Progress

in Reproductive Health Research

RHR

No. 60 2002

UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP)

Department of Reproductive Health and Research, World Health Organization, Geneva, Switzerland

Launched by the World Health Organization in 1972, the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction is a global programme of technical cooperation. It promotes, coordinates, supports, conducts, and evaluates research on reproductive health, with particular reference to the needs of developing countries.

INSIDE

A brief history of modern IUDs 2

A plethora of IUDs: but how safe, how effective? 3

China to upgrade its IUD technology 4

WHO strategic approach to improving reproductive health care 5

Recommendations for IUD use 7

New publications 8

The intrauterine device (IUD)—worth singing about

"When you think of it, the IUD is really an unsung, under-promoted success story."

Overheard during a conversation between two reproductive health experts attending a recent WHO meeting, this statement carries much truth. How a small piece of plastic wrapped in copper with strings attached can sit quietly in a woman's uterus providing a high degree of largely trouble-free protection against pregnancy year after year for ten years or more is, indeed, something to sing about.

In addition to providing long-lasting, highly effective contraception, the IUD is a rapidly reversible method; it is inexpensive to produce; it has no known effects on breast milk or breastfeeding; it does not interfere with sexual intercourse or with any type of medication; it is widely available throughout the world; and, perhaps best of all, once in place, its wearer can more or less forget about it.[1]

Of course, there are two sides to every story, even a success story. IUDs do produce longer, heavier, and sometimes painful menstrual periods, especially during the first 3–6 months of use. They also need to be inserted—or removed—by a qualified health provider, often a doctor, and this can raise the overall cost of the method. Very occasionally they can be expelled, possibly unbeknown to the user. More disturbingly, women using IUDs are at a greater risk of pelvic inflammatory disease—a cause of infertility—within the first three weeks of insertion; the absolute risk, however, is low for women who are at a low risk of contracting sexually transmitted infections. Also, in a very small proportion of cases, an IUD, particularly if not correctly inserted, can perforate the wall of the uterus. On the whole, though, the IUD is one of the safest, best tolerated methods of contraception available.

This issue of *Progress* is devoted to the IUD. It opens with a historical outline of the development of the latest, most effective versions of the IUD (page 2). As this outline shows, during the 1970s, IUD technology really took off, almost cluttering the market with a profusion of different devices and prompting a call from users and providers for guidance on choosing the safest, most effective, and most user-friendly versions. Primarily in response to this call, through a series of international trials in impressively large cohorts of women, HRP has over the past three decades monitored the performance and safety record of the most popular IUDs. Thanks to these trials, at least three of which are still continuing, HRP has been able to provide data on the safety and efficacy of a variety of IUDs, which facilitate informed choices by users and providers. For an update of these ongoing trials turn to page 3.

This issue of *Progress* also chronicles efforts currently under way by Chinese family planning and reproductive health officials to improve their reproductive health services, particularly in the provision of IUDs (pages 4–6). These efforts, which are supported by HRP, have taken advantage of the network of research centres that HRP has built up in China over the past 30 years. Most recently, Chinese officials have begun using a "strategic approach" developed by HRP and its partners to accelerate the process of change that China's family planning and reproductive health authorities are clearly committed to.

[1] *The Essentials of Contraceptive Technology*. Baltimore, MD, Johns Hopkins Population Information Program, 2001, 12–15.

Progress
in Reproductive Health Research

Issued quarterly (since 1987) by the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, Department of Reproductive Health and Research, World Health Organization, 1211 Geneva 27, Switzerland. For a free subscription, please write to the above address.

Editor: Jitendra Khanna
Writer: John Maurice

© World Health Organization 2002

This newsletter is not a formal publication of the World Health Organization (WHO), and all rights are reserved by the Organization. The document may, however, be freely reviewed, abstracted, reproduced or translated, in part or in whole, but not for sale or for use in conjunction with commercial purposes.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

A brief history of modern IUDs

IUD technology has come a long way since the first plastic IUDs (the Lippes Loop, Margulies Spiral, Saf-T-Coil, and others) appeared on the scene in the 1960s. Towards the end of that decade, researchers discovered that adding copper to the plastic produced an IUD that was more effective in preventing pregnancy and caused bleeding problems less frequently.

