# Termination of pregnancy:

Information and legal obligations for medical practitioners



# Contents

1.	Introduction Aim of document	3
2.	Abortion and the law (summary) Informed consent	6 6
3.	Timing of referral Abortion before 20 weeks Abortion after 20 weeks	8 8 8
4.	Medical Practitioners - ethical and legal obligations in detail Medical risks counselling Offer referral for counselling Inform the woman of the availability of follow-up counselling	10 11 12 13
5.	Methods of induced abortion Surgical abortion Medical abortion	14 14 14
6.	Risks of induced abortion Short-term risks and complications of surgical abortion Long-term complications Medical abortion Summary of risks of abortion	16 17 22 25 26
7.	Risks of carrying a pregnancy to term Summary of risks of carrying a pregnancy to term	28 30
8.	About adoption	32
9.	Additional requirements for special cases Dependant Minors	33 33
10.	Guidelines for counselling	38
11.	Resource list	40
12.	References	47

## 1. Introduction

#### Aim of document

The primary aim of this document is to assist Western Australian medical practitioners to fulfill the requirements of informed consent as defined in section 334 of the *Health Act 1911 (WA)* when counselling women who are considering a possible termination of pregnancy.<sup>1</sup>

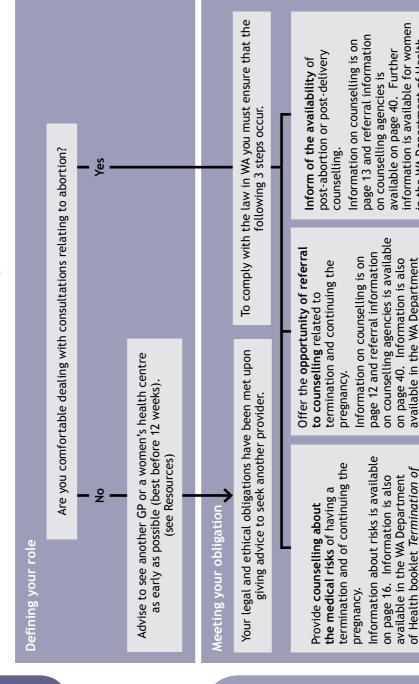
The document provides a summary of:

- Information on the abortion legislation and a medical practitioner's obligations under that legislation.
- Evidence-based information on medical risk related to abortion and continuing a pregnancy to term
- Resource list of useful information and contact details for further referral

It includes a quick reference flow chart to guide the consultation process with women requesting pregnancy termination.

The terms abortion and termination of pregnancy are used interchangeably to refer to induced abortion to end a pregnancy using a medical or surgical procedure.

# Quick reference guide



booklet Termination of pregnancy:

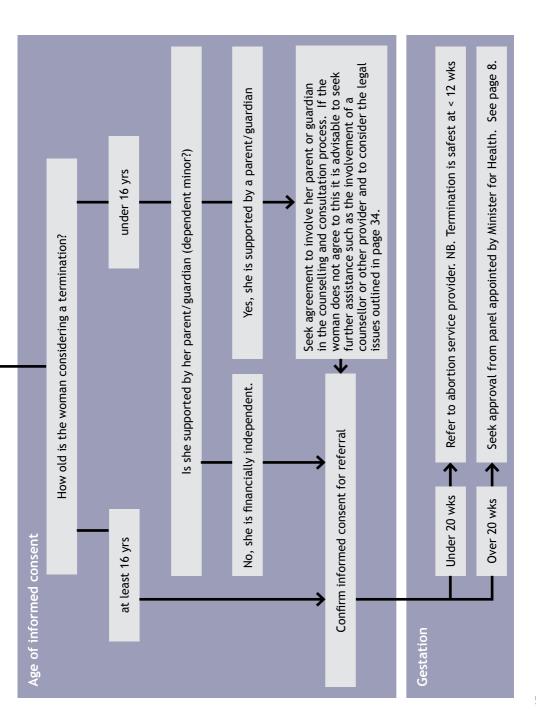
Understanding your choices.

in the WA Department of Health

of Health booklet *Termination of* 

pregnancy: Understanding your

pregnancy: Understanding your



# 2. Abortion and the law (summary)

In May 1998 the Acts Amendment (Abortion) Act 1998 (WA) was enacted. It amended the Criminal Code 1913 (WA) ("Code") and the Health Act 1911 (WA) ("the Health Act"). The effect of the amendment to the Code was to make it lawful to perform an abortion where:

- the abortion is performed by a medical practitioner in good faith and with reasonable care and skill; and
- the performance of the abortion is justified under section 334 of the Health Act.

Under section 334 of the Health Act, the performance of an abortion is justified for the purposes of section 199(1) of the Criminal Code<sup>2</sup> if:

- the woman has given informed consent; or
- in some other limited circumstances (see below)

**Note:** where the woman is 20 weeks pregnant or more, there are further special requirements - see page 8.

#### Informed consent

Informed consent for referral must be obtained by a medical practitioner who is not the doctor performing the abortion or the doctor assisting with the abortion.

Obtaining informed consent according to the law involves:

- Providing counselling about medical risks of termination and continuing the pregnancy;
- Offering referral for counselling pre-termination and for continuing the pregnancy; and
- Informing the woman that counselling is available post-termination or post-delivery.

The medical practitioner must obtain informed consent from the woman before referral for termination, should she choose that option. The obtaining of informed consent is defined by the following actions:

- A medical practitioner has properly, appropriately and adequately provided her with counselling about the medical risk of termination of pregnancy and of carrying a pregnancy to term;
- A medical practitioner has offered her the opportunity of referral to appropriate and adequate counselling about matters relating to termination of pregnancy and carrying a pregnancy to term; and
- A medical practitioner has informed her that appropriate and adequate counselling will be available to her should she wish it upon termination of pregnancy or after carrying the pregnancy to term.

Note that in relation to the 2nd point above, a medical practitioner may provide counselling him/herself as long as the option of referral is offered.

#### What are the "other limited circumstances"?

Where a woman is over the age of 16, but is not able to give informed consent to treatment (e.g. because of mental incapacity or illness), the medical practitioner should consult with the woman's legally appointed guardian (if she has one). That person may be empowered under the *Guardianship and Administration Act 1990 (WA)* to consent to the carrying out of the abortion.<sup>3</sup>

If a medical practitioner is concerned about the capacity of a woman to give consent, it may be appropriate to apply to a court for permission for the abortion to be carried out. A referral to a legal service may be required in such situations.

Section 334(3)(c) and (d) of the Health Act<sup>1</sup> provide that where it is impracticable for a woman to give informed consent, the performance of an abortion will be justified without such consent where:

- serious danger to the physical or mental health of the woman will result if an abortion is not performed; or
- the pregnancy of the woman is causing serious danger to her physical or mental health.

# 3. Timing of referral

#### Abortion:

- is safest if performed before 12 weeks
- is legal on request before 20 weeks if the requirements for informed consent are met
- can be performed after 20 weeks in special circumstances only.

#### Abortion before 20 weeks

Where there is informed consent (as described previously), the performance of an abortion will be justified under section 334 of the Health Act up to 20 weeks of pregnancy. In other words, abortion is available on request up to 20 weeks of pregnancy provided that informed consent has been given.

#### Importance of early referral

There is always a balance between referral early in pregnancy and allowing sufficient time for decision-making. However, it is important to ensure that women wanting termination of pregnancy are referred early, as the risk of complications rises with increasing gestation. This is further discussed in the section on risks.

