

**BIBLIOGRAPHIC DATA SHEET**1. CONTROL NUMBER  
PN-AAH-2862. SUBJECT CLASSIFICATION (695)  
PCOO-0000-0000

## 3. TITLE AND SUBTITLE (240)

Legal aspects of menstrual regulation

## 4. PERSONAL AUTHORS (100)

Lee, L. T.; Paxman, J. M.

## 5. CORPORATE AUTHORS (101)

Tufts Univ. Fletcher School of Law and Diplomacy.

## 6. DOCUMENT DATE (110)

1974

## 7. NUMBER OF PAGES (120)

50p.

## 8. ARC NUMBER (170)

## 9. REFERENCE ORGANIZATION (130)

Tufts

## 10. SUPPLEMENTARY NOTES (500)

(In Law and Population monograph ser. no. 19)

## 11. ABSTRACT (950)

## 12. DESCRIPTORS (920)

Abortion	Law
Legislation	Birth control
Family planning	Population policy
Legal aspects	

## 13. PROJECT NUMBER (150)

14. CONTRACT NO.(140)  
AID/csd-281015. CONTRACT  
TYPE (140)  
GTS

## 16. TYPE OF DOCUMENT (160)

PN- AAH- 286 <sup>23</sup>

**Law and Population Monograph Series  
Number 19 (1974)**

# **Legal Aspects of Menstrual Regulation**

by **Luke T. Lee**  
and  
**John M. Paxman**



**Law and Population Programme  
THE FLETCHER SCHOOL OF LAW AND DIPLOMACY  
Tufts University  
Administered with the Cooperation of Harvard University  
Medford, Massachusetts**

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- 18/ *Population and the Role of Law in the Americas, Proceedings of a Seminar of the Human Rights Committee at the 18th Conference of the Inter-American Bar Association* (1974).
- 19/ *Legal Aspects of Menstrual Regulation*, by Luke T. Lee and John M. Paxman (1974).

This monograph is one in a continuing series published under the auspices of the Law and Population Programme, the Fletcher School of Law and Diplomacy. / The Law and Population Programme and its field work are supported in part by the International Planned Parenthood Federation, the United Nations Fund for Population Activities, and the U. S. Agency for International Development, among others. The Programme is under the general direction of an International Advisory Committee on Population and Law, whose members are listed at the end of this monograph. / The conclusions and opinions of this monograph are the sole responsibility of the author, and do not necessarily reflect those of the Law and Population Programme, the Fletcher School, or any of the supporting agencies. / Printed in the U.S.A.

**LEGAL ASPECTS OF MENSTRUAL REGULATION**

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LEGAL ASPECTS OF MENSTRUAL REGULATION

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## LEGAL ASPECTS OF MENSTRUAL REGULATION\*

### I. INTRODUCTION

During the past decade we have witnessed a concerted effort on the part of researchers to find a method of fertility control which is at once fail-proof, safe and simple to administer. That such a method is needed is borne out by the fact that rapid population growth now exerts inordinate pressures on the human and natural resources of the world. Despite the existence of a relatively sophisticated body of medical knowledge, we have yet to uncover a fertility control technique which is totally reliable. A perfect contraceptive has yet to be discovered. Though contraceptives have improved, and may prevent many pregnancies, they are neither totally effective nor universally used. Therefore, historically there has been a tendency for populations to demand abortion as a birth preventive supplement. It is not uncommon to find that in many countries abortion is a family planning technique preferred over contraception. Evidence from at least one European country indicates that many people rely on abortion rather than contraception as a way of spacing children. This is also true for Japan, where recourse to abortion has had a tremendous effect on fertility. Nevertheless, with the recent development of the technique of menstrual regulation<sup>1</sup> comes the promise that we are on the verge of acquiring at least the medical possibility for total control of human fertility. This capability results from two recent developments in medical research: 1) the synthesis and mass-production of prostaglandins and 2) the development of a polyethelene cannula and syringe capable of early uterine aspiration.

The prostaglandins, which are thought to have qualities that are both abortifacient and contraceptive, are composed of a long chain of fatty acids which are found in particularly high concentrations in the reproductive tracts of females at the time of menstruation, spontaneous abortion (more commonly miscarriage) and labor. Their emergence from the field of fertility control research in the early 1970s was

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\*This is a revised version of a paper originally presented at the Menstrual Regulation Conference, sponsored by the University of Hawaii Schools of Public Health and Medicine, Honolulu, Hawaii, December 16-19, 1973.

<sup>1</sup>Menstrual regulation is also known as menstrual induction, menstrual aspiration, endometrial aspiration, and pre-emptive or mini-abortion. Justice Blackmun in his opinion in Roe v. Wade, 410 U.S. 113, used the term "menstrual extraccion". Ibid., at 160.

accompanied by a great deal of optimistic publicity.<sup>2</sup> In the euphoria, it was felt that they would provide us with the much sought after "once-a-month" birth control method. Some of that publicity was premature because of the absence of research into the effects of the use of prostaglandins. Later tests revealed that their use caused some rather severe side effects. While researchers are still somewhat skeptical of the usefulness of prostaglandins, there is reason to think that they are medically valuable for a variety of uses including menstrual regulation.<sup>3</sup>

The other menstrual regulation technique, pioneered by Dr. Harvey Karman, a psychologist, utilizes a 4 mm flexible plastic cannula which can be inserted into the uterus. When suction is applied, the uterine lining (endometrium) is separated and removed from the uterus. Its use is dual. It can be used to induce either menstruation or early abortion. If its purpose is to induce abortion, it can typically be used whenever a period is a few days overdue. In that regard, it may operate in a manner similar to the prostaglandins during a time period when it is difficult, if not impossible, to determine pregnancy. With the state of the medical art what it is at the present time, current immunologic pregnancy tests will not yield negative results until six weeks or more have passed since the last menstrual period (LMP). Thus, many proponents of the menstrual regulation technology are now urging that it be used during this so-called "gray area"--five to six weeks from LMP--when pregnancy cannot be medically determined, and it is uncertain whether embryonic development has begun.<sup>4</sup>

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<sup>2</sup>Karim, "Prostaglandins in Fertility Control," Lancet 1:1115, May 23, 1970; Karim, "Once-a-month Vaginal Administration of Prostaglandins E<sub>2</sub> and F<sub>2a</sub> for Fertility Control," Contraception 3: 173-183 (1971); Speroff, "Prostaglandins and Abortion," in The Abortion Experience 415 (H. Osofsky & J. Osofsky eds. 1973).

<sup>3</sup>Csapo, Mocsary, Nagy and Kaihola, "The Efficacy and Acceptability of the Prostaglandin Impact in Inducing Complete Abortion During the Second Week after the Missed Period," Prostaglandins 3(2): 125-139 (February 1973).

<sup>4</sup>Pion, Wabrek, and Wilson, "Innovative Methods in Prevention of the Need for Abortion," Clinical Obstetrics and Gynecology 14(4): 1313-1316 (December 1971).

These developments have forced us to look anew at the legal and medical distinctions between various methods of fertility control. In view of the way that these new techniques function, the heretofore rather clear foresight-hindsight distinction between contraception and abortion blurs. This fact raises a number of questions as to the legal status of menstrual regulation. Foremost is the question whether prostaglandins and the cannula/syringe aspirator will be barred from usage by the criminal abortion statutes now in force in many countries.<sup>5</sup> Can medical intervention be classified as abortion in the absence of proof of a pre-existing pregnancy? What are the material elements of proof under the abortion statutes, and what effect do they have on the menstrual regulators? Who carries the burden of proof under the legal systems in the various countries? Beyond that, will it be possible to have these technologies classified as contraceptive rather than abortifacient? More particularly, will their use be made possible because they may be used medically for reasons other than abortion? Lastly, will these new medical technologies cause reappraisals of the legal notion of abortion? The aim of the paper is to explore the various facets of these questions. Legislation dealing with abortion is necessarily the touchstone for our analysis.

It is extremely difficult to be insightful about such a controversial subject as abortion. The moral and ethical dimensions of the abortion question have been dealt with extensively elsewhere. We shall attempt to confine our discussions to the legal aspects of abortion legislation as they relate to the development of menstrual regulation. We call to mind at the outset, the dictum offered by William Blake that "to generalize is to be an idiot," but realize that in our attempt to sketch out the parameters of the issues raised here we may have to do so. We note further that it is altogether possible, as was strongly suggested first by a court in People v. Belous,<sup>6</sup> that in the light of the developments in modern surgical practice many of the rationales upon which abortion laws are based have been pre-empted.<sup>7</sup> Indeed, approximately

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<sup>5</sup>Behrens, "Abortion: The Continuing Controversy," Population Bulletin, vol. 28, no. 4, August 1972, at 27. See generally Lee, "International Status of Abortion Legislation," The Abortion Experience, supra note 2, at 343.

<sup>6</sup>71 Cal.2d 954, 458 P.2d 194, 80 Cal. Rptr. 354 (1969), cert. denied, 397 U.S. 920 (1970). "It is now safer for a woman to have a hospital therapeutic abortion during the first trimester than to bear a child." Ibid., at 965.

<sup>7</sup>"When most criminal abortion laws were first enacted, the procedure was a hazardous one for the woman.... Abortion mortality was high.... Modern medical techniques have altered this situation." Roe v. Wade, supra note 1, at 148-149.

fifty-eight percent of the world's population live in countries that have liberalized their laws to permit ready access to abortion during the early stages of pregnancy.<sup>8</sup> However, the purpose of this paper is not to argue for the amendment or repeal of the yet existing restrictive abortion statutes, rather it is to seek to define the relationship which recent developments in medical technologies have to these laws. Clarification of this relationship is made somewhat more difficult by correlating developments in the area of contraceptive technology.

Improvements in contraceptive technology have been both recent and dramatic. The advent of the pill and the intra-uterine device greatly enhanced the effectiveness of contraceptive procedures. But their introduction into medical usage was not without its legal problems. While it was clear that the pill functioned as a contraceptive by preventing fertilization, the IUD apparently did not. A great deal of discussion was devoted to the question of whether the IUD was an abortifacient or a contraceptive. This was so because the IUD worked not to prevent conception in the strictest sense of the word, but rather to prevent the implantation of the fertilized ovum in the uterus. The same was true of the so-called "morning after" pill, which came into use in the mid-1960s. Several authors have argued that both the IUD and the "morning after" pill violate the criminal abortion statutes.<sup>9</sup> There is,

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<sup>8</sup>In fact, five of the world's most populous countries comprising a majority of the world's population--United States, Japan, Soviet Union, India, and China--now have laws which virtually allow abortion on request during the early stages of pregnancy. The population of these five nations totals 1,967.3 million, as against the world's total population 3,860 million, according to the 1973 World Population Data Sheet, based on population information for 163 countries as compiled by the Population Reference Bureau, Washington, D.C.

For a list of the countries where abortion is legal, see Table 2 as found in Lee, Brief Survey of Abortion Laws of Five Largest Countries, at 7 (Law and Population Monograph No. 14, 1973, reprinted from Population Report, Series F, No. 1, April 1973).

<sup>9</sup>Meloy, "Pre-Implantation Fertility Control and the Abortion Law," 41 Chicago-Kent Law Review 183 (1964); Note, 46 Oregon Law Review 211 (1967). Even Dr. Lippes admitted in early testimony about the IUD that it may well be an abortifacient. See statement of Dr. Lippes, Hearings on S. 1676 before the Subcomm. on Foreign Aid Expenditures of the Comm. on Gov't Operation, 89th Cong., 1st Sess., at 1915-29 (1965). L. Lader, Abortion 173 (1966). For a contrary opinion see the statement of Dr. Mastroianni in 1966 Hearing, supra, at 165. And see Wall Street Journal, May 2, 1966, at 12, col. 3.

however, no literature suggesting that any criminal abortion prosecutions have ever been brought on that theory. The reason for mentioning these methods here is that they function in the ill-defined borderline area somewhere between contraception and abortion.<sup>10</sup> Despite some lingering doubts, these methods are now considered to be "contraceptive," however factually misleading that categorization may be. They are classified as such for many reasons. One of the rationales has it that it is impossible to show that they function technically as abortifacients because they do their work so soon after a supposed conception. Another has it that the time-honored notion that life begins at conception has been eroded by recent biological data. It is not improbable, then, that for those same reasons the menstrual regulators will either be looked on as "contraceptives" or placed in a special category somewhere between contraceptives and abortifacients and referred to simply as post-conceptive fertility control devices. Whether this is possible depends in large measure on the readings given to contemporary abortion legislation.