The first copper-bearing IUDs—Copper-7, TCu-200, and Nova T—appeared in the early 1970s, but they required replacement every two or three years. Further research at the end of the 1970s produced second-generation copper IUDs carrying larger quantities of copper: among the better known examples are TCu-380A, TCu-220C, and Multiload-375. These devices not only reduced the incidence of side-effects compared with previous IUDs but also had significantly lower failure rates.

Meanwhile, in the mid-1970s, HRP had entered the scene in response to the need for independent well-designed studies that would enable the scientific and public health communities to judge the relative merits of the plethora of devices available at the time and would help governments and nongovernmental organizations to make informed choices about which devices to include in their family planning programmes.

In 1975–1976, HRP launched a study involving nearly 3000 women in nine countries comparing three of the most popular IUDs at the time: the Lippes Loop, TCu-220C, and Copper-7. By 1979, the TCu-220C had broken from the pack, with lower failure rates and lower expulsion rates than the other two devices.

In the mid-1980s, however, the popularity of IUDs plummeted when researchers linked one IUD, the Dalkon Shield, to relatively frequent septic abortions (i.e. abortions or threatened abortions associated with pelvic infection) in the second trimester of pregnancy. This IUD, which was launched in 1971 in the USA, was withdrawn in 1974 in the face of litigation and adverse press coverage. The whole IUD market, however, became tarnished with the Dalkon brush. Asked to pronounce on the issue, WHO convened a scientific group of experts in 1986. They concluded that "the use of IUDs in both developed and developing countries should continue to be supported as a reliable and safe method of reversible fertility regulation". The experts also observed that the newer copper devices, notably Multiload-375 and TCu-380A, were, after two years' use, significantly better at preventing pregnancy than their predecessors. They also judged that results that had become available from long-term HRP studies justified an extension of the life span of these copper IUDs from two to at least five years.

By this time, starting in 1979, HRP had launched five international multicentre studies on several IUDs, including Multiload-250 (predecessor to Multiload-375), Nova T, and a new type of hormone-releasing device, Progestasert, a progesterone-releasing IUD introduced in 1976. At the time of the 1986 WHO expert group meeting, the large multicentre cohort studies on TCu-220C (begun in 1974) and on TCu-380A (begun in 1979) were still running. After the meeting, HRP launched studies on Multiload-375 (introduced in 1985) and Flexigard, a frameless IUD consisting of six copper sleeves on a surgical nylon thread, introduced in the mid-1990s, and in 1989–1990 began a trial comparing Multiload-375 and TCu-380A.

By the end of 2001, three IUDs had emerged from the fray—TCu-380A, Multiload-375, and Mirena (or LevoNova), a levonorgestrel-releasing device introduced in 1984—and HRP was still fielding three long-term international multicentre trials involving large cohorts of women.

A plethora of IUDs: but how safe, how effective?

With nearly 160 million users, or 15% of the world's women of reproductive age, the IUD is the second most popular contraceptive method worldwide, after sterilization (187 million, or 18%). Much of the popularity of IUDs stems from their effectiveness—a 0.6–3.0% failure rate—combined with their long duration of action—from five to at least ten years for several IUDs currently on the market. Because of their long life spans, IUDs require fewer visits to health providers, which means less expenditure of money, time, and effort—an asset much appreciated in developing countries.

One drawback of IUDs is their tendency to cause heavy, sometimes painful, menstrual bleeding. Other problems, although relatively infrequent, are expulsion of the device and ectopic pregnancy. A more serious problem is the almost twofold risk of pelvic inflammatory disease, which sometimes results in infertility. This risk is particularly high in women with a sexually transmitted infection.[1] It is also greatest in the first few weeks after insertion of the IUD. In fact, the fewer insertions a woman undergoes, the lower her lifetime risk of pelvic inflammatory disease. The newer copper-bearing IUDs, for example, can remain safely in place for ten years, and possibly longer, and therefore carry a lower lifetime risk of pelvic inflammatory disease than the earlier copper-bearing or even the more recent hormone-releasing IUDs, that require replacement within a few years.

