence that there are no particular safety concerns about early medical abortions on three grounds. First, the studies that have assessed the safety of medical abortions have been conducted so as to compare the relative safety of procedures with letting a pregnancy continue to term. The fact that medical abortions also cause unpleasant symptoms is not a reason for restricting the administration of misoprostol to a clinic; especially when the majority of women choose to go home after taking misoprostol, presumably because they want to be as comfortable as possible when these symptoms manifest. Second, the reported mortalities associated with medical abortions are “rarer

<sup>152</sup> SDA 48 para 4.4

<sup>153</sup> SDA 24 para 6.4.2

<sup>154</sup> SDA 24 para 6.4.3; Professor Allan Templeton, special adviser to the Committee, informs us that the number of deaths in North America is now six.

<sup>155</sup> SDA 30 para 2.3.3; Q 235

<sup>156</sup> Q 225

than anaphylaxis after being given a shot of penicillin”.<sup>157</sup> Thirdly, women already take misoprostol at home to complete natural miscarriages with no apparent safety concerns.

121. The RCOG guidelines, which have been peer-reviewed, state:

41 “For early medical abortion a dose of 200 mg of mifepristone in combination with a prostaglandin is appropriate”, with an evidence base of class A<sup>158</sup>; and

43. “Based on available evidence, the following regimen appears to be optimal for early medical abortion up to 9 weeks (63 days) of gestation. This advice is based on considerations of efficacy, adverse-effect profile and cost:”, with an evidence base of class B<sup>159</sup>.

122. The Minister admitted to us in oral evidence that the slow progress in the Secretary of State specifying a class of place to include a woman’s home for the purpose of the administration of the second stage of an EMA—over 16 years since the 1990 Act allowed this—was not due to concerns over safety, effectiveness or acceptability.<sup>160</sup>

**123. We conclude that, subject to providers putting in place the appropriate follow up arrangements, there is no evidence relating to safety, effectiveness or patient acceptability that should serve to deter Parliament passing regulations which would enable women who chose to do so taking the second stage of early medical abortion at home, or that should deter Parliament from amending the act to exclude the second stage of early medical abortion from the definition of “carrying out a termination”. This would enable a trial to take place.**

**124. We invite Members of Parliament to consider our conclusions when considering the question of whether the 1967 Act should be amended or regulations passed to enable the second stage of early medical abortion to be self-administered in a woman’s home.**

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<sup>157</sup> Q 156 [Dr Rowlands]

<sup>158</sup> See Glossary for definition

<sup>159</sup> See Glossary for definition

<sup>160</sup> Q 363

## 5 Impact of abortion on women's health

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125. The debate on health risks associated with abortion is fierce. The most comprehensive and rigorous review of the evidence on health risks for women has been produced by the RCOG.<sup>161</sup> The results of this review were condensed to form guidelines that are followed by nurses and physicians in obtaining consent. The guidelines that are relevant to the impact of abortion on women's health (chapter 5 of the RCOG report) are discussed below and reproduced in full in the Appendix. The work underpinning these guidelines was done in the way identified as good practice in medical and scientific circles, with an expert group, and external reference group and peer review. In addition, the evidence base underpinning recommendations is fully referenced and graded according to its strength.

126. Before we approach the evidence, it is worth noting two issues relating to how the conclusions are drawn. First, a correlation is not the same as a causal link. Abortion is a difficult subject to study since there are so many factors that influence the outcome a pregnancy and/or abortion and it is exceedingly difficult to control for all these variables. This is an issue that permeates the entire body of evidence relating to health risks and abortion.

127. The second is a problem regarding which comparison groups are most appropriate. Dr James Trussel, Professor Katherine Guthrie and Dr Sam Rowlands outlined a range of design studies, which we have paraphrased here:<sup>162</sup>

- ***Ideal design***—Women with unwanted pregnancies would be randomly assigned to receive an abortion or to have their request denied without the possibility of their having a termination elsewhere. Of course, research ethics prohibit this type of study from being carried out.
- ***Next best***—Women with unwanted pregnancies who have abortions are compared with women who have unwanted pregnancies but whose request for an abortion is denied.
- ***Farthest from ideal***—Women with unwanted pregnancies who have abortions are compared with women who got pregnant because they wanted to become mothers and went on to have a child. These are not comparable groups.
- ***Next farthest from ideal***—Women with unwanted pregnancies who have abortions are compared with all women giving birth, some of whose births would be unwanted.

128. To which we would add:

- ***Next farthest from ideal 2***—Women with unwanted pregnancies who have abortions are compared with women who have not had a pregnancy.

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<sup>161</sup> *The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number 7*, RCOG, September 2004

<sup>162</sup> SDA 52

- *Next farthest from ideal 3*—Women with unwanted pregnancies who have abortions are compared with women whose pregnancies miscarried naturally; some of these pregnancies would have been unwanted.

129. A range of comparison groups were used in the studies brought to our attention and we will draw attention to some of these in the following discussion.

### Mental health risks

130. In relation to mental health risks associated with abortion, the RCOG guidelines summary states that “*some studies suggest that rates of psychiatric illness or self-harm are higher among women who have had an abortion compared with women who give birth and to nonpregnant women or similar age. It must be borne in mind that these findings do not imply a causal association and may reflect continuation of pre-existing conditions.*”<sup>163</sup> They assign it an evidence-base of class B strength.<sup>164</sup>

131. There are many papers on the mental health risks of abortion. Some conclude that there is a health risk; others conclude that there is not. Professor Patricia Casey points out that opponents pick on different flaws in the research.<sup>165</sup> She says that:

Criticisms of papers that argue that there are mental health risks associated with abortion include:

- failure to control for confounders such as previous psychiatric history;
- using data obtained from women seeking psychological treatment post-abortion;
- comparing inappropriate groups, for example, women who have had abortions and women who have given birth; and
- using limited outcome measures, for example, psychiatric hospitalisation or receiving out-patient treatment.

Criticisms of papers that argue that abortion does not increase mental health problems include:

- the absence of long-term data spanning years/decades;
- high attrition rates in follow-up studies reducing the potential for identifying psychological problems; and
- small sample sizes.

132. In submissions to this inquiry, the most commonly quoted paper on mental health following abortion, and one of the most robust, is Fergusson et al 2007.<sup>166</sup> It found that

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<sup>163</sup> *The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number 7*, RCOG, September 2004 p 35

<sup>164</sup> See Glossary for definition

<sup>165</sup> SDA 31. Please see also SDA 26A, SDA 52, SDA 2A

<sup>166</sup> Fergusson M, JM Boden & LJ Horwood, “Abortion among young women and subsequent life outcomes”, *Journal of Child Psychology and Psychiatry*, vol 47 (2007) pp 16–24



those who had an abortion had elevated rates of depression, anxiety, suicidal behaviours and substance misuse disorders. The authors note a number of strengths and weaknesses of the study.

- Strengths: (a) the use of longitudinal design; (b) assessment of mental disorders using standardised diagnostic criteria; (c) the availability of a range of concurrent and prospectively assessed covariate factors; and (d) adjusted contrasts between those having abortion and equivalent groups of those becoming pregnant and those not pregnant.
- Weaknesses: (a) omitted covariates, although the study did include an impressive list of covariates; (b) comparison of the rates of abortion reported by the study's cohort differ from the rates in official record data, suggesting an underreporting of abortion rates; and (c) the lack of information on contextual factors associated with the decision to seek an abortion, e.g., the results may reflect the effects of unwanted pregnancy, rather than abortion, on mental health. (See paragraph 134 below.)

133. It is noteworthy that references to the Fergusson et al 2007 study from some pro-life groups make no mention of the weaknesses (for example, the ProLife Alliance<sup>167</sup> or CARE<sup>168</sup>) and those from some pro-choice groups make no mention of the strengths (for example, fpa<sup>169</sup>). The BMA make balanced reference to it.<sup>170</sup>

134. Our concern with this study, and others like it, is that it compares women who have had an abortion with women who have had children or who did not become pregnant. None of these groups are comparable. Furthermore, the extent to which the pregnancies were wanted was not controlled for. The Committee has seen a communication from Dr Fergusson—with his permission—where he expresses regret that the study has been “talked-up” by those who argue that it proves a causative link between induced abortion and subsequent psychiatric morbidity, pointing to another study he has carried out suggesting a causative link between abortion and better outcomes in young women compared to match controls who continued the pregnancy.<sup>171</sup>

135. The most frequently cited paper with the comparison groups we have identified as preferable is Gilchrist et al 1995.<sup>172</sup> Its strength is its range of comparison groups: women who had an abortion, women who did not request an abortion but whose pregnancy was unplanned, women who were refused an abortion, and women who changed their minds before the abortion was performed. It calculated risk ratios with reference to the group of those who did not request an abortion and reported that rates of psychiatric disorder were no higher after an abortion than after child birth; that women with a previous history of

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<sup>167</sup> SDA 07 para 7.1

<sup>168</sup> SDA 34 section 3(i)

<sup>169</sup> SDA 10 para 3.10

<sup>170</sup> SDA 13 para 17

<sup>171</sup> SDA 2A; Ferguson M, J M Boden & L J Horwood, “Abortion among young women and subsequent life outcomes”, *Perspectives on Sexual and Reproductive Health* vol 39 no 1 (2007) pp 6–12

<sup>172</sup> Gilchrist AC, PC Hannaford, P Frank & CR Kay, “Termination of Pregnancy and Psychiatric Morbidity”, *British Journal of Psychiatry*, vol 167 (1995) pp 243–248

psychiatric illness were most at risk of disorder after the end of their pregnancy, whatever its outcome.

136. Gilchrist et al 1995 does, however, have weaknesses. For example, the authors accept that the 'women who were refused an abortion' group was much smaller than the other groups, significantly reducing the power to detect important effects.<sup>173</sup> Also, there was uncertainty about whether this group did in fact include women who, although they had been refused an abortion in one place, had successfully sought an abortion elsewhere.<sup>174</sup> The authors became concerned when they noticed that the reported rate of miscarriage was much higher among those women who had been refused an abortion. To be safe, the data were reanalysed without the women who had reported miscarriages and this "did not materially alter our findings".<sup>175</sup>

137. We received little information on other studies that compared women who had abortions with those who were refused abortions. Dr Sam Rowlands introduced a study that examined the effect on children who are the result of pregnancies where an abortion was refused.<sup>176</sup> These children were breast-fed less, suffered more childhood illness, displayed behavioural problems and achieved poorer school performance, and when they reached their 20s they had more social problems, lower job dissatisfaction, fewer friends, more criminality and more drug and alcohol problems. These results are consistent with the conclusions of Joyce et al 2000<sup>177</sup>, who conclude that "unwanted pregnancy is associated with prenatal and postpartum maternal behaviors that adversely affect infant child health, but that unwanted pregnancy has little association with birth weight and child cognitive outcomes". However, they gave a word of warning that "Estimates of the association between unwanted pregnancy and maternal behaviors were greatly reduced after controls for unmeasured family background were included in the model".