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During the discussions in the French Parliament in 1967, some voices were hostile towards the use of the IUD as a method of contraception, e.g., calling it a "permanent abortifacient." Journal Officiel, Débats, Assemblée Nationale, July 1, 1967, at 2566; Sénat, December 5, 1967, at 2036. The standard French criminal law encyclopedia, Dalloz' Répertoire de Droit Penal et de Procédure Pénale, (Mise à jour 1973), at 49, locates the provisions on IUD, cited above, under the heading "Abortion."

<sup>10</sup>Clark, "Law as an Instrument of Population Control," 40 Colorado Law Review 179, 187 (1968).

## II. ABORTION LEGISLATION AND THE MENSTRUAL REGULATORS

Laws regulating abortion naturally fall along a continuum from the very restrictive to the very permissive. On the restrictive extreme of the continuum are laws which categorize abortion as a criminal offense in all circumstances,<sup>11</sup> those which permit abortion only to preserve the life of the pregnant woman,<sup>12</sup> those which allow it where there is a possibility of genetic defect or fetal damage, and those which condone abortion where

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<sup>11</sup>As of the fall of 1973, the statutes of the following countries treat abortion as illegal without exception: Barbados; Belgium (Criminal Code arts. 348-353); Bolivia; Columbia (Decree No. 2300 of 4 September 1936, adopting Penal Code arts. 386-387 [1961 ed.]; Decree No. 2831 of 23 September 1954, embodying Code of Medical Ethics, sec. 10); Dominican Republic (Penal Code art. 317 [1962 ed.]; El Salvador (Penal Code arts. 364-367 [1947 ed.]); Guyana; Haiti (Penal Code art. 262 [1948 ed.]); Hong Kong; Indonesia (Penal Code 299, 346-350); Ireland; Jamaica (Offenses Against the Person Act of 1861, as amended 1969, paras.65-66); Panama (Penal Code arts. 326-330 [1944 ed.]); Philippines (Revised Penal Code arts. 256-259 [1963 ed.]); Portugal (Penal Code art. 358 [1960 ed.]); Taiwan (Criminal Code art. 288); Trinidad and Tobago; and Vietnam (South). Sources: Tietze and Dawson, "Induced Abortion: A Factbook," Reports on Population/Family Planning, No. 14, December 1973, Appendix B, at 51-52; WHO, Abortion Laws: A Survey of Current World Legislation (1971); Roemer, "Abortion Law: The Approaches of Different Nations," 57 American Journal of Public Health 1906 (1967).

<sup>12</sup>Those countries which permit abortion only to save the pregnant woman's life are as follows: Algeria (Ordinance No. 66-156 of 8 June 1966, embodying Penal Code secs. 304-313); Bangladesh; Chile (Penal Code arts. 342-345 [1959 ed.]; Decree No. 725 of 11 December 1967, promulgating Sanitary Code sec. 119); Egypt (Criminal Code arts. 260-264); France (Penal Code arts. 317-318; décret-loi of July 29, 1939, sec. 87); Guatemala (Penal Code arts. 304-307 [1959 ed.]); Iran (Criminal Code secs. 181-183 [1962 ed.]); Iraq (Penal Code arts. 229-231); Ivory Coast (Law No. 62-248 of 31 July 1962, establishing Code of Medical Ethics, sec. 38); Khmer Republic (Cambodia) (Crown Ordinance No. 103 of July 1934, promulgating Penal Code art. 459); Kuwait; Liberia; Luxembourg (Penal Code arts. 348-353); Malaysia (Penal Code art. 312, as amended in 1940); Netherlands; New Zealand (Crimes Act secs. 182-187 [1961]); Nicaragua (Penal Code arts. 398-402 [1950 ed.]); Nigeria (Federal Criminal Code art. 228); Pakistan (Penal Code arts. 312-316 [4th ed. 1968]); Paraguay (Penal Code arts. 349-354); Senegal (Law No. 65-60 of July 1965, approving Penal Code sec. 305; Decree No. 67-147 of 10 February 1967, embodying Code of Medical Ethics sec. 35); South Africa; Spain (Penal Code arts. 411-417 [1964 ed.]); and, Venezuela (Penal Code arts. 432-436 [1960 ed.]).

there is evidence of rape or incest.<sup>13</sup> On the other extreme are laws which make abortion readily available upon request, leaving the decision whether to have an abortion largely to the individuals and the doctors concerned.<sup>14</sup> The restrictiveness of abortion statutes is obviously affected by the religious and cultural value system of the respective countries.

#### A. A Brief Historical Perspective

The fact that the restrictive criminal abortion laws in many of the world's nations are but of recent origin is not generally appreciated. Most abortion laws are neither of ancient nor common law origins, rather they are the result of nineteenth-century legislation.

Historically, at English common law, abortion was not considered a criminal offense until after "quickening," and then it was but a misdemeanor. Most so-called Christian countries began with similar prohibitions. In 1861, through the enactment of the Offenses Against the Person Act, abortion at any stage of the pregnancy was made a criminal offense

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<sup>13</sup>In these last two categories fall the statutes of Argentina (Law No. 17567 of 6 December 1967, amending Penal Code arts. 85-88); Austria (Criminal Code arts. 144-148, 344, 357a); Brazil (Decree Law No. 2848 of 7 December 1940, embodying Penal Code arts. 124-128); Cameroon (Law No. 67-LF-1 of 12 June 1967, introducing Penal Code); Canada (Criminal Code of 1953-54, sec. 237, as amended by Criminal Law Amendment Act of 1968-69); Costa Rica (Penal Code arts. 118-121); Ecuador (Penal Code arts. 417-423 [1953 ed.]); Ethiopia (Penal Code of 23 July 1957 arts. 528-536); West Germany ("Law for the Prevention of Progeny Affected with Hereditary Diseases" of June 26, 1935, arts. 10a, 14); Ghana (Criminal Procedure Code arts. 56-59); Greece; Honduras (Penal Code arts. 409-412; Decree No. 94 of 24 June 1964, promulgating Fundamental Law on Physicians, secs. 105-107); Israel (Criminal Code arts. 175-177); Italy (Criminal Code, sec. 54; Law No. 860 of August 26, 1950, sec. 21); Jordan (Law No. 85 of 1951, promulgating Penal Code art. 318); Kenya; Lebanon (Legislative Decree No. NI/340 of March 1, 1943, containing Penal Code art. 545); Mauritius; Mexico (Penal Code arts. 329-334 [1960 ed.]); Morocco (Crown Decree No. 181-66 of 1 July 1967, amending Penal Code arts. 453-455); Peru (Penal Code arts. 159-164 [1956 ed.]; Decree Law No. 17505 of 18 March 1969, promulgating Sanitary Code secs. 19-23); Sudan (Penal Code arts. 262-267); Switzerland (Criminal Code secs. 120-121 [1937]); Syria (Legislative Decree No. 96 of 26 September 1952, setting forth regulations for medical practice); Thailand (Penal Code sec. 305); and Turkey (Decision No. 6/8305 of 12 June 1967 of Council of Ministers concerning interruption of pregnancy).

<sup>14</sup>We are not concerned with these types of laws here.

punishable by life imprisonment in England.<sup>15</sup> Similar formulas found their way into the codes of France and Spain, and hence into the legal systems of their colonies.<sup>16</sup> Pressures due to the high number of deaths in France during World War I spurred an effort to increase the birth rate which included legislation against contraception and abortion. The Law of July 31, 1920, prohibited any inducement to abortion. This law reinforced the criminal sanction which had been in force for more than a century as part of the Penal Code (Law of February 12, 1810). And the French legislature and judiciary have since been working hand in hand to avoid the danger of depopulation. The prohibition against abortion in Spain, still very restrictive, was spoken of as early as the issuance of Las Siete Partidas, and a criminal provision was formally adopted with the promulgation in 1822 of the Penal Code. Traditional tenets of the Islamic religion forbid abortion only after the "quickening" of the fetus, and no Moslem country permits such abortion.<sup>17</sup>

In China and Japan, there were no provisions in the traditional codes forbidding abortion until they adopted modern legislation patterned after the Western models. Thus, in the non-Western world, twentieth-century abortion reforms were in part generated by the discovery that such laws, adopted as westernization spread, were not part of the indigenous value system. In the case of China, one of the main tenets of Confucianism is that of filial piety which sponsors a reverence to parents as a result of their role as life givers. The logical sequel is that what parents have given, they may also take away. Abortion then is regarded as a parentally-inflicted punishment. This explains the absence of any provision on abortion in the traditional Chinese penal codes. An examination of the Ta Tsing Leu Lee (Laws and Statutes of the Tsing

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<sup>15</sup>Offenses Against the Person Act of 1861, 24 & 25 Vic., c. 100, sec. 58, at 438. See Perkins, Criminal Law 101 (1957) and Means, "The Law of New York Concerning Abortion and the Status of the Foetus," 1664-1968: A Case of Cessation of Constitutionality," 14 N.Y.L.F. 411, 419-422 (1968). Surgical abortions before quickening were first prohibited in 1803 in the United Kingdom by Lord Ellenborough's Act, and in 1829 by the New York Revised Statutes of 1829, the latter being motivated, according to some authorities, by the risks connected with surgery in general. See Professor Means' statement in Abortion in a Changing World, vol. 1, at 47 (R. Hall ed. 1970).

<sup>16</sup>See Hubinont and Polderman, "Abortion in Western Europe," in Abortion in a Changing World, vol. 1, at 325-337 (R. Hall ed. 1970). E. Cuello Calón, II Derecho Penal 453 (Barcelona: Bosch, 11th ed. 1961).

<sup>17</sup>Some codes in Moslem countries have gone much farther and prohibit abortion at any time in the course of a pregnancy unless there is certification that the pregnancy threatens the life of the prospective mother. Egyptian Penal Code, Law No. 58/1937, Book 3, Chap. 3, arts. 262-264.

Dynasty)<sup>18</sup> as well as other codes has failed to unearth any provision against abortion. Similarly, abortion was not considered a "crime" in Japan until the Meiji Reform. While attempting to modernize the legal system, the Meiji government adopted a penal code patterned after the French anti-abortion model, though the religious concept upon which those provisions were based was alien to the Japanese religious philosophy.<sup>19</sup>

As a result of the somewhat moralistic spirit of the Victorian period, the general legal prohibition against abortion became essentially worldwide by the late 1800s, and the rationales upon which these laws were based were equally universal, though in certain instances those reasons were culturally alien to the countries adopting the statutes. As Glanville Williams pointed out in his much publicized article,<sup>20</sup> aside from the religious impetus for such legislation, the statutes were enacted at a time when the medical technology available made the operation "highly dangerous" even when performed by qualified people. Therefore, it is apparent that one of the bases for the establishment of a criminal sanction was the lack of adequate medical technology.<sup>21</sup> It should not go unnoticed that the state of scientific knowledge about reproductive biology was equally naive. The fear of criminal sanctions and the lack of adequate knowledge about reproduction had a certain chilling effect on work to improve the medical technology relating to fertility control generally and to abortion specifically. This may account for the fact that in the mid-1960s, the abortion techniques used in most of the world's hospitals were fifty years old. The vacuum-aspiration method, which was developed in China<sup>22</sup> and improved on by doctors in the Soviet Union,<sup>23</sup> was

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<sup>18</sup>Translation by Sir George Thomas Staunton, published in London in 1810.

<sup>19</sup>Lee, "International Status of Abortion Legalization," supra note 5, at 348-349.

<sup>20</sup>"Euthanasia and Abortion," 38 Colorado Law Review 178 (1966).

<sup>21</sup>Indeed, in 1858, the Supreme Court of New Jersey, declared that an 1848 state statute, which made abortion before quickening illegal, was intended to protect a woman's health rather than prevent abortions. State v. Murphy, 27 N.J.L. 112 (Sup. Ct. 1858).

<sup>22</sup>T'sai, "Application of Electric Suction in Artificial Abortion: 30 Cases," (CH) Chinese Journal of Obstetrics and Gynecology 6:445(1958); Y. Wu and H. Wu, "Suction in Artificial Abortion: 300 Cases, ibid., at 447.

