

**CENTRE FOR SEXUAL AND REPRODUCTIVE HEALTH**

**IDENTIFICATION,  
REVIEW AND SYNTHESIS  
OF LITERATURE ON  
MATERNAL HEALTH IN  
RUSSIA AND THE  
FORMER SOCIALIST  
REPUBLICS**

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by

Dr Gillian McIlwaine

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# Acronyms and abbreviations

<b>AHCPR</b>	<b>Agency for Health Care Policy and Research</b>
<b>DFID</b>	<b>Department for International Development</b>
<b>FSU</b>	<b>Former Socialist Republics</b>
<b>GP</b>	<b>General Practitioner</b>
<b>JSI(UK)</b>	<b>John Snow International (UK)</b>
<b>PIH</b>	<b>Pregnancy-Induced Hypertension</b>
<b>UNICEF</b>	<b>United Nations Children's Fund</b>
<b>USAID</b>	<b>United States Agency for International Development</b>
<b>WHO</b>	<b>World Health Organisation</b>

# Executive summary

**Purpose of the Project:** The purpose of the project was to identify, review and summarise information that would form a basis for developing a plan of action in relation to maternal health for DFID support in Russia and the countries of the Former Socialist Republics.

## Phases of the Project

**Phase 1:** Obtaining an understanding of the differences in practice between the East and West in relation to pregnancy hypertension and the management of pregnancy termination by reviewing published research and discussing with clinicians in Moscow in September 2000.

**Outcome:** The Russian literature relating to pregnancy hypertension was concerned with pathology and unlike the English literature there was no epidemiology or management. Abortion references were reviewed and reasons for not studying abortion further are given.

**Phase 2:** Discussing with Russian colleagues in Moscow (March 2001) the evidence-based medicine approach and the desirability of developing evidence-based Russian guidelines in reproductive health.

**Outcome:** Recommendation that a meeting should be held in Moscow in Russian to discuss these issues with key stakeholders

**Phase 3:** Meeting of key stakeholders in May 2001 at the British Embassy, Moscow

**Outcome:** A series of recommendations

1. All clinical guidelines **must** be evidence-based.
2. The development of clinical guidelines should be undertaken by **multidisciplinary professional associations** using the mechanism described by the Russian Cochrane Collaboration Branch.
3. **Methodological support is required** to develop appropriate, effective and efficient guidelines. This support should include training in the evidence-based medicine approach; quality assurance; health technology assessment; and cost effectiveness.
4. The guideline development model used in Tver to create pregnancy hypertension guidelines should be recognised as one of the first examples of successful development of evidence-based guidelines at regional level. **This model should be extended to other regions**
5. A **network** of specialists should be created to support guideline development at regional level.
6. **Health insurance companies should be involved** at the regional level in the development of new forms of reimbursement for an evidence-based health service.
7. As the evidence-based approach should be used in the development of clinical guidelines for each specialty, consideration should be given to the establishment of a **specialty pilot site for promoting evidence-based**

**medicine and guideline development.** Reproductive health should be the pilot specialty.

### **Proposal**

The proposal is **to establish an evidence-based reproductive health office** in one of the maternity houses in Moscow. This should be done in conjunction with the Ministry of Health and a senior obstetrician who has expressed an interest in evidence-based medicine. The aim of the centre would be to promote evidence-based medicine by disseminating information, supporting local audit, working with the relevant clinicians to develop/translate evidence-based guidelines. Funding for a junior obstetrician, secretarial support, computers, internet linkage, office overheads and support for meetings of the steering group would be required.

# 1 The project

In 2000, JSI (UK) was invited by DFID to undertake a safe motherhood maternal health project in Russia. The purpose of the project was to identify, review and summarise information that would form a basis for developing a plan of action in relation to maternal health for DFID support in Russia and the countries of the Former Socialist Republics. This is the final report of the work carried out between April 2000 and June 2001

## 2 Introduction

### 2.1 Maternal mortality

One of the international health targets for Russia is a reduction in maternal mortality by two thirds by 2015<sup>1</sup>. Maternal mortality in Russia is at least five times that of Western Europe at about 50/100,000 live births (approx. 700 deaths) with rates in excess of 100/100,000 in some of the far eastern regions of the country. Twenty five percent of the deaths are classified as being due to abortion.<sup>2</sup> Health care is available for all women in Russia, and so the problem appears to relate to the structure and quality of the service rather than access.