Between 1974 and 1990, HRP launched ten large trials on the safety and efficacy of a total of six different IUDs—Multiload-250, Nova T, Progestasert, TCu-220C, TCu-380A, and Flexigard. Three long-term multicentre trials involving large cohorts of women are still continuing:

- One trial, on the TCu-380A, will continue up to 2004, by which time the evidence may warrant extending the device's life span beyond the currently approved ten years.
- The second trial, that began in 1989–1990 to compare TCu-380A and Multiload-375, has been extended and now involves about 4000 women attending 19 centres in eight countries: after ten years, the results show TCu-380A to be just as safe as Multiload-375, but nearly twice as effective (Table 1) and far less expensive (up to an eighth of the price of Multiload-375). What's more, TCu-380A has an approved life span of ten years, compared to only two years for Multiload-375.
- The third trial, begun in 1993 to compare TCu-380A with the Mirena levonorgestrel-releasing IUD, now involves nearly 4000 women in 20 centres and ten countries. Interim results after six years' use, as of the end of 2001, show lower pregnancy rates for Mirena than for TCu-380A (0.6% vs 2.0%) but far more frequent menstrual problems (36% vs 11%) (Table 2).

The fewer insertions a woman undergoes, the lower her lifetime risk of pelvic inflammatory disease.

Table 1. *The cumulative ten-year probability (as of June 2001)*, expressed as percentage, of a woman discontinuing the TCu-380A and Multiload-375 intrauterine devices, by reason for discontinuing*

	TCu-380A %	Multiload-375 %	Significant (at 5%)
Total pregnancy	3.4	5.4	yes
Ectopic pregnancy	0.8	0.1	yes
Intrauterine pregnancy	2.7	5.3	yes
Expulsions	11.6	14.9	yes
Removed for medical reasons	29.9	30.3	no
For pelvic inflammatory disease	0.4	0.5	no
Lost to follow-up	11.3	10.6	no
Continuation rate	39.7	36.7	no

** covering a total of 9923 woman–years for the TCu-380A and 9794 woman–years for the Multiload-375*

IUDs also for emergency contraception

For long-term use, IUDs are usually best inserted during a woman's menstrual period, when the cervix is more dilated than at any other time in the monthly cycle. In 1976 came the first report of an IUD being used postcoitally to prevent an unintended pregnancy. Since then, insertion of an IUD within five days of intercourse has been shown to be safe and 98–99% effective when used for emergency contraception.

Clearly, for use as an emergency procedure, waiting for the "right moment", i.e. the woman's period, is not an option. Would an IUD, however, inserted at any time in the cycle other than during menstruation be more liable to be expelled than if it were inserted during menstruation?

Findings released in 2000 of a multicentre study launched by HRP in China in 1998 and involving nearly 2000 women showed that the TCu-380A copper-bearing IUD inserted within five days of intercourse but outside a woman's menstrual bleeding period is just as safe, just as reliably lodged in the uterus, and just as effective—100% effective for all menstrual cycles in which it was used for emergency contraception in this study—as it is when inserted during a woman's period.

[1]In women at low risk of acquiring a sexually transmitted infection, the risk of pelvic inflammatory disease is 1 per 1000 women.

China to upgrade its IUD technology

Of the 156 million women in the world estimated to be using IUDs, just over two-thirds, or 104 million, are in China, where IUDs are used by 45% of married women.

China, with 1.28 billion inhabitants, or just over one fifth of the world's population, is the country with the largest proportion of married women using modern contraceptives: 83%, or 218 million (compared to a world average of just over 60%). Of the 156 million women in the world estimated to be using IUDs, just over two-thirds, or 104 million, are in China, where IUDs are used by 45% of married women (and sterilization, the second most used family planning method, by 38%). Currently, a large number of different types of IUDs are available in China, including locally manufactured versions of international IUDs, as well as IUDs developed, tested, and now manufactured only in China.