<sup>23</sup>Melks, XI Vsesojuzni Sjezd Akušerov-Ginekologov 307 (1963).

the first major innovation to be made in many years. It signalled the introduction of an abortion method which was not only safer but more efficient as well. Likewise, the development of the saline injection method has made later pregnancy terminations relatively simple. Now, further advances threaten to make the abortion laws obsolete.<sup>24</sup>

In countries with liberal abortion laws, of course, the use of prostaglandins or the cannula for menstrual regulation will not conflict with the law, and the technologies will encounter few legal problems, if any. But what of the use of these new medical technologies in countries with restrictive abortion laws? Any analysis of their legal status must necessarily begin with an examination of the texts of the laws themselves.

As a general rule the legal provisions which define the practice of abortion are found within the criminal codes of the world's nations. A brief survey of restrictive abortion laws for the purpose of determining the legal status of menstrual regulation indicates the existence of two basic legislative models:

1. Those which make abortion a crime whether or not the woman is pregnant; and,

2. Those which expressly or implicitly require pregnancy as an element of the criminal offense.

#### B. Abortion Irrespective of Proof of Pre-existing Pregnancy

A considerable number of countries have statutes which make abortion a crime whether or not the woman is in fact pregnant. Those countries which have such laws have generally inherited them from either the French or the early British models.

##### 1. Influence of French Legislation

Under section 317 of the French Penal Code abortion is a punishable minor crime (délit).<sup>25</sup> The statute contains the following language:

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<sup>24</sup>"Abortion and the Law: Anachronisms Racing Science," Mississippi Medical Ass'n Journal 11:335-336 (June 1970); Bein, "The Influence of Medical and Biological Progress: The Contemporary Criminal Law and Abortion," Israeli Reports to the Eighth International Congress of Comparative Law 196-203 (S. Feller ed. 1970).

<sup>25</sup>For a more detailed discussion of the abortion laws in France, see Doublet and Villedary, Law and Population Growth in France 5-12 (Law and Population Monograph No. 12, 1973). The restrictive abortion law in France has been subject to attack from many groups, including the press. There is now pending before the legislature a government-

Any person who, by means of foodstuffs, beverages, medicaments, manipulations, violence or in any other way, has procured or attempted to procure the abortion of a pregnant woman, or a woman thought to be pregnant, with or without her consent, shall be punished. . . . <sup>26</sup>  
(emphasis supplied.)

While the Penal Code does not set out a specific definition of abortion, the essential elements of the minor crime are discernible: a state of real or presumed pregnancy of the woman upon whom deliberate manipulations are performed which lead or are apt to lead to the premature ejection of the fetus or to whom drugs or other substances are administered which are apt to cause abortion.<sup>27</sup>

The great concern of the French legislature for the future population growth of France and for the repression of criminal abortions is evidenced by the 1939 amendments to the law which penalize attempted abortion<sup>28</sup> and broaden the scope of the crime. French courts have held that the following acts constitute an attempt: preparing or bringing abortion instruments to the site of prospective abortion; reaching an agreement as to payment for operation;<sup>29</sup> and using absolutely inefficient means to do abortion.<sup>30</sup> The same concern is shown in the rule that even in the case of presumed pregnancy, that is, where the woman or the potential abortionist erroneously assume that a state of pregnancy exists, punishment will be meted out. This provision did not exist in the March 27, 1923 version of the law, which reduced the severity of the crime of abortion to the status of a délit in an attempt to lessen

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sponsored abortion bill. If adopted, the new French law will permit abortion where the mental, physical or emotional health of the mother is deemed to be endangered. The law will be a revision of Article 162 of the Public Health Code. For a translation of the proposed law, see Doublet and Villedary, ibid., at 85-87.

<sup>26</sup>Translations made from the Dalloz edition of the French Penal Code: Code Pénal 168 (62nd ed. 1965).

<sup>27</sup>R. Garraud, Traité Théorique et Pratique du Droit Pénal Français, vol. 4, at 708 (2nd ed. 1900).

<sup>28</sup>French Penal Code, sec. 317, para. 1, as amended by décret-loi of July 29, 1939, sec. 82.

<sup>29</sup>Dalloz, supra note 26, at 474.

<sup>30</sup>P. Bouzat and J. Pinatel, Traité du Droit Pénal et de Criminologie, vol. 1, at 219 (1963); E. Garçon, Code Pénal Anoté, vol. 2, at 104 (1956).

the high number of acquittals being given by juries.<sup>31</sup> The amendment to section 317 made by the décret-loi of July 29, 1939, added the phrase, "thought to be pregnant" thereby expanding the scope of the legal prohibition. It appears that the raison d'être of the 1939 amendment was to avoid the difficulties which the earlier law created in proving pregnancy. Thus, the requirement that the public prosecutor provide proof of the victim's actual pregnancy before a conviction could be gotten was eliminated,<sup>32</sup> and from a legal viewpoint, it became infinitely easier to repress the practice of abortion.

A twenty-year old compilation of laws pertaining to the criminal laws in force in what is now former French Africa revealed that the abortion statutes of those countries were carbon copies of section 317 of the French Penal Code.<sup>33</sup> Since gaining independence from France only a few of the former French colonies have adopted legislation which differs from that on the books in 1952. Those countries which have retained the section 317 in unaltered form did so by adopting so-called "reception" statutes which provided that French law in affect prior to independence and not contrary to their new constitutions would remain in effect. Therefore, the majority of the French-speaking countries in Africa still have these same restrictive abortion statutes that were in force prior to independence.<sup>34</sup> Though the Algerian Penal Code, which was adopted in 1966, makes abortion permissible if it is essential to save the life of the mother and the operation is performed openly by a surgeon, the sweeping language of the abortion statute remains the same.<sup>35</sup> And it has been said that statute in Dahomey is more restrictive than that of France because there are no provisions authorizing therapeutic abortion.<sup>36</sup> Drawing on the French model, article 528, of the Syrian Penal Code

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<sup>31</sup>Dourlen-Rollier, "Etude Comparée de l'Avortement devant la Loi," in Sexologie 105-119 (1971).

<sup>32</sup>Bouzat, supra note 30, at 221.

<sup>33</sup>G. Bouvenet, Recueil Anoté des Textes de Droit Pénal Applicables en Afrique Occidental Française (Paris: Editions de l'Union Française, 1955).

<sup>34</sup>Republic of Gabon: Law No. 21-63 of May 31, 1963, Journal Officiel de la République Gabonaise, No. 16 of July 1963; Malagasy Republic: Criminal Code art. 317, Journal Officiel de la République Malgache, No. 240, September 7, 1962. See generally J.S. Salacuse, An Introduction to Law in French-Speaking Africa.

<sup>35</sup>Ordinance No. 66-156 of 8 June 1966 which contained the abortion provisions of the Penal Code secs. 304-313.

<sup>36</sup>Akinla, "Abortion in Africa," in Abortion in a Changing World, vol. 1, at 291, 293 (R. Hall ed. 1970).

imposes punishment for anyone who "attempts to bring about a miscarriage," and through article 530 that prohibition "applies even though the woman is not pregnant." A similar provision is in force in Lebanon.<sup>36a</sup>

## 2. Influence of English Legislation

Until the recent change in legislation in 1967 permitted abortion for health-related and social reasons,<sup>37</sup> the abortion law in the United Kingdom was found in section 58 of the Offences Against the Person Act of 1861 and in section 1 of the Infant Life (Preservation) Act of 1929. The crime of abortion was defined in section 58 as "unlawfully using any instrument or other means with intent to procure the miscarriage of any woman." There were no specific exceptions for therapeutic abortion in section 58. A later statute, the Infant Life (Preservation) Act, defined the crime of child destruction as an act by any person which "willfully causes the death of a child capable of being borne alive before it has a separate existence from its mother," but provided for a good faith defense if the sole purpose of the operation was to preserve the life of the mother. Proof of the capability of the child to be born alive was prima facie where the evidence indicated gestation of 28 weeks or longer.

The passage of the Abortion Act of 1967 in the United Kingdom liberalized the law there, but save for the case of Zambia, it seems not to have seriously affected the statutes of many English-speaking countries in Africa and elsewhere.<sup>38</sup> They continue to hold to the nineteenth-century statute patterned after the Offense Against the Person Act, which is similar in many respects to the restrictive French abortion law. For example, section 228 of the Nigerian Federal Criminal Code reads as follows:

Any person who, with intent to procure the miscarriage of a woman whether she is or is not with child, unlawfully administers to her or causes her to take any poison or other noxious thing, or uses any force of any kind, or uses any means whatsoever, is guilty of a felony. . . .<sup>39</sup> (emphasis supplied.)

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<sup>36a</sup>Penal Code art. 544.

<sup>37</sup>Laws of Great Britian, Eliz. 2, c. 87 (1967). Recent indications are that there is a move afoot to tighten the law. The Church of England is seeking a revision of the Abortion Act which would "recognize the interests of the unborn child" by prohibiting abortion after the twelfth week. The Times (London), Feb. 20, 1974, at 2, col. 1.

<sup>38</sup>Akinla, supra note 36, at 291-301; see also Zambia's Termination of Pregnancy Act of 1974.

<sup>39</sup>The Criminal Code Act, Act No. 15 of 1916 (as amended to 1964).

Similar statutes are also in force in Jamaica,<sup>40</sup> Kenya,<sup>41</sup> New Zealand,<sup>42</sup> Ghana,<sup>43</sup> Barbados, Trinidad and Tobago and other former British colonies.

The no-exception aspect of the Offences Against the Person Act has been somewhat softened, however, by judicial decision. The case of Rex v. Bourne,<sup>44</sup> the first reported case in which the early abortion statute was judicially interpreted, forms the foundation upon which rests the generally accepted legality of therapeutic abortion in the United Kingdom, and hence in former British colonies. The case arose as a test case in 1938, when a prominent gynecologist performed an abortion on a 14-year old girl who had been raped by several soldiers and had consequently become pregnant. The operation was performed openly, with the consent of the girl's parents and with notice to the prosecuting authorities. Bourne felt at the time that if the pregnancy were allowed to continue, it would severely endanger the mental health of the girl. While taking notice of the absence of any statutory exemptions in favor of abortion, Justice Macnaughten ruled that such an exemption was implied by the word "unlawfully" in the statute in that one who was qualified could "lawfully" act to induce a miscarriage. In his remarks to the jury, Macnaughten stated that where the doctor is of the opinion that "the probable consequences of the pregnancy will make the woman a physical or mental wreck,"<sup>45</sup> the jury could find a good faith defense. Bourne was acquitted and consequently the legal justification for therapeutic abortion was established in the United Kingdom. However, the justification is honored to a lesser extent in countries that were under former British rule.

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<sup>40</sup>Offenses Against the Person Act, 1861, as amended 1969, paras. 65-66.

<sup>41</sup>The Laws of Kenya, Revised Edition, vol. II, at 70 (1962).

<sup>42</sup>Crimes Act, 1961, secs. 182-187 [New Zealand Statutes, 1961, No. 43].

<sup>43</sup>Article 59 (1) of the Criminal Procedure Code of Ghana states that the "woman or any other person can be guilty of using means with intent to commit that offense [abortion], although the woman is not in fact pregnant."

<sup>44</sup>[1938] 3 All E.R. 615; [1939] 1 K.B. 687.

<sup>45</sup>Ibid., at 619. A similar doctrine of necessity was read into the early German Penal Code. The case there involved the prosecution of a doctor who performed an abortion on a woman who threatened to commit suicide if she did not get an abortion. Decision of the Reichsgericht in Criminal Matters (I. Strafsenat) of March 11, 1927, G. Dr. St., 61 RGSt. 242 (1928).

### 3. Legal Status of the Menstrual Regulators

At first glance, statutes which follow either the British or the French model pose rather formidable barriers to the use of either the cannula or prostaglandins because they forbid such medical intervention whether there is pregnancy or not. The French statute even goes as far as to prohibit the attempt at abortion. A plain reading of these statutes would seem to indicate that if these technologies are used with intent to procure an abortion, the law has been violated. Though these statutes did not anticipate the development of the new fertility control technologies, such a prohibition strikes at their strength: the fact that they can be effective before pregnancy can be medically determined. But that fact need not signal the end of the discussion concerning the legal status of prostaglandins and the cannula aspirator.