### 2.2 Agencies support for maternal health in Russia

As an introduction to the JSI/DFID project on maternal health in Russia and the countries of the Former Socialist Republics a meeting was held in London in April 2000. The aim of the meeting was to discuss work that was currently being undertaken in Russia in relation to maternal health in Russia. Those attending included representatives from DFID; JSI (UK); JSI (USA); WHO (EURO); USAID and the Reproductive Health Alliance, all of whom presented papers about their on-going projects and provided the following information.

### 2.3 The Russian Health Service

A number of problems for the Russian Health Service in general have been recognised. There is over-manning, poor condition of the infrastructure, outdated medical practices and lack of primary care. The Russian Health Service is therefore undergoing a series of reforms. At the same time health spending has been reduced by 50% to 3% of GDP and the health system has to adapt to this. The move to primary care has resulted in two models - general practitioners and family group practices incorporating the three core specialties. Decisions have to be made as to how best to deliver maternity care - should there be stand-alone maternity hospitals or should they be incorporated.<sup>3</sup>

### 2.4 The role of DFID

The question that DFID wished to address was- **how, within the Russian health reform agenda, can the maternal health outcomes be improved?**

It is very important to recognise that the clinical tradition is very different in Russia. There is no tradition of evidence-based medicine, no clinical epidemiology and the randomised controlled trial research methodology is not used. Because access to western literature was proscribed during the cold war, Russian clinicians have not had the opportunity to compare their practice with that of the west. In relation to maternal and child health, DFID is currently facilitating WHO's role within the region and now has to determine whether what is being done is sufficient or what should be recommended in addition<sup>3</sup>

## **2.5 JSI/DFID PROJECT on maternal health in Russia and the countries of the FSU.**

A number of areas of work to improve maternal health in Russia were identified<sup>4</sup>. The JSI/DFID project was supported and the work was undertaken in three phases:

- Phase 1: Obtaining an understanding of the differences in practice between the East and West in relation to pregnancy hypertension and the management of pregnancy termination by reviewing published research and discussing with clinicians in Moscow in September 2000.
- Phase 2: Discussing with Russian colleagues in Moscow (March 2001) the evidence-based medicine approach and the desirability of developing evidence-based Russian guidelines in reproductive health. The outcome of these discussions was the recommendation that a meeting should be held in Moscow in Russian to discuss, with key stakeholders, these issues
- Phase 3: Meeting of key stakeholders in May 2001 at the British Embassy, Moscow.

## 3 Phase 1

### 3.1 Review of published data: June – August 2000

Because of the differing practices between east and west, the medical literature was reviewed to determine practice and to see where differences lay. It was agreed that the subjects to be chosen should be important clinical conditions. In the first instance the management of pregnancy-induced hypertension was selected and relevant literature reviewed. It was agreed that, as a second condition, the management of termination of pregnancy should be considered. Pregnancy hypertension references (see appendix 1) were reviewed. The references in English were the ones used for the development of the guideline for the management of mild, non-proteinuric hypertension in pregnancy for the Scottish Health Service<sup>5</sup>. In addition to the list a further 101 references were obtained from Medline in relation to the management of pregnancy-induced hypertension but were not required for the guideline. Professor Vlassov from Saratov University supplied the Russian list. He also considered a large number of publications that did not have English summaries. It can be seen from the list of English and Russian references that there were no Russian references about management. It was therefore decided to meet some Russian obstetricians in order

- to compare the management of pregnancy induced hypertension
- to review and compare existing PIH guidelines in Russia and the UK
- to consider the feasibility of introducing evidence-based guidelines
- to make recommendations as to the way forward in relation to
  - Guideline development for PIH
  - Evidence-based management of induced abortion

### 3.2 Discussions in Moscow with clinicians – September 2000

During informal discussions with Russian clinicians, general information was obtained about the maternity service in Russia and specific information was obtained about pregnancy hypertension

#### 3.2.1 Obstetric Practice in Russia and UK

**a) Antenatal care:** The basis of obstetric practice in the two countries is similar. Antenatal care is mainly provided in women's clinics in Russia and in GPs surgeries in the UK. In the UK there is close liaison between the GPs and hospital obstetric and midwifery staff working to common protocols, whereas in Russia this does not seem to be the case.