138. Several submissions noted research showing that all cause death rates are higher amongst women who have had abortion compared with those who had given birth.<sup>178</sup> Dr Chris Richards and Dr Mark Houghton, for example, refer to a Finnish study that reports age-adjusted odds ratios<sup>179</sup> of 1.63 for deaths from natural causes, 4.24 for deaths from accidents, 6.46 for deaths from suicide, and 13.97 for deaths from homicide. However, even though this study and others like it are controlled for demographic characteristics, socioeconomic status, health status and medical disorders, the comparison groups are inappropriate for answering a question about the causal link between abortion and all-cause morbidity.

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<sup>173</sup> SDA 24A; Gilchrist et al 1995 p 244

<sup>174</sup> SDA 24A

<sup>175</sup> Gilchrist et al 1995 p 247

<sup>176</sup> SDA 26 para 35, cited David HP, Z Dytrych & Z Matejcek, "Born unwanted: observations from the Prague study", *American Psychologist*, vol 58 (2003) pp 224–229

<sup>177</sup> Joyce TJ, R Kaestner & S Korenman, "The effect of pregnancy intention on child development", *Demography*, vol 37 (2000) pp 83–94

<sup>178</sup> e.g., SDA 22; SDA 40

<sup>179</sup> 'Age-adjusted odds ratio' is the number of times more likely that a woman of a certain age after an induced abortion dies in a particular way than if she kept her baby.

139. In view of the controversy in this area, we recommend that the Royal College of Psychiatrists update their 1994 report on this issue.

140. We conclude that there is no strong evidence which contradicts the wording of the current RCOG guidelines on the risk to mental health of induced abortion.

## Physical health risks

### *Future reproductive outcomes*

141. In relation to future reproductive outcomes, the RCOG guidelines state that “*there are no proven associations between induced abortion and subsequent ectopic pregnancy, placenta praevia or infertility. Abortion may be associated with a small increase in the risk of subsequent miscarriage or preterm delivery.*”<sup>180</sup> They assign it an evidence-base strength of class B.

142. The evidence we received indicates that abortions carry a small increased risk of subsequent premature births<sup>181</sup> and may carry a small increased risk of miscarriage<sup>182</sup>. A review by Thope et al (2002) concludes that:

The population-based studies we reviewed suggest that induced abortion increases the risk of preterm birth in subsequent pregnancies. Moreover, these reports suggest that a dose response effect is present with increasing numbers of abortions associated with increasing risk.<sup>183</sup>

143. Dr Sam Rowlands points out that some studies, including a large well-designed 2006 study, show no links.<sup>184</sup> Dr Rowlands’ view is that the evidence on pre-term delivery is still contradictory but commends the precautionary approach taken by the RCOG guidelines.<sup>185</sup>

144. Professor Jane Norman, from RCOG, however, explained that the risk of subsequent preterm deliveries could be reduced:

We know that if women have abortions earlier they are less likely to have cervical damage which may lead to preterm birth. If they have their abortions done by people who are expert, again that reduces that risk.<sup>186</sup>

145. The evidence on miscarriage is less strong. The Thorpe et al (2002) review found no relationship between induced abortion and miscarriages in subsequent pregnancies, but Dr

<sup>180</sup> *The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number 7*, RCOG, September 2004 p 33

<sup>181</sup> SDA 07 para 6.2; SDA 10 para 3.8; SDA 17 para 3; SDA 22 para 1; SDA 34 section 3(iii); SDA 35 para 26-28; SDA 38 para 3-15; SDA 42 para 22

<sup>182</sup> SDA 07 para 6.1; SDA 26 para 10-12

<sup>183</sup> Thorp JM, KE Hartmann & E Shadigian, “Long-term physical and psychological health consequences of induced abortion: review of the evidence”, *Obstetrical and Gynecological Survey*, vol 58 no 1 (2002) pp 67-79

<sup>184</sup> SDA 26 and 26A

<sup>185</sup> SDA 26 para 15

<sup>186</sup> Q149 [Professor Norman]

Sam Rowlands points out that the literature on this issue is conflicting: “Two cohort and three case-control studies published prior to 1999 found no association. However two more recent studies have shown a positive association between abortion and subsequent miscarriage.”<sup>187</sup> The reason that one might expect there to be a link is that “It is recognised that during abortion the cervix (neck of the womb) may be damaged. It has been hypothesised that such injury could make it less competent in subsequent pregnancies and so less able to ‘hold a pregnancy in’.”<sup>188</sup>

146. The evidence is not strong when it comes to establishing a link between abortion and:

- ectopic pregnancy (when the embryo implants outside the womb, for example, in the fallopian tube);
- placenta praevia (when the placenta is low in the uterus and covers all or part of the cervix); and
- infertility.

147. For example, of the risk of infertility, the SPUC comments that:

Infection can result from abortion, leading to an increased risk of infertility. This risk is particularly relevant where there is a pre-existing genital infection. This is often dismissed as being unrelated to the abortion procedure, but clearly the procedure can facilitate the spread of infection in the reproductive system.<sup>189</sup>

148. Dr Sam Rowlands argues that measures to prevent infection are now routine practice and that “there is no proven increased risk of subsequent infertility when an abortion is carried out in proper, safe, medical conditions and is not complicated by pelvic inflammatory disease”.<sup>190</sup>

149. Similarly, on placenta praevia, the SPUC argues that previous abortion is a risk factor, although not when the method used is vacuum aspiration.<sup>191</sup> However, Dr Sam Rowlands argues that the best study of its kind<sup>192</sup> does not show a link and that earlier, less well designed studies, show variable results.<sup>193</sup>

**150. We found no strong evidence of links between abortion and negative future reproductive outcomes with the exception of a possible link with future pre-term deliveries and miscarriages. We conclude that there is no strong evidence which contradicts the wording of the current RCOG guideline on the risk to future reproductive health of induced abortion.**

<sup>187</sup> SDA 26 para 11

<sup>188</sup> SDA 26 para 10

<sup>189</sup> SDA 42 para 23

<sup>190</sup> SDA 26 para 4–7

<sup>191</sup> SDA 42

<sup>192</sup> namely, a large Danish cohort study based on record linkage: Zhou W, Nielsen GL, Larsen H, Olsen J. Induced abortion and placental complications in the subsequent pregnancy. *Acta Obstetrica et Gynaecologica Scandinavica* vol 80 (2001) pp 1115–1120

<sup>193</sup> SDA 26, para 8–9

### Breast cancer

151. In relation to breast cancer, the RCOG guidelines state that “*induced abortion is not associated with an increase in breast cancer risk.*”<sup>194</sup> They assign it an evidence base strength of class B.

152. Dr Joel Brind submitted evidence to this inquiry that claims there is a link between breast cancer and abortion.<sup>195</sup> He is critical of the *Lancet*-published 2004 meta-analysis by Valerie Beral and colleagues from Oxford University—which found no link between breast cancer and abortion—because it omitted some studies which he considered valid and included others that he considered invalid. Dr Sam Rowlands made a similar accusation of Dr Brind’s submission, however, pointing out that several key papers were missing.<sup>196</sup>

153. Dr Richards told us that “if you compare women who keep their pregnancy with those who have an induced abortion, those who have an induced abortion are more likely to get breast cancer later on”.<sup>197</sup> This is the comparative group that Dr Brind favours and the result is expected, since carrying a first pregnancy to birth is protective against breast cancer.<sup>198</sup> However, if you look at the rates of cancer between women who have had an abortion and those who have not had children, the effect disappears. Dr Rowlands comments that:

at least nine prospective cohort studies which are more likely to give reliable results: these show no association or a negative association. Recall bias does not occur in record-linkage studies in which study subject data are present in databases; there are now seven such studies published, all of which show no association. Two recent cohort studies of high quality also show no association.<sup>199</sup>

154. **We found no evidence which contradicts the wording of the RCOG guidelines on the risk of breast cancer.**

### Post abortion infection

155. In relation to post abortion infection, the RCOG guidelines state that “*genital tract infection, including pelvic inflammatory disease of varying degrees of severity, occurs in up to 10% of cases. The risk is reduced when prophylactic antibiotics are given or when lower genital tract infection has been excluded by bacteriological screening.*”<sup>200</sup> They assigned an evidence base strength of class B.

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<sup>194</sup> *The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number 7*, RCOG, September 2004 p 32

<sup>195</sup> SDA 15

<sup>196</sup> Q 134

<sup>197</sup> Q 130

<sup>198</sup> SDA 42 para 28, Verlinden I, N Gungor, K Wonters, J Janssens, J Raus & L Michiels “Parity-induced changes in global gene expression in the human mammary gland.” *European Journal of Cancer Prevention*, vol 14 no 2 (2005) pp129–137

<sup>199</sup> SDA 26 para 17

<sup>200</sup> *The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number 7*, RCOG, September 2004 p 32

**156. We did not receive any evidence which undermined the RCOG guidelines on post abortion infection.**

### ***Restriction of access to abortion***

157. We did not receive a great deal of information on the effect of the restriction of access to abortion. However, in countries where abortion is illegal, the health impact on women is well documented: for example, the WHO estimates that 68,000 women worldwide die each year due to complications of unsafe abortion; and Nepal recently liberalised its abortion laws, cutting maternal mortality rate from 539 maternal deaths per 100,000 live births in 2001 to 281 per 100,000 live births in 2006.<sup>201</sup> The fpa informed us that:

In Romania, policies restricting access to abortion led to a significant increase in maternal mortality from 20 maternal deaths per 100,000 live births in 1966 to over 100 per 100,000 in 1974 and to 150 per 100,000 in 1983. After the restrictive laws were revoked, the rate of maternal deaths fell rapidly to 40 per 100,000 live births in 1989. It is estimated that around 200,000 Romanian women died between 1966 and 1988 as a result of unsafe abortion.<sup>202</sup>

### **Informed consent**

**158.** We consider the health risks of abortion to be relevant to the abortion issue mainly as they relate to obtaining informed consent, especially as this would be the basis for proceeding with many abortions if the requirement for two doctors' signatures is lifted. It is important that the guidelines for nurses and physicians gaining consent are accurate and up to date so that the risks are accurately communicated to the patient. The RCOG has said that it will "maintain a watching brief on the need to review recommendations in the light of new research evidence".<sup>203</sup> We note that the last review took place in 2004, and the one before that in 2000. Both of these were funded by the Department of Health.

159. Abortion and possible related health risks is a matter of public health. The Department of Health should take responsibility for a rigorous assessment of the evidence and/or request updated consensus statements from the appropriate professional bodies on the level of risk or absence of risk for the conditions discussed above.

