

Management of  
Unintended and  
Abnormal Pregnancy  
Comprehensive Abortion Care

This book is dedicated to family planning and abortion providers throughout the world whose expertise, courage, and commitment make such a difference in women's lives.

# Management of Unintended and Abnormal Pregnancy

## Comprehensive Abortion Care

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# Foreword

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No topic engenders more heated controversy in the USA and elsewhere in the world than induced abortion, and this conflict is not likely to be resolved in the foreseeable future. Those who feel that life begins at fertilization or implantation, and that abortion at any stage of development is the equivalent of murder, will not compromise their strong views. Similarly, those who defend a woman's right to control her body and to decide whether to continue or terminate a pregnancy will not moderate their strong views. Other than supporting better programs to prevent unwanted pregnancies (and even here, a subset of those opposed to abortion also objects to all modern forms of contraception), no real common ground exists between these opposing points of view, despite many attempts to search for some means of communication between the two.

Notwithstanding prevailing religious, moral, or cultural attitudes toward abortion, women who do not wish to be pregnant for whatever reason will attempt to terminate the pregnancy, regardless of the risks involved [1]. Worldwide, approximately 42 million abortions occur annually, and 20 million or more are performed under unsafe, usually illegal, circumstances [2]. Furthermore, the World Health Organization estimates that between 65,000 and 70,000 women die each year from unsafe abortion, and 5 million more suffer from complications of hazardous or botched abortions, most taking place in the developing world and primarily in those countries in which abortion is illegal [2].

In the USA in the late 1980s, data from the National Survey of Family Growth (NSFG) showed that nearly 60% of all pregnancies were unintended at the time of fertilization [3]. Thus, over 3 million pregnancies per year were unintended and 45% of these pregnancies, or 1.4 million, ended in abortion. Approximately half of all unintended pregnancies in the USA still end in abortion, resulting in approximately 1.2 million induced abortions each year. Moreover, the most recent NSFG data from 2002 demonstrated a notable increase in the proportion of births to women who wanted no more children (approximately 14% as compared to 9% in the 1995 data) [4]. According to Finer and Henshaw, "between 1994 and 2001, the rate of unintended pregnancy declined among adolescents, college graduates, and the wealthiest women, but increased among poor and

less educated women" [5]. Thus, women with the least resources bear a disproportionate burden of unintended pregnancy and its consequences. Although many assume that teenagers have the majority of abortions in the USA, they actually account for less than one-fifth of all abortions, the remainder taking place among women over age 20.

In close to half of those women experiencing an unintended pregnancy, the woman or her partner regularly used a contraceptive method, but for a variety of reasons, it was not used on that occasion or it failed. Similarly, approximately 54% of US women who had an abortion in 2000–2001 had been using a contraceptive method during the month they conceived [6]. Despite the relatively large number of highly effective reversible contraceptive methods on the market, none meets the needs of all couples. The most effective ones (intrauterine devices, injectables, and implants, which have failure rates essentially equal to a sterilization procedure) all have drawbacks or are associated with misperceptions that limit their use. Oral contraceptives, the most widely used reversible method of contraception, carry failure rates of 6 to 8% in actual practice. The advent of emergency contraception is an important advance, providing an option for those women who have unexpected mid-cycle intercourse.

Clearly, a need for abortion services in the USA and worldwide will continue. Nonetheless, those who provide abortion care are subject to harassment and violence, as well as subtle condemnation from many of their medical colleagues. Since 1993 in North America seven people have been murdered in connection with their work at reproductive health clinics, and five more were shot and wounded, some in their homes.

Over the past decade, training of obstetrics and gynecology residents has increased due to various advocacy effects and to guidelines established in 1996 by the Accreditation Council for Graduate Medical Education (ACGME) that direct ob-gyn residency programs to include experience with induced abortion [7]. A recent survey, however, indicates that only about half of the obstetrics and gynecology residency programs in the USA offer abortion training as a routine component of their curricula. Compared to residents in programs that offer only optional training, those in programs

with routine training are more likely to learn a variety of abortion techniques and to perform a greater number of procedures [8]. Given the “graying” of experienced abortion providers in the USA, continued efforts to enhance training opportunities for a range of practitioners will be crucial to ensuring that women have the means of exercising their right to safe abortion care.

Due to myriad factors, including the shortage of abortion providers and state and federal restrictions on abortion, many areas of the USA lack abortion services. As a result, many women travel considerable distances in order to obtain abortions. In some states, services are severely limited, and a few dedicated clinicians travel by plane to different clinic settings on a regular, repeating schedule. This situation is extraordinary in a country in which abortion is legal and in which over 40,000 obstetrician-gynecologists practice.