The pattern of antenatal care in Russia is monthly visits from 12 –32 weeks; fortnightly to 36 weeks and weekly thereafter (14+ visits). Women are sent to the hospital if complications occur. Until recently, this was the pattern of antenatal care in the UK. Following evidence from a series of randomised controlled trials<sup>6,7</sup> the aim is now to tailor care to the needs of the woman. i.e. a primigravida with an uncomplicated pregnancy should have no more than 8 visits and a multigravida – 6 visits. Most of the care should be provided in the primary care setting either by GP or the community midwife (who also works in the hospital) working to protocols agreed by the obstetricians, the midwives and the general practitioners.

The importance of continuity of care has not been seen as a priority in Russia. There is also no continuity of record keeping. A woman may have a number of case records for

one pregnancy, although in some hospitals women do keep the notes during their pregnancy - hand held records.

**b) Delivery:** In Russia and the UK nearly all deliveries take place in hospital. In both countries the length of postnatal hospital stay has been decreasing. In Russia it is now between 3 and 4 days and in the UK postnatal stay is now less than 3 days. As in UK, the Russian caesarean section rate is rising – ranging from 15%– 18%, with some units having rates of 25% - 27%. The Scottish average is 19% with consultant unit variation of 15% - 25%. (The hospitals at both ends have the same case mix.)

### 3.2.2 Differences in management of pregnancy-induced hypertension between West and East

Although initially it seemed that we had a very similar understanding of pregnancy induced hypertension, following discussion fundamental differences appeared. There was a marked difference in definition and in management. Differences in definition are outlined in the table below

#### Comparison of definitions

	<b>Russia (from 1996 conference)</b>	<b>UK (from Davey and MacGillivray<sup>8</sup>)</b>
Oedema	3 levels: leg/abdominal/general	On its own not significant
Mild hypertension	130 –150/85-90, protein: 0.033- 0.132 +ankle oedema	Diastolic $\geq$ 110 on any one occasion or $\geq$ 90 sustained for at least 4 hours
Moderate hypertension	150–170/90–110, protein, 0.132-1+ abdominal oedema	Not used
Severe hypertension	$>170/>110$ , protein: $>1\text{gm}$ + generalised oedema	Diastolic $\geq$ 120 on any one occasion or $\geq$ 110 sustained for at least 4 hrs
Proteinuria	+ (qualitative)	24 collection – total protein $\geq$ 300mg/24 hrs <i>or</i> 2 clean catch midstream or catheter specimens with $\geq$ +++ protein on reagent strip testing <i>or</i> + protein IF urine SG 1.030 AND pH $\leq$ 8
Pre-eclampsia	$>150/100$	A multi-system disorder usually associated with raised blood pressure and proteinuria
Eclampsia	Convulsions associated with pregnancy	Convulsions associated with pregnancy hypertension

**West:** There are marked differences in management with a greater recourse to hospitalisation and medication in Russia. In the UK even if a blood pressure of 140/95 had been noted at 32 weeks with no other symptoms, the woman is managed as an outpatient and a programme of basic surveillance is begun – this is a single estimation of serum levels of urate, urea and electrolytes, and full blood count including platelets;

blood pressure and urine dipsticks twice weekly; a clinical appraisal of fetal size and well being and clinical enquiry into maternal well-being.

**East:** In Russia the woman would be hospitalised immediately, hypertension would be treated usually with spasmolytics, methyl dopa; but possibly magnesium sulphate; antioxidants, vitamin E would also be prescribed and a series of blood tests including fatty acids would be taken. The aim, in Russia, is always to understand the pathogenesis of the disease and to treat accordingly. If the mild hypertension noted in a woman at 28 weeks gestation persisted, it would be thought to be medically resistant and the woman would stay in hospital until delivery. The doctor looking after her would probably consult a number of colleagues for their opinion on management and the hypertension and the oedema would be treated.