#### Abortion after 20 weeks

Section 334(7) of the Health Act allows for an abortion if a gestation of 20 weeks has been reached but imposes additional legal requirements. Section 334(7) of the Health Act provides as follows:

If at least 20 weeks of the woman's pregnancy have been completed when the abortion is performed the performance of the abortion is not justified unless:

- Two medical practitioners who are members of a panel of at least 6 medical practitioners appointed by the Minister for the purposes of this section have agreed that the mother, or the unborn child, has a severe medical condition that, in the clinical judgment of those 2 medical practitioners justifies the procedure; and
- the abortion is performed in a facility approved by the Minister for the purposes of this section.

Terminations of pregnancy after 20 weeks are only likely to be agreed to by members of the panel under section 334(7) of the Health Act where there are very strong indications of a problem affecting the woman or fetal (e.g. fetal abnormalities, serious medical or psychiatric conditions of the woman).

Any application to the panel should be made by the woman's medical practitioner on behalf of the woman with the prior agreement of the woman concerned, not by the woman herself.

In such a case, all the requirements of informed consent still apply.

The approved facility for the purposes of section 334(7) of the Health Act is King Edward Memorial Hospital for Women.

# 4. Medical Practitioners - ethical and legal obligations in detail

In order to comply with the informed consent provisions of the law the medical practitioner must provide the woman with information and referral as outlined in the legislation (see below).

Medical practitioners are under no obligation to participate in a consultation and referral for pregnancy termination. However medical practitioners should demonstrate respect for the patient's values and assist the patient to access care which is consistent with the patient's values and wishes. This would involve referring the woman as soon as possible to another medical practitioner who can provide information and referral if she wishes.

#### Complying with the law

In order to fulfill the obligations in relation to informed consent, the medical practitioner should provide the woman with information and referral as outlined in the legislation. This includes the following three requirements which are further discussed below:

- Counselling about the medical risks of having a termination and of continuing the pregnancy;
- Offering the opportunity of referral to counselling about matters relating to the termination and carrying the pregnancy to term; and
- Informing the woman of the availability of post-abortion or postdelivery counselling on request

The law does not require medical practitioners to participate in a consultation and referral for pregnancy termination. Some medical practitioners may feel on moral or religious grounds that they are unable to counsel or refer for termination of pregnancy. They should make their position clear to the woman at an early stage and *advise her to seek help elsewhere*, from another medical practitioner or Women's Health Centre.

Medical practitioners should be guided by the Australian Medical Association (AMA) Code of Ethics:

'When a personal moral judgement or religious belief alone prevents you from recommending some form of therapy, inform your patient so that they may seek care elsewhere....'4

# Medical risks counselling

The medical practitioner must provide the woman with counselling about the medical risks of having a termination and of continuing the pregnancy.

**Note:** The term 'counselling' in this case is synonymous with providing information; it is not psychological counselling to assist with decision-making about pregnancy choices. Although many doctors would see supportive counselling as part of their role, it is not a legal requirement in relation to informed consent.

The Department of Health publication, *Termination of Pregnancy: Understanding your choices* is a useful booklet to help medical practitioners to present information in a way which can be easily understood; it can be used as a prompt to discuss the issues with women. Of course, it is essential to provide the opportunity for the woman to ask questions.

As a guide, it is suggested that counselling should include the following information. For more details of the evidence relating to these points see section 6 on page 16.

Table 1 Discussion points for medical risks counselling

Discussion topics	Suggested Discussion points
Pre-termination process	Blood tests, pregnancy tests, ultrasound
Anaesthetic issues	Method (GA, LA or twilight) and possible associated risks
Procedure: Type	Surgical - suction/vacuum aspiration, medical (may be an option in the future)
Procedure: General	Waiting period, duration of procedure, recovery time, where performed
Short term risks	Infection, bleeding
Long-term medical or psychosocial risks	Emotional health, risks to future fertility,
Pregnancy	Medical risks of pregnancy,
Additional Support	Resources on where to access more information about counselling, pregnancy and adoption.

# Offer referral for counselling

✓ The medical practitioner must offer a woman the opportunity of referral to counselling (e.g. psychological counselling services) about matters relating to termination and carrying the pregnancy to term.

Medical practitioners may provide counselling themselves but are also obliged to offer the opportunity of referral. Whether or not such an offer is taken up is a matter for the woman concerned i.e. she does not have to be counselled elsewhere in order to meet the legal requirements.

Many medical practitioners feel that they are able to assist and support women in their decision-making, and to provide on-going counselling (i.e. counselling which may go beyond that required by section 334 (5) (a) in relation to the medical risks involved).

Provided that the legal requirement of offering the opportunity of referral to outside counselling is met, there is nothing to prevent doctors themselves providing such counselling, and many doctors will wish to do so. A brief guide outlining the principles of counselling can be found on page 38 of this booklet.

# Inform the woman of the availability of follow-up counselling

✓ The medical practitioner must inform the woman that, should she request it, post-abortion or post-delivery counselling will be available to her.

Again, the obligation for medical practitioners is to inform the woman that such counselling is available. Whether or not the woman seeks such counselling is up to her. A woman does not have to avail herself of counselling to meet the legal requirements.

In the event that a woman decides to seek post-abortion or post-delivery counselling, there is nothing to prevent a medical practitioner from providing such counselling.

## 5. Methods of induced abortion

A pregnancy may be terminated using surgical or medical techniques or a combination of the two.

## Surgical abortion

Surgical methods include: suction curettage (vacuum aspiration) or dilation and evacuation. In Western Australia almost all early gestation terminations (up to 12 weeks) are carried out by vacuum aspiration or suction curettage (95% in 2005).<sup>5</sup>

The Royal College of Obstetricians and Gynaecologists (RCOG, 2004) recommends that cervical preparation should be routine when the woman is under 18 or at a gestation of >10 weeks.<sup>6</sup>

Preparation of the cervix may include the administration of a prostaglandin or one of its analogues (such as misoprostol, gemeprost or mifepristone) or osmotic dilators (laminaria tents) placed in the cervix where they absorb moisture and expand gradually to dilate the cervix.<sup>7</sup>

#### Medical abortion

Medical abortion refers to the use of medication to terminate a pregnancy. In the most widely used method worldwide, a woman is first given an oral dose of a progesterone antagonist, such as mifepristone (RU486) or the cytotoxic drug methotrexate. These drugs inhibit the action of progesterone in maintaining the pregnancy and therefore cause the embryo and placental sac to separate from the wall of the uterus. A prostaglandin analogue such as misoprostol is then given (vaginally, orally or sub-lingually) either at the time or up to 1-3 days later. The prostaglandin-like drug causes the contents of the uterus to be expelled.

The combination of mifepristone and misoprostol for women in early pregnancy results in complete abortion in 93% to 98% of cases, with the remaining cases needing consideration of a follow-up surgical procedure.<sup>8</sup> The success rate is lower as the pregnancy advances. Although widely used overseas, mifepristone (RU 486) is so far only available in Australia under special circumstances in certain hospitals. These include KEMH, where

mefepristone is now being used for second trimester abortions. Some clinics are using methotrexate for medical terminations.

Medical abortion with the prostaglandin analogue misoprostol alone has been used in Western Australia for some years, mainly for second trimester abortions.

All evidence indicates that medical abortion is safe and acceptable to women; adverse effects are dealt with below. Women undergoing medical abortion need to be under close medical supervision and to have access to surgical treatment in the case of an incomplete abortion or excessive bleeding. The surgical treatment needed is the same as would be provided for an incomplete spontaneous miscarriage.