Access to safe abortion services is an urgent need in the developing world as well, particularly in countries throughout Asia, Africa, and Latin America, where an estimated 68,000 deaths occur each year due to unsafe abortion procedures. Many more women (20 to 50% of those undergoing unsafe abortion) suffer from life-threatening complications [9]. All too often, those who survive are permanently scarred by these procedures that take place in hazardous and unsanitary conditions.

Globally, many developing world nations are characterized by limited resources, few physicians, and almost no obstetricians. In these areas where need is greatest, abortion service providers and their patients are unfairly stigmatized and subjected to violence and coercion. These threats to reproductive freedom are exacerbated by the persistence of laws banning abortion procedures throughout much of the developing world. Unfortunately, laws denying reproductive freedom are not unique to developing countries, as evidenced by the recent US Supreme Court decision upholding a ban on certain second-trimester procedures [10].

Violence against women is another area of serious global concern, affecting one in three women and girls worldwide. In sub-Saharan Africa, Asia, and Latin America, teenage women are at particular risk; they are often subject to forced sexual intercourse, which can result in unwanted pregnancies and the transmission of sexually transmitted infections and HIV/AIDS. Many women who are subject to forced sex seek abortion in order to avoid carrying resulting pregnancies to term. Women confronted by these circumstances all too often lack the resources to access safe abortion services, or they face a legal system in which abortion is denied. Women are subsequently forced to self-induce or seek out unsafe and illegal abortion providers, placing their lives at serious risk.

Global advocacy efforts must focus on changing laws and formulating national policies that respect reproductive freedom and a woman’s right to choose as a matter of basic human rights. In rural areas where access to services is

scarce and few obstetricians are available, training community health workers in manual vacuum aspiration and early medical abortion is critical. Even in the case of India, where abortion services are generally legal, the lack of trained personnel remains a critical public health challenge.

If we are to attempt to increase the availability of abortion services, we need an up-to-date and comprehensive guide for clinicians who will be providing medical or surgical abortion services. This publication is an outstanding response to this need. It is edited by a group of committed physicians, all of whom have extensive experience in the provision of abortion services. The opening chapter offers a rich historical review and an analysis of the role of mainstream medicine in abortion care. Chapter 2 introduces a new and critical addition to the revised text, providing a comprehensive overview of the global public health implications of unsafe abortion. Chapters 3 and 4 address fundamental public health, legal, and policy-related issues associated with abortion provision in the USA. The book is then divided into sections on pre-procedure care; abortion methods and techniques, which includes five chapters covering all aspects of medical and surgical abortion procedures; postprocedure care; management of abnormal pregnancies; and abortion service delivery.

Chairs and residency program directors in obstetrics and gynecology and family medicine, as well as other leaders in the field, are increasingly recognizing the need to increase the training of residents in family planning and abortion care. Moreover, where the law allows, efforts are under way to enhance training and utilization of nonphysician clinicians in early abortion provision. This new and revised text can have a truly significant impact on training, providing clinicians and educators with the means, clearly and simply presented, to develop effective training opportunities for diverse practitioners. In addition, new chapters on the global restrictions and implications of abortion broaden this critical subject matter to include an often-overlooked dimension of women’s health and rights in resource-poor countries. I hope that those in charge of residency programs and other health profession educators, both domestically and globally, will review and use this most important text as they strive to prepare future generations of providers to meet the health care needs of women.

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# Foreword

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Think outside the box, or perhaps more accurately, inside the pouch. Let us suppose that the big-brained, technically competent mammal ruling the globe was not a hairless primate but a marsupial. No laws on abortion would exist. The female who wanted to end an early pregnancy would look into her pouch and simply remove an unintended early embryo. Alternatively, perhaps more plausibly, suppose that rhubarb were a totally effective abortifacient without side effects. Then every farm since the dawn of civilization and every contemporary window box would grow the plant, and women would make an appropriate brew whenever they decided against continuing an early pregnancy.

Worldwide women do attempt to terminate their own pregnancies with mechanical or chemical means, but commonly at great danger of perforation and infection. In part the laws, guidelines, attitudes, and controversy that surround abortion derive from the fact that a woman who wishes to end a pregnancy must seek the assistance of a second party, a health professional who is appropriately trained in safe abortion techniques. Although there is still a long way to go, technology is moving closer to putting the abortion decision where it belongs – in the hands of the woman.

*Management of Unintended and Abnormal Pregnancy: Comprehensive Abortion Care* achieves two goals. First, it spells out the scale of safe and unsafe abortion, both in the USA and globally. Second, it reviews the best surgical and medical practices for managing ectopic and other abnormal pregnancies, for inducing a safe abortion, or treating the complications of abortion. In each case, it does so in a humane, sensitive, woman-centered context. The editors and many of the authors also produced *A Clinician's Guide to Medical and Surgical Abortion* [1], published in 1999. A comparison of the two books reveals an important overarching theme, namely that best practices have moved much nearer to the ultimate goal of enabling a woman to decide, safely and responsibly, if and when to terminate an unintended pregnancy.