### 3.2.3 The Difference in Guidelines between West and East

**West:** A number of guidelines for the management of pregnancy-induced hypertension are sited in the Western Europe and American literature. Although we knew about work being undertaken in Tver on the development of a *Clinical Guideline For Treatment of Pregnancy Induced Hypertension*<sup>9</sup>, we chose to review in some detail the Scottish guideline (approved for use in Scotland by the Scottish Intercollegiate Guideline Network<sup>10</sup>). The reason for choosing the Scottish guideline related more to the grading of evidence-based on the system proposed by the US Agency for Health Care Policy and Research (AHCPR) than to familiarity with the guideline. The simple grading used is as follows

- A requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.
- B requires availability of well-conducted clinical trials.
- C requires evidence from expert committee reports or opinions and/or clinical experience of respected authorities, indicates absence of directly applicable studies of good quality.

The UK management of mild pregnancy-induced hypertension outlined above is based on a series of studies

Hospitalisation and bed rest are of unproven value in the management of mild, non-proteinuric gestational hypertension (evidence Grade A).

Anti-hypertensive drug treatment is not usually indicated for women with non-proteinuric gestational hypertension. Where diastolic blood pressure exceeds 100mmHg or where the disease has arisen before 32 weeks, consideration may be given to anti-hypertensive therapy (evidence Grade A)

**East:** Russian management is based on Ministerial obstetrics, gynaecology and neonatology standards. These standards have recently been produced in the 'brown book'-Triada-X 1999<sup>11</sup>. This book was developed by the Moscow Research Centre for Obstetrics, Gynaecology and Perinatology, published in journals, and has been distributed to all maternity units in the country. The guidance is not evidence-based

### 3.2.4 Feasibility of introducing evidence-based guidelines

Russian health professionals are accustomed to receiving guidelines from the Ministry of Health, to advise their practice. This was felt to be a definite strength provided the guidelines were evidence-based. The use of evidence-based guidelines would result in a more effective and efficient health service. As we had been considering pregnancy-

induced hypertension, we had a meeting with Professor E. Mourashko at the Obstetric, Gynaecology and Neonatal Research Institute in Moscow. She is President of the Russian Association of Gestosis and a member of the group who wrote the 'Preekaz' – the guidance for pregnancy-induced hypertension. She was supportive of the idea of further discussion with some key people about evidence-based medicine in general and pregnancy-induced hypertension in particular.

## 4 Phase 2

### 4.1 Aims and objectives of working group

Members of the group were either working to promote evidence-based medicine, working on evidence-based guideline development, providing professional advice about pregnancy-induced hypertension or were from the Ministry of Health.

*The aims of the working group were*

- to consider the desirability of developing evidence-based guidelines for reproductive health in Russia
- to discuss ways of developing evidence-based Russian guidelines in reproductive health.

*The objectives of meeting were*

- to summarise the evidence-based medicine approach and discuss its importance in reproductive health care
- to review current evidence-based guidance for the management of pregnancy induced hypertension
- to review the current practice of development of evidence-based guidelines
- to discuss the feasibility of establishing evidence-based guidance in reproductive health for Russian clinicians
- to plan the way forward

A series of presentations were made ranging from an overview of the history of evidence-based medicine and the evidence-based medicine and guideline movement; the differing clinical approaches; the experience of developing evidence-based guidelines in Tver, and how the methodology compared with the Russian Formulary Project and the Ministry of health Standardisation Programme.

### 4.2 Agreement of working group participants

It was agreed by all that guidelines must be evidence-based and that it was exceedingly important to persuade those people in positions of influence of the necessity of this. It was suggested that one approach would be *to establish a national evidence-based medicine co-ordinating centre for all specialties linking to an open network of multidisciplinary professionals throughout the country*. Because maternal and child health is one of the national target areas and because obstetrics has a good evidence base, it was felt that it might be appropriate to establish a subgroup promoting evidence-based medicine in this specialty. In the first instance it was felt necessary to convene a meeting with key personnel to discuss these ideas. The following proposal was therefore made.

### **Proposal**

It was proposed that a meeting, supported by DFID and USAID, should be set up.