# 6. Risks of induced abortion

The following sections are an evidence-based summary of the literature on the risks of pregnancy termination and of continuing the pregnancy to term.

When counselling women, the Department of Health booklet, *Termination of pregnancy: Understanding your choices* summarises the relevant information and is useful to guide the consultation process.

All of the available evidence indicates that surgically induced abortion, especially in early pregnancy, is a low-risk surgical procedure. 9-11 Improved techniques and the use of operators with greater experience have contributed to safer abortion procedures. 9-11 The Royal College of Obstetricians and Gynaecologists has reviewed the evidence about complications and notes that for terminations of pregnancy performed before the fifteenth week of gestation the risks of death and serious complications are lower than the risks associated with carrying a pregnancy to term. 6

There are many issues for women to consider in their decision about a possible termination of pregnancy. The medical risks associated with an abortion or continuation of pregnancy are only one part of this complex decision.

The short-term and long-term risks of surgical abortion are considered below and summarised in the table on page 26. A small section on medical abortion is also included.

# Short-term risks and complications of surgical abortion

#### Mortality risk

The risk of maternal death from abortion is related to the stage of pregnancy and procedure used. In developed countries such as the USA where woman can access safe termination of pregnancy the overall case-fatality rate for abortion is less than 1 death per 100,000 procedures. Mortality rates are higher with the more invasive procedures and with increasing gestational age: 0.4 per 100,000 cases at less than 8 weeks of gestation; 3 per 100,000 cases at 13-15 weeks; and 12 per 100,000 cases after 21 weeks. Causes of death include pulmonary embolism, anaesthetic complications, infection, haemorrhage and amniotic fluid embolism.

In Australia three maternal deaths were reported in association with termination of pregnancy in the 1994-96 triennium and none in the preceding or subsequent triennia, suggesting a mortality rate of less than 1 death in 100,000 procedures.<sup>15</sup> In the most recent report, Maternal Deaths in Australia 2000-2002, there were no deaths attributable to abortion over the 3-year data collection period.<sup>16</sup>

#### Morbidity risk

Risks related to induced abortion may relate to the anaesthetic or be specific to the procedure.

The Joint Program for the Study of Abortion (JPSA) in the USA notes that some of the difficulties in determining the risk of complications after induced abortion are in following up women after abortion, and differences in the criteria used for defining complications. The largest and most comprehensive report of induced abortion through the Centre for Disease Control, defined major complications as:

- Fever >38°C for 3 days or more
- Haemorrhage of 500 mL or requiring blood transfusion
- Unintended abdominal surgery<sup>17</sup>

The rate of major complications from abortion has declined dramatically in the USA between 1970 and 1990, from eight per 1000 to one per 1000. 10,18

More recent evidence confirms that the absolute risk of complications following termination of pregnancy is low. A Canadian retrospective cohort study of 83,469 terminations reported 571 immediate complications (0.7%).<sup>10</sup>

Rates of complications vary in different studies because of methodological differences such as the criteria used to define complications and circumstances in the provision of care. For instance, a 2002 Danish study combined results from the mandatory reporting to the National Induced Abortion Registry of complications detected in hospital or within two weeks of discharge, for induced abortions conducted in Danish hospitals or clinics from 1980-1994. The authors reported an overall complication rate of 34 per 1,000 procedures within 2 weeks of a vacuum aspiration procedure. Five percent of women had complications in the form of bleeding or reevacuation of the uterus. There were more complications in teenage women than in other age groups.<sup>19</sup>

Other studies have also reported that infection, haemorrhage, uterine and cervical injury, retained tissue and failure of abortion are among the more common early complications and may result in the need for blood transfusions, and further medical and surgical treatment.<sup>13</sup>

The risk of complications increases with operator inexperience and gestational age and depends on the method chosen. <sup>10,19</sup> The woman's age, parity and history of previous spontaneous or induced abortions were not found to be risk factors in the Canadian study. <sup>10</sup>

Table 3 on page 26 summarises the complications of surgical abortion.

#### Complications related to anaesthesia

A range of anaesthetics, analgesics and techniques can be employed during a termination of pregnancy, including general anaesthetic, conscious sedation and local anaesthesia. The preferred option depends on gestation, technique, the woman's preferences and the expertise of the service provider.

In Western Australia the most common technique during surgical abortion is conscious sedation, otherwise known as "twilight sedation", which is associated with less post-operative nausea and vomiting<sup>20</sup> and earlier recovery from anaesthesia.<sup>21</sup> Local anaesthetic is rarely used.

Conscious sedation is a state of depressed consciousness that allows protective reflexes and the airway to be maintained. Patients can respond appropriately to physical and verbal stimulation and some memory of what has occurred is possible but it is usually not distressing. Midazolam, fentanyl and propofol are commonly used. Midazolam may temporarily impair the acquisition of new information (anterograde amnesia), while having little effect on previously stored information (retrograde amnesia).<sup>22</sup>

Although less common than when general anaesthesia is used, drowsiness and dizziness can occur after this method.<sup>23</sup> Anxiolytics and narcotics used for conscious sedation may cause respiratory depression especially when they are used together with higher medication doses. There is a risk that the woman may lose her ability to protect her airway.<sup>24</sup>

General anaesthesia is sometimes used, for example in later pregnancy terminations carried out in a hospital. In a study comparing complication rates between local and general anaesthesia, general anaesthetic was more likely to be associated with complications such as persistent fever, haemorrhage, uterine perforation, cervical injury and abdominal surgery. Rare anaesthetic complications include laryngeal spasm, aspiration pneumonia, malignant hypothermia and cardiac arrhythmias.

In pregnancies less than 12 weeks gestation the procedure is simple and usually takes under 15 minutes. The risk of anaesthetic complications is therefore low but as with all anaesthetics, may be increased in the presence of obesity, smoking, diabetes and other chronic illnesses.

## Injury

# Uterine perforation

The risk of uterine perforation is low and increases with advancing gestation.<sup>6</sup>

A number of studies estimate uterine perforation rates ranging from 0.86 to 1.4 per 1,000 cases, with lower rates in early pregnancy and when the procedure is performed by experienced clinicians.<sup>15,26</sup>

#### Cervical trauma

Cervical trauma occurs in no more than 1 in 100 cases<sup>27</sup> and is less frequent when surgical termination is performed by experienced clinicians and when the cervix is primed prior to the procedure with prostaglandin analogues such as misoprostol.<sup>10,28,29</sup>

Young age is a risk factor for cervical damage<sup>26</sup> and cervical priming is recommended if the woman is under 18 years of age or at a gestation of more than 10 weeks.<sup>6,30</sup>

#### Haemorrhage

The risk of haemorrhage following abortion is low.<sup>28</sup> Blood loss requiring transfusion is estimated to occur in approximately 0.5 to 2 cases per 1,000 procedures (including later terminations and methods other than suction curettage).<sup>7,19</sup> The risk is lower in earlier in pregnancy with a rate of 0.88 per 1000 procedures before 13 weeks compared with 4.0 per 1000 at more than 20 weeks of pregnancy.