A 1992 analysis (unpublished) by China's state family planning commission (SFPC) estimated that stainless steel rings accounted for about 90% of the IUDs in use at that time. In that year, a large international, collaborative cost-benefit analysis documented the economic and health benefits of switching from the steel to the newer copper-bearing IUDs. Prompted by these findings, China's SFPC decided to stop buying steel IUDs and called on Chinese factories to stop producing the steel rings as of January 1993.

Two years later, an international team reported the results of a meta-analysis of 22 published and unpublished studies involving nearly 90 000 women, undertaken to determine the efficacy of the steel ring IUD and copper-bearing IUDs. The analysis found the steel ring to be far more prone to failure than the copper IUD (in 19% of women vs 5.9%) and to expulsion (16.5% vs 5.8%). During the first year of use, the steel ring had a failure rate six times that of the copper IUD.

Although the copper IUD costs up to six times as much as the steel ring to produce (22 US cents vs 4 US cents per device), according to a cost-benefit analysis carried out by the international team, it could, within ten years of widespread introduction, prevent more than 31 million pregnancies expected to result from failure of the steel ring (of

Table 2*. The cumulative six-year probability (as of December 2001)*, expressed as a percentage, of a woman discontinuing the TCu-380A intrauterine device and the Mirena levonorgestrel-releasing device*

	TCu-380A %	Levonorgestrel IUD %	Significant (at 5%)
Total pregnancy	2.0	0.6	yes
Intrauterine pregnancy	1.8	0.6	yes
Ectopic pregnancy	0.1	0.0	no
Total expulsion	8.2	7.8	no
Complete expulsion	1.7	3.0	yes
Partial expulsion	6.6	4.9	no
Perforation	0.0	0.1	no
Pelvic inflammatory disease	0.0	0.3	yes
Menstrual reasons	10.7	36.2	yes
Amenorrhoea	0.6	23.8	yes
Reduced bleeding	3.0	11.2	yes
Increased bleeding	7.0	5.6	no
Pain	5.9	5.2	no
Hormone-related	0.1	4.9	yes
Other device-related	0.6	0.9	no
Total device-related removals	24.9	47.9	yes
Non-device-related removals	11.3	15.9	yes
Method continuation rate	66.6	43.8	yes

** covering a total of 7200 woman–years for the TCu-380A and 6139 woman–years for the Mirena*

Strategic assessment for strategic action

A team representing national and municipal level policy-makers, programme managers, physicians, and representatives from women's and youth groups made recommendations on China's IUD situation (see main text). These included the following four:

- Only IUDs with high copper content and scientifically demonstrated to have the lowest expulsion and pregnancy rates and the lowest risk of side-effects should be provided by the family planning programme. (Their greater cost will be offset by savings in re-insertion, replacement, and abortion.)

- IUDs currently available that have been shown to be less effective or those that have high expulsion rates (such as copper rings) should be withdrawn from the programme.

- Only IUDs packaged with disposable inserters should be used.

- IUDs should be removed and replaced when their approved period of effectiveness has expired or during the first year after menopause.

Since 1993, 18 countries have used WHO's strategic approach, with support from HRP and/or other organizations.

which 20 million would have been terminated by abortion), and could reduce natural growth of the population by 5–7%. Overall, there would be a 100-fold saving in medical and other expenses for every extra yuan spent to purchase the more expensive copper IUD.

Despite China's official withdrawal of the steel ring in 1993, three years later, researchers at the London School of Economics in the UK reported that "of all contraceptive method failures [in China], 64.3% are due to IUD failure" and that "IUD discontinuation rates [because of] contraceptive failure and expulsion in China are among the highest in the world".

In 1998 the Chinese SFPC requested HRP to support a strategic assessment (see Box) of the country's contraceptive technologies and the quality of its family planning services, with particular emphasis on IUDs. The assessment took place in October 2000 in Chongqing municipality, with a population of over 30 million.