*The objectives of the meeting would be -*

- to create a forum for opinion leaders to discuss evidence-based guidelines
- to consider the development, distribution and implementation of guidelines
- to discuss the support, structure and process required.
- to prepare a report of the conclusions of the meeting
- to present the report to the Ministry of Health and other relevant stakeholders

## 5 Phase 3: Stakeholders meeting on evidence-based medicine

### 5.1 The meeting

The meeting was held at the British Embassy Moscow from 28-29 May 2001. Forty participants, including opinion leaders and key personnel with an interest in evidence-based medicine were invited and 38 came. The content of the meeting included an overview and history of the evidence-based medicine approach; the important steps of guideline development; an international perspective to guideline development and possible approaches that would be applicable to the Russian situation as well as examples of guideline development, usage and benefit in the Russian health service. Finally the way ahead was discussed.

### 5.2 The importance of evidence-based medicine

Following introductory remarks from Moscow based senior officials from DFID and USAID, the importance of evidence-based medicine was stressed by Professor Denisov, Vice-Rector of the Moscow Medical Academy. Professor Denisov has recently established the first Russian Centre of Evidence-based Medicine in his department and Dr Novichkova, the first director described the aims and objectives of the Centre and the training programmes that are offered. Presentations were made by the heads of the Standardisation Board of the Ministry of Health and the Russian Cochrane Collaboration Office. Other papers covered health care quality improvement and the important steps in guideline development were presented. Dr Penney from Scotland described how an evidence-based health service has been (and still is) introduced into the National Health Service in Scotland. National structures had been developed to support the three themes of clinical effectiveness – i.e. inform; change; monitor.

### 5.3 Evidence-based reproductive health care

The topic for the second day was evidence-based medicine as it related to reproductive health care. The importance of finding existing evidence was stressed and Professor Vlassov produced a list of useful sources of evidence including websites. Professor Asatiani from Georgia described how obstetricians in his country were promoting evidence-based medicine in reproductive health. They have set up a Centre for Clinical Effectiveness in Reproductive Health which has access to on-line evidence-based data; the clinicians disseminate good practice guidelines; review existing protocols; organise professional feedback and co-ordinated different audits and provide training for evidence-based reproductive health. The Ministry of Health supported the approach and funding was obtained from the Soros Foundation, from UNICEF and from the Tempus Programme of the EC to carry out the programme. Professor Asatiani also told the meeting that it was possible to gain free access to the Cochrane Reproductive Health website via [www.obgyn.net](http://www.obgyn.net) and that WHO (Geneva) has produced a Compact Disk version of the Reproductive Health Database<sup>12</sup>

#### 5.4 Successful introduction of guidelines

USAID has been working with the Ministry of Health and clinicians and staff of the Health department in Tver to develop clinical guidelines, including guidelines for the management of pregnancy-induced hypertension. The process and the successful results of that project were presented. The Chief Neonatologist for Russia made the final presentation. She described the WHO approach to perinatal care and strongly supported the need for evidence-based guidelines. There then followed a very lively discussion resulting in a number of recommendations.

#### 5.5 Recommendations from the meeting

1. All clinical guidelines **must** be evidence-based.
2. The development of clinical guidelines should be undertaken **by multidisciplinary professional associations** using the mechanism described by the Russian Cochrane Collaboration Branch.
3. **Methodological support is required** to develop appropriate, effective and efficient guidelines. This support should include training in the evidence-based medicine approach; quality assurance; health technology assessment; and cost effectiveness.
4. The guideline development model used in Tver to create pregnancy hypertension guidelines should be recognised as one of the first examples of successful development of evidence-based guidelines at regional level. **This model should be extended to other regions**
5. **A network of specialists** should be created to support guideline development at regional level.
6. **Health insurance companies should be involved** at the regional level in the development of new forms of reimbursement for an evidence-based health service.
7. As the evidence-based approach should be used in the development of clinical guidelines for each specialty, consideration should be given to the establishment of **a specialty pilot site for promoting evidence-based medicine and guideline development**. Reproductive health should be the pilot specialty.

#### 5.6 Other outputs from the meeting

- Professor Mourashko expressed the desire to change the hypertension preekaz to make it evidence-based. She is planning a meeting for the autumn of 2001 and asked some of the speakers to make presentations.
- The report of the meeting will be published in the Russian Perinatal Journal
- Dr Ruymina asked Professor Asatiani for the transcript of his presentation about promoting evidence-based reproductive health in Georgia so that it could also be published in the Russian Perinatal Journal.
- Dr Vikhlyaeva and colleagues now want to apply for a DFID grant in order to introduce the evidence-based approach following on from a perinatal mortality survey they have undertaken in Izhevsk, Urdmurtia.