**160. We therefore recommend to the Government and the National Institute for Health and Clinical Excellence (NICE) that the clinical guidelines on abortion provision, including health risks associated with abortion, should ultimately be taken over by NICE.**

**161. We further recommend that the Government fund the RCOG or NICE to review the RCOG guidelines.**

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<sup>201</sup> SDA 10 para 3

<sup>202</sup> SDA 10 para 3.2

<sup>203</sup> *The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline Number 7*, RCOG, September 2004 p 6

162. We believe that most, if not all, providers of abortion services currently make available the content of the latest guidelines prior to obtaining consent.<sup>204</sup>

**163. While we recognise that obtaining informed consent is a process that is not always best carried out through leaflets and checklists alone, we recommend that abortion providers are required to ensure this information is given to patients as part of the process of informed consent.**

**164. To ensure that no patients are misled, we further recommend that the Government consider ways of ensuring that all those claiming to offer pregnancy counselling services make the guidelines available or indicate clearly in their advertising that they do not support referral for abortion.**

**165. We recommend that Members of Parliament, when considering the issue of health risks in the context of clinical guidance and informed consent, consider also our report and conclusions.**

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<sup>204</sup> See, for example, <http://www.bpas.org/images/pdfs/Manual%20vacuum%20Aspiration%20Apr06%20FINAL.pdf> and the patient information leaflets provided by Dr Kate Guthrie.

## Conclusion

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166. This has been a difficult inquiry to conduct in the light of the extremely controversial and sensitive subject matter. Parliament will ultimately take the decision on the reform of abortion law. We have tried to examine the scientific issues as objectively as possible and we offer our conclusions to the House to aid the debate.



# Conclusions and recommendations

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## The aim of the Inquiry

1. In this Report, we set out the key issues that have emerged and the key questions MPs must ask themselves as they consider options for changes in the law. Where we have felt it appropriate and justified, we have drawn conclusions about what the science and medical evidence currently before us tells us. We urge all MPs to study the evidence we have taken and the conclusions we have reached. (Paragraph 12)
2. Because we recognise that what the science and medical evidence can tell us is only one of many factors that are taken into account when legislating on this issue, we have not made any recommendations as to how MPs should vote on abortion law. (Paragraph 13)

## Defining viability

3. Caution needs to be applied to unpublished data but the least the Committee is able to conclude is that we have not heard any evidence from EPICure that survival rates below 24 weeks gestation have significantly improved and we draw this to the attention of the House. (Paragraph 35)
4. We understand that the EPICure 2 results will not be published for some time. It is unfortunate that the published data may not be available in time fully to inform debate in the House. We hope that the emerging findings are published as soon as possible. (Paragraph 36)

## Individual neonatal intensive care units and results from abroad

5. We reach the conclusion that the national and regional surveys of outcomes for very premature neonates are the best basis for establishing the limit of foetal viability. We draw this to the attention of the House and invite members to consider our conclusions when they consider the best basis for determining foetal viability. (Paragraph 45)
6. Having considered the evidence set out above, we reach the conclusion, shared by the RCOG and the BMA, that while survival rates at 24 weeks and over have improved they have not done so below that gestational point. Put another way, we have seen no good evidence to suggest that foetal viability has improved significantly since the abortion time limit was last set, and seen some good evidence to suggest that it has not. We draw this to the attention of the House and invite Members and the Government to consider our conclusion when deciding when a foetus becomes viable. (Paragraph 46)
7. We make no conclusion on the legal upper limit for abortion but instead invite Members of Parliament to consider the role played by foetal viability, among other factors, in that decision and to consider our analysis. (Paragraph 48)

### Relevance to the upper gestational limit

8. We conclude that, while the evidence suggests that foetuses have physiological reactions to noxious stimuli, it does not indicate that pain is consciously felt, especially not below the current upper gestational limit of abortion. We further conclude that these factors may be relevant to clinical practice but do not appear to be relevant to the question of abortion law. (Paragraph 59)
9. We invite Members of Parliament, when considering the role, if any, of questions relating to pain, to clinical practice or abortion law, to consider our conclusions. (Paragraph 60)

### 4D images and foetal consciousness

10. We conclude that while new imaging techniques are useful tool in diagnosis of foetal abnormality, there is no evidence they provide any scientific insights on the question of foetal sentience. We invite MPs to consider our analysis when approaching this issue. (Paragraph 63)

### Late presentation

11. We believe that consideration of late presentation and the production of guidance would be better enhanced by better collection of data relating to the reasons why women present for late abortions and how many women travel overseas for late abortions, and appropriate analysis of such data, with due regard to the need to protect the confidentiality of patients. (Paragraph 69)
12. We invite Members of Parliament to consider what research has to say about the impact that an alteration on the upper time limit would have on those women who present late for abortions. (Paragraph 70)

### Foetal abnormality

13. We invite Members of Parliament, when considering whether a clarification or a definition of 'seriously handicapped' is desirable and/or feasible, to consider our conclusions. (Paragraph 80)
14. The Department of Health should commission work to produce guidance that would be clinically useful to doctors and patients, and look at who is best placed to do so. (Paragraph 81)
15. We believe that consideration of abortion for reason of foetal abnormality and the production of guidance would be enhanced by better collection of data relating to the reasons for abortion beyond 24 weeks for foetal abnormality, and appropriate analysis of such data, with due regard to the need to protect the confidentiality of patients. (Paragraph 82)

## Two doctors' signatures

16. We were not presented with any good evidence that, at least in the first trimester, the requirement for two doctors' signatures serves to safeguard women or doctors in any meaningful way, or serves any other useful purpose. We are concerned that the requirement for two signatures may be causing delays in access to abortion services. If a goal of public policy is to encourage early as opposed to later abortion, we believe there is a strong case for removing the requirement for two doctors' signatures. We would like see the requirement for two doctors' signatures removed. (Paragraph 99)
17. Members of Parliament, when considering whether the requirement for two signatures safeguards the interests of women and doctors or any other purpose, are invited to consider our conclusions. (Paragraph 100)

## Other causes of delay

18. We urge the General Medical Council, while preserving the right of doctors to conscientiously object and not to refer directly to another doctor for an abortion unless it is an emergency, to make clear that conscientious objectors should alert patients to the fact that they do not consult on abortions and that if the issue arises during a consultation that they have a duty immediately to refer the patient to another doctor for the consultation. (Paragraph 102)

## Increasing nurses' responsibilities

19. We are satisfied that there is adequate evidence, particularly in terms of the roles that nurses already play in service provision and in terms of the international experience, to conclude the following:
  - that subject to usual training and professional standards nurses (and midwives) could be permitted to sign the HSA 1 form, for which they currently obtain consent, and prescribe the necessary drugs, which they currently administer;
  - that permitting nurses and midwives to sign the HSA 1 form and prescribe the necessary drugs would not alter the rates of failed and incomplete abortions, abdominal pain or uterine cramping, nausea, vomiting, diarrhoea, vaginal bleeding or spotting, or pelvic inflammatory disease that can be associated with EMA;
  - that since most women go home after taking the second pill, there is no direct involvement with either nurses or doctors at this point. What is crucial is the ready availability of appropriate care should a complication arise, and clear instructions to women about what to do in the event of complications, something that nurses routinely give;
  - that subject to usual training and professional standards nurses (and mid-wives) could be permitted to carry out early surgical abortions; and
  - that such practice would not compromise patient safety or quality of care. (Paragraph 108. )

20. We recommend that when Members of Parliament consider whether the statutory ban on anyone else than doctors carrying out abortion should remain, they consider the evidence and conclusions in this report. (Paragraph 109)

### **Places where abortions can be carried out**

21. We conclude that, subject to providers putting in place the appropriate follow up arrangements, there is no evidence relating to safety, effectiveness or patient acceptability that should serve to deter Parliament passing regulations which would enable women who chose to do so taking the second stage of early medical abortion at home, or that should deter Parliament from amending the act to exclude the second stage of early medical abortion from the definition of “carrying out a termination”. This would enable a trial to take place. (Paragraph 123)
22. We invite Members of Parliament to consider our conclusions when considering the question of whether the 1967 Act should be amended or regulations passed to enable the second stage of early medical abortion to be self-administered in a woman’s home. (Paragraph 124)

### **Mental health risks**

23. In view of the controversy on the risk to mental health of induced abortion we recommend that the Royal College of Psychiatrists update their 1994 report on this issue. (Paragraph 139)
24. We conclude that there is no strong evidence which contradicts the wording of the current RCOG guidelines on the risk to mental health of induced abortion. (Paragraph 140)

### **Future reproductive outcomes**

25. We found no strong evidence of links between abortion and negative future reproductive outcomes with the exception of a possible link with future pre-term deliveries and miscarriages. We conclude that there is no strong evidence which contradicts the wording of the current RCOG guideline on the risk to future reproductive health of induced abortion. (Paragraph 150)

### **Breast cancer**

26. We found no evidence which contradicts the wording of the RCOG guidelines on the risk of breast cancer. (Paragraph 154)

### **Post abortion infection**

27. We did not receive any evidence which undermined the RCOG guidelines on post abortion infection. (Paragraph 156)

## Informed consent

28. We therefore recommend to the Government and the National Institute for Health and Clinical Excellence (NICE) that the clinical guidelines on abortion provision, including health risks associated with abortion, should ultimately be taken over by NICE. (Paragraph 160)
29. We further recommend that the Government fund the RCOG or NICE to review the RCOG guidelines. (Paragraph 161)
30. While we recognise that obtaining informed consent is a process that is not always best carried out through leaflets and checklists alone, we recommend that abortion providers are required to ensure this information is given to patients as part of the process of informed consent. (Paragraph 163)
31. To ensure that no patients are misled, we further recommend that the Government consider ways of ensuring that all those claiming to offer pregnancy counselling services make the guidelines available or indicate clearly in their advertising that they do not support referral for abortion. (Paragraph 164)
32. We recommend that Members of Parliament, when considering the issue of health risks in the context of clinical guidance and informed consent, consider also our report and conclusions. (Paragraph 165)

## Glossary

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ARC	Antenatal Results and Choices
BAPM	British Association of Perinatal Medicine
BMA	British Medical Association
bpas	British Pregnancy Advisory Service
CARE	Christian Action Research and Education
CMF	Christian Medical Fellowship
Cortex	A part of the brain which has a number of functions, including interpreting sensory information
DH	Department of Health
Ectopic pregnancy	When the embryo implants outside the womb, for example, in the fallopian tube
Evidence base, class A	Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation
Evidence base, class B	Requires the availability of well-conducted clinical studies, but no randomised clinical trials on the topic of the recommendation
FSRH	Faculty of Sexual and Reproductive Healthcare
fpa	Family Planning Association
GCD	Guild of Catholic Doctors
Gestation	The period of development in the womb
HSA forms	Department of Health forms: HSA 1 is to give notification that the abortion has been approved and on what grounds; HSA 4 is for information including patient details, the method of abortion and gestation time.
Neonate	A newly born infant
NICU	Neonatal intensive care unit
Placenta praevia	When the placenta is low in the uterus and covers all or part of the cervix
Postpartum	After delivery (postnatally)
Preterm	Premature; delivered before 37 weeks of gestation. Extremely preterm means before 28 weeks.
RCN	Royal College of Nursing
RCOG	Royal College of Obstetricians and Gynaecologists
SCHB	Scottish Council on Human Bioethics
SPUC	Society for the Protection of Unborn Children
Thalamus	A part of the brain which has a number of functions, including relaying sensory information to the cortex.
Trimester	A period of time that is approximately three months. Pregnancies are divided into three periods called 'trimesters'. The first trimester is approximately 0–13 weeks; the second trimester is approximately 14–27

weeks; the third trimester is from 28 weeks to term (approximately 40 weeks).