Haemorrhage can be caused by uterine atony, retained products of conception, cervical damage or uterine perforation.<sup>13</sup> General anaesthesia is associated with a greater risk of uterine atony.<sup>12</sup>

#### Infection

Post-termination infection occurs in up to 10% of women, but is usually not serious.<sup>7,30</sup> Infection may be related to unrecognised chlamydial infection or bacterial vaginosis pre-termination. Risks of infection are reduced by prophylactic antibiotics and routine screening for lower genital tract infection.<sup>30-32</sup>

# Retained products of conception

Retained products of conception occur in fewer than 1% of terminations according to large cohort studies, although higher rates are associated with inexperienced operators and higher gestations.<sup>33</sup>

A World Health Organization report concluded that incomplete abortion is uncommon when performed with vacuum aspiration by a skilled provider.<sup>30</sup>

#### Failure of abortion

All techniques for termination of pregnancy, especially in the first trimester carry a small risk of failure (unintentional continued pregnancy), which may require a further procedure. Depending on the regime used and the operator's clinical experience, the risk is approximately 2.3 per 1,000 for surgical abortion and between 1 and 14 per 1,000 for early (<63 days) medical abortion. <sup>34-36</sup>

The risk of failure is higher in very early pregnancy. For terminations performed by suction curettage, there is a three-fold higher failure rate for those performed before 7 weeks gestation compared with those performed at 7-12 weeks gestation.<sup>37</sup>

#### Rhesus isoimmunisation

Women who are Rh-negative are at risk of isoimmunisation after induced abortion, birth or significant bleeding in pregnancy. In order to avoid isoimmunisation and adverse effects on subsequent pregnancies, the administration of anti-D to all non-sensitised Rhesus-negative women is required within 72 hours of the termination, whether it is carried out by medical or surgical methods.<sup>38</sup>

## **Effects of Prostaglandins**

Cervical priming with prostaglandins reduces the risk of damage to the cervix. Where prostaglandins are used, such as for cervical priming, they can be associated with side effects such as diarrhoea, nausea, vomiting, dizziness, warm flushes, chills or headaches or pain caused by contractions.<sup>39,40</sup>

#### Complications of induced abortion at 12 to 20 weeks

Complications increase with increasing gestation and the earlier a termination occurs the lower the risk. A recent retrospective study from Canada suggests, however, that dilatation and evacuation between 15 and 20 weeks can be as safe as suction curettage before 15 weeks. <sup>41</sup> The main complication of second trimester medical abortion is retained products of conception causing bleeding.

# Long-term complications

The following section provides a brief review of the evidence relating to long-term complications after a termination of pregnancy. It focuses on three issues: future reproduction, breast cancer and psychosocial outcomes.

#### Effect on future reproduction

The possible long-term adverse effects of pregnancy termination on future reproduction are of particular concern to women. Many women are young, and may plan to have children in the future. The following rare complications following a pregnancy termination can impact adversely upon future fertility: cervical weakening, scarring and stenosis, Asherman's syndrome, post-infection fallopian tube damage, and hysterectomy following post-abortion complications.

There is little evidence that termination of pregnancy increases the risk of adverse outcomes in subsequent pregnancies. The vast majority of studies, including large populations, have found no association between abortion and subsequent sub-fertility, spontaneous abortion, or ectopic pregnancy in ensuing pregnancies. 42-45

However, one recent multi-centre study has found that previous induced abortion is associated with an increased risk of very preterm delivery. It appears that both infectious and mechanical mechanisms may be involved. In 2004 the RCOG concluded that while there are no proven associations between termination of pregnancy and subsequent infertility or placenta praevia, there is some evidence that a termination may be associated with a slight increase in the risk of subsequent preterm delivery and miscarriage. 6

The majority of studies have examined the effect of surgical abortion. A recent large study using information from national registries examined data on subsequent pregnancies in all women in Denmark who had undergone an abortion for non-medical reasons between 1999 and 2004. The study found that compared with surgical abortion, medical abortion was not associated with increased risk of ectopic pregnancy, spontaneous abortion, preterm birth or low birth weight in future pregnancies.<sup>47</sup> The incidence of adverse outcomes was low for both medical and surgical abortion and there were no significant differences between the two groups. Gestational age at medical abortion was not significantly associated with any of these adverse outcomes.

#### **Breast Cancer**

In recent years the debate about the possible association between induced abortion and breast cancer has received increased attention. Previous studies have found inconsistent results. Those which showed a positive association between induced abortion and breast cancer risk relied on self reports about termination, making them subject to recall bias since women with breast cancer are known to be more likely to be willing to report a termination if it has occurred, than those without.<sup>7</sup>

A large multi-centre prospective cohort study (European EPIC study) has demonstrated no association between induced abortion and breast cancer risks. The sample included women who had spontaneous miscarriages and as well as those who had induced medical or surgical abortions prior to 20 weeks gestation. The researchers concluded that one miscarriage did not increase the risk of a woman developing breast cancer and two or more miscarriages increased the risk minimally. The information about abortions and miscarriages was collected before the diagnosis of breast cancer and so there was no recall bias. This research found no significant association between one or more induced abortions and risk of breast cancer.<sup>48</sup>

In 2004 a review based on a collaborative reanalysis of data from 53 epidemiological studies which included 83,000 women with breast cancer concluded that "the totality of the worldwide epidemiological evidence indicates that pregnancies ending as either spontaneous or induced abortions do not have adverse effects on women's subsequent risk of developing breast cancer".<sup>49</sup>

### Psychological consequences

Following a termination of pregnancy, women may experience a range of feelings such as relief, guilt, regret, anxiety and sadness. <sup>50,51</sup> For most women these reactions are transitory and may last for weeks or months. <sup>7</sup>

Emotional problems resulting from abortion are uncommon and less frequent than those following childbirth. For many women the abortion is a method of coping with a personal crisis situation. 52,53

Some studies show higher rates of psychiatric illness or self-harm among women who have had an abortion compared to women of a similar age who have given birth and also compared to non-pregnant women. However these findings do not prove causality and may reflect a persistence of a pre-existing condition, or factors affecting both the risk of termination and mental health problems.<sup>6</sup>

Other studies consistently show that there is no difference in risk for adverse mental health outcomes in women who have had their pregnancy terminated compared with women who have carried an unintended pregnancy to term and that overall, termination of pregnancy does not increase the risk of late sequelae, either medical or psychiatric.<sup>13,51-54</sup>

The psychological outcome of termination of pregnancy is optimised when women are able to make decisions on the basis of their own values, beliefs and circumstances, free from pressure or coercion, and to have those decisions, whether to terminate or continue a pregnancy, supported by their families, friends and society in general.<sup>55</sup>

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2005) identified the following consistent trends in the literature:<sup>7</sup>

- Legal and voluntary termination in healthy women rarely cause immediate of lasting negative psychological consequences.
- Predictors of adverse psychological outcomes are personality traits that include: impulsivity, low self esteem, attachment, dependency, late gestation abortion, prior psychiatric illness and conflict with religious or cultural beliefs are predictors of adverse psychological outcomes.
- Support by partners and parents improves psychological outcomes.
- The decision to terminate for medical or genetic reasons has a more negative impact, often inducing depression and grief.
- Some studies have reported positive outcomes such as relief.

Since the RANZCOG (2005) review, some findings have been published from a 25-year longitudinal study of a birth cohort of New Zealand children, suggesting an association between abortion and subsequent increased risk of mental health disorders, even after controlling for various confounding factors. The study compared young women who had an abortion by age 21, young women who had continued a pregnancy to term and those who had not reported a pregnancy up to that age, and examined mental health problems at age 21 - 25. The authors note that 'the results could reflect the effects of unwanted pregnancy on mental health rather than the effects of abortion per se on mental health'. The results could also be explained by other factors, not controlled for, which contribute both to unwanted pregnancy and to poor mental health, such as partner or family violence. The authors have suggested the need for further research on the issue of whether or not abortion has harmful effects on mental health.