## 6 Management of abortion

### 6.1 Maternal deaths from abortion

As mentioned in 3.2a, the original proposal included the review of a second important reproductive health topic. The management of abortion was chosen because of the large number of abortions performed in Russia, and because abortions account for a quarter of maternal deaths. The published number of abortions per year is the same as that of births but the actual number is believed to be considerably greater because of under reporting. The rate of maternal death from abortion is much higher in Russia than in the west. In the UK there was one death from legal abortion reported in the last confidential enquiry into maternal deaths giving a rate of 0.5/100,000 births<sup>13</sup>. In Russia the reported death rate from legal abortion was 1.5 (20 deaths). In addition there was also reported a rate of 10.8 (147 deaths) from 'other' abortion<sup>2</sup>. Whether these 'other' abortions are due to illegal practice is not known. The provision of safe abortion services is obviously extremely important to maternal health.

### 6.2 Abortion Service Standards

In 2000, the Royal College of Obstetricians produced an evidence-based guideline on the management of abortion<sup>14</sup>. The literature was reviewed and very few references were found in the Russian literature relating to induced abortion in Russia. (Appendix 2) We then encountered a problem. Our Russian partner was very uncomfortable about us considering abortion - "“ *why must we explore the most difficult and awkward issue?*” He conceded however that the recent RCOG guideline on *Standards for Provision of an Abortion Service* would be a **good starting point to review current practice in Russia.**

### 6.3 Problems encountered

The reason why the abortion rate is high was attributed the following:

- the attitude of women to regular contraception
- the expense of contraceptives
- the National Policy of increasing family size.
- The ease of obtaining an abortion

We were also told how very upset and insulted senior doctors had been when the promise of help from the west resulted in boxes of condoms. We were also told about the practice of clinicians supplementing their income by 'unofficially' performing abortions in the hospital in the evening. At first we were told that this practice had ceased. We were then told – “of course it goes on”.

### 6.4 Ongoing work

Currently a project funded by the Soros Foundation and undertaken by Obstetricians in Moscow supported by the Reproductive Health Alliance is undertaking a review of maternal deaths from abortion in Russia. This very important study should determine whether in fact deaths were related to abortion and whether the abortion was induced or natural; whether there was a pre-existing condition in the woman that might explain her death or whether there appeared to be a deficiency in the service in one particular area or generally. Once this study has reported the direction for future work will be clearer.

## 7 Plan for future work relating to maternal health in Russia

### 7.1 Areas for future work

At the JSI planning meeting, in April 2000, a number of recommendations were made which would lead to improvement in maternity care in Russia and the former Socialist Republics. These included integrating the maternity service into the primary care services; establishing a confidential enquiry into maternal deaths; moving away from the current hierarchical structure by establishing multidisciplinary teams; understanding the importance of pressure groups in the implementation of change and using them; the need for safer abortion services. The common theme in all the recommendations was **the need for practice to be evidence-based.**

### 7.2 Support for the evidence-based approach

During the 15 months of the project our focus shifted, from working together in order to understand why the practice in the west and the east differed, to discussing the sources of evidence for the preekaz and the sources of evidence for the UK guidelines. This then led on to a wider discussion of evidence-based medicine, guideline development and levels of evidence. During this time there appeared to be a shift to an interest in evidence-based medicine. This may relate to the establishment of the evidence-based medicine centre in the Department of Primary Care at Moscow Medical academy. There was definite support for the need for guidance to be evidence-based and the clinicians to learn about evidence-based medicine. The work in Tver has demonstrated that evidence-based guidelines can be developed at local level and do work. The next stage should be to see if a less time consuming inexpensive model would also work.

### 7.3 The Proposal

As a result of this work the proposal is **to establish an evidence-based reproductive health office** in one of the maternity houses in Moscow. This should be done in conjunction with the Ministry of Health and a senior obstetrician who has expressed an interest in evidence-based medicine. The role of the senior obstetrician would be to establish a group of senior colleagues, ideally a representative from each maternity house in the city who would form a steering group for the project, thus giving ownership to all the maternity houses taking part.