The national assessment team, which included policy-makers, programme managers, physicians, and representatives from women's and youth groups, reviewed existing information about

Continued on page 6

WHO strategic approach to improving reproductive health care

A "systems framework" borrowed from modern management principles underpins WHO's *strategic approach* to improving family planning services and services dealing with other areas of reproductive health, such as reproductive tract infections (including sexually transmitted infections), maternal health, unsafe abortion, cervical cancer, and adolescent reproductive health.

The approach is based on the assumption that decisions about reproductive health policies and programmes should be based on an understanding of the interactions between clients, the service delivery system, and the mix of services and technologies being provided, as well as on how these interactions are influenced by social, cultural, and political factors, and by efforts to reform the health system. The *strategic approach* is a participatory process that calls for a multidisciplinary perspective and the involvement of many stakeholders.

The approach is applied in three stages: a strategic assessment (Stage I), action research (Stage II), and scaling-up (Stage III). Stage I involves an assessment of users' needs and perspectives, available technologies and services, and the capacity of the service delivery system, with a view to defining strategies for improving the quality of reproductive health service delivery. Stage II involves action research to design and test the proposed recommendations and interventions. Stage III uses research results and lessons learned in Stage II for policy and programme development and for the scaling-up of interventions.

Since 1993, 18 countries have used *WHO's strategic approach*, with support from HRP and/or other organizations.

***China**—continued from page 5*

contraceptives and family planning in China, held a planning workshop, and then spent two weeks interviewing providers and clients and observing family planning services. Subsequently, at two workshops, one municipal, the other national, the team reported its findings and its recommendations on how to improve the quality of care dispensed by family planning services.

The team found that many women in the municipality were still using IUDs associated with high expulsion and failure rates. A wide variety of IUDs was available, including the TCu-220C and TCu-380A, the Multiload-375, uterine-cavity-shaped IUDs bearing 200 mm² or 300 mm² of copper, and stainless steel rings with 200 mm², 220 mm², or 300 mm² of copper. Most IUDs were available in three sizes, either pre-sterilized or not, with or without a disposable inserter, and some with indomethacin to reduce bleeding after insertion. Some family planning service stations had as many as 13 kinds of IUDs. Most were not supplied with a disposable inserter, and only the TCu-380A, TCu-220C, and the Multiload-375 had strings attached for removal. However, the stainless steel ring IUD without copper was not seen at any of the contraceptive supply centres or family planning service stations visited by the assessment team, suggesting that it had been successfully withdrawn. Programme managers and providers said that it had not been available since the mid-1990s.

Most providers interviewed by the assessment team expressed satisfaction that they could offer users such a wide variety of IUDs. However, each type of IUD generally calls for a specific technique for insertion and removal and generally has a specific life span. Providers were not always well-informed about when a given IUD needed to be replaced. The team found that IUDs were usually not removed and replaced when their period of recommended effectiveness had ended, and often they were not removed in women reaching menopause. The team also saw evidence that IUDs and their inserters were not always sterilized correctly, and expired IUDs were often found in service facilities.

The team noted that during IUD insertion providers did not routinely check women for signs and symptoms of reproductive tract infections and even those providers who were aware of the risk of such infections during insertion had too little technical competence to diagnose and treat them.

Cost considerations were clearly influencing the types of IUDs provided in the municipality, especially in the poorer townships. Because staff in family planning service stations were required to raise 40% of their income through service provision, providers had an incentive to purchase less costly IUDs. The IUDs were costing townships 0.55-3.05 yuan apiece (US $0.07-0.38). In one county, 60% of IUDs ordered by the townships were of the cheaper variety (e.g. copper rings without disposable inserters or the uterine-cavity-shaped IUD with 200 mm² of copper, unsterilized and without disposable inserter). IUDs that are more effective and have lower expulsion rates (such as the TCu-380A and the uterine cavity-shaped IUD with 300 mm² of copper) were not widely available in the majority of the townships, only in the wealthier ones.