In the preface to *A Clinician's Guide*, I expressed fear about the rising mean age of US physicians providing abortion care. Today, although the problem has not totally disappeared, a new generation of abortion providers has emerged. This change is due in large part to the Kenneth J. Ryan Residency Training Program in Abortion and Family Planning,

which provides support for residency training in these areas, and the Fellowship in Family Planning, which is producing a new cadre of physician leaders with clinical and research expertise in contraception and abortion. The older generation of providers in North America and Western Europe was largely male, often motivated to provide safe abortion by the hypocrisy, exploitation, pain, death, and damage they had witnessed when abortion was illegal. Most new providers are women. Fortunately, they know the central role abortion plays in the autonomy of women without ever having to care for a patient with a fulminating infection following an attempt to induce an abortion by pushing a stick through the cervix, or having had to reanastomose a small intestine that had been pulled through a uterine perforation sustained during a clandestine abortion. This new cohort of abortion providers simply respects the decisions of those they have the privilege to care for; shares objective information about the risks and benefits of the various options available; and then, if requested, completes a safe abortion with skill and the least discomfort possible. The intelligent marsupial will of course remain a fantasy, but step by step, we are approaching a reality in which a woman can terminate a pregnancy in the most straightforward way possible.

Manual vacuum aspiration continues to be an exceptionally safe and simple way of performing a first-trimester abortion. Ten years ago, medical abortion was still a novelty; but as this book documents, a large and compelling evidence base now exists on the effectiveness and safety of mifepristone and misoprostol for inducing an early abortion, and on the use of misoprostol alone for treating incomplete abortion or fetal demise. Both mifepristone and misoprostol are now off patent, making high-quality generic products increasingly available in many developing countries. In low-resource settings, misoprostol also has a life-saving potential in the treatment and prevention of postpartum hemorrhage and its availability is bound to increase. An effective abortifacient may not be growing in every window box, but it is becoming closer to reality.

Do technological simplifications trump all ethical considerations surrounding abortion? Personally, I do not think so. As a physician who has provided abortions, but also as a one-time research embryologist, I am awed by the development

of the early embryo yet impressed by the frequency of developmental errors. If, as is pharmacologically plausible, someone invented a pill to prevent spontaneous abortion, then 15 to 30% of all term deliveries would involve severe and often fatal anomalies. In many such cases, spontaneous abortion is a natural healing process. In a similar way, the option of a safe induced abortion can change the future life course of a 17-year-old student in Chicago with an unintended pregnancy, or ameliorate a social inequity when a family in Addis Ababa, Ethiopia, who can just afford to keep two children in school, would have collapsed into poverty if they had had a third child.

Most countries still view abortion as a medical procedure where the provider, not the woman, is the ultimate decision-maker, as did the reform of the British abortion law in 1967, which requires two doctors to agree that a woman needs an abortion. Politically, the British legislation has proved less controversial than the 1973 US Supreme Court ruling in *Roe v. Wade*, but it is still a patriarchal position. Philosophically, *Roe v. Wade* is a more profound judgment because it gives the woman a right to decide on an abortion based upon her Constitutional right to privacy. The US Supreme Court did not say abortion is right or wrong. What it did assert is that a law “need not resolve the difficult question of when life begins. 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 the answer” [2]. *Dignitatis humanae* (1965) stated that the “right to religious freedom has its foundation in the very dignity of the human person” [3]. Bernard Haring, who has been called “the foremost Catholic moral theologian of the 20th century,” wrote “The moment of ensoulment . . . does not belong to the data of revelation” [4]. If, “the moment of ensoulment” is indeed a matter of faith, then religious freedom must encompass different interpretations of abortion. In short, in any society that separates church and state,

the status of the embryo-fetus is a matter of personal, usually religious assertion; and like other religious assertions, it must remain a matter for tolerance. Logically, any pluralistic society built on religious tolerance must permit safe abortion.

Access to safe abortion is as essential to modern living as the internal combustion engine or silicon chip. No woman can be free until she can control her fertility. Lowering maternal mortality without safe abortion is impossible. No society has achieved replacement-level fertility without the use of abortion. In short, women’s medical, social, and family health depends on having access to safe abortion.

We are not marsupials and rhubarb is not an abortifacient. *As Management of Unintended and Abnormal Pregnancy: Comprehensive Abortion Care* illustrates, however, medical and surgical abortion techniques are getting simpler, provider attitudes are less patriarchal, and the locus of decision-making is passing more and more to the pregnant woman. If we were to seek a metric to measure the health of any civilization and its respect for women, given the frequency of induced abortion and the scale of suffering when it is not legal, then perhaps access to safe abortion could prove a robust and practical measure of a truly civilized society.