The aim of the centre would be to promote evidence-based medicine by disseminating information, supporting local audit, working with the relevant clinicians to develop/translate evidence-based guidelines and liaising with other evidence-based reproductive health centres (e.g. Tbilisi and Edinburgh) to share experience, documentation and training materials. In the longer term the aim would be to extend the work to provide training, undertake audit including mortality enquiries, and provide support for the development of reproductive health prekaaz. At the outset funding for a junior obstetrician, secretarial support, computers, internet linkage, office overheads and support for meetings of the steering group would also be required.

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# Appendix 1

## REFERENCES RE MILD HYPERTENSION IN PREGNANCY

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(using the methodology of the Scottish Intercollegiate Guideline Network –SIGN)

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In addition a further 101 references from the Medline search were reviewed

*Russian references relating to pregnancy hypertension*

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20. O. M. Supriaga. [Drug treatment of gestational arterial hypertension in medical institutions of Russia (population study)]. *Ter.Arkh.* 71 (10):57-61, 1999.
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24. E. M. Vikhliaeva. [Pharmacological prevention of gestation complications]. *Ter.Arkh.* 71 (10):49-53, 1999.

## Appendix 2

### MEDLINE DATA for INDUCED ABORTIONS IN RUSSIA 1980 -2001

- 1. Authors:** Bannikova RV. Sannikov AL.  
**Title:** Social determination of abortion [Russian]  
**Source:** Problemy Sotsialnoi Gigieny i Istorii Meditsiny. (4): 13-6, 1998 Jul-Aug.  
**Abstract:** The problem of artificial abortions is analyzed from a social and hygienic viewpoint in order to characterize more profoundly the women who have to abort pregnancy. The results demonstrate the social causes of family planning by means of abortions under conditions of the North nowadays.
- 2. Authors:** Agadjanian V. Qian Z.  
**Institution:** Department of Sociology, Arizona State University, Tempe 85287-2101, USA.  
**Title:** Ethnocultural identity and induced abortion in Kazakstan.  
**Source:** Studies in Family Planning. 28(4):317-29, 1997 Dec.  
**Abstract:** This study analyzes ethnic differences in induced abortion among ever-married women in Kazakstan, drawing on data from the 1995 Kazakstan Demographic and Health Survey. Instead of conventional ethnic markers, such as "Kazak" or "Russian," it focuses on more complex ethnocultural identities that combine ascribed ethnicity with language use. Because of the history of russification in Kazakstan, three ethnocultural groups are defined and compared--Kazak women who chose to be interviewed in Kazak, Kazak women who chose to be interviewed in Russian, and women of European background interviewed in Russian. Whereas women of European origin were the most likely to undergo induced abortion, the Russian-interviewed Kazaks had higher abortion ratios and were more likely to terminate their pregnancies than were the Kazak-interviewed Kazaks, net of other characteristics. The implications of the results for induced abortion trends and family planning policy in Kazakstan are discussed in addition to other findings.
- 3. Authors:** Savelyeva GM. Gavrilova DV. Lobova TA.  
**Institution:** Department of Obstetrics and Gynecology, Russian State Medical University, Moscow, Russia..  
**Title:** Family planning in Russia.  
**Source:** International Journal of Gynaecology & Obstetrics. 58(1):51-7, 1997 Jul.  
**Abstract:** The data concerning the abortion rate in Russia for the past 5 years are presented. They demonstrate that abortion has been the main means of birth control. At present, the government, the Ministry of Public Health, obstetricians and gynecologists, and public organizations are making every effort to introduce medical and non-medical means of contraception.

4. **Authors:** Entwisle B. Kozyreva P.  
**Institution:** University of North Carolina at Chapel Hill, Carolina Population Center 27516-3997, USA.  
**Title:** New estimates of induced abortion in Russia.  
**Source:** *Studies in Family Planning*. 28(1):14-23, 1997 Mar.  
**Abstract:** This article describes findings from a new source of data for estimating the incidence of induced abortion in the Russian Federation, the Russian Longitudinal Monitoring Survey (RLMS). According to RLMS data, the abortion rate in 1994 was 56 per 1,000 women aged 15-44, with a 95 percent confidence interval of plus or minus 12 per 1,000, an estimate that varies from that advanced by official sources and other studies. The sensitivity of this estimate to survey design, underreporting of abortion, and potential confusion about miniabortions is considered. Consistency of abortion estimates with patterns of contraceptive use is also evaluated. A significant advantage of RLMS data is the ability to estimate abortion rates specific to respondent characteristics. The article presents findings concerning socioeconomic differences.
  