In the absence of a pregnancy requirement, the real issue, then, becomes one of the intent of the actors since pregnancy is not necessarily an element of the crime. These types of laws merely require that the actor approach the physical act with the desire that an abortion will be the consequence and in doing so set up a specific intent crime. By requiring that specific state of mind, the language of the legislation places no great importance on whether or not an abortion did in fact follow. Therefore, for criminal liability to attach, the actor need only be shown to have intended the consequence of abortion. If he did not intend that an abortion result, if he is treating the woman for other medical reasons, in theory he would not be culpable under the law. Several state courts in the United States, prior to the recent Supreme Court decisions on abortion,<sup>46</sup> had ruled that it was adequate to show the defendant's state of mind by introducing evidence that she sought a doctor out for abortion purposes, and that even though a woman was proven not to be pregnant, the defendant had performed an act which was designed to interrupt pregnancy.<sup>47</sup> In People v. Richardson,<sup>48</sup> decided in 1911, the defendant gave a young woman, with whom he had maintained an intimate relationship, some pills to induce menstruation. The woman had told him that she suspected pregnancy because she had missed her period. The trial jury decided the issue of intent under the abortion statute against the defendant on the basis that "he knew that the tendency of the pills was to produce a resumption of menstrual flow."<sup>49</sup> Even though no

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<sup>46</sup>Roe v. Wade, *supra* note 1; Doe v. Bolton, 410 U.S. 179 (1973).

<sup>47</sup>People v. Kutz, 9 Cal. Rptr. 626 (1961); People v. Cummings, 296 P.2d 610 (1956).

<sup>48</sup>120 P. 20 (1911).

<sup>49</sup>ibid., at 24.

abortion ensued, the appellate court held that this verdict was proper and that what was required under the statute was that only a "suspicion" of pregnancy be shown. The decision in Richardson reflects a rule of law which is similar to that expressed by the French statute where the presumption of pregnancy and a correlating attempt to perform an abortion are punishable even though totally ineffective means are used.<sup>50</sup>

The statutes and case law in Ghana make it possible to reach a similar result. There, section 59 of the Criminal Code of 1960 draws its inspiration from the earlier British statute and indicates that the woman or any other person "can be guilty of using means with intent to commit" an abortion, even though the woman is not pregnant. Under section 18 of the Criminal Code of Ghana any attempt to cause an abortion is also a criminal offense. The case of Obeng v. The Republic illustrates this possibility. In Obeng a doctor was charged under the criminal abortion statute for having given four supposedly abortifacient injections to a woman who was some three and a half months pregnant. The evidence at trial indicated among other things that the woman had sought out the doctor for the purposes of procuring an abortion, that injections were given but that their substances was unknown, and that a miscarriage did ensue. But an evidentiary problem occurred when another doctor, who treated the woman after the miscarriage, could not state with any degree of medical certainty that the abortion was in fact brought on by the injections. His testimony was ambiguous in that he could only say that a miscarriage had taken place and that it was either natural or induced. This occasioned an instruction to the jury, which was challenged on appeal regarding the possibility of finding the accused guilty of attempt to cause an abortion. Despite the somewhat muddled jury instruction, the Court of Appeal of Ghana ruled that, in the absence of evidence as to the actual cause of the miscarriage, it was proper for the jury to return a verdict of guilty of attempt if they were convinced that the accused did in fact inject the woman and that he did it with the intent to cause an abortion. In so doing the Court stated in its opinion that:

If the act or means employed does result in the termination of pregnancy, then the prisoner is guilty of causing abortion. If it is incapable of causing abortion or did not in fact result in a miscarriage, then the prisoner will only be guilty of an attempt.<sup>50a</sup>

By implication this seems to state the rule that where the prosecutor fails to establish the nexus between the means used and the resulting abortion there is still the opportunity of getting a conviction for attempt if there is enough evidence on the issue of intent.

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<sup>50</sup>See text at notes 29-30 supra.

<sup>50a</sup>[1971] 2 Ghana Law Reports 107, 113.

This formulation appears to follow the rule of an earlier English case R. v. Spicer. The defendant in Spicer was indicted for a violation of section 58 of the Offenses Against the Person Act for using manual manipulations with intent to procure a miscarriage. He was asked by a woman whose pregnancy was two or three months along for "help". He aided her by inserting two fingers in her vagina and "turning" the uterus. Some days later the woman suffered a miscarriage. At the trial expert evidence established that the defendant's acts had not caused the miscarriage and that it was impossible for such acts to cause a miscarriage at that stage of pregnancy. In testimony, the defendant admitted the acts, but said that they were not intended to procure a miscarriage, rather they had been done to give the woman confidence and to satisfy curiosity. In the course of summing up the trial judge observed:

Whether this act does or does not produce a miscarriage does not matter. Whether it was a method which could or could not produce a miscarriage does not matter. The question is, what did he intend to do when he did the acts which were admitted by him in the witness box?<sup>50b</sup>

As a result the defendant was convicted of and imprisoned for attempted abortion.

Where the standard for showing intent is so easily met, juries and courts, in cases brought to determine the legality of the use of the cannula or prostaglandins under the "no-pregnancy" statutes, may have little difficulty in finding intent.

But the issue of intent is always resolved on the basis of the facts of each case. We can speculate about what would happen under these "no-pregnancy" statutes if a woman sought out medical advice immediately upon missing one menstrual period. The reason for seeking such advice which most readily comes to mind is that of the possibility of pregnancy. But there are a myriad of other equally feasible reasons. Theorize, then, that the doctor at this time either administers prostaglandins or

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<sup>50b</sup>[1955] 39 Crim. App. 189, 190. There is a subtle general distinction between the rule of law in England and that followed in the Obeng case. Under the earlier abortion statute, it was incumbent on the prosecution to establish the means used to procure a miscarriage as well as the fact that an abortion had been performed. The Court in Obeng boldly asserted: "Our law makes no such distinction; it is irrelevant what means were used, provided whatever means used was intended to cause the abortion. If an abortion in fact ensues, the prisoner is guilty of the offense." Supra note 50a, at 114. A few years earlier the High Court in Accra had followed the English standard in ruling that the "accused might have formed intention but had not reached stage of attempt as it was not proved that means used were abortivescent (sic)." The woman had been given some pills (paludrine) by a friend. State v. Butane, [1966] Current Cases (G. L. R.) 74.

uses the cannula to induce the menstrual flow. Has there been a violation of the law? The answer is difficult to formulate. It obviously depends on the facts which will come to light on the issue of intent. There are four basic possibilities which will determine whether or not the law was violated. First, if at the time that the menstrual regulators were administered, the doctor was only thinking in terms of medically resolving a menstrual problem, and not in terms of abortion, and in fact there was no pregnancy, the law was not violated. Second, if the woman who was being treated for a menstrual problem was pregnant and an abortion resulted but no proof was forthcoming on those issues, it is improbable that a violation occurred in the legal sense since the specific intent to induce an abortion was lacking. Under the second alternative fact pattern there is the possibility, however, that having "procured" an abortion would be deemed a criminal act irrespective of intent under the French statute. This would not be true for the British statute which requires that "intent" accompany the act. Third, if, however, he meant to ensure a non-pregnant state, thus aborting the embryo, it is difficult to gainsay the fact that a violation of the law took place. The fourth possibility would have the doctor possessing the intent to abort but being technically unsuccessful in inducing the abortion because there was in fact no pregnancy. Though we are then faced with the apparent absurdity of punishing only for intent under statutes which were designed to protect maternal health and are not sensitive to safer modern medical techniques, such an attempted abortion appears to be punishable under both statutory models.<sup>51</sup>

In short, the question of whether a doctor who uses one of the menstrual regulators is to be subjected to criminal sanctions is for the trier of fact, usually a jury, to resolve. It is for the jury to decide which set of facts to accept, those put forth by the prosecutor or those advanced by the accused, keeping in mind always that the prosecutor must first shoulder the burden of proving the commission of an offense. The doctor faces the very real problem of being put in the difficult position of having to persuade the jury that he did not intend to induce an abortion, and in many instances juries are loath to accept such a version of the facts. A brief survey of English precedents indicates that even where a totally ineffective means is used, as in Spicer, there is a tendency for the jury to disregard the testimony of the accused regarding his intentions. However, there is at least one reported case where a jury acquitted the accused. In R. v. Marlow <sup>51a</sup> a medical attendant gave two women, one of whom later had a miscarriage, some prostigmine tablets. It was shown through expert testimony for the defense that they were non-abortive. But, the jury was permitted to decide whether the tablets were a "noxious thing" within the meaning of the statute and whether the defendant gave them to the woman with the intent to cause a miscarriage. In the due course of deliberation the jury acquitted the accused.

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<sup>51</sup>But see text preceding note 67 infra.

<sup>51a</sup>[1964] 49 Crim. App. 49.

One of the problems posed by these new technologies, as far as legal prohibitions are concerned, is that they may be used for a number of purposes which are unrelated to abortion itself. This causes us to question the facile formulation that a man intends the natural consequences of his act, which courts are so fond of invoking. As Williams points out, the maxim "contains a serious threat to any rational theory of intention." 51b Proof that their use was specifically intended as an abortifacient will be, at best, difficult to come by. This ambiguity of use, partially explained above, may be better seen by exploring an analogy which exists concerning the laws regulating the use of contraceptives. There are several countries whose laws forbid the sale, importation or manufacture of contraceptives. Some of the contraceptives, however, are multi-purpose. For example, the condom and the pill are both medically valuable for reasons other than contraception. Therefore, in Spain, Portugal, Brazil, Venezuela and much of francophone Africa, condoms are sold in pharmacies as prophylactics to guard against venereal disease. Pills are prescribed on "medical grounds" for menstrual cycle regulation or for other health-related reasons but not as a means of preventing pregnancy in some countries of Latin America, in Italy and in Lebanon.<sup>52</sup> This was also the case in France before the contraceptive laws were changed to permit their use for prevention of pregnancy as well in 1967. When these methods are used for "medical reasons" other than contraception, a type of "spill-over" effect is created in that, while serving the medical purpose for which their sale is legally permitted, they may simultaneously act as contraceptives in the vast majority of cases, a function that is technically illegal. Since it is impossible to restrict their use to but one of the functions, it is also impossible to enforce the anti-contraceptive legislation, and equally impossible to sustain conviction for violations of such laws.

The use of the menstrual regulators is susceptible in some measure to the same real world result. Because of the dual functions which both the prostaglandins and the cannula aspirator techniques may perform (as regulators of menstrual cycles and abortifacients), the proof of the intent required for prosecution under these restrictive abortion laws will be difficult to marshal. The use of the cannula or prostaglandins to induce menses may or may not indicate the existence of the mental element of intent required under the abortion statute. The woman may be seeking a way of regulating her own menstrual cycle, for diagnostic and therapeutic purposes, or she may merely be laboring under the notion of a possibility of pregnancy. Equally questionable is whether the person

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51b Criminal Law: The General Part 89 (2d ed. 1961).

52Stepan and Kellogg, The World's Laws on Contraceptives 16-18 (Law and Population Monograph Series No. 17, 1974).

who induces the menses does so with the specific intent required by the statute since he may act for diagnostic and therapeutic reasons other than abortion. Indeed, there is statistical evidence that supports this ambiguity. Studies growing out of the use of the cannula aspirator show that when it is used to induce the menses during the first week after a missed period (4-5 weeks from last menstrual period) fully fifty percent of the women are not pregnant.<sup>53</sup> Thus, in either case, an argument can be made that mere use of cannula or prostaglandins does not in itself constitute the proof of an intent to procure an abortion as required by this type of statute. Since absence of proof of intent would in most cases negate the blameworthiness of the supposed offender,<sup>54</sup> it is possible that the new technologies may be introduced into medical usage without being subject to criminal sanctions.