#### Medical abortion

At present medical abortion in the first trimester is not widely available in Australia. In 2005 the Royal Australian and New Zealand College of Obstetricians and Gynaecologists conducted a review of studies from 1994 to 2002 and reported that the short-term side effects of medical abortion were consistently higher than those for surgical abortion. These included nausea, vomiting, diarrhoea and pain. Rates of serious complications were not reported. The risk of infection was very low. A minority of women required surgical evacuation of the uterus to complete the termination (around 5% for mifepristone and misoprostol regimes up to about nine weeks' gestation and higher proportions for other combinations).

Common adverse effects include pain, cramps, nausea, weakness, headache, and dizziness. Other papers report an overall case-fatality rate for medical abortion of less than 1 death per 100,000 procedures.<sup>13</sup>

Methotrexate has also been used in combination with misoprostol with reported success rates between 81-84%. Methotrexate is a known teratogen and there is therefore a risk for those with failed abortions. However the risk is considered to be low at 1 per 100 exposed foetuses.<sup>60</sup>

The long-term effects of medical abortion have not been extensively studied. The Danish study referred to above found that the rate of adverse reproductive outcomes was low and comparable with that of surgical abortion.<sup>47</sup>

# Summary of risks of abortion

The following table summarises the risks and complications associated with abortion.

Table 3: Risks and complications associated with abortion

Effects of pregnancy itself	Rhesus incompatibility
Anaesthetic complications	Conscious (twilight) sedation:
(surgical only)	Generally associated with less risk than with general anaesthetics but uncommonly respiratory depression can occur and some memory of the event may remain.
	General anaesthesia:
	Nausea, fever & rare anaesthetic complications.
Surgical complications	Haemorrhage
elating to the procedure surgical only)	Injury to the uterus and cervix
Short-term problems	Infection
	Haemorrhage
	Retained products
	Failure of termination
Longer term problems	<ul><li>Depression (no conclusive evidence of causal effect)</li></ul>
	<ul><li>Miscarriage and/or preterm birth in subsequent pregnancies</li></ul>

Note that a small proportion of women undergoing medical abortion will need to undergo surgical treatment for an incomplete abortion. For those women, the risk of surgical abortion apply. Breast cancer has not been included in this table because the weight of evidence indicates that abortion does not increase the risk of breast cancer. Women may raise this issue because of the publicity which has surrounded it.

# 7. Risks of carrying a pregnancy to term

#### Mortality risk

The Report on Maternal Deaths in Australia for the 2000-2002 triennium reported direct maternal deaths from obstetric complication of pregnancy.

- There were ten deaths from amniotic fluid embolism (31.2%) which was the most common cause of death, with others from obstetric haemorrhage (28.1%), infection (15.6%) and hypertensive disorders of pregnancy (12.5%).<sup>16</sup>
- The maternal mortality rate (MMR) based on direct and indirect deaths for the triennium 2000-2002 was 11.1 deaths per 100 000 women who gave birth in Western Australia. Higher rates of maternal mortality are seen for older women and for Indigenous women. There were 95 maternal deaths: of these 8 were late maternal deaths and three were incidental deaths.
- The highest risk of death was seen in women aged 40-50 years (MMR, 32.8 deaths per 100 000 confinements, compared with 4.3 deaths per 100 000 confinements for those aged 20-24 years)
- The MMR for Aboriginal and Torres Strait Islander women for 1997-2002 was 34.8 deaths per 100,000, a rate 4.5 times higher than the MMR for non-Indigenous women. (7.7 deaths per 100,000 women). 16

#### Morbidity

The Australian institute of Health and Welfare (AIHW) in their 2002 publication on reproductive health suggests that data on maternal morbidity is difficult to interpret since no standardised classification currently exists. Additionally, the National Hospital Morbidity Data base (NHMD) is not specifically designed to be used to study pregnancy related complications. <sup>61</sup>

Some selected maternal morbidity (Pregnancy and Birth) data includes the following:

 Severe pre-eclampsia/eclampsia 5.2 per 1,000 pregnancy related hospitalisations

- Antepartum haemorrhage 29.8 per 1,000 pregnancy related hospitalisations
- Pulmonary embolism 0.7 per 1,000 confinements
- Septicaemia 8.9 per 1,000 confinements
- Ruptured uterus 0.5 per 1,000 confinements
- Severe venous complications 1.00 per 1,000 pregnancy related hospitalisations
- Post partum haemorrhage 41.4 per 1,000 pregnancy related hospitalisations
- Third/fourth degree perineal tears 11.4 per 1,000 confinements.<sup>62</sup>

More recent data from the Midwives Notification System which compiles information on all births in Western Australia showed complications of pregnancy were recorded in 37.2% of women. However a number of these were minor complications which may not relate to the pregnancy. For example, rhinitis was the most common complication recorded.<sup>62</sup>

More common complications included premature rupture of membranes (5.1%), threatened abortion in early pregnancy (5.0%), pre-eclampsia (4.3%), gestational diabetes (4.0%) and urinary tract infection (3.6%).

#### Other risks associated with pregnancy

The majority of pregnancies do not result in significant long-lasting adverse impact on a woman's health. However serious medical problems can occur and pre-existing problems can be exacerbated by pregnancy. Only a small proportion of women within the obstetric population have a pre-existing disease.<sup>63</sup>

Women at higher risk of medical and obstetric complications include those with the following conditions:

- Overweight
- Diabetes & other endocrine disease
- Cardiovascular disease

- Asthma and other chronic respiratory disease
- Depression
- Other systemic and chronic illnesses
- Smoking, alcohol and other drug consumption in pregnancy
- Previous obstetric complications

Complications in pregnancy and birth range from minor symptoms such as heartburn to more serious events like major haemorrhage, sepsis, pulmonary embolus, and cardiac failure. These are summarised in the table below.

# Summary of risks of carrying a pregnancy to term

Pregnancy and birth are for the majority of healthy women 'low risk' events. There are however, risks associated with pregnancy, birth and the puerperium. The following is a summary of the main complications that can occur in pregnancy.

Table 4: Summary of risks and complications associated with pregnancy

Complications related to pregnancy	Rhesus incompatibility, hyperemesis, pre-eclampsia, spontaneous miscarriage, antepartum haemorrhage, placenta praevia and rare complications like a molar pregnancy.	
Pre-existing systemic diseases	Cardiovascular, respiratory, endocrine, genitourinary and other systemic diseases can place the pregnant woman at greater risk during pregnancy and these diseases can be exacerbated by pregnancy.	
Fetal conditions	Antibody-incompatibilities.	
Delivery	<ul> <li>These include</li> <li>Haemorrhage, infection, retained products of conception</li> <li>Tears to cervix, vagina and perineum</li> <li>Mechanical injury caused by forceps, etc.</li> <li>Obstructed labour, Caesarean section and its complications. (Approximately 33.6% of deliveries in Western Australia are carried out via Caesarean section)<sup>62</sup></li> </ul>	
Problems following delivery	Post partum a number of complications can arise  Depression Infection, of urinary or genital tract or breast Secondary haemorrhage Thromboembolic disease Dyspareunia due to scar tissue from tears or episiotomy Long-term damage to pelvic floor supports with potential for prolapse of uterus, bowel and bladder.	