UCLH

University College London Hospital

## Annex A: Declarations of interest

Evidence Number	Contributor	Interests
SDA 01	Department of Health	Not applicable
SDA 02	Professor Ellie Lee, University of Kent	Lecturer in Social Policy, University of Kent Co-ordinator of Pro Choice Forum, an informal group of academic researchers
SDA 03	Dr Anthony Cole, Lejeune Clinic for Children with Down Syndrome	Medical Director of the Lejeune Clinic for children with Down Syndrome (as mentioned in the submission) NHS consultant community paediatrician Member of the Downs Syndrome Medical Interest Group Chairman with South Worcestershire Family Bench of Magistrates. My medical qualifications are Mb Ch B (Bristol), FRCPCH, FRCPE.
SDA 04	Dr Stuart WG Derbyshire, University of Birmingham	Member of the International Association for the Study of Pain Member of the American Pain Society and the British Association for Cognitive Neuroscience.
SDA 05	Professor Sally Sheldon, University of Kent	Member of the Research and Ethics Committee of BPAS Advisor for the Pro Choice Forum website (which provides commentary on social, legal and ethical aspects of abortion)
SDA 06	Madeleine Simms	
SDA 07	ProLife Alliance	Member of the Alive and Kicking Campaign
SDA 08	Josephine Quintavalle, CORE	Member of the Alive & Kicking Campaign CORE aligned itself with evidence to the inquiry produced by the Christian Medical Fellowship CORE is a founder member of a pro-choice/pro-life group called, 'Hands Off Our Ovaries', which campaigns against the exploitation of women in egg donation initiatives. Ms Quintavalle worked for 20 years for the organisation LIFE as a crisis pregnancy counsellor
SDA 09	Ruth Graham et al, Newcastle University	Helen Statham is a Trustee of ARC, Antenatal Results and Choices
SDA 10	fpa	Represented in oral evidence by Anne Weyman (see below)
SDA 11	Theresa Lynch, nurse	



SDA 12	Stephen Brennan, Guild of Catholic Doctors	Master of Guild of Catholic Doctors LIFE, SPUC, Medical Ethics Alliance, Right To Life, Pro-Life Party, World Federation Of Doctors, British Medical Association, Hallam Christian Constituency Movement (Chairman), Catholic Medical Missionary Society (Secretary), Human Rights Society (Chairman)
SDA 13	BMA	Represented in oral evidence by Dr Tony Calland (see below)
SDA 14	Dr Lesley A Hall, History & Policy	
SDA 15	Dr Joel Brind, University of New York	Member (current), Advisory Board, The Coalition on Abortion/Breast Cancer (Illinois Member (2003-2006), Centers for Disease Control and Prevention (CDC) Breast and Cervical Cancer Early Detection and Control Advisory Committee (3-year US Federal Government appointment).
SDA 16	Professor Rev Robin Gill, University of Kent	Chair of Archbishop of Canterbury's Medical Ethics Advisory Group, Lambeth Palace (1993-2006) Honorary Canon, Canterbury Cathedral (1992-) Member of Medical Research Council's Stem Cell Bank Steering Committee (2001-) Member of BMA Medical Ethics Committee (1999-)
SDA 17	Scottish Council on Human Bioethics	The response from the Scottish Council on Human Bioethics was made on behalf of this charity. The SCHB was presented at the beginning of the response to the consultation.
SDA 18	Royal College of Nursing	The RCN does not have any affiliations relevant to the inquiry. Represented by Kathy French (see below).
SDA 19	Faculty of Sexual and Reproductive Healthcare	Represented in oral evidence by Dr Kate Guthrie (see below).
SDA 20	All-Party Parliamentary Pro-Choice and Sexual Health Group	Baroness Gould of Potternewton submitted evidence to the Committee on behalf of the All-Party Parliamentary Pro-Choice and Sexual Health Group. Chair of the APPG

		Labour peer, Chair of the Independent Advisory Group on Sexual Health and HIV Interim Chair of the Women's National Commission President of fpa (Family Planning Association) and patron of FORWARD
SDA 21	MRC	One of contributors to MRC response, Catherine Elliott (the MRC's Clinical Ethics and Research Liaison Manager), is a member of the Royal College of Obstetricians and Gynaecologists
SDA 22	Dr Bryan C. Calhoun	Memberships and other professional interests are: American Board of Obstetrics and Gynecology Board Certification in both Obstetrics and Gynecology and the subspecialty of Maternal-Fetal Medicine Member of the American College of Obstetricians and Gynecologists (ACOG) Member of the Society of Maternal-Fetal Medicine (SMFM) Senior Member of the American Institute of Ultrasound in Medicine (AIUM) Member of Society for Gynecologic Investigation (SGI)
SDA 23	Dr Vincent Argent	Consultant Obstetrician and Gynaecologist Former Medical Director, bpas Former Consultant Gynaecologist, Addenbrooke's Hospital
SDA 24	Dr Chris Richards and Dr Mark Houghton	Dr Houghton is a GP Appraiser, resigned last year from the BMA, CMF member and Nat Assoc of Sessional GPs and member of a GP continuing education group in Sheffield.  Dr Richards is a Consultant Paediatrician, Royal Victoria Infirmary, Newcastle Director of Foundation for Life Director of Lovewise Member of Christian Medical Fellowship
SDA 25	Marge Berer, Reproductive Health Matters	I declared all my relevant memberships and interests in my written evidence.
SDA 26	Dr Sam Rowlands, Warwick Medical School	Visiting Senior Lecturer, Warwick Medical School Member of Doctors for a Woman's Choice on Abortion Member of the European Society of Contraception
SDA 27	Dr Gregory Gardner, Cape Hill Medical Centre	The terms of the enquiry are strictly scientific so I have kept my evidence within that framework. If the enquiry was about ethical issues I would have had to consider declaring various interests but since it is only considering scientific evidence there is nothing to declare.

SDA 28	Dr Hans-Christian Raabe	Practising GP in Partington, Manchester. (Manchester has a very high teenage pregnancy rate) Member of the BMA (even though I disagree with the BMA's position on abortion) Diploma of the Royal College of Obstetricians and Gynaecologists (again I would disagree with the RCOG position). Member of the Maranatha Community.
SDA 29	David Randall	Member of: Barts and The London, Queen Mary School of Medicine and Dentistry, University of London Member of the British Medical Association Member of the Christian Medical Fellowship Currently in the process of joining the Royal Society of Medicine (application for membership currently caught in the postal strike).
SDA 30	Royal College of Obstetricians and Gynaecologists	Represented by Professor Jane Norman, Honorary Consultant Obstetrician & Gynaecologist, Glasgow Uni. (see below).
SDA 31	Professor Patricia Casey	Professor of Psychiatry, University College, Dublin Not a member of any organisation campaigning on this matter
SDA 32	Antenatal Results and Choices	Member organisation of the pro-choice coalition Voice for Choice
SDA 33	Brook	Member of the Voice for Choice coalition of pro-choice organisations Attends the All Party Pro-Choice and Sexual Health Group
SDA 34	CARE	
SDA 35	Christian Medical Fellowship	Dr Peter Saunders, General Secretary of CMF, gave evidence representing the Alive and Kicking alliance (see below).
SDA 36	The Lawyers' Christian Fellowship	
SDA 37	Council for Health and Wholeness	
SDA 38	Professor John Wyatt	Professor of Neonatal Medicine, UCL Fellow, Royal College of Physicians Fellow, Royal College of Paediatrics & Child Health Council, Medical Defence Union Fellow, Royal Society of Medicine Executive Committee, Christian Medical Fellowship Board, Centre for Bioethics & Public Policy

		Member, Neonatal Society Member, British Medical Association Member, European Society for Pediatric Research
SDA 39	Dr Alex Bunn	Member of the Royal College of Physicians Member of the Royal College of GPs (associate) Member of the Christian Medical Fellowship Member of the iThemba AIDS trust (donor) Member of the AIDS Care and Education Trust (donor) Member of the Armonia Trust (donor)
SDA 40	Marantha Community	Maranatha is a Christian organisation and the Submission was produced on behalf of its members, who include a broad range of qualified professionals and voluntary workers
SDA 41	Alive and Kicking	Represented in oral evidence by Dr Peter Saunders (see individual details below)
SDA 42	Society for the Protection of Unborn Children	Represented in oral evidence by Rev Dr John Fleming (see individual details below)
SDA 43	Marie Stopes International	Member of Voice for Choice. Represented by Liz Davies (see below).
SDA 44	Dr Bryan Gill, BAPM	Consultant in neonatal medicine Honorary secretary of the British Association of Perinatal Medicine
SDA 45	Abortion Rights	No other interests
SDA 46	Independent Advisory Group on Sexual Health and HIV	
SDA 47	LIFE	No interests to declare
SDA 48	bpas	This submission compiles evidence from: Ann Furedi, Chief Executive of the British Pregnancy Advisory Service (BPAS), Dr Patricia A. Lohr MD, MPH, Medical Director of BPAS, Mandy Myers RGN, MPhil, Director of Nursing at BPAS.  Ann Furedi, Chief Executive of BPAS: Associate of the Faculty of Family Planning and Reproductive Health Associate of the Royal College of Obstetricians and Gynaecology Member, Institute of Directors

		<p>Dr Patricia Lohr, Medical Director of BPAS:  Diplomat, National Board of Medical Examiners (USA)  Active Candidate, American Board of Obstetrics and Gynecology  Member of Physicians for Reproductive Choice and Health  Member of the Society of Family Planning,  Junior Fellow; National Abortion Federation; American College of  Obstetrics &amp; Gynecology, Junior Fellow; Association of Reproductive  Health Professionals.</p> <p>Mandy Myers, Director of Nursing at BPAS:  Member of the Royal College of Nursing's 'Nurses working in  Termination' Group.</p>
SDA 49	Sally Carson, Nurse	
SDA 50	Dr Wendy Savage Doctors for a Woman's Choice on Abortion	<p>Chair of the Islington Division of the BMA which submitted a motion  in 2006 defending the 24 week limit which was amalgamated with that  of another division and passed.</p> <p>Member of the APPG on sexual and reproductive health</p>