### C. Statutes Requiring Proof of Pre-existing Pregnancy

#### 1. Language of Legislation

The second category of abortion statutes either expressly or implicitly refers to pregnancy as an element of the crime. For example, many abortion statutes specify that performing an abortion on a "pregnant woman" is a crime. The Penal Code of the Dominican Republic imposes punishment on

[a]ny person who, through use of any food, beverage, medicine, sounding, treatment, or by any other means, causes or cooperates in causing an abortion upon a pregnant woman, even if she consents thereto . . .<sup>55</sup>

In Libya, it is a crime for any person to procure "the abortion of a pregnant woman . . ."<sup>56</sup> The Malaysian statute forbids causing "a woman

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<sup>53</sup>Margolis and Goldsmith, "Techniques for Early Abortion," in The Abortion Experience, supra note 2, at 436, 444.

<sup>54</sup>Kadish, "The Decline of Innocence," 26 Cambridge Law Journal 273, 273-275 (1968).

<sup>55</sup>Penal Code art. 317. Other countries with statutes which contain the phrase "pregnant woman" include: Brazil (Penal Code arts. 125-127); Columbia (Penal Code art. 385); Egypt (Penal Code art. 261); Haiti (Penal Code art. 262); Nicaragua (Penal Code art. 400); Philippines (Penal Code art. 126); Portugal (Penal Code art. 356); and, Taiwan (Penal Code art. 288).

<sup>56</sup>Penal Code art. 392.

with child to miscarry . . ."<sup>57</sup> Some statutes do not specifically refer to the pregnant state of the woman but rather make it a violation of a criminal law to cause "an abortion"<sup>58</sup> or to perform "an abortion on a woman."<sup>59</sup> The West German law, in addition to making it illegal for a woman to destroy "her fetus," threatens imprisonment for "any other person who causes a miscarriage."<sup>60</sup> The Mexican law, however, goes so far as to set out a statutory definition of abortion:

Abortion is the killing of the product of conception at any time during pregnancy.<sup>61</sup>

This comports with the generally accepted legal notion that human existence begins at the moment of conception.<sup>62</sup> In order to cause an abortion or miscarriage in violation of the criminal law under these types of statutes it is of course implicitly essential that the woman be pregnant.

Of the possible fact patterns which will give rise to a violation of the "pregnancy" type abortion statute, we need be principally concerned with the situation where the woman is in fact pregnant, and the doctor administers a menstrual regulator with the intent to cause an abortion. Many of the statutes specifically require that the abortion be induced "intentionally"<sup>63</sup> or "voluntarily."<sup>64</sup> There are, however, a handful of

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<sup>57</sup>Penal Code art. 312; see also Penal Code of Pakistan sec. 312.

<sup>58</sup>Argentina: Penal Code art. 85; Guatemala: Penal Code art. 304.

<sup>59</sup>Mexico: Penal Code art. 330.

<sup>60</sup>West German Penal Code art. 218. The Indonesian statute prohibits the "procurement of the abortion or death of a woman's unborn child." Penal Code arts. 347-348.

<sup>61</sup>See note 59 *supra*, art. 329. This legislative statement reflects the Latin American jurisprudential definition of abortion. Eusebio Gomez, Tratado de Derecho Penal, vol. 2, at 130 (Buenos Aires: Compañía Argentina de Editores, 1939).

<sup>62</sup>Article 710 of the Argentine Civil Code makes note of this fact and thus extends legal protection to the unborn. In the United States, legal protection is extended to the fetuses in probate matters and in torts law, but for such protection to take effect, it is required that the child be born alive. People v. Belous, *supra* note 6, at 959.

<sup>63</sup>Egypt: Penal Code art. 260; Ghana: Criminal Procedure Code art. 56; Indonesia: Penal Code arts. 347-348; Philippines: Penal Code art. 256; Portugal: Penal Code art. 358; and, Venezuela: Penal Code art. 432.

<sup>64</sup>Sudan: Penal Code art. 262.

countries that have statutes which make it a crime to cause an abortion in the absence of intent to do so "provided the state of pregnancy of the woman was obvious, noticeable, or known to the abortionist."<sup>65</sup> While the majority of the abortion statutes impose penalties only for the completed abortion, laws in a few countries make the attempt at abortion a crime, but retain the pregnancy requirement.<sup>66</sup>

## 2. Legal Status of the Menstrual Regulators

This being the case, under these types of legislation, the most fundamental element of the crime of abortion is pregnancy. In order to successfully prosecute cases brought to enforce these statutes, it must be proven through competent evidence that the woman was pregnant at the time that the operation was performed.

We may speculate on the following facts as to whether a violation of this type of abortion statute has taken place. At a time which was estimated to be some forty days from the date of conception, a woman who had missed her menstrual period visited an obstetrician for consultation. During the appointment, she stated that she had no desire to be pregnant, but told the doctor that she suspected she was. The facts make it clear that the woman sought medical help with the intention of procuring an abortion. Without performing any tests for pregnancy, which at that early stage would have produced negative results anyway, the doctor applied a "sonda"--an abortive remedy which was to remain placed in the uterus for twenty-four hours. Upon removal of this application, an apparent abortion was induced the next day. The question arises as to whether these facts constitute a violation of a criminal code which makes pregnancy an essential element of the crime.

An Argentine trial court has ruled that the facts as described above were sufficient to support a conviction for violation of the abortion statute for both the woman and her doctor. Upon appeal, however, the reviewing court reversed that decision because of the doubt which the facts raised as to proof of pregnancy--a specific requirement of the statute. Even though the facts showed that a work of abortion had taken place, they were insufficient to prove the pre-existing pregnancy of the woman.

In its opinion, the appellate court observed that it was

unnecessary to repeat that the state of pregnancy,  
an indispensable element of the crime of abortion,

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<sup>65</sup>Costa Rica: Penal Code art. 196. See also the laws in effect in Spain: Penal Code art. 412; and Chile: Penal Code art. 343.

<sup>66</sup>Ecuador: Penal Code art. 417; Panama: Penal Code art. 327.

cannot be proven by either the statements of the appellants or the facts of this case.

The court went on to state:

We are faced, then, with an attempted non-abortion [it being impossible to perform an abortion where there is no pregnancy], which is not a punishable offense for either the woman or the doctor.<sup>67</sup>

Therefore, the lack of proof as to the certainty of pregnancy, at the moment that the operation was performed, precluded the possibility of a violation of the statute.

Brazilian and Mexican courts have followed the same rule. Testimony of a woman as to the performance of the abortion and the mere possibility of pregnancy is not enough to meet the statutory definition of a criminal abortion. According to Brazilian jurisprudence, the fact that the

on-going pregnancy of the victim has not been rigorously proved, by the documents and evidence of the law suit, makes the crime of abortion non-existent.<sup>68</sup>

In Mexico, when the fetus cannot be found, the existence of the corpus delicti of abortion may be shown through a two-step process. Under Article 112 of the Code of Criminal Procedure, the prosecution must first offer proof that a fetus did in fact exist and then it must be shown through expert testimony that lesions exist and that they could have been

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<sup>67</sup>Case of F., C., 79 La Ley 30 (C.A.N.P., July 4, 1955). The importance of proving pregnancy was introduced into the jurisprudence of Spain a decade earlier. Fallos, June 11, 1945. Interestingly, the Egyptian Penal Code in Article 264 indicates that "[t]here shall be no penalty for attempting to perform an abortion." (Emphasis supplied.)

<sup>68</sup>228 Revista dos Tribunales 354 (No. 4,436, Capivari (appellant); Filho (appellee) (1954). Elsewhere it has been held that:

As to the crime of abortion, it is absolutely necessary that proof be offered regarding the materiality of the crime. In the absence of such proof, that is, the lack of an examination, direct or indirect, of the corpus delicti or not having supplied the confession of the co-defendant, it is required that the accused be absolved.

<sup>66</sup>Revista Jurisprudencia Brasileira 228. (Translation by Law and Population Programme.)

caused by an abortion.<sup>69</sup>

The Mexican standard is admittedly the least stringent of the three approaches. Yet, it does not pose an insurmountable problem for the menstrual regulators because both prostaglandins and the cannula are effective at such an early time that they render impossible the proof of pregnancy. Indeed, under the "pregnancy requirement" statutes, it will always be difficult to prove a pre-existing pregnancy when the cannula or prostaglandins are used.

While the legislation governing abortion in the Moslem countries of the Middle East are considered restrictive, especially in Jordan, Syria, Lebanon, and Saudi Arabia, the principles of Moslem law may play a more important role in determining the status of the menstrual regulators. In December, 1964, the Grand Mufti of Jordan stated that: "[I]t is permissible to take medicine to procure an abortion so long as the embryo is unformed in human shape" (the period of the unformed human state being given as 120 days). This follows the Moslem belief that one cannot look on abortion as a socially repugnant act until after "quickening."<sup>69a</sup>

In summary, under statutory schemes which make pregnancy an essential element of the crime of abortion, the legal status of the menstrual regulators can be pinpointed with more certainty than under the "no-pregnancy" statutes. Where pre-existing pregnancy must be shown, the use of the menstrual regulators makes it virtually impossible for the prosecutor to meet the proof required. The same is true if evidence of a miscarriage needs to be given. The absence of such proof has the legal effect of making the crime of abortion "non-existent." Similarly, where the menstrual regulators are used for therapeutic reasons linked strictly to the induction of the menses no violation of the statute can occur.

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<sup>69</sup>Carranca Trujillon, Código Penal Anotado 751-57 (Mexico City: Antigua Librería Robredo, 1966). This evidentiary test grew out of the case of Santillan de Castillo and Santillan, 36 Annuales de Jurisprudencia 391 (6a Sala, Aug. 30, 1941).

<sup>69a</sup>See Isam Nazer's statement in Abortion in a Changing World, vol. 1, at 267 (R. Hall ed. 1970).

### III. ENFORCEMENT OF ABORTION STATUTES AND THE BURDEN OF PROOF

If there is a common feature among all abortion statutes, it is that violations go largely unpunished. It is no secret that even the most restrictive abortion laws are difficult to enforce. The number of so-called illegal abortions which go undetected is staggering. In Italy, only 150-200 people have been prosecuted annually in recent years in spite of estimates of as many as 800,000-3,000,000 criminal abortions a year.<sup>70</sup> That is not to say that abortions are therefore legal simply because the law is not enforced. The reason that such laws are so seldom enforced stems partially from the way that the criminal justice systems of the world function. In practically all legal systems--Continental, Latin American and Common Law--it is either explicit or implicit that the accused need not prove his innocence. In other words, the accused is protected by the presumption of innocence until such time as the prosecutor can prove otherwise. Though in the West German and French codes this precept is not explicitly formulated, it has always been recognized as a cardinal tenet of criminal procedures in theory as well as in practice.<sup>71</sup> In certain Latin American systems, the principle takes the form of a constitutional guarantee.<sup>72</sup> In essence, this means that the burden of proving the existence of a criminal violation falls on the prosecutor<sup>73</sup> or on the court;<sup>74</sup> the accused is not required to establish innocence.

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<sup>70</sup>N.Y. Times, Jan. 16, 1973, at 30, col. 5.

<sup>71</sup>Jescheck, "Principles of German Criminal Procedure in Comparison with American Law," 56 Virginia Law Review 239, 241, 247 (1970); R. Merle and A. Vitu, Traité de Droit Criminel 725-729 (1967).

<sup>72</sup>Constitution of Argentina art. 18 (1853). These constitutional provisions serve to buttress the propositions advanced in the various Codes of Criminal Procedure. See R. Levene, Manual de Derecho Procesal Penal 323-354 (Buenos Aires: Omeba, 1967) and J. Gonzalez Bustamante, Principios de Derecho Procesal Penal Mexicano 332-338 (Mexico City: Editorial Porrúa, 1971).

<sup>73</sup>D. Karlen, Anglo-American Criminal Justice 19 (1967).

<sup>74</sup>In the criminal justice systems of continental Europe, there is no general consensus on where the burden falls as between the prosecution and the court. The more inquisitorially minded scholars, as in West Germany and the USSR, maintain that the burden of proof is on the court. This difference does not appear, however, to have any practical importance for the accused.

Article 456 of the Chilean Code of Criminal Procedure states:

No one shall be found guilty of a crime unless the court that sits in judgment has acquired, through the means of legal proof, the conviction that a punishable act has been committed and through participation in that act, the defendant is culpable under the law.

