

Mifepristone (RU 486) in a Nutshell

A guide for journalists prepared by the AusSMC

This is a resource for news reporters and is part of the *Science in a Nutshell* series produced by the AusSMC. *Mifepristone (RU 486) in a Nutshell* gives a simple explanation about the drug as well as an appreciation of some of the associated contextual issues.

If you would like to know more about mifepristone please contact the AusSMC by email (info@aussmc.org) or call us on 08 8207 7415.

What is mifepristone?

It is a synthetic steroid used in many countries to terminate an early pregnancy (up to nine weeks). Since all drugs start off with a code and are later given a name, it became known as RU 486 in the 1980s during its development by a French company Roussel Uclaf. It was used originally to treat Cushings syndrome and can also be used for conditions such as endometriosis, uterine fibroids (common benign tumours of the womb) and some forms of cancer.

How does it work?

Adequate progesterone levels are required to maintain a pregnancy and when used in abortion mifepristone works by blocking progesterone. On its own, the drug is approximately 80% effective in terminating a pregnancy but becomes 92-99% effective when used in combination with another drug, misoprostol. Misoprostol stimulates the uterus to contract and most countries that offer mifepristone, use it in conjunction with misoprostol.

How is mifepristone administered?

Mifepristone is a tablet and is taken by mouth. In most cases the pregnancy is terminated within four hours. It is followed 48 hours later by misoprostol taken either by mouth or as a suppository in the vagina.

What happens after mifepristone has been taken?

Similar to a naturally induced miscarriage, mifepristone causes abdominal pain and vaginal bleeding. Many women say it feels like a period that is heavier and more painful than usual. Some women also experience nausea, vomiting and fever.

Who is mifepristone suitable for?

Women whose pregnancies have not advanced beyond nine weeks and who prefer medical termination to surgical termination. Mifepristone cannot be used to abort ectopic pregnancies (when the foetus grows within the fallopian tube) and it is not suitable for late-term abortions.

How safe is it?

Over 20 million women worldwide have used mifepristone successfully; however there are risks associated with every drug and every medical procedure. Compared to surgical abortion it has a similar safety record. Some studies have shown a death rate associated with mifepristone of about 1 in 100,000. To put it into perspective there is also a death rate associated with taking aspirin of 15 in 100,000. Maternal mortality in the developed world is about 13 in 100,000.*

Which countries currently use mifepristone?

Mifepristone has been used in France since 1988. It has been used in other European countries since the early to late 1990s. It is currently used in over 30 countries throughout the world including the US, UK, Ireland, Norway, Finland, Denmark, France, Germany, Sweden, China, New Zealand and the USA. The World Health Organization has included mifepristone on its list of “essential medicines”.

What is the difference between mifepristone and the “morning-after-pill”?

The morning-after-pill is the common name for the drug postinor-2, a form of emergency contraception. It works by stopping a fertilised egg implanting itself in the womb and if taken within 24-hours of intercourse it can prevent 95 per cent of pregnancies. Mifepristone is taken when a pregnancy is established (for up to nine weeks) as a way of terminating it.

Why is mifepristone not available in Australia?

In 1996 mifepristone was used in a political trade-off between the Federal Government and the (then) independent Tasmanian Senator Brian Harradine. The Senator promised to support a bill to allow the part-sale of Telstra in return for an amendment to the Therapeutic Goods Act. This would prevent mifepristone being imported without approval from both the Therapeutic Goods Administration (TGA) and the Federal Minister for Health. The effect of this was to act as a ban since it was assumed that the Health Minister would exercise the power of veto if any applications were made to import the drug.

In 2005, a private members bill was introduced to remove this statutory provision and following a free vote in both houses in February 2006 the Parliament agreed that the TGA alone should decide on the efficacy and safety of the drug. It is anticipated that it will be available in Australia within 12 months.

Sources:

*Maternal mortality figures: *Obstetrics & Gynecology* 2003;101:289-296
Pregnancy-Related Mortality in the United States, 1991–1997 **Cynthia J. Berg, MD, MPH, Jeani Chang, MPH, William M. Callaghan, MD, MPH and Sara J. Whitehead, MD, MPHn**

Wikipedia. www.wikipedia.org

Marie Stopes International. www.mariestopes.com.au

ABC Science Online www.abc.net.au/health/thepulse/s1246252.htm

More information:

An excellent fact sheet from the Australian Reproductive Health Alliance is available at www.arha.org.au/Resources_and_Links/RU486/ARHA-RCA_RU486REPORT.pdf

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