### Additional declarations of interest by witnesses providing oral evidence

**Professor Maria Fitzgerald**, Professor of Developmental Neurobiology  
HEFCE funded Chair of Developmental Neurobiology at UCL  
Research funding from the Medical Research Council, Wellcome Trust and British Pain  
Society  
Member of Academy of Medical Sciences  
Member of British Neuroscience Association  
Member of British Pain Society  
Member of International Association for the Study of Pain  
Member of Physiological Society  
Member of Research Defence Society  
Member of Medical Research Council Neuroscience and Mental Health Board  
Member of MRC Strategic Overview Group  
Member of Scientific Board of Migraine Society  
Member of Election Committee for Academy of Medical Sciences

**Jane Fisher**, Director, Antenatal Results and Choices  
See above (SDA 32)

**Dr Kate Guthrie**, Faculty of Sexual and Reproductive Healthcare  
Fellow of the Royal College of Obstetricians and Gynaecologists  
Member and Officer of the Faculty of Sexual and Reproductive Healthcare of the Royal College of Obstetricians and Gynaecologists (previously known as the Faculty of Family Planning); vice president.  
Member of the Independent Advisory Group for Sexual Health and HIV  
Member of the fpa  
Member of Doctors for a Woman's Choice on Abortion  
Member of International Federation of Professional Abortion and Contraception  
Member of the European Society of Contraception  
Trustee of the Hull IVF Unit

**Professor Neil Marlow**, President, British Association of Perinatal Medicine  
Member of the Nuffield Council Working Group on 'Critical care decisions in the fetus and newborn'.

**Professor John Wyatt**, Professor of Neonatal Medicine, University College London  
See above (SDA 38)

**Professor Patricia Casey**, University College, Dublin  
See above (SDA 31)

**Dr Ellie Lee**, University of Kent  
See above (SDA 02)

**Professor Jane Norman**, Honorary Consultant Obstetrician & Gynaecologist, Glasgow University: Representing RCOG  
Fellow of the Royal College of Obstetricians and Gynaecologists  
Member of the British Maternal and Fetal Medicine Society  
Member of the British Medical Association

**Dr Chris Richards**, Newcastle University  
See above (SDA 24)

**Dr Sam Rowlands**, Warwick Medical School  
See above (SDA 26)

**Dr Vincent Argent**, Consultant Obstetrician and Gynaecologist  
See above (SDA 23)

**Dr Tony Calland**, Chair of the British Medical Association's Ethics Committee  
Chairman of Council of BMA Wales  
GP

**Liz Davies**, Director of UK Operations, Marie Stopes  
Adviser to the All-Party Parliamentary Pro-Choice Group

**Kathy French**, Advisor in Sexual Health, Royal College of Nursing  
Member of the Faculty of Family Planning and Reproductive Health Care  
Member of the RCN Sexual Health Forum.  
Nurse member of the Independent Advisory Group on Sexual Health at the Department of Health.

Kathy French is a part-time sexual health advisor at the Royal College of Nursing. Kathy is also a member of the Independent Advisory Group on Sexual Health at the Department of Health. Kathy's previous positions have been as a Clinical Nurse Manager for Contraception and Termination of Pregnancy Services and Clinical Nurse Specialist in contraception and sexual health. She is currently undertaking a PHD in teenage pregnancy.

**Rev Dr John Fleming**, Bioethics Consultant representing Society for the Protection of Unborn Children  
President of Campion College (Catholic liberal arts college in Sydney)  
Member of the Gene Technology Ethics Committee (Commonwealth of Australia)  
Member of the Council for the National Museum of Australia  
Catholic Priest

**Anne Quesney**, Abortion Rights  
See above (SDA 45)

**Dr Peter Saunders**, General Secretary, Christian Medical Fellowship; representing the Alive & Kicking alliance  
Member of the Christian Medical Fellowship  
Fellow of the Royal Australasia College of Surgeons  
Member of the British Medical Association

**Anne Weyman**, Family Planning Association  
Vice chair of the Independent Advisory Group on Sexual Health and HIV  
Member of the Independent Advisory Group on Teenage Pregnancy  
Non-Executive Director of Islington Primary Care Trust  
Chair of NICE Programme Development Group for Guidance on Social and Health Education

## Annex B: Requests for Declarations of Interest

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### ***General request***

The Committee has decided to ask all those who submitted evidence to declare any professional interests or memberships relevant to the inquiry, additional to those set out in the written submissions. This is simply a matter of information for the Committee and will not affect the consideration given by the Committee to your evidence.

### ***Request to witnesses providing oral evidence***

The Committee has decided to ask all those giving evidence to declare any professional interests or memberships relevant to the inquiry, additional to those set out in the written submissions. This is simply a matter of information for the Committee and it will not affect the conduct of the evidence session nor the consideration given by the Committee to your evidence.

It would be helpful if you could let [the Committee staff] have a note beforehand, including nil returns; otherwise, the Chairman may invite you to declare any relevant interests at the start of the session.



## Appendix: RCOG guidelines on 'Information for women'

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*Taken from The Care of Women Requesting Induced Abortion: Evidence-based Clinical Guideline, Number 7, RCOG, September 2004, pp 29–35*

### **Recommendation 16**

Clinicians providing abortion services should possess accurate knowledge about possible complications and sequelae of abortion. This will permit them to provide women with the information they need in order to give valid consent.

#### **Recommendation 16.1**

The risk of haemorrhage at the time of abortion is low. It complicates around 1 in 1000 abortions overall. The risk is lower for early abortions (0.88 in 1000 at less than 13 weeks; 4.0 in 1000 at more than 20 weeks).

#### **Recommendation 16.2**

The risk of uterine perforation at the time of surgical abortion is moderate. The incidence is of the order of 1–4 in 1000. The risk is lower for abortions performed early in pregnancy and those performed by experienced clinicians.

#### **Recommendation 16.3**

Uterine rupture has been reported in association with mid-trimester medical abortion. However, the risk is very low, at well under 1 in 1000.

#### **Recommendation 16.4**

Cervical trauma: the risk of damage to the external cervical os at the time of surgical abortion is moderate (no greater than 1 in 100). The risk is lower when abortion is performed early in pregnancy and when it is performed by an experienced clinician.

#### **Recommendation 16.5**

Failed abortion and continuing pregnancy: all methods of first-trimester abortion carry a small risk of failure to terminate the pregnancy, thus necessitating a further procedure. The risk for surgical abortion is around 2.3 in 1000 and for medical abortion between 1 and 14 in 1000 (depending on the regimen used and the experience of the centre).

#### **Recommendation 16.6**

Post-abortion infection: genital tract infection, including pelvic inflammatory disease of varying degrees of severity, occurs in up to 10% of cases. The risk is reduced when prophylactic antibiotics are given or when lower genital tract infection has been excluded by bacteriological screening.

**Recommendation 16.7**

Breast cancer: induced abortion is not associated with an increase in breast cancer risk.

**Recommendation 16.8**

Future reproductive outcome: there are no proven associations between induced abortion and subsequent ectopic pregnancy, placenta praevia or infertility. Abortion may be associated with a small increase in the risk of subsequent miscarriage or preterm delivery.

**Recommendation 16.9**

Psychological sequelae: some studies suggest that rates of psychiatric illness or self-harm are higher among women who have had an abortion compared with women who give birth and to nonpregnant women of similar age. It must be borne in mind that these findings do not imply a causal association and may reflect continuation of pre-existing conditions.

# Formal minutes

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**Monday 29 October 2007**

Members present:

Mr Phil Willis, in the Chair

Mrs Nadine Dorries

Mr Robert Ffello

Linda Gilroy

Dr Evan Harris

Dr Brian Iddon

Chris Mole

Dr Bob Spink

Graham Stringer

Dr Desmond Turner

The Committee deliberated.

Draft Report (*Scientific developments relating to the Abortion Act 1967*), proposed by the Chairman, brought up and read.

Draft Report, proposed by Mrs Nadine Dorries and Dr Bob Spink, brought up and read, as follows:

## **‘PREAMBLE**

This minority report seeks to engage with three specific issues:

1. Whether the legal upper limit for abortion of 24 weeks should be reduced on the basis of the scientific evidence about neonatal survival and fetal sentience.
2. Whether there should be a liberalisation of the law on first trimester abortion, especially with respect to nurses’ involvement, premises or the requirement for two doctors’ signatures, on the basis of scientific evidence on safety for women of the abortion procedure.
3. The implications of the above for the care, counselling, support and provision of fully informed consent to women seeking abortion.

We also wish to highlight misgivings about how those giving oral evidence to the committee were selected and how ideological and financial interests have apparently shaped what has been included or ignored in written evidence submitted by specific organisations and individuals.

We regret having to table this minority report but we feel it has become imperative because of the failure of the committee to properly engage with these key issues.

## EVIDENCE SELECTION AND DESELECTION

Abortion is a controversial issue and whilst this enquiry focussed specifically on scientific developments relating to the Abortion Act 1967 almost all of those submitting written and oral evidence have ideological or financial vested interests in the abortion issue. Whilst this in no way precludes these organisations and individuals giving evidence to the committee as interested parties or implies that they are unable to present this evidence in an objective and balanced way, it is important that the committee ensures that all scientific evidence relevant to the enquiry has been fully considered.

Those giving evidence can very broadly be considered as occupying one of two camps:

1. Pro-liberalisation – Resisting a lowering of the 24 week upper limit or any clarification of the law with respect to abortion for congenital abnormality and favouring liberalisation of first trimester abortion with respect to nurses' involvement, premises or the requirement for two doctors' signatures.
2. Pro-restriction – Favouring a lowering of the 24 week upper limit and reduction of abortions for fetal abnormality and resisting liberalisation of first trimester abortion with respect to nurses' involvement, premises or the requirement for two doctors' signatures.

We are concerned specifically that:

1. Whilst the written submissions to the Committee were essentially evenly divided between those coming from pro-liberalisation and pro-restriction perspectives, those chosen to give oral evidence did not reflect this. Of the 18 witnesses chosen, 13 were pro-liberalisation and only 5 pro-restriction. This seems unfair given that public opinion is very much in favour of reducing the number of abortions.
2. People were asked to give evidence who had not submitted written evidence (see especially Drs Neil Marlow and Maria Fitzgerald). This has led to loss of public transparency.
3. Some witnesses who have been given prominence in the Committee Report included very few, if any, scientific references in their written submissions (See especially Derbyshire and RCN submissions).
4. Some key witnesses who would have given a contrary view to the RCOG consensus, especially on upper limits, were either ignored or not invited to submit evidence (see especially Professor Stuart Campbell and Dr KJ Anand). It was also unfortunate that

there was no serious engagement with a wider range of non-directional specialist counsellors with experience of both pre and post abortion counselling.