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# Preface

**Maureen Paul MD, MPH**

Tremendous advances have occurred since the publication of the National Abortion Federation's (NAF) first textbook on abortion care in 1999 [1]. Contraceptive methods have expanded to include new delivery systems and highly effective long-acting methods. The increasing dissemination of mifepristone and misoprostol offers women new safe and effective early abortion options, as well as improved regimens for cervical preparation, second-trimester induction abortion, and management of spontaneous abortion. The resurgence of manual vacuum aspiration provides a simple and cost-effective means of inducing abortion or treating incomplete abortion in ambulatory facilities ranging from modern emergency departments to low-resource settings. Technologies for pregnancy termination have extended into other areas of women's health as well, such as the multifetal pregnancy reduction techniques used to improve outcomes in women undergoing infertility therapy. In addition, innovative educational initiatives launched over the last decade are honing a new generation of academic leaders in family planning and abortion and expanding the types of practitioners involved in abortion care.

Notwithstanding these impressive strides, the past decade also has brought numerous challenges. Notably, little progress has been made in reducing rates of unintended pregnancy. More than one-third of the 205 million pregnancies that occur annually worldwide are unintended [2], as are nearly half of all pregnancies in the USA [3]. In contrast to the trend toward liberalization of abortion laws worldwide [4], women's reproductive rights in the USA have suffered major setbacks in recent years. The clinic protesters of the 1990s have been joined by pharmacists who refuse to dispense birth control or emergency contraception, the US Supreme Court justices who upheld a federal ban on certain abortion procedures without regard for women's health, pseudo-scientists who allege that abortion causes long-lasting psychological trauma despite incontrovertible evidence to the contrary, and a conservative White House administration that has left a legacy of hostility to women's rights that will take many years to undo. Indeed, these countercurrents embody one of the great moral contradictions of our time: that is, while we have simple, safe, and effective technologies to provide women with the means to control

their fertility, millions of women across the globe lack access to family planning services and one woman continues to die every 8 minutes from an unsafe abortion.

Reflecting this breadth of progress and challenge, *Management of Unintended and Abnormal Pregnancy: Comprehensive Abortion Care* is not simply an update of the previous textbook, but essentially a new work with an expanded purpose. Divided into six sections, the textbook addresses unintended pregnancy and abortion from historical, legal, public health, clinical, and quality care perspectives. Although much of the book focuses on medical practice in the USA, it also features an expanded roster of international contributors and new chapters on the global health challenge of unsafe abortion and abortion provision in low-resource settings. A dedicated section on management of abnormal pregnancy includes chapters on pregnancy loss, ectopic pregnancy, gestational trophoblastic disease, multifetal pregnancy reduction, and pregnancy termination for maternal or fetal indications. Each chapter is written by eminent experts in women's health with the goal of providing information that is both evidence-based and clinically practical.

This book is written for every practitioner who provides health care to women of reproductive age and for those educators who teach others to do so. May it honor and assist the courageous work of family planning and abortion providers around the world who strive to meet the needs of women, often against great odds. May it inform the practice of clinicians who do not provide abortions themselves, but who play critical roles in counseling and referring women with unintended or abnormal pregnancies. May it serve as an important resource to the growing number of residency programs that are integrating family planning and abortion care into their curricula. And in the words of our cherished colleague, the late Dr. Felicia Stewart, may it "tell why as well as how" [5] to the thousands of young students in the health professions who never knew firsthand the horrific consequences of illegal, unsafe abortion.

Producing this book was a massive collaborative undertaking, and I have many people to thank. First and foremost, NAF under the leadership of Vicki Saporta launched this project and provided steadfast support during the many months of its development. I appreciate the guidance of the

editors at John Wiley & Sons who were consistently professional, gracious, and helpful. This book would not have been possible without the tireless dedication of my five coeditors and the 50 chapter contributors whose unparalleled expertise fill its pages. I am deeply indebted to the leadership of Melissa Fowler and the NAF team who spent hour upon hour preparing the manuscript for submission: Lisa Brown, Bill Falls, Tanya Holland, Andrea Irwin, Jen Mraz, Laura Galloway, Beth Kruse, Ashley Washington, Dawn Fowler, Hannah Spector, Sophia Axtman, Heron Greene-smith, Sarah Runels, and Melissa Sepe. In addition, Melissa Werner from NAF assembled the informative appendix with photographic assistance from David Keough of Boston University, Dr. Konia Trouton of Vancouver Island Women's Clinic, and Rosemary Coddling and her staff at Falls Church Health Care Center, LLC. Lisa Penalver's talent and artistry are once again reflected in several of the medical illustrations throughout the book. A number of experts provided insightful review and commentary including Talcott Camp of the American Civil Liberties Union Reproductive Freedom Project and Cathy Mahoney and Jennifer Blasdell of NAF. I acknowledge and appreciate the foundation that anonymously gave generous support for this book project, and I

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