# 8. About adoption

Adoption practices are shaped by society, culture, religion, politics and economics and have changed over time. In the past it was thought that secrecy and anonymity were in the best interests of all involved in an adoption. Most of the existing research findings reflect the experiences of women and children within this context.<sup>64,65</sup>

Australian research on mothers who have relinquished children for adoption has uncovered recurrent themes of chronic, severe grief resulting in ongoing psychological and interpersonal difficulties.<sup>64,65</sup>

Research in Australia and the USA has shown that in the past a significant minority of relinquishing mothers have complicated grief reactions. Many mothers who relinquish their babies for adoption spend the rest of their lives wondering what happened to their children and grieving for their loss. <sup>66</sup> One retrospective study found the incidence of depression to be significantly greater among relinquishing birth mothers than in the general population of women. <sup>67,68</sup>

Since 1995, all adoptions in Western Australia have occurred within a policy of 'openness' and the birth mother is involved in each aspect of the adoption. Consequently, research examining the effects of relinquishment on the birth mother and her baby cannot be applied to the present situation. 67,68

# 9. Additional requirements for special cases

# **Dependant Minors**

For dependant minors there are special requirements for informed consent. A custodial parent or guardian must be given the opportunity to participate in the counselling process and in consultations between the dependant minor and the medical practitioner. Alternatively, a dependant minor may make an application to the Children's Court to waive this requirement.

#### What is a dependant minor?

A woman is a dependant minor if she has not reached the age of 16 years and is being supported by a custodial parent. A parent is defined to include a legal guardian.

#### When is a young woman NOT considered as a dependant minor?

If the woman is under 16 years and is not being supported by a custodial parent, the special requirements of the law relating to dependant minors do not apply.

The legislation does not define what is meant by "supported". However, it would be reasonable to interpret it as referring primarily to financial support. Therefore, a child living away from home who was not financially dependent on the parents would not be a 'dependant minor'. Additional evidence may be required in these cases, such as Social Security details.

In these cases, the young woman is considered in the same way any woman over 16 years of age.

#### What the law says about dependant minors

If a young woman is under 16 years of age and being supported by a custodial parent either:

 one such parent must be informed that the performance of an abortion is being considered and given the opportunity to participate in a counselling process and in consultations between the woman and her doctor as to whether the abortion is to be performed; or  an order of the Children's Court must be obtained to vary this requirement.

(See details below under Obtaining a Children's Court order)

Details of the relevant sections 334(8) & (9) of the Health Act are available through the State Law Publisher. The website is included in the Resources section.

#### Parental Involvement

It is important for medical practitioners to note that, in the case of any dependant minor, they should not proceed with a referral for an abortion unless they are satisfied that:

- the custodial parent has been informed and has been given the opportunity to participate in a counselling process and consultations between the medical practitioner and the minor, or
- a Children's Court order has been obtained to waive the requirement.

It should be noted that the legal requirement is only that a custodial parents given the opportunity to participate in counselling/consultation. Whether or not this opportunity is taken is a matter for the custodial parent. The medical practitioner should be satisfied that the custodial parent has been informed and invited to become involved in counselling and consultations.

# Rights of dependant minors regarding parental involvement

The decision as to whether to inform the custodial parent, or to seek to vary this requirement by applying to the Children's Court under section 334(9) of the Health Act, is one for the dependant minor herself to make.<sup>1</sup>

It is also an issue to which the normal requirements of medical practitioner/ patient confidentiality apply (i.e. that confidentiality is maintained by the medical practitioner except where the patient has consented to the release of information).

Where a medical practitioner considers that a young woman may be under the age of 16 years, it is strongly recommended that the medical practitioner seek some proof of age.

- Where a young woman is under the age of 16 years, it will also be necessary for a medical practitioner to determine whether or not the woman is being supported by custodial parent.
- If the custodial parent is provided with the necessary information, and has been given the opportunity to participate in counselling and consultation the decision to proceed with referral is the decision of the woman.

Therefore, a dependant minor may give the necessary informed consent, even if this is not consistent with the custodial parent's views.

## Obtaining a Children's Court Order

The requirements of law in relation to dependant minors may be varied by an order of the Children's Court under section 334(9) of the Health Act.<sup>1</sup>

#### When is a Children's Court order required?

A dependant minor is entitled to apply to the Children's Court for an order that a custodial parent should not be given the information and opportunity to which the custodial parent would otherwise be entitled in accordance with section 334(8) of the Health Act. The decision as to whether to seek a court order is obviously one for the woman herself to make.

#### How is a Children's Court order obtained?

Legal assistance for any woman who decides to pursue this option is available free of charge from the various legal services shown on the attached Resource List.

Staff of these services will assist the woman in making the necessary application to the Children's Court [this involves filling out a form available from the Court] and will attend the Court with her to put the case to the Magistrate.

# How is the medical practitioner involved in the Children's Court order?

Medical practitioners should be guided by any legal service which the woman may consult as to the input required in relation to the court process, if it is activated.

However, practitioners should note that they will usually be requested by such legal services to provide a letter which contains an assessment of the maturity of the young woman and her social circumstances in so far as they may be known to the medical practitioner. Such a letter would generally be provided by the legal service to the Magistrate for the purpose of assisting the Magistrate to make a decision on the application.

The application is generally heard within a few days by a Magistrate and a decision made.

If the Magistrate makes an order that a custodial parent should not be given the information and opportunity referred to in section 334(8)(a) of the Health Act, then informed consent can be given by the woman as long as the usual requirements of section 334(5) of the Health Act have been met.

Medical practitioners should note that young women in this situation may need extra support, especially where there is little family support. However, it is also important that medical practitioners keep in mind that any decision to apply to the Children's Court is ultimately one for the woman to make, not the medical practitioner.

# Women over 16 years of age who are unable to give informed consent

Where a woman is over the age of 16, but is not able to give informed consent to treatment (e.g. because of mental incapacity or illness), the medical practitioner should consult with the woman's legally appointed guardian (if she has one). That person may be empowered under the *Guardianship and Administration Act 1990 (WA)* to consent to the carrying out of the abortion.<sup>3</sup>

If a medical practitioner is concerned about the capacity of a woman to give consent it may be appropriate to apply to a court for permission to consent to the carrying out of the abortion. A referral to a legal service may be required in such situations.

Section 334(3)(c) and (d) of the Health Act<sup>1</sup> provide that where it is impracticable for a woman to give informed consent, the performance of an abortion will be justified without such consent where:

- (a) serious danger to the physical or mental health of the woman will result if an abortion is not performed; or
- (b) the pregnancy of the woman is causing serious danger to her physical or mental health.

### 10. Guidelines for counselling

In relation to the law on abortion, the term 'counselling' refers to providing information on the medical risks relating to pregnancy termination or carrying the pregnancy to term. However, for medical practitioners who look after women considering termination and provide general health care, it is useful to understand general counselling approaches and principles.

- Every woman who has an unplanned and/or unwanted pregnancy requires access to counselling which is confidential, offers all available options and is responsive to her social, emotional and cultural circumstance.
- Counselling should be non-directive and non-judgmental, delivered by professionals who are aware of their own values and attitudes and are ready to refer to another practitioner if there is a conflict which may prejudice the counselling process.
- The purpose of counselling is to assist the woman (and partner where appropriate) to clarify issues surrounding the pregnancy and to come to a decision about the pregnancy outcome and how it is to be achieved.
- There is value in giving the woman an opportunity to tell her story, paying attention to her relationship with the man involved in this pregnancy, her support networks as well as her beliefs about abortion. This process clarifies special needs, vulnerabilities and issues in the decision.
- The three options which need to be discussed are: a) continuing with the pregnancy, parenting the child alone or with her partner; b) continuing the pregnancy and relinquishing the child for adoption/fostering; and c) terminating the pregnancy. Include information about medical procedures & risks including potential emotional consequences.
- In exploring options help the woman to identify her inner strengths, her social resources, her belief systems, her needs, issues relating to significant others, the short and long-term implications of the decision as well as practical considerations.