5. The committee's expert advisors were not neutral but brought to the committee vested interests and minds made up on some of the key issues (such as upper limits).

6. The committee has given too much credence to the RCOG and RCOG guidance, whilst not raising any questions about the RCOG's impartiality. This should have been much more fully explored.

7. The committee asked for people to declare interests, saying that revealing them would not prejudice the committee; but this was used to attempt to undermine in the national press the credibility of witnesses who had given written and oral testimony. This episode is unprecedented as far as we are aware in the proceedings of Parliament and has brought the legislature into disrepute; we will consider referral to the Standards Committee and the Speaker.

8. A number of the key institutions giving evidence to the committee did not consult their grassroots members and have not formally made their evidence available to their members (especially RCOG and RCN).

9. The committee was inconsistent and selective in its use of international comparisons; using them liberally with respect to nurse and home abortion for example, but downplaying or ignoring them with respect to fetal sentience, neonatal survival, mental health, preterm delivery and breast cancer.

10. As this is the science committee we regret that weight has been given in its report to evidence on both sides that has not yet been published in peer-reviewed journals. These 'findings' should be removed from the report and should not be used to inform Parliament (eg. EPICure 2, Dr Ellie Lee, UCLH neonatal survival rates).

### **Neonatal survival rates**

We were greatly concerned to read in the *Guardian* on 27 October an article clearly aimed at undermining the credibility of Professor John Wyatt, which contained detailed information about Wyatt's evidence, which was passed by him to the committee after his oral evidence session, and which could only have been passed on to the journalist concerned by a member of the Select Committee. There should be an enquiry about how this information got into the public domain and as to whether such a personal attack represents a serious breach of parliamentary procedure given that witnesses were told by the committee that any disclosure of personal interests would not prejudice the hearing of their evidence.

There have been at least ten international studies on neonatal survival of extremely premature neonates published since the year 2000 which we can supply to the committee. The most important points are that:

- a) Survival is very variable from centre to centre.
- b) Survival is higher with birth in tertiary centres.
- c) Survival is higher with proactive management.

The EPICure study cannot appropriately inform policy making about upper limits for the following reasons:

- a) The EPICure baseline of assessing babies born at a particular gestational age which show signs of life at birth, rather than those live babies which are admitted to intensive care and receive treatment, is misleading and does not give an accurate assessment of the likelihood of survival with good neonatal care or provide a good basis for international comparisons.
- b) All pre-term births happen for a reason and are usually indicative of a pre-disposing medical problem, either with the mother, or the baby. To use survival statistics of babies born prematurely to predict viability of babies aborted is not comparing like with like. The majority of aborted babies, if left to term, would be born healthy and so a direct comparison cannot be made.
- c) There are a number of peer reviewed studies which demonstrate the significant improvement in survival rates of babies born pre-term if neo-natal intensive care is provided at birth. This exposes the weakness of the EPICure study which averages out all births at all hospitals across the UK and takes no account of the post code lottery of neonatal care which exists in the UK. Outcomes for mother and baby will depend very much on clinical decisions and the quality of care available in the hospital at which the mother presents.
- d) There have been concerns expressed in the press by a leading neonatal paediatrician that the low survival of babies born at 23 weeks is at least in part a result of doctors 'not trying hard enough'. In other words, EPICure has itself become a guideline for practice, which undermines its use as a measure of viability.

### **Consciousness**

We may never know for certain when foetuses first start to feel pain and there is no clear consensus amongst experts in the field.

There are two main schools of thought. The first, represented to this enquiry by Fitzgerald, Derbyshire and the RCOG, is that foetuses cannot feel pain until 26 weeks gestation, because that is the stage of development at which mature neural connections between the thalamus and cerebral cortex are first present. The second view, expounded in a review article by Anand et al published in *Seminars in Perinatology* in October 2007 (and also presented by the same author to the US Congress in 2005), is that foetuses feel pain using different neural mechanisms than adults and that these are present at earlier than 20 weeks gestation. Both schools are however agreed that conscious perception of pain cannot be inferred from observing anatomy, stress hormone levels and movements alone.

The alternative view supported by Anand et al argues that the more traditional Fitzgerald/Derbyshire/RCOG view ignores significant evidence, specifically that: a) sensory processing in the human brain develops well before birth; b) the subplate zone is functional well before the cerebral cortex develops; c) the key mechanisms of consciousness are located below the cortex (in areas that develop in early gestation); d) fetal behaviors suggest memory and learning as the highest-order evidence for perceptual function; and e) other lines of emerging evidence in the field of neuroscience.

He argues that three major flaws beleaguer the scientific rationale behind the RCOG viewpoint and other reviews purporting to rule out fetal pain:

First, pain perception is presented as a hard-wired system, passively transmitting noxious impulses until “perception” occurs in the cortex. More than 40 years of pain research discards this Cartesian view of pain. Second, it incorrectly assumes that fetal pain must engage the same structures and mechanisms as those used by adults. Ongoing development in these areas is then used to support the argument that fetuses don’t feel pain. A vast body of research shows, however, that the fetus is not a “little adult,” that the structures used for pain processing in fetal life are uniquely different from those of adults, and that many of these structures or mechanisms are not maintained beyond specific periods of fetal development. Third, it presupposes that cortical activation must be necessary for fetal pain perception. This reasoning, however, ignores clinical data that ablation or stimulation of the somatosensory cortex does not alter pain perception in adults, whereas thalamic ablation or stimulation does.

If cortical function is not a necessary standard for adult pain perception, why must fetal pain be held to a higher standard?

Current scientific facts, however, must inform this debate and clinical practices in modern medicine must acknowledge and respect an emerging personhood in the womb, essentially nuanced by compassion for the mother’s situation and health.

### **RCOG and fetal pain**

We are deeply concerned that the Royal College of Obstetricians and Gynaecologists (RCOG) failed to give full information to the House of Commons Select Committee. Parliament leans heavily on the RCOG for guidance and the Committee’s Report will be referred to by MPs seeking to amend the law on abortion.

Since 1997, the RCOG has consistently denied that fetuses can feel pain earlier than 26 weeks, without acknowledging that amongst experts in this field there is no consensus. Professor Anand is a world authority on the management of neonatal pain and has put forward a cogent argument suggesting that the RCOG position is based on a number of false or uncertain presuppositions. The RCOG in response to comments by Anand in a Channel Four Dispatches programme has issued a press release claiming they keep a

‘watching brief on new scientific developments and advancements in fetal medicine, and continue to examine emerging evidence from the international scientific community about fetal awareness and fetal pain’ but are ‘unaware of the work of Dr Anand or any other work that contradicts the basic findings of (their) review’.

For the RCOG to report the studies of researchers who share their own official position, whilst ignoring research published by other leading researchers with contrary views, is at the very least misleading and at worst a serious abuse of power. It seems bizarre that the RCOG has not made more of an effort to find out more about contrary evidence before making such a bold public statement. It surely owes both Anand and Parliament a formal apology and explanation of why it has apparently ‘cherry picked’ the scientific evidence to support its opposition to a lowering of the 24 week upper limit for abortion.

### **Foetal Ultrasound and Professor Stuart Campbell**

We are most concerned that no expert in foetal ultrasound was called upon to give answers to questions posed in this section, and that instead the committee relied on testimony from neurobiologists and paediatricians. Why was Professor Stuart Campbell, who pioneered this work, not called? This cannot be justified on the basis that he did not submit evidence because Fitzgerald was summoned to give oral evidence without submitting written evidence. This appears to be a serious omission. We hope that the reason was not because Campbell does not personally support a liberalisation agenda, whereas both Derbyshire and Fitzgerald do.

### **Reasons for late presentations**

We asked for evidence by Dr Ellie Lee should be removed as it is based almost entirely on data from a study which has not been published in a peer-reviewed journal.

### **Two doctors’ signatures**

We were not presented with any evidence that, in the first trimester, the requirement safeguards the health of women in any meaningful way. However we recognise that the requirement for two doctors’ signatures was originally intended to ensure that an illegal abortion, outside the terms of the Act was not being performed. This provision was for the legal protection of the fetus and the doctors. Apart from anecdotal reports, there is currently no hard evidence that the requirement for two signatures is causing delays. Whether or not the requirement for two doctors’ signatures is removed is a matter for Parliament.

### **Involvement of nurses**

The involvement of nurses conflates two separate issues: authorisation of abortion and prescribing drugs for abortion. The two are different qualitatively and the case has not



been made for the former. Furthermore, references to nurses signing the HSA1 form are outside the terms of this present enquiry. Witnesses were not invited to submit evidence on this issue and the committee should not therefore take a view on it.

### **Places where abortion can be carried out**

Concerns were expressed by committee members and in the press with regard to the safety of medical abortions completed at home. Many of the women sent home may be very young, alone and un-prepared for any of the following:

- a) Uterine cramps and chronic pain, similar to pain experienced during labour, which can last up to a number of hours.
- b) Acute and prolonged chronic vaginal bleeding.
- c) Emotional distress experienced during the home disposal of the aborted baby.

We are also concerned with regard to potential consequences which may occur and the need to access emergency services. A young woman may be confused with regard to what is normal and to be expected and at what point she would need to seek help. Our conclusion is that all abortions should be carried out in a place of safety and comfort with adequate pain relief and professional reassurance.

We also need to consider the impact that medical abortions available at home would have upon both the attitude of young women, particularly those who multi-abort, and the financial implications both to the government in terms of cost, and abortion providers in terms of revenue.

Medical abortions available at home could, in all probability lead to an increase in the number of women seeking abortion due to a more relaxed attitude developing toward contraception on behalf of the young and sexually active.

Research needs to be undertaken to examine what impact medical abortions have had in America and whether or not they have led to a relaxing of attitudes towards contraception.

Given that gonorrhoea, syphilis, chlamydia, HPV and HIV are increasing at an alarming rate no procedure should be adopted which would exacerbate this situation.

An overall increase in abortions would involve the government in additional cost and would, for the abortion provider, involve a considerable increase in revenue, without any capital expenditure being incurred on infrastructure in terms of beds or facilities. This is because even though the cost would be less than an abortion involving an anaesthetic and a surgical procedure, the abortion provider would still provide a watching brief and dispense the abortifacients.