The assessment team made a number of recommendations (see Box on page 5) and suggested that a scientific panel of national and international experts be convened to evaluate currently available scientific evidence on the safety, effectiveness, side-effects, and cost-effectiveness of IUDs used in China and to recommend the safest, most effective IUDs to be used in the national family planning programme.

Following the initial assessment, which constitutes the first stage of WHO's *strategic approach* (see Box on page 5) to improving the quality of care of reproductive health services , HRP is supporting a systematic review of the safety and efficacy of IUDs (and also of hormonal contraceptive pills) used in China. In response to the national assessment team's suggestion, the SFPC plans to use the results of the systematic review and the recommendations of the expert panel to select a limited number of the more effective IUDs for inclusion in China's national family planning programme.

Following the initial assessment, which constitutes the first stage of WHO's strategic approach, HRP is supporting a systematic review of the safety and efficacy of IUDs used in China.

Sources:

1. *Major figures of population and family planning 1994–2000.* China Population Information and Research Center, Beijing, China.

2. *Zhao Baige. Quality of care of reproductive health in China today*. Department of Planning and Accounting, State Family Planning Commission of China, July 2002, Beijing, China.

3. *World contraceptive use 2001.* United Nations Population Division, Department of Economic and Social Affairs, New York, 2002.

4. Li Yong Ping et al. The demographic impact of conversion from steel to copper IUDs in China. *International Family Planning Perspectives*, 1994, 20:124–130.

5. Wang D. The determinants of IUD discontinuation in China: a discrete-time competing risk model analysis. *Social Biology*, 1996, 27(3):277–284.

6. *Making decisions about contraceptive introduction: a guide for conducting assessments to broaden contraceptive choice and improve quality of care.* Geneva, World Health Organization, 2002 (WHO/RHR/02.08)

Recommendations for IUD use[1]

1. When can a copper-bearing IUD be inserted?

In menstruating women

- A woman can have a copper-bearing IUD inserted any time at her convenience within the first 12 days after the start of menstrual bleeding, not just during menstruation. Because the IUD is immediately effective, no additional contraceptive protection is needed.
- The copper-bearing IUD can also be inserted at any other time during the menstrual cycle, at the woman's convenience, if it is reasonably certain that the woman is not pregnant. No additional contraceptive protection is needed.

Switching from another method

- A woman can have the copper-bearing IUD inserted immediately, if it is reasonably certain that she is not pregnant. There is no need to wait for her next menstrual period. No additional contraceptive protection is needed.

2. What if a woman experiences menstrual abnormalities when using a copper-bearing IUD?

Spotting or light bleeding between menstrual periods

- Spotting or light bleeding is common during the first 3–6 months of use of copper-bearing IUDs. It is not harmful and usually the bleeding decreases over time.
- If a woman desires treatment, a short course of non-steroidal anti-inflammatory drugs (NSAIDs) may be given during the days of bleeding.
- In women with persistent spotting and bleeding, rule out gynaecological problems when clinically warranted. If a gynaecological problem is identified, treat the condition or refer for care.
- If no gynaecological problems are found, and the woman finds the bleeding unacceptable, remove the IUD and help her choose another method.

Heavier than normal or prolonged menstrual bleeding

- Heavier than normal and prolonged menstrual bleeding is common during the first 3–6 months of use of a copper-bearing IUD. Usually this is not harmful, and bleeding usually becomes lighter over time.
- The following treatment may be offered during the days of menstrual bleeding:

  - Non-steroidal anti-inflammatory drugs (NSAIDs)
  - Tranexamic acid (a haemostatic agent)
  - Aspirin should NOT be used.
- Exclude gynaecological problems when clinically warranted. If a gynaecological problem is identified, treat the condition or refer for care.
- If the bleeding continues to be very heavy or prolonged, especially if there are clinical signs of anaemia, or if the woman finds the bleeding unacceptable, remove the IUD and help her choose another method.
- To prevent anaemia, provide an iron supplement and/or suggest foods containing iron.