Women who remain ambivalent or undecided should be offered further counselling and the decision delayed until they feel clear about their choice.

Once a decision and plan are made, the woman should be assisted to help her cope with the implementation and its consequences, including the possible feelings from relief to grief. If she requests a termination, she must be fully informed of the procedure to be performed, and possible immediate and future risks and complications must be explained. The WA Department of Health booklet *Termination of pregnancy: Understanding your choices* summarises this information and is useful to guide the consultation process.

**Note:** It is essential that adequate notes are made for clinical and legal purposes.

## 11. Resource list

Information and counselling services	
FPWA Tel: 9227 6177	Counselling services
www.fpwa.org.au/	Information about services including abortion services
Quarry Health Centre Tel: 9430 4544 www.fpwastaging.bam.com.au/services/ quarry/	Counselling services for young people (under 25 yrs)
National Pregnancy Support Helpline Tel: 1800 422 213 www.health.gov.au/pregnancyhelpline	Telephone counselling
Medical services	
FPWA Tel: 9227 6177 www.fpwa.org.au/ King Edward Memorial Hospital Tel: 9340 2222 - contact Clinical Nurse	Medical counselling (access to medical practitioners)  Assistance with complex
Manager, Ambulatory Services www.kemh.health.wa.gov.au/	cases presenting later in pregnancy
Legal services	
Legal Aid Western Australia Phone: (08) 9261 6389 or (08) 9261 6222 Phone: 1800 809 616 www.legalaid.wa.gov.au/aspx/home.aspx	Free legal advisory services.  Offices in Perth, Bunbury, Midland, Fremantle, Broome and South Hedland

This list is deliberately brief. More information on other services is available by contacting the organisations listed above.

#### **Publication Orders**

To order this publication and others, please phone 1 300 135 030 or visit www.health.wa.gov.au

#### Legislation

To view relevant legislation go to the State Law Publisher website at www.slp.wa.gov.au/

### 12. References

- 1. Government of Western Australia. Performance of abortions. *The Health Act*: State Law Publisher, 1911:309
- 2. Government of Western Australia. Abortion. *The Criminal Code*: State Law Publisher, 1913:109.
- 3. Government of Western Australia. *Guardianship and Administration Act*: State Law Publisher, 1990.
- 4. Australian Medical Association. AMA Code of Ethics 2004, editorially revised 2006.
- 5. Straton J, Godman K, et al. *Induced abortion in WA 1999-2005: Report of the WA abortion notification system*. Perth, WA: Department of Health, 2006.
- 6. Royal College of Obstetricians and Gynaecologists. The care of women requesting induced abortion. *Evidence Based Clinical Guideline Number 7.* London, UK, 2004.
- 7. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. *Termination of Pregnancy A resource for health professionals*. East Melbourne, Vic: The Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 2005.
- 8. De Costa CM. Medical abortion for Australian women: it's time. *Medical Journal of Australia* 2005;183(7):378-380.
- 9. Child TJ, Thomas J, Rees M, MacKenzie IZ. Morbidity of first trimester aspiration termination and the seniority of the surgeon. *Human Reproduction* 2001;16(5):875-878.
- 10. Ferris LE, McMain-Klein M, Colodny N, Fellows GF. Factors associated with the immediate abortion complications. *Canadian Medical Association Journal* 1996;154(11):1677-1685.
- 11. Hemlin J, Moller B. Manual vacuum aspiration, a safe and effective alternative in early pregnancy termination. *Acta Obstetrica et Gynecologica Scandinavica* 2001;80(6):563-7.

- 12. Herndon J, Strauss LT, Whitehead S, Parker WY, Bartlett L, Zane S. Abortion surveillance-United States, 1998. MMWR Surveillance Summaries 2002;51(3):1-32.
- 13. Grimes DA, Creinin MD. Induced abortion: an overview for internists. *Annals of Internal Medicine* 2004;140 (8):620-626.
- 14. Lawson HW, Frye A, Atrash HK, Smith JC, Shulman HB, Ramick M. Abortion mortality, United States, 1972 through 1987. *American Journal of Obstetrics and Gynecology* 1994;171(5):1365-1372.
- 15. Australian Institute of Health & Welfare. *Report on Maternal deaths in Australia 1994-1996*. Canberra, ACT: Commonwealth of Australia, 2001.
- 16. Australian Institute of Health and Welfare National Perinatal Statistics Unit. *Maternal Deaths in Australia 2000-2002*. Sydney: AIHW National Perinatal Statistics Unit, 2006.
- 17. Tietze C, Lewit S. Legal abortions: early medical complications. An interim report of the Joint Program for the Study of Abortion (JPSA). *Journal of Reproductive Medicine* 1972;8(4):193-204.
- 18. Council on Scientific Affairs, American Medical Association. Induced termination of pregnancy before and after Roe v Wade. *Journal of the American Medical Association* 1992;268(22):3231-3238.
- 19. Zhou W, Nielsen GL, Moller M, Olsen J. Short term complications after surgically induced abortions: a register-based study of 56,117 abortions. *Acta Obstetrica et Gynecologica Scandinavica* 2002;81:331-6.
- 20. Tramer M, Moore A, McQuay H. Propofol anaesthesia and postoperative nausea and vomiting: quantitative systematic review of randomised controlled studies. *British Journal of Anaesthesia* 1997;78:247-255.
- 21. Kehlet H, Dahl JB. Anaesthesia, surgery, and challenges in postoperative recovery. *The Lancet* 2003;362(9399):1921-1928.
- 22. Ghoneim MM, Mewaldt SP. Benzodiazepines and human memory: a review. *Anesthesiology* 1990;72(5):926-938.
- 23. Wong CY, Ng EH, Ngai SW, Ho PC. A randomized, double blind, placebo-controlled study to investigate the use of conscious sedation in conjunction with paracervical block for reducing pain in termination of first trimester pregnancy by suction evacuation. *Human Reproduction* 2002;17(5):1222-1225.