### The 2004 RCOG Guidelines

The debate on health risks associated with abortion is fierce. A comprehensive and rigorous review of the evidence on health risks for women, *The Care of Women requesting induced abortion*, was produced by the RCOG in September 2004, and is frequently quoted as the final court of appeal in parliamentary debates. However for a variety of reasons there is reason to exercise caution in regarding it as authoritative:

- a) The document is now three years out of date and many significant, more recent studies, especially in the areas of mental health, fetal sentience, neonatal survival and preterm delivery have not been included in the RCOG's written submission to the committee, which by comparison is academically lightweight.
- b) The RCOG in their written evidence have created the impression that there is a strong consensus amongst experts on some issues when there quite clearly is not. The most serious example of this is with respect to fetal sentience, and we have considered this in more detail in this minority report, but another example would be the alleged link between abortion and breast cancer. Overall the latest RCOG's written evidence fails to emphasise or in many cases even mention views or studies whose findings do not add weight to a pro-choice agenda.
- c) The brief summaries on health risks of abortion, which are used on patient information literature, do not fully reflect the balance of evidence quoted in the document's more detailed reviews. This is particularly so with regard to the links between abortion and preterm delivery and abortion and breast cancer, where the conclusions downplay the links in a way that is not justified by the evidence reviewed.
- d) There have also been questions raised about the bias of the RCOG. Amongst the development group and invited peer reviewers for the 2001 guidelines (on which these are based) are included representatives of most major abortion providers and pro-choice pressure groups including BPAS, Marie Stopes, FPA, ALRA, Birth Control Trust, Prochoice Alliance, All Party Parliamentary Prochoice Group (APPPG) and Brook. There do not appear to be any groups with an interest in restricting abortion amongst the authors or reviewers. It is not clear where the various RCOG representatives stand on the issues but it is difficult to avoid the conclusion that this document has been produced by those with an ideological and financial interest in abortion. The APPPG says that it is 'supported' by the FFP and presumably this involves a financial element. The impression given is pro-choice organisations and the RCOG are 'in bed together'.
- e) The RCOG guidance is wide-ranging and gives advice on issues in the fields of psychiatry, paediatrics and epidemiology, but it is not apparent that the guideline development group contains people with expertise in these areas.

The results of the RCOG review have been condensed to form guidelines that are followed by nurses and physicians in obtaining consent. The guidelines that are relevant

to the impact of abortion on women's health (chapter 5 of the RCOG report) are discussed below and reproduced in full in Annex B of the Science and Technology Committee Report.

### **Mental health**

The RCOG guidance downplays the link between abortion and mental health problems.

However, there are a substantial number of recent studies which need to be incorporated in the RCOG guidance, and the latter requires updating. Further research is needed but the findings of the Fergusson study, published by a pro-choice researcher who was surprised by the findings in 2006, means that women having abortions can no longer be said to have a low risk of suffering from psychiatric conditions like depression.

### **Pre-term birth**

The RCOG guidance says that 'abortion may be associated with a small increase in the risk of subsequent miscarriage or preterm delivery'.

However, if one examines the detailed evidence quoted by the RCOG the evidence for a link between abortion and preterm delivery seems quite robust. The RCOG guidance states:

*"Thorp et al (2002) appraised ten case-control and 14 cohort studies relating to abortion and subsequent preterm birth or low birth weight. Twelve of the studies showed a positive association and seven showed a dose-response effect. Thorp et al. highlighted the fact that large, recent cohort studies based on register linkage consistently show a positive association. More recent studies identified during development of this guideline update have reported mixed findings. A French cohort study involving 12,432 women suggested that "a history of induced abortion increases the risk of preterm delivery, particularly for women who have had repeated abortions". A small Swedish case-control study<sup>126</sup> involved 312 cases of preterm birth and 424 controls who delivered at term. A history of two or more induced abortions was not associated with preterm birth, whereas a history of two or more miscarriages was. Among those studies that suggest a significant association between abortion and preterm birth, the elevation in risk ratio is between 1.3 and 2.0."*

In the quoted evidence only one 'small' Swedish study does not support the link - so why is the RCOG conclusion so tentative? And why do the RCOG and FFP written submissions to the S&T Committee make no mention of a further major review (Rooney) and two major European multicentre studies published since 2003 (EUROPOP and EPIPAGE) which further confirm the link between abortion and preterm delivery? EPIPAGE is mentioned by Sam Rowlands and CMF, CORE, CARE, LIFE, SPUC mention EPIPAGE or EUROPOP or both.

## Breast cancer

The evidence considered by the Guideline Development Group regarding breast cancer risk focused on two carefully conducted meta-analyses. These two reviews reached different conclusions about the nature of any association. The first systematic review, by Wingo *et al.* was included in the Cochrane Database of Reviews of Effectiveness and met the quality criteria required by the Cochrane. The conflicting review by Brind *et al.* examined the same studies and concluded that induced abortion was a significant, independent risk factor for breast cancer, with an odds ratio of 1.3. These two meta-analyses were independently assessed for the previous edition of this guideline and the methodological assessor concluded that both were carefully conducted reviews and that the Brind *et al.* study had no major methodological shortcomings and could not be disregarded.

The subsequent review on long-term physical and psychological consequences of induced abortion by Thorp *et al.* summarised four previous reviews, including those by Wingo *et al.* and Brind *et al.* and concluded that a significant positive association between induced abortion and breast cancer could not easily be dismissed.

In August 2003, the American College of Obstetricians and Gynecologists (ACOG) concluded that, “Rigorous recent studies argue against a causal relationship between induced abortion and a subsequent increase in breast cancer risk”. This conclusion was shared in a *Lancet*-published 2004 meta-analysis by Valerie Beral and colleagues from Oxford University.

Dr Joel Brind and Dr Greg Gardner submitted detailed evidence to this inquiry that claims there is a causal link between breast cancer and abortion. They are critical of Beral’s meta-analysis because it omitted some studies which they considered valid and included others that he considered invalid. Dr Sam Rowlands made a similar accusation of Dr Brind’s submission, pointing out that several key papers were missing.

In view of this ongoing disagreement it seems to be an over-interpretation of the evidence to suggest as the RCOG does that ‘induced abortion is not associated with an increase in breast cancer risk’. Our more cautious conclusion is that ‘a causal link between abortion and breast cancer has been claimed by some researchers and denied by others. More research is needed.’

## Summary of maternal health effects

There was evidence presented that ground C is always met for first trimester abortions. However this assessment did not take into account the long term risks of preterm delivery, mental health and possibly breast cancer.

We recommend the Government funds the RCOG to review its 2004 guideline as soon as possible, but that the RCOG consults more widely, hears evidence from both sides of the

argument where experts disagree, and ensures a more even balance of pro-choice and pro-life advisors.

## RECOMMENDATIONS

We recommend:

1. That in the context of conflicting expert evidence on fetal pain and viability, this lack of consensus should be fully acknowledged in the report and the committee should adopt the precautionary principle giving the fetus the benefit of the doubt, until a clear consensus emerges.
2. That given the evidence regarding upper limits and health complications for women, there should be new 'right to know' provisions so that women are given all the information they need about fetal development and the degrees of risk associated with abortion in relation to psychological harm and pre-term birth. Women should also be informed with regard to the conflicting expert opinions regarding a link to breast cancer and should be given time to consider the options available - in order to empower women and enable them to make a fully informed choice.

It is imperative that MPs have an opportunity to examine original scientific documents rather than relying wholly on reviews of those documents in written and oral evidence submitted to the committee. We have therefore referenced further material which has a major bearing on the debate. Specifically:

1. Recent published peer-reviewed scientific research and literature reviews.
2. Correspondence drawing attention to the above.
3. Relevant press articles.

### Fetal sentience

Anand KJS et al. Neurodevelopmental Changes of Fetal Pain. *Seminars in Perinatology*. 2007; 31:275-282

### Neonatal survival rates

Hoekstra RE *et al.* Survival and long-term neurodevelopmental outcome of extremely premature infants born at 23-26 weeks gestational age at a tertiary centre. *Pediatrics*. 2004; 113: e1-e6

Riley K *et al.* Changes in survival and neurodevelopmental outcome in 22 to 25 weeks gestation infants over a 20 year period (abstract). *European Society for Pediatric Research, Annual Scientific Meeting*. 2004

### **General Reviews on abortion complications**

Thorp JM *et al.* Long-term physical and psychological health consequences of induced abortion: review of the evidence. *Obstetrics Gynecology Survey*. 2003; 58: 67-69

### **Abortion and preterm delivery**

Rooney B, Calhoun BC. Induced abortion and risk of later premature births. *Journal of American Physicians & Surgeons*. 2003; 8: 46-49

Moreau C *et al.* Previous induced abortion and the risk of very preterm delivery: results of the EPIPAGE study. *BJOG*. 2005; 112: 430-437

Ancel PY *et al.* History of induced abortion as a risk factor for preterm birth in European countries: results of the EUROPOP survey. *Human Reproduction*. 2004; 19: 734 – 740

### **Abortion and mental health**

Fergusson D *et al.* Abortion in young women and subsequent mental health. *Journal of Child Psychology and Psychiatry*. 2006; 47(1): 16-24

Reardon DC *et al.* Psychiatric admissions of low-income women following abortion and childbirth. *Canadian Medical Association Journal*. 2003; 168 (10): 1253-6

Coleman PK *et al.* State-funded abortions versus deliveries: a comparison of outpatient mental health claims over 4 years. *American Journal Orthopsychiatry*. 2002; 72,1: 141-152

Coleman PK *et al.* A history of induced abortion in relation to substance use during subsequent pregnancies carried to term. *American Journal of Obstetrics and Gynaecology*. 2002; 187,6: 1673-1678

### **Abortion and breast cancer**

Brind J *et al.* Induced abortion as an independent risk factor for breast cancer: a comprehensive review and meta-analysis. *J. Epidemiology and Community Health*. 1997; 50:465-467

Brind J. Induced Abortion as an Independent Risk Factor for Breast Cancer: A Critical Review of Recent Studies Based on Prospective Data. *Journal of American Physicians & Surgeons*. 2005; 10(4): 105-110

Brind J. Induced Abortion and Breast Cancer Risk: A Critical Analysis of the Report of the Harvard Nurses Study II. *Journal of American Physicians & Surgeons*. 2007; 12(2): 105-110

Carroll PS. The Breast Cancer Epidemic: Modeling and Forecasts Based on Abortion and Other Risk Factors. *Journal of American Physicians & Surgeons*. 2007; 12(3): 72-78

### **Abortion and maternal mortality**

Gissler M *et al.* Pregnancy associated deaths in Finland 1987-1994. *Acta Obstetrica et Gynecologica Scandinavica*. 1997; 76:651-657

Gissler M *et al.* Injury deaths, suicides and homicides associated with pregnancy, Finland 1987-2000. *European Journal of Public Health*. 2005; 15, 5: 459-463

Reardon DC *et al.* Deaths associated with pregnancy outcome: a record linkage study of low income women. *Southern Medical Journal*. 2002; 95: 834-841

Gissler M *et al.* Pregnancy-associated mortality after birth, spontaneous abortion, or induced abortion in Finland, 1987-2000. *American Journal of Obstetrics and Gynecology* 2004; 190(2):422-427

### **Fetal abnormality**

Wyldes M, Tonks A. Termination of pregnancy for fetal anomaly: a population-based study 1995 to 2004. *BJOG* 2007;114:639-642.