Because abortion is a statutory crime, in order for the prosecution to show the guilt of the accused through "legal proof," it is essential that each element of the crime be proved.<sup>75</sup> We have seen what the failure of the government to prove the element of pregnancy meant in the Argentine case, F., C. In the United States, a decision of the Supreme Court as to the burden of proof made it virtually impossible for an abortion statute in the District of Columbia, which had permitted them only if it was necessary to preserve the mother's life or health, to be enforced. In United States v. Vuitch, it was held that where a physician is charged with violating the abortion statute, the prosecution has the burden of pleading and proving beyond a reasonable doubt that the abortion was not "necessary for the preservation of the mother's life or health."<sup>76</sup>

In the case of Obeng v. The Republic,<sup>76a</sup> the appellant, a doctor originally charged for abortion but convicted of attempted abortion, based his appeal partially on the fact that the trial judge directed the jury to the effect that the law of Ghana "does not require that the prosecutor must prove that the abortion was caused by the means used." The Court of Appeal noted that the trial judge was "quite clearly" in error in his instruction, and went on to observe that for the crime of abortion:

. . . We think it the duty of the prosecution to establish, first, the intent to cause miscarriage

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<sup>75</sup>See generally, O. Lopez L., Manual de Derecho Procesal Penal (Santiago: Editorial Jurídica de Chile, 3d ed. 1961).

<sup>76</sup>402 U.S. 62 (1971). Nevertheless, the Penal Code of Paraguay contains an interesting provision which appears to reverse the burden on this issue. Article 352, paragraph 3 states:

However, any of these persons who can prove that he acted to save the life of the woman, endangered by the pregnancy or the child birth, shall be exempted from liability.

<sup>76a</sup>[1971] 2 Ghana Law Reports 107.

and secondly, the act or means used in furtherance of that intent.<sup>76b</sup>

But they let the conviction for attempt stand on the narrow ground that the trial judge clarified his instruction by stating to the jury that if they felt that the doctor gave the woman injections with the intent of causing abortion, they could convict him for attempt, intent being the important element of the crime of attempted abortion. Had the jury returned a verdict of guilty on the abortion charge a reversible error would have been made. It is clear nonetheless that the prosecution shoulders the burden of proving the crime.

With the advent of the new menstrual regulation techniques, the conclusion may be reached that it will be near to impossible to prove the

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<sup>76b</sup>Ibid., at 113. In the case of Boateng v. The State, [1964] Ghana Law Reports 602, the defendant admitted having given tablets a fifteen year old girl in the early stages of pregnancy. However, both testified at the trial that the tablets were a super vitamin pill called Avion. The prosecution asserted that the pills were actually Mensicol capsules which have abortifacient properties. There was medical evidence introduced which showed that a chemical analysis of blood discharged during the girl's subsequent miscarriage did not reveal the presence of the properties of Mensicol but rather did contain the properties of the vitamin tablets, plus a small quantity of quinine. But the judge rejected this evidence and found both guilty. The conviction was reversed on appeal because the prosecution failed to prove beyond reasonable doubt that the miscarriage was intentionally induced in the absence of lawful justification. The Boateng case raises two points of tangential interest. First, it points out a technique which may be used to advantage by both defendants and the prosecution if a test case arises over the use of the menstrual regulators, that of chemical analysis which would show the presence of prostaglandins in the fluid. The intriguing question is whether it is possible to distinguish between natural and synthetic prostaglandins (as explained earlier, prostaglandins are present naturally at the time of miscarriage). This will tend to render useless any chemical analysis, unless it is accompanied by an admission by the doctor that he administered prostaglandins. Second, quinine is cited by authorities in Sri Lanka as having abortifacient properties because it can increase uterine contractions, especially in the later stages of pregnancy. W. Fernando, Medico-Legal Aspects of Termination of Pregnancy, at 2 (Paper presented at Seminar on Law and Population in Sri Lanka, January 16-18, 1974). The evidence in the Boateng case indicated that the girl was given quinine periodically because she was an athlete at the school she attended. This apparently was a common practice and the miscarriage may have been linked to that though the court did not explore the possibility.

violation of an abortion statute.<sup>76c</sup> This is particularly true of statutes which contain a pregnancy requirement, but it may also affect prosecutions under the broadest French and English models, where intent is the key element. However, under the latter, convictions for attempted abortion may still be readily gotten, as the Obeng case aptly demonstrates.

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<sup>76c</sup>The increase in medical technology works here as a two-edged sword. Recently, a diagnostic blood test has been developed which is capable of determining pregnancy even before the woman misses her first period. According to Dr. Thomas Kosasa of the Boston Hospital for Women, the test, which is now undergoing test marketing in the United States, can confirm pregnancy within eight days of ovulation--about three weeks earlier than present tests--through the detection of the hormone human chorionic gonadotropin. The use of the test would make it more practical to limit menstrual regulation treatment to women who are actually pregnant. But the test would also create legal problems for the regulation techniques in countries with restrictive abortion laws because it would make it possible to determine pregnancy before the menstrual regulators could be used. Intercom, vol. 2, no. 1, Jan. 1974, at 9, col. 1. It has been stressed nonetheless that the technology required to perform such a diagnostic test is highly sophisticated, and it is unlikely that it will become available outside the developed world. Interview with Dr. Thomas Kosasa, March 29, 1974. See also, T. Kosasa, L. Levesque, D. P. Goldstein, and M. L. Traynor, "Early Detection of Implantation Using a Radioimmunoassay Specific for Human Chorionic Gonadotropin," Journal of Clinical Endocrinology and Metabolism 36(3); 622-624 (March 1973).

#### IV. IMPORTATION AND DISTRIBUTION OF MEANS FOR MENSTRUAL REGULATION

There is one other legal aspect with regard to the menstrual regulators which should be discussed. Statutes often forbid the importation, manufacture and distribution of so-called "abortifacients." Statutes like that now in force in France-- and thus throughout franco-phone Africa--make supplying the means, including sales of abortifacients, to induce an abortion a separate offense under the law.<sup>77</sup> West German law makes it illegal for a person to provide "a pregnant woman with the means or objects for abortion..."<sup>78</sup> The draconian laws relating to abortions in the Philippines forbid the importation of abortifacients.<sup>79</sup> The Pharmacy Law there prohibits the distribution of drugs or devices capable of inducing abortion.<sup>80</sup> Article 383, paragraph 6 of the Belgium Penal Code places an outright ban on "drugs or devices specially made to induce abortion or those announced as such."<sup>81</sup> Article 540 of the Lebanese Penal Code includes a provision to the effect that

[w]hoever sells, offers for sale, or acquires with intention to sell, materials prepared to cause abortion, or facilitates the use of such materials, regardless of means applied

is subject to criminal penalties.

These types of laws will certainly serve to inhibit the use of the menstrual regulating drugs or devices, if they are defined as "abortifacients." But reference to these laws raises a fundamental problem which involves the definition of abortifacients. According to our information, the World Health Organization (WHO) has no official definition for the

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<sup>77</sup>Article L. 647, paragraph 6 of Public Health Code (Law of July 31, 1920). In fact, in France, it is an offense to "incite" abortion through speeches, exhibitions, placards and mailings.

<sup>78</sup>See note 60 supra.

<sup>79</sup>Customs and Tariff Code, sec. 108(d). Rep. Act No. 1937 (1957).

<sup>80</sup>Rep. Act No. 5921 (1969). Under the Revised Penal Code, a pharmacist who, in the absence of a proper prescription from a physician, sells an abortive is subject to criminal penalties. Act No. 3815 (1930), art. 259, paragraph 2. Moreover, a pharmacist is required to keep a list of sales of drugs which have the capacity of inducing an abortion.

<sup>81</sup>Penal Code of June 20, 1923.

term "abortifacient device."<sup>82</sup> Recently, Dr. Mary Calderone of SIECUS and Mrs. Harriet F. Pilpel proposed a formula which would define as abortifacient

[A]ny drug or device which, when used with the avowed intention to produce an abortion, can produce an abortion.

Such a definition would make the classification of a drug or device as an abortifacient turn on the intent for which it was used. It has the advantage, then, of excluding the prostaglandins and the cannula when they are used for medically indicated rationales which are not aimed at abortion. Dr. Russell de Alvarez, a Professor at the Temple University Medical School and a member of the Committee on Terminology of the American College of Obstetrics and Gynecology, is presently circulating this definition:

[an abortifacient is] a device whose sole function and purpose is to terminate pregnancy.<sup>83</sup>

If that were to be the accepted definition of an abortifacient, it would seem that the multi-purpose drugs and devices would not fall within the category of abortifacients.

Another approach is to follow the rationale adopted by the American Law Institute in the Model Penal Code, which the U.S. Supreme Court relied on heavily in Doe v. Bolton, in defining "pregnancy." Paragraph 7 of Section 230.3 (Abortion) of the Code provides:

Nothing in this Section shall be deemed applicable to the prescription, administration, or distribution

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<sup>82</sup>Letter on file at Law and Population Programme from Dr. Jean de Moerloose, Chief of Health Legislation, World Health Organization. WHO does, however, have an official definition for induced abortion which may well affect any attempt to define "abortifacient."

Induced abortions are those initiated by deliberate action undertaken with the intention of terminating pregnancy.

WHO, Technical Report Series No. 461, at 8 (1970).

<sup>83</sup>Letter on file at Law and Population Programme.

of drugs or other substances for avoiding pregnancy, whether by preventing implantation of a fertilized ovum or by any other method that operates before, at, or immediately after fertilization. (Emphasis supplied.)

Accordingly, prostaglandins and the cannula will not be considered as "abortifacients" if they are administered prior to the implantation of a fertilized ovum though after conception, if such an occurrence is possible.

While these definitions may not be acceptable to all, it should be stressed that the restrictive abortion statutes, premised, as they are, on nineteenth-century reasoning, did not anticipate the introduction of these recent technologies. In essence, they are unable to cope with ambiguities presented by the advancements in medical technology. Most abortion laws were originally premised on the theory that pregnancy begins at conception. Medical science now teaches us differently, that pregnancy really begins at some point after nidation. Despite the clear indication in the West German Code that as far as law is concerned, life begins with conception, the prevalent legal thinking in that country is that one cannot speak of a violation of the abortion statute if there is no implantation of the fertilized ovum in the uterine wall. This shift is based on the recent biological data which indicates that it is illogical to speak of pregnancy at any time prior to nidation.<sup>84</sup>

The recent proposals for revision of the German Criminal Code go somewhat further. This can be seen in the Alternativ-Entwurf, the alternative draft of the criminal code based on modern legal and criminological thinking. The draft has had a decisive and immediate influence on the development of proposals for abortion law reform in Germany, where there has been an attempt to decriminalize early interruption of pregnancy, a reflection of the international trend. Decriminalizing the interruption of pregnancy during the first four weeks, as explained in the Alternativ-Entwurf in 1970, is justified

[B]ecause the origin of life, according to contemporary views, is not an event which happens at a certain moment--e.g., at conception or at nidation-- rather it is a process accomplished gradually in

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<sup>84</sup>Kaiser, "Einfluss der Fortschritte der Biologie und der Medizin auf das Strafrecht" (Impact of the Progress of Medicine and Biology on Criminal Law), in Deutsche Strafrechtliche Landesreferate zum VIII Internationalen Kongress für Rechtsvergleichung, Pescara 1970, at 17-23 (Berlin: Walter de Gruyter, 1971).

several phases. In order to allow the use of those means which, being on the borderline between contraception and interruption of a pregnancy are, in the view of the society, classified among the former, the Alternativ-Entwurf proposes that interventions into the process of development during the first month after conception be completely excluded from the field of criminal law. Not the least of the reasons for this proposal is the fact that during this period--with respect to the problems of mens rea (intent)--such interruptions cannot as a rule be proved by means of legal medicine, therefore, criminal responsibility is based merely on chance ("Zufallshaftung").<sup>85</sup>

In the United States, the Uniform Abortion Act defines abortion as the "termination of a human pregnancy with an intention other than to produce a live birth or to remove a dead fetus."<sup>86</sup> But the legal question remains, when is a woman pregnant? The Supreme Court shied away from answering such a question by observing: "When those trained in the respective disciplines of medicine, philosophy, and theology are unable to arrive at any consensus, the judiciary, at this point in the development of man's knowledge, is not in a position to speculate as to an answer."<sup>87</sup> But the court took note of the fact that the problem with the life-begins-at-conception theory is that the latest medical information now indicates as mentioned above, "that conception is a 'process' over time, rather than an event" which can be pinpointed with exactitude.<sup>88</sup>

As a result of this new information, the legal perceptions relating to pregnancy and abortion are changing. For example, the draft abortion laws now pending before the German Bundestag, all state that the abortion legislation does not apply until after the fourteenth day from conception, that is until implantation of the fertilized ovum in the wall of the

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<sup>85</sup>J. Baumann, et. al., Alternativ-Entwurf eines Strafgesetzbuches. Besonderer Teil. Straftaten gegen die person. Erster Halbband, at 31 (Tubingen, 1970).