- 24. Castleman L, Mann C. Manual vacuum aspiration (MVA) for uterine evacuation: Pain management. Chapel Hill, NC: Ipas, 2002.
- 25. Grimes D, Cates WJ. Complications from legally-induced abortion: a review. *Obstetrical and Gynecological Survey* 1979;34(3):177-191.
- 26. Pridmore BR, Chambers DG. Uterine perforation during surgical abortion: a review of diagnosis, management and prevention. *Australian & New Zealand Journal of Obstetrics and Gynaecology* 1999;39:349-353.
- 27. Schultz KF, Grimes DA, Cates WJ. Measures to prevent cervical injury during suction curettage abortion. *Lancet* 1983;1(11):82-84.
- 28. Department of Health. Abortion Statistics: Legal abortions carried out under the 1967 Abortion Act in England and Wales, 2005. Statistical Bulletin 2006/01. London, UK: Department of Health, 2006.
- 29. Keder LM. Best practices in surgical abortion. *American Journal of Obstetrics and Gynecology* 2003;189(2):418-422.
- 30. World Health Organization. *Safe abortion: technical and policy guidance for health systems*. Geneva: WHO, 2003.
- 31. Heisteberg L, Gnarpe H. Preventative lymecycline therapy in women with a history of pelvic inflammatory disease undergoing first trimester abortion: a clinical, controlled trial. *European Journal of Obstetrics & Gynecology and Reproductive Biology* 1998;28:242-247.
- 32. Sawaya GF, Grady D, Kerlikowske K, Grimes DA. Antibiotics at the time of induced abortion: the case for universal prophylaxis based on a meta-analysis. *Obstetrics and Gynecology* 1996;87(5 Pt 2):884-890.
- 33. Hakim-Elahi E, Tovell HMM, Burnhill MS. Complications of first-trimester abortion: a report of 170,000 cases. *Obstetrics and Gynecology* 1990;76:129-135.
- 34. Ashok PW, Templeman A, Wagaarachchi PT, G.M.M. F. Factors affecting outcome of early medical abortion: a review of 4132 consecutive cases. *British Journal of Obstetrics and Gynaecology* 2002;109(1):281-289.
- 35. Bartley J, Tong S, Everington D, Baird DT. Parity is a major determinant of success rate in medical abortion: a retrospective analysis of 3161 consecutive cases of early medical abortion treated with reduced doses of mifepristone and vaginal gemefrost. *Contraception* 2002;62:297-303.

- 36. Bygdeman M, Danielsson KG. Options for early therapeutic abortion: A comparative review. *Drugs* 2002;62:2459-2470.
- 37. Kaunitz AM, Rovira EZ, Grimes DA, Schulz KF. Abortions that fail. *Obstetrics & Gynecology* 1985;66 533-537.
- 38. Jabara S, K.T. B. Is RH immune globulin need in early first trimester abortion? A review. *American Journal of Obstetrics and Gynecology* 2003;188:623-627.
- 39. Dickinson JE, Godfrey M, Evans SF. Efficacy of intravaginal misoprostol in second-trimester pregnancy termination: a randomised controlled trial. *Journal of Maternal and Fetal Medicine* 1998;7(3):115-119.
- 40. Marie Stopes International. Medical abortion using methotrexate pilot program. Melbourne, Vic: Marie Stopes International, 2006.
- 41. Tang O, Ho P. Medical abortion in the second trimester. *Best Practice* and *Research Clinical Obstetrics and Gynaecology* 2002;16 (2):237-246.
- 42. Atrash HK, Strauss LT, Kendrick JS, Skjeldestad FE, Ahn YW. The relation between induced abortion and ectopic pregnancy. *Obstetrics and Gynecology* 1997;89(4):512-518.
- 43. Sibai B, Dekker G, Kupferminc M. Pre-eclampsia. *The Lancet* 2005;365(9461):785-799.
- 44. Skjeldestad FE, Atrash HK. Evaluation of induced abortion as a risk factor for ectopic pregnancy. A case-control study. *Acta Obstetrica et Gynecologica Scandinavica* 1997;76(2):151-158.
- 45. Thorp JM, Hartmann KE, Shadigian E. Long-term physical and psychological health consequences of induced abortion: review of evidence. *Obstetrical and Gynecological Survey* 2002;58:67-79.
- 46. Moreau C, Kaminski M, Ancel PY, Bouyer J, Escande B, Thiriez G, et al. Previous induced abortions and the risk of very preterm delivery: results of the EPIPAGE study. *British Journal of Obstetrics and Gynaecology* 2005;112(4):430-437.
- 47. Virk J, Zhang J, Olsen J. Medical abortion and the risk of subsequent adverse pregnancy outcomes. *New England Journal of Medicine* 2007;357(7):648-53.

- 48. Reeves GK, Kan SW, Key T, Tjonneland A, Olsen A, Overvad K, et al. Breast cancer risk in relation to abortion: Results from the EPIC study. *International Journal of Cancer* 2006;119(7):1741-1745.
- 49. Beral V, Bull D, Doll R, Peto R, Reeves G. Breast cancer and abortion: collaborative reanalysis of data from 53 epidemiological studies, including 83000 women with breast cancer from 16 countries. *Lancet* 2004;363(9414):1007-1016.
- 50. Adler NE. Statement on behalf of the American Psychological Association Before the Human Resources and Intergovernmental Relations Subcommittee of the Committee on Governmental Operations. In: U. S. House of Representatives, editor: University of California at San Francisco, 1989:130-140.
- 51. Kero A, Hogberg U, Lalos A. Wellbeing and mental growth long term effects of legal abortion. *Social Science & Medicine* 2004;58(12):2559-2569.
- 52. Kishida Y. Anxiety in Japanese women after elective abortion. *Journal of Obstetric, Gynecological & Neonatal Nursing* 2001;30(50):490-495.
- 53. Major B, Cozzarelli C, Cooper ML, Zubek J, Richards C, Wilhite M, et al. Psychological responses of women after first-trimester abortion. *Archives of General Psychiatry* 2000;57(8):777-784.
- 54. Pope LM, Adler NE, Schann JM. Post abortion psychological adjustment: Are minors at increased risk? *Journal of Adolescent Health* 2001;29:2-11.
- 55. Stotland NL. Psychiatric Aspects of Induced abortion. *Archives of Women's Mental Health* 2001;4(1):27-31.
- 56. Fergusson DM, Horwood LJ, Ridder EM. Abortion in young women and subsequent mental health. *Journal of Child Psychology and Psychiatry* 2006;47(1):16-24.
- 57. Taft AJ, Watson LF. Termination of pregnancy: associations with partner violence and other factors in a national cohort of young Australian women. *Australian and New Zealand Journal of Public Health* 2007;31(2):135-42.

- 58. Wallace C, Burns L, Gilmour S, Hutchinson D. Substance use, psychological distress and violence among pregnant and breastfeeding Australian women. *Australian and New Zealand Journal of Public Health* 2007;31(1):51-56.
- 59. Shannon C, Brothers LP, Philip NM, Winikoff B. Infection after medical abortion: a review of the literature. *Contraception* 2004;70(3):183-190.
- 60. Aldrich T, Winikoff B. Does methotrexate confer a significant advantage over misoprostol alone for early medical abortion? A retrospective analysis of 8678 abortions. *British Journal of Obstetrics and Gynaecology* 2007;114(5):555-62.
- 61. Ford J, Nassar N, Sullivan E, Chambers G, Lancaster P. *Reproductive health indicators, Australia 2002*. Canberra: AIHW NPSU, 2003.
- 62. Gee V, Godman K. Perinatal Statistics in Western Australia, 2004. Twenty Second Annual Report of the Western Australian Midwives Notification System. Perth, WA: Department of Health, 2006.
- 63. Miller WG, Hanretty KP. *Obstetrics Illustrated*. 5th ed. New York: Churchill Livingston, 1997.
- 64. Farrar P. Unbecoming Mothers: Women Living Apart From Their Children. New York: Haworth Press, 2005.
- 65. Winkler RC, Van Keppel M. Relinquishing mothers in adoption: Their long term adjustment. Melbourne, Vic: Institute of Family Studies, 1984.
- 66. Verrier N. *The primal wound: Understanding the adopted child.* Baltimore, MD: Gateway press, 1983.
- 67. Lauderdale JL, Boyle JS. Infant relinquishment through adoption. *Image Journal of Nursing Scholarship* 1994;26(3):213-217.
- 68. Weinreb M, Konstam V. Birthmothers: A retrospective analysis of the surrendering experience. *Psychotherapy in Private Practice* 1996;15(1):59-70.

# Delivering a **Healthy WA**