### **Correspondence**

Anand KJ. Letter to the Times newspaper (unpublished)

Anand KJ. Evidence to US Congress.

RCOG. Press release. 18 October 2007.

Anand KJ. Letter to the RCOG (unpublished)

### **Relevant press articles**

Some numbers in abortion debate just can't be relied on. *Guardian Unlimited*,

Premature babies die as doctors 'won't even try' to save them. *Sunday Times*.

Brutal truth of DIY abortion. *Sunday Times*'

Motion made, and Question proposed, That the Chairman's draft Report be read a second time, paragraph by paragraph.—(*The Chairman.*)

Amendment proposed, to leave out the words "Chairman's draft report" and insert the words "draft report proposed by Mrs Nadine Dorries and Dr Bob Spink".—(*Dr Bob Spink.*)

Question put, That the Amendment be made.

The Committee divided.

Ayes, 1

Dr Bob Spink

Noes, 6

Mr Robert Flello

Linda Gilroy

Dr Evan Harris

Dr Brian Iddon

Chris Mole

Graham Stringer

*Ordered*, That the Chairman's draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 166 read and agreed to.

Summary read and agreed to.

Glossary read and agreed to.

Annexes A and B read and agreed to.

A Paper was appended to the Report as Appendix 1.

Motion made, and Question put, That the Report be the Twelfth Report of the Committee to the House. – (*The Chairman.*)

The Committee divided.

Ayes, 6

Mr Robert Flello

Linda Gilroy

Dr Evan Harris

Dr Brian Iddon

Chris Mole

Graham Stringer

Noes, 1

Dr Bob Spink



*Resolved,* That the Report be the Twelfth Report of the Committee to the House.

*Ordered,* That the Chairman make the Report to the House.

Written evidence was ordered to be reported to the House for printing with the Report, together with written evidence reported and ordered to be published on 9 October 2007.

[The Committee adjourned.]

## Witnesses

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### Monday 15 October 2007

**Professor Maria Fitzgerald**, University College, London, **Jane Fisher**, Director, Antenatal Results and Choices, **Dr Kate Guthrie**, Faculty of Sexual and Reproductive Healthcare, **Professor Neil Marlow**, President, British Association of Perinatal Medicine, and **Professor John Wyatt**, Professor of Neonatal Medicine, University College London

**Professor Patricia Casey**, University College, Dublin, **Dr Ellie Lee**, University of Kent, **Professor Jane Norman**, University of Glasgow, **Dr Chris Richards**, Newcastle University, and **Dr Sam Rowlands**, Warwick Medical School

### Wednesday 17 October 2007

**Dr Vincent Argent**, Consultant Obstetrician and Gynaecologist, **Dr Tony Calland**, Chair of the British Medical Association's Ethics Committee, **Liz Davies**, Director of UK Operations, Marie Stopes, and **Kathy French**, Advisor in Sexual Health, Royal College of Nursing

**Rev Dr John Fleming**, Society for the Protection of Unborn Children, **Anne Quesney**, Abortion Rights, **Dr Peter Saunders**, Alive & Kicking, and **Anne Weyman**, Family Planning Association

### Wednesday 24 October 2007

**Rt Hon Dawn Primarolo MP**, Minister of State for Public Health, **Dr Fiona Adshead**, Deputy Chief Medical Officer, and **Paula Cohen**, Assistant Director of Legal Services, Department of Health

## List of written evidence

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- 1 **(SDA01)** Department of Health
- 2 **(SDA02)** Dr Ellie Lee, University of Kent
- 3 **(SDA03)** Lejeune Clinic for Children with Down's Syndrome
- 4 **(SDA04)** Dr Stuart Derbyshire, University of Birmingham, School of Psychology
- 5 **(SDA05)** Professor Sally Sheldon, Kent Law School
- 6 **(SDA07)** ProLife Alliance (PLA)
- 7 **(SDA08)** Comment on Reproductive Ethics (CORE)
- 8 **(SDA09)** Ruth Graham et al, Newcastle University
- 9 **(SDA10)** Family Planning Association
- 10 **(SDA11)** Theresa Lynch
- 11 **(SDA12)** Guild of Catholic Doctors
- 12 **(SDA13)** Submission from the BMA
- 13 **(SDA14)** History & Policy
- 14 **(SDA15)** Dr Joel Brind, University of New York
- 15 **(SDA16)** Professor Rev Robin Gill, University of Kent
- 16 **(SDA17)** Scottish Council on Human Bioethics
- 17 **(SDA18)** Royal College of Nursing
- 18 **(SDA19)** Faculty of Family Planning and Reproductive Health Care
- 19 **(SDA20)** All-Party Parliamentary Pro-Choice and Sexual Health Group
- 20 **(SDA21)** Medical Research Council
- 21 **(SDA22)** Professor Byron C. Calhoun, Professor and Vice-Chair, Department of Obstetrics and Gynecology, West Virginia University
- 22 **(SDA23)** Dr Vincent Argent
- 23 **(SDA24)** Dr Chris Richards and Dr Mark Houghton
- 24 **(SDA25)** Reproductive Health Matters
- 25 **(SDA26)** Dr Sam Rowlands
- 26 **(SDA27)** Dr Gregory Gardner
- 27 **(SDA28)** Dr Hans-Christian Raabe
- 28 **(SDA29)** David Randall, Final Year Medical Student
- 29 **(SDA30)** Royal College of Obstetricians and Gynaecologists
- 30 **(SDA31)** Professor Patricia Casey
- 31 **(SDA32)** Antenatal Results and Choices (ARC)
- 32 **(SDA33)** Brook
- 33 **(SDA34)** CARE
- 34 **(SDA35)** Christian Medical Fellowship
- 35 **(SDA36)** The Lawyers' Christian Fellowship
- 36 **(SDA37)** Council for Health and Wholeness
- 37 **(SDA38)** Professor John S Wyatt
- 38 **(SDA39)** Dr Alex Bunn
- 39 **(SDA40)** The Maranatha Community
- 40 **(SDA41)** Alive and Kicking
- 41 **(SDA42)** Society for the Protection of Unborn Children
- 42 **(SDA43)** Marie Stopes International
- 43 **(SDA44)** The British Association of Perinatal Medicine

- 44 **(SDA45)** Abortion Rights
- 45 **(SDA46)** Independent Advisory Group on Sexual Health and HIV
- 46 **(SDA47)** LIFE
- 47 **(SDA48)** BPAS
- 48 **(SDA49)** Sally Carson, Nurse
- 49 **(SDA06)** Madeleine Simms
- 50 **(SDA50)** Wendy Savage
- 51 **(SDA 13A)** Supplementary evidence from BMA
- 52 **(SDA 24A)** Supplementary evidence from Dr Chris Richards
- 53 **(SDA 38A)** Supplementary evidence from Professor John Wyatt
- 54 **(SDA 38B)** Supplementary evidence from Professor John Wyatt
- 55 **(SDA 01A)** Supplementary evidence from the Department of Health
- 56 **(SDA 26A)** Supplementary evidence from Dr Sam Rowlands
- 57 **(SDA 51)** Dr Sam Rowlands
- 58 **(SDA 52)** Dr James Trussell, Katherine A Guthrie and Dr Sam Rowlands

## List of unprinted evidence

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The following memoranda have been reported to the House, but to save printing costs they have not been printed and copies have been placed in the House of Commons Library, where they may be inspected by Members. Other copies are in the Parliamentary Archives, and are available to the public for inspection. Requests for inspection should be addressed to The Parliamentary Archives, Houses of Parliament, London SW1A 0PW (tel. 020 7219 3074). Opening hours are from 9.30 am to 5.00 pm on Mondays to Fridays.

- SDA 53** Correspondence sent by Dr Ellie Lee:
- Correspondence from Dr Henry David about the 'Prague Study' and 'The Fergusson study'
  - Correspondence from Dr Stuart Derbyshire about the Anand paper on fetal pain
  - Correspondence from Dr Margaret Oates about Patricia Casey's submission to the STC.
- SDA 54** Patient information leaflets:
- Counselling and support services for termination of pregnancy
  - Medical termination of pregnancy (leaflet)
  - Medical termination of pregnancy (form)
  - Surgical termination of pregnancy (leaflet)
  - Surgical termination of pregnancy (form)

## List of Reports from the Committee during the current Parliament

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The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

### Session 2006–07

First Report	Work of the Committee in 2005–06	HC 202
Second Report	Human Enhancement Technologies in Sport	HC 67–I (Cm 7088)
Third Report	The Cooksey Review	HC 204 (HC 978)
Fourth Report	Research Council Institutes	HC 68–I (HC 979)
Fifth Report	Government Proposals for the Regulation of Hybrid and Chimera Embryos	HC 272–I (Cm 7139)
Sixth Report	Office of Science and Innovation: Scrutiny Report 2005 and 2006	HC 203 (HC 635)
Seventh Report	2007: A Space Policy	HC 66–I (HC 1042)
Eighth Report	Chairman of the Medical Research Council: Introductory Hearing	HC 746 (HC 1043)
Ninth Report	International Policies and Activities of the Research Councils	HC 472–I (HC 1044)
Tenth Report	Investigating the Oceans	HC 470–I
Eleventh Report	The Funding of Science and Discovery Centres	HC 903–I

### Session 2005–06

First Report	Meeting UK Energy and Climate Needs: The Role of Carbon Capture and Storage	HC 578–I (HC 1036)
Second Report	Strategic Science Provision in English Universities: A Follow-up	HC 1011 (HC 1382)
Third Report	Research Council Support for Knowledge Transfer	HC 995–I (HC 1653)
Fourth Report	Watching the Directives: Scientific Advice on the EU Physical Agents (Electromagnetic Fields) Directive	HC 1030 (HC 1654)
Fifth Report	Drug classification: making a hash of it?	HC 1031 (Cm 6941)
Sixth Report	Identity Card Technologies: Scientific Advice, Risk and	HC 1032 (Cm 6942)
Seventh Report	Scientific Advice, Risk and Evidence Based Policy Making	HC 900–I HC (2006-07) 307
First Special Report	Forensic Science on Trial: Government Response to the Committee's Seventh Report of Session 2004–05	HC 427
Second Special Report	Strategic Science Provision in English Universities: Government Response to the Committee's Eighth Report of Session 2004–05	HC 428