<sup>86</sup>58 American Bar Association Journal 380 (1972).

<sup>87</sup>Roe v. Wade, 93 S.Ct. 705, 730 (1973).

<sup>88</sup>Ibid., at 731.

uterus is assured.<sup>89</sup> Such a change was triggered by advances in the medical technology with respect to the IUD, and serves to emphasize how twentieth-century technology is affecting the legal standards for abortion.<sup>90</sup> If the adoption of such a formula were to take place in other countries with restrictive laws, it may have the effect of exempting menstrual regulators also. It is an interesting irony, though altogether fitting, that improvements in medical techniques are about to affect abortion laws, for they were initially enacted, according to legislative histories, for medical reasons.

In the absence of further information, an argument may be made that the menstrual regulators fall within the definition of typical contraceptive functions, as do the IUD and the "morning after pill." Indeed, there are some indications that the prostaglandins have the potential of being used as a "once-a-month" contraceptive pill.<sup>91</sup> If this comes to be so, the line between contraception and abortion will certainly become less clear. Perhaps these new methods will merely be classified as methods for the prevention of pregnancy, with no attempt being made to say whether they are either contraceptives or abortifacients. There is some evidence that they will be referred to merely as "post-conceptive" methods for regulating fertility.<sup>92</sup>

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<sup>89</sup>The bill proposed by the Social Democrats, Deutscher Bundestag, Drucksache 7/375 (March 21, 1973), would make abortion readily available during the first trimester, a view similar to that taken by the U.S. Supreme Court. The Conservative Party bill maintains the criminal sanction that now exists for abortion, but would cease to punish the pregnant woman who seeks an abortion. Deutscher Bundestag, Drucksache 7/443 (March 4, 1973). Other drafts may be found in Deutscher Bundestag, Drucksache 7/554, 7/561.

It is noteworthy that there is a move afoot, largely under the sponsorship of religious groups, in the United States to override the Supreme Court's abortion decision. The so-called Hogan Amendment would ban all abortions by declaring the fetus a legal person from the moment of conception. This would possibly affect the use of IUD's and morning after pills. The second proposed amendment, introduced by Senator Buckley, would ban all post-implantation abortions. The Senate Judiciary Committee began hearings on the Constitutional Amendments on March 6, 1974.

<sup>90</sup>See note 24 supra.

<sup>91</sup>Speroff, supra note 2, at 429-433. Both the prostaglandins and the cannula aspirator have the potential of being self-administered. This fact will raise a new set of legal questions.

<sup>92</sup>This was the term used for such methods at the Seminar on Voluntary Sterilization and Post-Conceptive Regulation, sponsored by the South East Asia and Oceania Regional Office of the International Planned Parenthood Federation, in Bangkok, 30 January - 2 February 1974.

## V. CONCLUSION

In summary, the development of modern methods of birth control has come upon us so rapidly that human beings appear to be on the threshold of acquiring complete, safe control over their reproductive habits. The addition of prostaglandins and the cannula aspiration technique have strengthened this capability. Both have the potential of eliminating any product of conception which may have begun developing, though the persons using the techniques may not be certain of its existence. The tough question is whether this is abortion within the meaning of the criminal law. Should they be classified as abortifacients or characterized as post-coital contraceptives as is the case with the IUD? They are, after all, methods for avoiding the diagnosis of pregnancy. Thus, it would seem that in certain respects the traditional theories of contraception and abortion have come to overlap one another.

The development of the IUD has given rise to a reappraisal of the legal notion that life begins at conception. The recent revisions of the world's abortion laws may have the effect of returning us to the pre-nineteenth century rule that the legal definition of abortion does not apply until "quickening." This is in essence what is happening wherever the laws are being liberalized. The introduction of these new menstrual regulation techniques may provide impetus for further revisions of the criminal codes. These could take two forms: either the narrow restrictions in the penal codes regarding abortion will be widened or, as happened in France in 1939, they will stimulate efforts to tighten the laws by eliminating the necessity of proving certain facts, such as pre-existing pregnancy. The proposals now before the Bundestag, which exempt from the abortion statute fertility control methods used within fourteen days of conception may prove to be the wave of the future in countries with restrictive abortion statutes.

Since the criminal justice systems throughout the world operate not so much on probabilities as on certainties, and since the mere use of the new techniques yields nothing certain as to the intent or to the existence of a state of pregnancy, one may conclude that, barring new legislation specifically making the use of these techniques illegal, their use in most cases will not violate the existing criminal abortion statutes. Moreover, the methods may certainly be used, even in the most restrictive of countries, where they are used to perform abortions under one of the permissible exceptions to the general ban, such as in the case of ensuring a non-pregnant state where there is a possibility of pregnancy resulting from rape,<sup>93</sup> or to complete an "botched" abortion which must be treated to

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<sup>93</sup>Typical of this has been the report of the extensive use of the cannula aspirator to treat the large number of Bangladesh women who had been raped by Pakistani soldiers during the civil war in 1971. Intercom, vol. 2, no. 1, Jan. 1974, at 9, col. 2.

protect the life of the woman.

Lastly, we are reminded by Tietze and Lewit that abortion "is still the most...widespread method of fertility control in the modern world."<sup>94</sup> But despite the widespread reliance on the method, it is also the one which poses the greatest threat to the life of the expectant mother, particularly where the abortion is performed clandestinely. Legal implications aside, the menstrual regulators have the capability of eliminating many of the "sociol-psychological problems" which have traditionally been associated with abortion.<sup>95</sup> This again due to their early "contraceptive type" function. Moreover, they appear to offer a considerable improvement not only in the area of safety but also in effectiveness.

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<sup>94</sup>Tietze and Lewit, "Abortion," Scientific American, vol. 220, no. 1, Jan. 1969, at 21.

<sup>95</sup>See comments of Dr. Miriam Birdwhistell in The World Population Crisis: Policy Implications and the Role of Law 31 (J. Paxman ed. 1971) (Papers and Proceedings of a Regional Meeting of the American Society of International Law and Symposium of the J. B. Moore Society of International Law held at the University of Virginia School of Law, March 12-13, 1971).

## APPENDIX A

### HISTORY, PRESENT STATUS AND APPLICATIONS OF MENSTRUAL REGULATION\*

Theresa H. van der Vlugt\*\*

#### I. INTRODUCTION

Menstrual regulation, a new and promising method of fertility control, is moving rapidly into the present gap between "foresight contraception" and "hindsight abortion." Still so new that researchers and practitioners cannot agree on a name, menstrual regulation is known also as menstrual induction; menstrual planning; menstrual aspiration, a term used by the American College of Obstetricians and Gynecologists; endometrial aspiration, which implies a diagnostic procedure; preemptive or mini-abortion, which implies intervention before pregnancy is established; interception; or atraumatic termination of pregnancy. The U.S. Supreme Court in its January 1973 decision legalizing early abortion used still another term: "menstrual extraction."

The procedure itself is not unlike inserting an intra-uterine device (IUD). In both cases, the operator first inserts a small tube through the cervix into the uterus. If an IUD is being inserted, the operator pushes a plunger-like device through the tube, thus depositing the IUD within the uterus. On the other hand, if menstrual regulation is being performed, the operator applies a vacuum at the proximal end of the tube, thus pulling out or aspirating the lining of the uterus which would normally be shed in menstruation.

#### II. HISTORY

The cannula and syringe used today for menstrual regulation has a most unlikely ancestor. Two hundred and forty years ago an almost identical cannula and syringe was used to baptize unborn babies when it was

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\*This paper was first presented at the Menstrual Regulation Conference sponsored by The University of Hawaii Schools of Public Health and Medicine, Honolulu, Hawaii, December 16-19, 1973, and is reproduced here with the permission of the author.

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apparent that the mother was dying in childbirth. This eighteenth century equivalent injected holy water into the uterus of the dying woman.

While Roman Rituals directed the baptizing of the child after some part or other of the child's body was visible, the Doctors of the Sorbonne, deliberating on April 10, 1733, determined that "tho' no part of the child's body should appear,--that baptism shall, nevertheless, be administered to it by injection,--par le moyen d'une petite Canulle, Anglicè a squirt." 20

Gynecological instruments such as dilators, vaginal specula, probes and forceps are described in early Roman and Greek writings and were found in the ruins of ancient Pompeii, but there is no evidence that aspiration was used in a gynecological procedure before the mid-1800s. The fact that during the middle ages leeches were utilized to draw blood may, however, have prompted some early approaches to uterine aspiration. During the 1860s, for example, Sir James Young Simpson, Queen Victoria's obstetrician and professor of midwifery at the University of Edinburgh in Scotland, lectured to his students on the use of a tube and syringe in placing leeches on the cervix:

. . . I usually prefer making use of a narrow bone, or ivory, tube, such as was first used in this country by Dr. Mackintosh. It is simply a bone or ivory tube--or it may be of wood or glass as well--of about 3/4 of an inch in diameter and furnished with a loosely fitting piston. The leeches having been put into the tube, and the tube passed up to the roof of the vagina, the piston is pushed forward and the leeches are driven into the upper part of the cavity. They fix very speedily upon the surface of the cervix uteri and roof of the vagina and fill rapidly . . . . 19

A more direct precursor of present-day techniques, however, is found in Simpson's description of an exhausting syringe used inside the uterus to bring on menstruation:

Some years ago I became strongly impressed with the idea that if we had any means of, as it were, dry-cupping the interior of the uterus, so as to draw the blood in larger quantity to the surface of its lining membrane, we might, perhaps succeed frequently, in some varieties of amenorrhea, in exciting the uterus to the resumption of its functions and effect a temporary relief in the condition of our patient similar to that produced by leeches applied to the cervix uteri and elsewhere, but superior to it in being a more perfect imitation of nature's mode of relief, and not likely to be attended with so much general deterioration of the system. With this view, I have made frequent use of a tube resembling in length and size a male catheter, with a large number of thickly-set

small orifices stretching along for about two inches from its extremity, and having an exhausting syringe adapted to its outer and lower extremity, by which the air could be withdrawn after it had been introduced into the cavity of the uterus.

The use of this instrument is in some cases attended with striking results. It usually happens that after a few strokes of the piston of the syringe, and the retention of the instrument for two or three minutes in utero, a small quantity of blood is found in the tube of the instrument after its withdrawal. For it does not exactly operate as a mere dry-cupping apparatus congesting the lining membrane of the uterus. More generally the exhaustion of the syringe draws the mucous membrane of the uterus so much through the numerous small orifices which perforate its uterine extremity, that these congested and constricted points yield a little blood . . . .<sup>19</sup>

Aspiration of the uterus for the purpose of preventing pregnancy was first reported on by Dr. S.G. Bykov of Russia in 1927.<sup>4</sup> Like Simpson, Dr. Bykov used a simple hand-operated syringe to irritate the mucosal lining of the uterus and subsequently cause menstruation. Dr. Bykov developed a crude vacuum aspirator by fitting a hollow, cone-shaped tube over the end of a simple syringe. He used his new invention to prevent pregnancy in 25 women aged 18-41. The procedure, as he described it, was not difficult. First, he inserted the tube into the patient's uterine cavity. Then, by pulling the plunger of the syringe, he created a suction or negative pressure (40 cm mercury) which irritated the mucosal lining of the uterus and within a few days caused normal menstruation. The entire process took less than ten minutes, caused no complications and could be repeated later if menstruation did not occur. Dr. Bykov recommended his procedure once monthly, 5-7 days before menstruation, as the safest family planning method available.

In the early 1930s, Dr. John Rock, in his studies of the human endometrium, found that by attaching a syringe to a cannula minus its rounded tip, he could aspirate bits of mucosa without discomfort to the patient. Dr. Rock credits a medical student, whose name unfortunately is unknown to this date, for suggesting use of a special cannula equipped with a sharp-edged curved hood. Sizable strips of mucous membrane could be drawn into the cannula's lateral aperture with minimal and sometimes no suction and without appreciable bleeding or pain.