3. What if a woman using a copper-bearing IUD is diagnosed with pelvic inflammatory disease (PID)?

- Treat the PID with appropriate antibiotics.
- There is no need to remove the copper-bearing IUD if the woman wishes to continue its use.
- If the woman does not want to keep the IUD, remove it *after* antibiotic treatment has been started.
- If the IUD is removed, the woman can consider using emergency contraceptive pills if appropriate.
- If the infection does not begin to clear, the general advice would be to remove the IUD and continue antibiotics. If the IUD is not removed, antibiotics should also be continued. In both circum-

A woman can have a copper-bearing IUD inserted any time at her convenience within the first 12 days after the start of menstrual bleeding, not just during menstruation.

[1] ***Adapted from***: *Selected practice recommendations for contraceptive use*. Geneva, World Health Organization, 2002

stances, the woman's health should be closely monitored.

- Provide comprehensive management for sexually transmitted infections, including counselling about condom use.

4. What if a woman using a copper-bearing IUD is found to be pregnant?

The IUD user is pregnant

- Rule out ectopic pregnancy.

- Explain to the woman that she is at risk of second trimester miscarriage, preterm delivery and infection if the IUD is left in place. The removal of the IUD reduces these risks, although the procedure itself entails a small risk of miscarriage.

- If the woman does not want to continue the pregnancy, and if therapeutic termination of pregnancy is legally available, inform her accordingly.

- If the woman wishes to continue the pregnancy, make clear to her that she would be at increased risks of miscarriage, pre-term delivery and infection. Advise her to seek care promptly if she has heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever.

The IUD strings are visible or can be retrieved safely from the cervical canal

- Recommend removal of the IUD.

- If the IUD is to be removed, remove it by pulling gently on the strings.

- Advise the woman to return promptly to the clinic if she has heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever.

- If the woman chooses to keep the IUD, advise her to seek care promptly if she has heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever.

The IUD strings are not visible and cannot be safely retrieved

- Where ultrasound is available, it may be used to determine the location of the IUD. If the IUD is not located by ultrasound, this may suggest that it has been expelled.

- If ultrasound is not possible or if the IUD is shown by ultrasound to be inside the uterus, make clear the risks and advise the woman to seek care promptly if she has heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever.

5. Should prophylactic antibiotics be provided for copper-bearing IUD insertion?

- Prophylactic antibiotics are generally not recommended for IUD insertion. However, in settings of both high prevalence of STIs and limited STI screening, such prophylaxis may be considered.

- Counsel the IUD user to watch for symptoms of PID, especially during the first month.

Prophylactic antibiotics are generally not recommended for IUD insertion. However, in settings of both high prevalence of STIs and limited STI screening, such prophylaxis may be considered.

New Publications

Selected Practice Recommendations for Contraceptive Use

Geneva, WHO, 2002
ISBN 92 4 154566 6

Provides selected practice recommendations based on the best available evidence. It is intended to be used by policy-makers, programme managers, and the scientific community. It aims to provide guidance to national family planning/reproductive health programmes in the preparation of guidelines for service delivery of contraceptives.

Current Practices and Controversies in Assisted Reproduction

Report of a WHO Meeting

Geneva, WHO, 2002
ISBN 92 4 159030 0

Includes background papers presented at a meeting of experts called by WHO to review ongoing developments in assisted reproduction technology together with their social and ethical implications. The 31 chapters in the book review the medical, social and ethical aspects of assisted reproduction. A concluding chapter presents recommendations of the experts for clinical practice and research.

Programming for Male Involvement in Reproductive Health

Report of a meeting of WHO Regional Advisers in Reproductive Health

2002, 169 pages [E]
WHO/FCH/RHR/02.3

Reviews and recommends current strategies for the involvement of men in programmes aimed at improving reproductive health. Topics covered include: programming for men in prevention and care of sexually transmitted infections; programming for men in family planning; programming for men in promoting safe motherhood; targeting men for improving the reproductive health of both partners; and lessons for future programmatic directions.

To request a copy of any of the above publications please write to:
Documentation Centre
RHR, World Health Organization,
1211 Geneva 27, Switzerland
e-mail: rhrpublications@who.int