5. **Authors:** Godfrey K.  
**Title:** Eastern affairs.  
**Source:** *Nursing Times*. 92(12):20-1, 1996 Mar 20-26. Held at BMA Library
  
6. **Authors:** Katkova IP. Gavrilova LV. Zubkova NZ. Krasnenkov VL. Mikhalskaya EV.  
**Title:** Dynamics of abortion in various regions of Russian Federation. [Russian]  
**Source:** *Problemy Sotsialnoi Gigieny i Istorii Meditsiny*. (1):9-16, 1996 Jan-Feb.  
**Abstract:** Analyzes statistics of induced abortions as reflected at the Ministry of Health and Medical Industry of Russia. Puts forward the most significant medicosocial factors influencing the causes of pregnancy discontinuation. Analysis of the prevalence of induced abortions in different regions of Russia persuasively demonstrates the necessity of improving the state statistics of abortions for the realization of family planning programs.
  
7. **Authors:** Mogilevkina I. Markote S. Avakyan Y. Mrochek L. Liljestrand J. Hellberg D.  
**Institution:** Department of Obstetrics and Gynecology, University Hospital Donetsk, Ukraine.  
**Title:** Induced abortions and childbirths: trends in Estonia, Latvia, Lithuania, Russia, Belarussia and the Ukraine during 1970 to 1994.  
**Source:** *Acta Obstetrica et Gynecologica Scandinavica*. 75(10):908-11, 1996 Nov.  
**Abstract:** **BACKGROUND:** To analyse trends in childbirth, induced abortions and maternal morbidity from 1970 to 1994 in Estonia, Latvia, Lithuania, Russia, Belarussia and the Ukraine. **METHODS:** Official health statistics from the six countries were compiled and analysed.  
**RESULTS:** High abortion rates (up to 142 per 1000 women of fertile ages and years) were seen in all countries analysed, but since 1980 a continuing decrease is noted for Estonia, Latvia and Kaliningrad with a lowest rate of 50 abortions/1000 women/year in Latvia in 1994. Teenage abortions and childbirths are increasing.

Maternal mortality, including complications of abortions, is still a reality in all the countries studied.

**CONCLUSION:** The high abortion frequencies in all countries studied here indicate that national abortion prevention programs are needed. Such programs should focus on education, both of medical professionals, teenagers, fertile women and males. Concomitantly, the availability of cheap and modern contraceptives must increase, especially to defined risk groups.

**8. Authors:** Krasnenkov VL.

**Title:** Socio-hygienic analysis and trends in primary prevention of abortions. Russian

**Source:** Sovetskoe Zdravookhranenie. (5):38-42, 1991.

**Abstract:** Artificial interruption of pregnancy remains one of the main methods of birth control and is a priority problem of public health. The reduction of abortions frequency in towns is accompanied by the growth of this indicator in rural areas. During recent years "family problems due to drinking habits of husband" have remained one of the major causes for the interruption of pregnancy. The reduction of abortions frequency can be achieved through target health education among women of reproductive age based on their classification by corresponding risk groups, and through joint efforts of health workers, Soviet and public organizations.

**9. Authors:** Kapeliushnik NL. Osipov RA. Tukhvatullina LM. Mal'tseva LI. Chernovskaia RT.

**Title:** Analysis of the sequelae of induced abortion (based on the clinical data of the V.I. Lenin Kazan Institute for the Training of Physicians). [Russian]

**Source:** Akusherstvo i Ginekologiya. (12):52-3, 1988 Dec.



JSI (UK)  
STUDIO 325  
HIGHGATE STUDIOS  
53-79 HIGHGATE ROAD  
LONDON NW5 1TL  
PH: 0207 241 8599  
fax: 0207 482 4395  
email: [info@jsiuk.com](mailto:info@jsiuk.com)