The modern combination of electrical suction with curettage dates from 1935 when Dr. Emil Novak developed a specialized metal curet with an electric suction attachment. This "endometrial suction-curet" was used to test for ovulation, that is, to determine the presence of secretory endometrium. Dr. Novak's suction-curet contained lateral openings with saw-toothed edges. Disclaiming personal credit for his invention, Dr. Novak pointed out that electric suction pumps have been used in the past (Dr. Bela Lorincz of Hungary reported on such usage in 1934). Novak praised the technique, noting that it is "usually possible to

curet a uterus very thoroughly by this method, without anesthesia and without noteworthy discomfort to the patient."

Nevertheless, the procedure was little discussed until 1958, the year in which three Chinese physicians, Drs. Y.T. Wu and H.C. Wu, who were working together, and Dr. K.T. T'sai, reported on the method as a means of terminating pregnancy.

Additional progress toward menstrual regulation came in the late 1960s from two nonmedical sources--the plastics industry and a California psychologist, Dr. Harvey Karman. The plastics industry developed flexible polyethylene tubing which, when modified by Dr. Karman and attached to a syringe that he fabricated, became the instruments (the cannula and syringe) of menstrual regulation. Early in 1971 at a symposium on abortion at the University of California (Los Angeles), Dr. Karman discussed with Dr. Ronald J. Pion, now at the University of Hawaii, the feasibility of utilizing the new instruments for inducing a late menstrual period. That fall Dr. Pion and several of his colleagues published the first scientific paper to appear on the subject of "inducing menstrual periods within one or two weeks following a missed menstrual period."

### III. PRESENT STATUS OF MENSTRUAL REGULATION

As with all changes, there has been a lag between idea and implementation. In 1970 - 1971 menstrual regulation was a new concept hampered by a status quo attitude which demanded that a positive pregnancy test precede pregnancy termination. Obviously under such circumstances, there could be no implementation because, by definition, menstrual regulation must be done within the two-weeks following a missed menstrual period--the same period which must elapse before an accurate determination of pregnancy can be made.

Attitudes are different today, however. Menstrual regulation has now been recognized for what it is--an interim method of establishing nonpregnancy for the woman who is at risk of being pregnant. Whether or not she is in fact pregnant is no longer the issue (see Figure 1).

Although there is still a dearth of published literature dealing with menstrual regulation, early reports indicate that the procedure has many advantages:

- The technique is simple and safe;
- It can be performed by a trained paraprofessional as well as a physician;
- Determination of pregnancy is not necessary;
- Complications are minimal;
- Side effects, immediate or long-term, are minor or nonexistent;
- The procedure can be provided on an outpatient basis and requires only a few minutes;

- General anesthesia is not needed;
- Equipment is simple and inexpensive;
- Cost to the patient is low—about \$35 in the United States and even less elsewhere;
- Finally, the procedure provides reasonable assurance of a nonpregnant condition several weeks before standard pregnancy tests can be used reliably.<sup>22</sup>

Although the method undoubtedly has great potential, some questions are being raised (both by advocates and opponents of the procedure) which cannot as yet be answered with certainty. For example, can paramedical personnel really be trained to perform the procedure as effectively as obstetricians, gynecologists, or other physicians? Should pregnancy tests be required, since in a nonpregnant woman the procedure is unnecessary medically? Is hand- or foot-operated equipment better than electrically powered aspirators? What is the optimal size cannula that can be used for complete evacuation of the uterus without injury to the cervix? Can a woman undergo the procedure repeatedly without adverse reactions or future problems? Can women be taught "to regulate their own menses" by using this technique at home? What is the optimum period during which menstrual regulation can be performed safely and effectively? Future research and experience with the technique will provide answers to these questions.

Menstrual regulation as it is performed today involves the use of a transparent, flexible polyethylene cannula with a rounded tip which can be inserted with or without cervical dilatation and with or without cervical stabilization. The products of conception are drawn from the uterus through two sharp lateral, triangular-shaped openings located on opposite sides of the distal end of the cannula. The convex hood which overhangs each opening acts as a curette. Because they are flexible, these plastic cannulae minimize the risk of injury to the uterus.<sup>22</sup>

The suction used for menstrual regulation may be provided by a hand aspirator (syringe), a hand- or foot-operated pump, or an electric vacuum apparatus.

A hand aspirator developed by the Battelle Memorial Institute in the State of Washington is being tested in several menstrual regulation studies now in progress. This aspirator which features a 50 ml syringe capable of producing a vacuum of 25 inches of mercury at sea level, includes a simple easy-to-operate pinch valve, a piston-locking handle, and a stop to prevent inadvertent withdrawal of the piston from the syringe.

Research data dealing with the use of various techniques and instruments for menstrual regulation are already being processed by the International Fertility Research Program (IERP), Carolina Population Center, University of North Carolina. Information from 22 countries, including Bangladesh, England, India, Korea, and Singapore, Egypt, Iran, and the

United States is now being gathered and analyzed. To date this study has covered approximately 2000 patients. There have been no deaths and results have been generally favorable. <sup>3</sup>

In an informal telephone survey conducted by this author during November 1973, 28 selected physicians in six states reported performing a total of 7800 menstrual regulation procedures. Although this figure indicates acceptance of the procedure it cannot be interpreted within a given time perspective: some physicians reported on a three-month total, others on a period ranging up to two years.

Although cursory in methodology and heresay in nature, the survey did yield a few bits of interesting information:

- 1) Hand-operated sources of suction are used most often;
- 2) The failure-to-terminate rate did not exceed 2 percent;
- 3) Endometritis and incomplete aspiration with prolonged bleeding were the major complications.

According to staff personnel polled during these conversations, it appears that patients learn about menstrual regulation from a variety of sources. The sources mentioned most frequently were newspapers and magazines, friends and relatives, and abortion referral agencies.

At present, physicians in 45 out of the 50 states accept patient referrals for menstrual regulation. <sup>8</sup>

Although suction methods of menstrual regulation have received most attention there is now increased interest in the use of prostaglandins for this purpose. For example, Dr. A.I. Csapo at Washington University in St. Louis, Missouri, has induced nonsurgical "delayed menstruation" with a single intrauterine injection of prostaglandin. <sup>5,12</sup> Using a single dose of 5 mg of prostaglandin F<sub>2α</sub> Csapo successfully induced bleeding in 50 patients. For these patients the onset of bleeding occurred  $4.6 \pm 0.5$  hours after "prostaglandin-impact" (PGI). In 15 patients who received 1 mg of prostaglandin E<sub>2</sub>, bleeding began  $6.2 \pm 0.4$  hours after PGI (see Table 1). The only complications reported were single episodes of vomiting in 17 patients immediately following the treatment; and in one patient a transient increase in blood pressure. <sup>12</sup>

Even though Dr. Csapo's sample was small and his results subject to some skepticism, we must remain optimistically skeptical. Only future research can tell us whether or not a single prostaglandin "shot" holds the key to effective menstrual regulation.

#### IV. APPLICATION

Although uterine aspiration has proven successful in emptying the uterus when menses is delayed, it may also be important as a diagnostic

and therapeutic tool. Dilatation and curettage (D&C), the traditional gynecologic procedure used for this purpose, requires general anesthesia and therefore hospitalization. Uterine aspiration, however, can be performed on an out-patient basis.

Research has demonstrated that uterine aspiration used for diagnostic and therapeutic purposes is comparable in effectiveness to conventional curettage.<sup>1,6,9,10,11,14</sup>

Used for diagnosis of menstrual disorders, cytological abnormalities and infertility, uterine aspiration is being practiced widely-- in hospital clinics, group health clinics, medical centers, and in private physicians' offices. Only in the removal of polyps have difficulties been encountered.<sup>2,6</sup>

For the most part, uterine aspiration is being used therapeutically for completing incomplete abortions. Felshie and Marshall have pointed out that prompt aspiration following incomplete abortion decreases blood loss, shortens hospital stay and minimizes the risk of secondary pelvic infections.<sup>7,11</sup> Uterine aspiration is contraindicated, however, in septic abortion until there has been adequate antibiotic coverage.<sup>11</sup>

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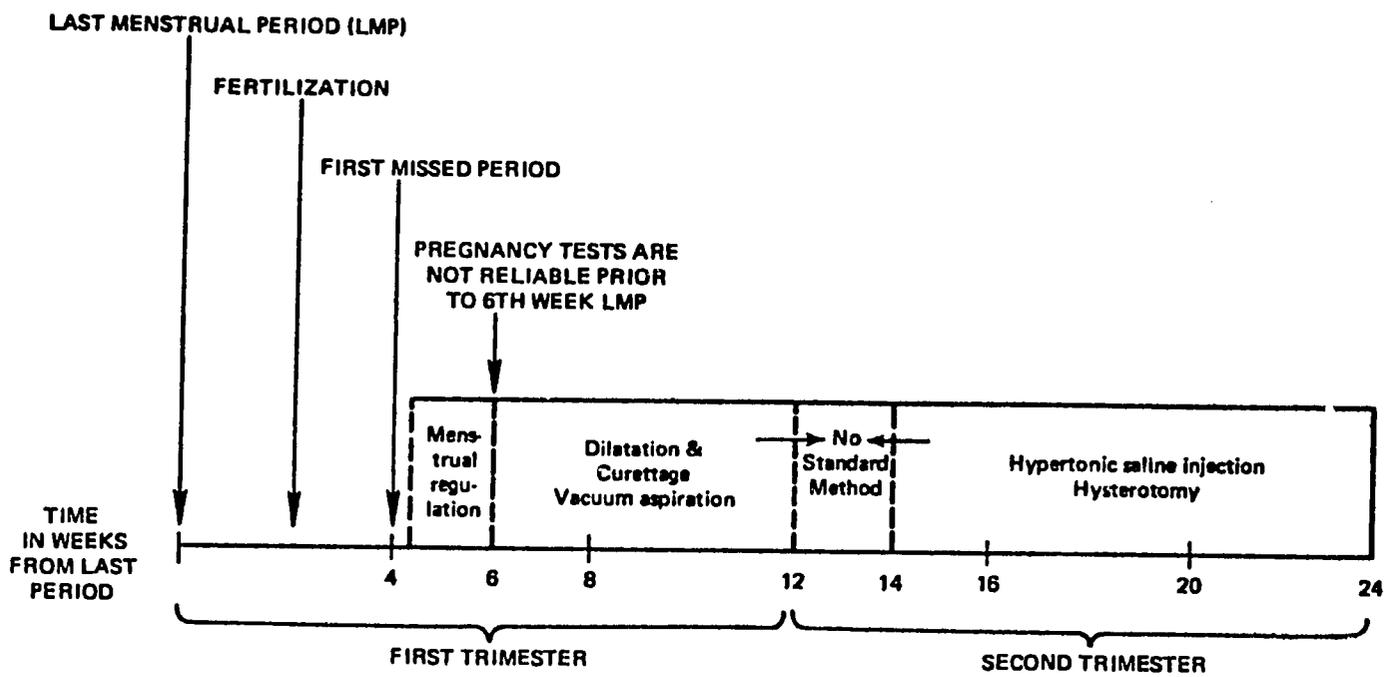


Fig. 1. Methods of Pregnancy Termination by Weeks of Pregnancy

Table I -- The Efficacy of the "Prostaglandin Impact" Within Two Weeks of the Missed Menstrual Period

Number of Patients	Menstruation Delay Days	Pregnancy Test	Treatment	Bleeding after PG Impact		Pregnancy Test Day 10	Menstruation after PG Days
				Onset Hours	Duration Days		
50	11.0 ± 1	Positive in all	PG F2 $\alpha$ , 5mg	4.6 ± 0.5	11.1 ± 0.5	Negative in all	31.6 ± 0.4
15	11.0 ± 1	Positive in all	PG E2 ,1mg	6.2 ± 0.4	10.1 ± 0.8	Negative in all	31.5 ± 0.7

Source: MOCSARY, P, and CSAPO, A. I. "Delayed menstruation" induced by prostaglandin in pregnant patients. Lancet 2(7830): 683. September 22, 1973.

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